

**A COMPARATIVE PSYCHOPATHOLOGICAL ASSESSMENT
OF CONVICTED AND UNDER-TRIAL PRISONERS.**

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF DOCTOR OF
PHILOSOPHY**

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Clinical Psychology, Mizoram University.**



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CERTIFICATE

This is to certify that the present research work titled, —**A Comparative Psychopathological Assessment of Convicted and Under-trial Prisoners**— is the original research work conducted by **Mr. Johny Lalengmawia Tohhawng** under my supervision. This research work is being submitted for the Award of the degree of Doctor of Philosophy in the Department of Clinical Psychology, Mizoram University.

It is also hereby certified that this particular research work conducted by **Mr. Johny Lalengmawia Tohhawng** has not been submitted in support of an application to this or any other University or an Institute of Learning.

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DECLARATION
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JUNE, 2025

I **JOHNY LALENGMAWIA TOCHHAWNG**, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form basis of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the **Degree of Doctor of Philosophy in Clinical Psychology**.

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TABLE OF CONTENTS

Content	Page
Lists of Tables	iv
List of Figures	v
List of Appendices	vi
Chapter – I : Introduction	1
Chapter – II : Review of Literature	32
Chapter – III : Statement of the problem	93
Chapter – IV : Method and Procedure	164
Chapter – V : Result and Discussion	171
Chapter – VI : Summary and Conclusion	233
APPENDICES	240
REFERENCES	256
Brief Bio-data of the Candidate	
Particulars of the Candidate.	

LIST OF TABLES

Table- 1: Showing the sample characteristics of the study

Table -2: Showing Normality (Mean, SD, Kurtosis, Skewness), Reliability, and Homogeneity on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism for the targeted population.

Table -3: Showing the Mean, SD, Kurtosis, Skewness and t-test (Independent-t-test) difference in Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism for convicted and undertrial prisoner samples

Table -4: Showing the Mean, SD, Kurtosis, Skewness and t-test (Independent-t-test) difference in Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid ideation, and Psychoticism for male and female prisoner samples.

Table -5: Showing the relationship between Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism for whole sample samples.

Table -6: Showing the Independent effect of ‘Criminal’ and Gender’ on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism for whole sample samples.

Table- 7: Showing the interaction effect (Two way ANOVA) of the type of prison and gender on dependent variables among the samples.

LIST OF FIGURES.

Figure-1: Showing the 2 X 2 factorial design (2 types of inmates x 2 types of genders) which included 160 samples {80 undertrial (40 male and 40 female) and 80 convicted (40 male and 40 female) prisoners}.

Figure-2: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Somatization.

Figure-3: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on OCD.

Figure-4: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Interpersonal Sensitivity.

Figure-5: Showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Depression.

Figure-6: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Anxiety.

Figure-7: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Hostility.

Figure-8: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Phobic anxiety.

Figure-9: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Paranoid Ideation.

Figure-10: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Psychotism.

Figure-11: showing the mean difference between Male prisoners and female prisoners

on Somatization, OCD, Interpersonal Sensitivity, Depression and Anxiety among the samples.

Figure-12: showing the mean difference between Male prisoners and Female prisoners on hostility, Phobic Anxiety, Paranoid Ideation and Psychoticism among the samples.

LIST OF APPENDICES

Appendix – I	:	Inform consent Form (English)
Appendix – II	:	Inform consent Form (Mizo)
Appendix - III	:	Socio Demographic Profile of the Sample (English)
Appendix - IV	:	Socio Demographic Profile of the Sample (Mizo)
Appendix – V	:	The Symptom Checklist 90 Revised; SCL-90-R; Derogatis, 1983(English)
Appendix – VI	:	The Symptom Checklist 90 Revised; SCL-90-R; Derogatis, 1983(Mizo)
Appendix – VII	:	List of Abbreviation
Appendix – VIII	:	Websites

CHAPTER – 1: INTRODUCTION.

Introduction:

Prisoners live behind bars and this takes them away from their families, marriages, heterosexual contact, jobs, friends, communities, and religious activities and puts them in an extremely bad moral environment for years at a time. The influence of environmental factors on the mental health of people in prison found that participants reported lengthy periods of isolation with little mental stimulation contributing to poor mental health and feelings of anger, frustration, and anxiety. Prisoners spend on average around 8-9 hours unlocked, however, it is not uncommon to find in higher-security prisons that some prisoners spend 19-20 hours and sometimes up to 23 hours a day locked in their cells (Nurse et al., 2003). As per the date of 2006, issued by the National Human Rights Commission, Overcrowding in the prison makes the environment worse for prisoners (*Prison population in India*. 2006). Prisons are full of people with serious mental problems and the prison population is growing rapidly all over the world (Birmingham, 2004).

Prisoners around the world face many problems and those problems come mainly from issues within the institutions, a lack of resources, and violations of basic human rights (Walmsley, 2021). Incarcerated individuals frequently have limited access to sufficient medical care, including services for infectious diseases, mental health disorders, and reproductive health issues (WHO, 2019). The prevalence of mental health issues among prisoners is worsened by insufficient care, solitary confinement, and aggressive behavior within correctional facilities (Fazel et al., 2020). Many incarcerated individuals suffer from mistreatment, including torture and humiliating practices. Those who commit these actions often face no consequences (Amnesty International, 2022). Many correctional facilities prioritize punishment over rehabilitation programs, leading to a high rate of recidivism among former inmates (Davis et al., 2013). Corrupted staff of the prison often leads to mistreatment of prisoners. This can include forcing prisoners to work without pay, demanding bribes for basic rights, or allowing banned items into the facility (Transparency International, 2021).

The prison population from a health point of view is an underserved section of the society and often neglected though they carry a different burden of illnesses than other members of the society. Their illnesses are determined both by the environment where they have come and the prison in which they live in (NCRB, 2019). Studies on psychiatric morbidity in Indian prisons are very limited and limited research has been carried out to assess and address common mental disorders among prisoners and out of them only one study was from Central Jail, Jaipur located in a central area of Rajasthan (Bhojak et al., 1998).

As per the study conducted by the National Commission for Women in the Central Prison, Bangalore it was found that the rates of symptoms of common mental disorder among undertrial are higher as compared to convict prisoners. Common symptoms were unhappiness (73% versus 43%), worrying (65% versus 29%), poor sleep and appetite at 65% among undertrials (Murthy et al., 1998). In the recent Prison Mental Health Study, 197 women who were interviewed for psychiatric morbidity, 2.5% had dysthymia (minor depression), 4.6% had specific phobia, 1.5% social phobia and one person had a panic disorder (Math et al., 2011). Among the entire prison population evaluated for this study (5024), lifetime and current rates of dysthymia were 2.9% and 2.5% respectively. The prevalence of major depressive disorders was relatively higher (Murthy et al., 1998; Math et al., 2011). Among the prisoners, who are male, on remand, and psychotic are likely to be locked up longer than other inmates (Singleton et al., 1998). Mental health symptoms in prison have been linked to violence, self-harm, suicide, and victimization (Wolff et al., 2016). Offenders residing in prison face many problems. Isolation from their families, overcrowding in prison, guilt, and stigmatization are the main causes of deterioration in the mental health of prisoners.

Criminal

A criminal is someone who commits a crime (Cambridge Dictionary). The National Crime Records Bureau (NCRB) of India, under the Government of India, 2024 report shows a small decrease in overall crime rates, down by 0.56% from 2023. However, there are some concerning trends: rape cases rose by 1.1%, and kidnappings increased by 5.1%. Crime remains higher in urban areas than in rural areas.

Criminals who have committed extremely heinous crimes are kept in isolated and segregated cells in prison, which makes them frustrated and depressed and developmental disorders in criminals (Nurse et al., 2003) or may have had a history of the treatment of mental disorders and diagnosis of schizophrenia and depression (Singleton et al., 1998; Coid et al., 2003). Sex prisoners were five times more likely to have been hospitalized for schizophrenia or other psychotic disorders, and were three times more likely to have a history of bipolar disorder, and exhibit elevated rates of mental illness, sexual disorders, personality disorders, and substance abuse disorder (Eheret al., 2010).

According to the United Nations Office on Drugs and Crime (UNODC, 2021), the illegal drug market remains robust, with global illicit drug revenues reaching an estimated \$320 billion in 2020. With the progression of technological advancements, there is a corresponding rise in cyber-related crimes, encompassing identity theft, financial scams, and ransomware assaults. According to projections from the Cybersecurity Ventures report, the worldwide cost of cybercrime could escalate to an annual figure of \$10.5 trillion by 2025 (Cybersecurity ventures, 2020). Although certain areas experience a decline in violent offenses, other regions, notably in Latin America and the Caribbean, have observed substantial increases. In 2020, for instance, parts of Central America reported some of the world's highest murder rates (UNODC, 2021).

The National Crime Records Bureau (NCRB, 2021) reports a decline in specific crime categories, including auto theft and breaking and entering, during the COVID-19 pandemic. Nevertheless, serious offenses such as homicide and sex crimes have continued to occur at concerning rates.

The COVID-19 pandemic has led to a dramatic increase in online activities, resulting in a significant rise in cybercrime. According to the NCRB statistics for 2020, there was a notable uptick in cybercrime incidents, with reports indicating a roughly 300% increase compared to prior years (Cybercrime Report, 2020).

The prisoners are suffering from different kinds of diseases that are determined both by the environment in which they come and by the prison in which they live (Prison Statistics of India, 2015). Prisoners are kept in prisons for their rehabilitation as a part of their punishment since prison is not a place where someone would like to live. It is the responsibility of the state to provide the basic needs of the prisoners, facilities, and medical care. Sooner or later, most of the prisoners would have to come back to society to be a part of it, so their health and behavioral problems need to be monitored and taken care of so that they do not repeat or involved again in any criminal activity (National Mental Health Survey of India, 2015).

The Concept of Prison

The Oxford English Dictionary defines prison as, —a place properly arranged and equipped for the reception of persons who by legal process are committed to it for safe custody while awaiting trial or punishmentll (Oxford English Dictionary, 1979).

A prison is typically a facility where people are held while awaiting trial or while serving their sentences after being convicted. Various terms such as jail, work-home, reformatory, penitentiary, state prison, and house of correction may be used, but all serve the same purpose: to carry out imprisonment as a punishment (Datir, 1979).

According to Section 3 (i) of the Prisons Act of 1894, a 'Prison' (synonymous with 'Jail') refers to any facility designated by state government orders for detaining prisoners, whether permanently or temporarily. This definition includes all associated buildings and land, but it does not cover places meant only for police custody, those designated by the State Government under section 541 of the Code of Criminal Procedure, 1882, or locations declared as subsidiary jails (Saraf et al., 1987).

In India, the term "Jail" broadly refers to penal institutions that can house both individuals awaiting trial and those already sentenced, functioning as both remand centers and prisons (Reckless, 1956). The Mizo community typically sees

jail as a place where courts send convicted individuals for punishment. However, jails also serve as correctional facilities aimed at rehabilitating inmates. As noted by Paterson, "Men come to prison as a punishment and not for punishment" (Ruck, 1951).

The term "Prison/jail" has different meanings for different people. Law-abiding citizens see it as a place for offenders, while criminals view it as an unavoidable hassle. Those facing social challenges might see it as a safe haven, and some isolated individuals may appreciate the human interaction it provides. For prison officers, it's their workplace; for administrators, it's a facility with budget and capacity constraints; and for politicians, it can become a source of controversy, especially when inmates are wrongfully released or imprisoned (Klare, 1973).

Prisons have several key roles: they protect the public, meet the basic needs of inmates, ensure their safety, enforce penalties, and support rehabilitation. However, these goals, set by outside authorities and accepted by prison staff, can sometimes conflict with each other (Cressey, 1961). Ideally, prisons should focus on reforming inmates and preparing them for reintegration into society. Unlike independent organizations like religious institutions, prisons are government entities shaped by societal, political, and economic factors, which can lead to varying priorities among different groups (Singh, 1979).

Types of Prisoners:

"Prisoner" is a legal term for a person prosecuted for an offense but not applicable to a person prosecuted for an offense (Phillips, 1960). Prisoners mostly have to stay in prison for a long period and be separated from their loved ones and not able to perform in the communities including religious practices which can help to cope with their problems in their extremely miserable living conditions (Kumar & Daria, 2013).

Prisoners could be broadly divided into two ‘undertrial’ and ‘convicted’ prisoners.

An **‘undertrial prisoner’** is a person who has been arrested for an alleged offence not followed by a grant of bail, committed to judicial custody and against whom a criminal trial has been initiated by a competent authority (www.lawyersclubindia.com, 2023). They are presumed innocent until proven guilty and have certain rights and protections under the law (Dhanuka, 2010). As such, though they are prisoners but have some rights under the Prisoners Act (1900, 1955) and Jail Act (1894) including the right to a fair and speedy trial, without unnecessary delays or adjournments, the right to legal aid and representation by a lawyer of their choice, or a free legal counsel if they cannot afford a lawyer, the right to be treated humanely with dignity, and not subjected to torture or ill-treatment, or discrimination (www.indiacode.nic.in).

A **convicted prisoner** is "a person found guilty of a crime and sentenced by a court" or "a person serving a sentence in prison" (Webster's New World Dictionary of the American Language. (1978), are often also known as "prisoners" or "inmates".

Stress Effects on Physical and Mental Health of Prisoners.

Research indicates that imprisonment is associated with several negative health effects (Massoglia & Pridemore, 2015), including high blood pressure, contagious diseases, stress-related conditions, and mental health issues (Binswanger, Krueger, & Steiner, 2009; Dumont, Brockmann, Dickman, Alexander, & Rich, 2012; Wilper et al., 2009). This connection between incarceration and poor health is well-documented, and many former inmates find it challenging to maintain their health and access healthcare services after their release (Kulkarni, Baldwin, Lightstone, Gelberg, & Diamant, 2010). Although the main goal of imprisonment is to deter future criminal activity, it can lead to unintended consequences. One significant factor affecting reoffending and successful reintegration is the declining or unchanged health of those who have been incarcerated (Brinkley-Rubinstein, 2013).

Health-related theories from various disciplines, including sociology and criminology, are commonly utilized to examine health issues among formerly incarcerated individuals. However, these theories are rarely used to understand their

reintegration outcomes. The integration of stress process theory (Pearlin, 1989; Pearlin, Aneshensel, & Leblanc, 1997) with general strain theory (Agnew, 1992, 2001) can shed light on how health conditions, both during and after incarceration, may significantly influence recidivism rates. Specifically, stress process theory (Pearlin, 1989; Pearlin et al., 1997) posits that incarceration acts as a stressor (Turney, Wildeman, & Schnittker, 2012) and has the potential to generate additional stressors, such as deteriorating physical or mental health.

The stress process theory, proposed by Pearlin in 1989, explains how imprisonment serves as a persistent source of stress (Fahmy & Wallace, 2019), resulting in additional stressors that have complex consequences. This theory posits that stress can lead to even more stress. The interconnected nature of various aspects of life (Pearlin, 1989) means that a significant stressor like incarceration (the primary stressor) can give rise to secondary stressors, such as difficulties in finding employment. Incarceration is inherently stressful and is considered a primary stressor (Turney et al., 2012).

Inmates develop various coping mechanisms to navigate the isolating, violent, and exploitative environment of prison (Sykes, 2007). Imprisonment generally negatively impacts health, leading to further stress (Fahmy & Wallace, 2018). Correctional facilities are often unsanitary and overcrowded, which promotes the spread of disease due to shared restrooms, limited access to condoms, poor laundry services, and inadequate nutrition (Bick, 2007; Binswanger et al., 2009; Dumont et al., 2012; Massoglia & Pridemore, 2015; Polonsky et al., 1994).

Despite the requirement for healthcare provision, many obstacles hinder inmates' access to medical care (Hatton, Kleffel, & Fisher, 2006; Magee, Hult, Turalba, & McMillan, 2005). Research findings emphasized that prisoners often face long wait times for treatment, reduced job opportunities, and mandatory co-pays of three dollars, which are significant compared to prison wages (Hatton et al., 2006). Overall, incarceration tends to worsen health conditions rather than improve those (Fahmy & Wallace, 2018).

Imprisonment generates both primary and secondary stress, particularly after release. While being incarcerated negatively affects well-being, the process of reintegration presents its own health challenges, especially for those who require medical attention. Health conditions may deteriorate if former inmates lack basic necessities such as nutrition, housing, and healthcare (Schnittker, 2014; Wallace & Papachristos, 2014). Socioeconomic disadvantages (Baćak & Wildeman, 2015) further complicate access to healthcare during and after imprisonment, especially regarding mental health services. Psychiatrists often accept fewer insurance plans (Bishop et al., 2014), which necessitates out-of-pocket payments, and rising costs limit access (Rowan et al., 2013), particularly for ex-inmates.

Research shows that previous imprisonment is associated with hypertension, stress-related illnesses, infectious diseases, and poor self-reported health (Massoglia, 2008; Schnittker, 2014; Wang et al., 2009). This underscores the negative health impact of incarceration (Massoglia & Pridemore, 2015) as a secondary stressor after release. Furthermore, addressing health needs after incarceration can influence the likelihood of reoffending.

After being released, former prisoners face several challenges in securing employment (Uggen & Staff, 2001), finding housing (Clark, 2016), and rebuilding or forming family connections (Naser & La Vigne, 2006). These reintegration challenges are further complicated by health issues. According to the stress proliferation theory, health problems can create additional strain by affecting various aspects of a former inmate's life after release. These secondary stressors are common among individuals reentering society, suggesting that health concerns originating in prison and continuing during reintegration may contribute to recidivism. This occurs through secondary stress and criminal coping strategies, which can influence future outcomes, including repeat offenses (Link, Ward, & Stansfield, 2019).

The relationship between health, stress, and criminal behavior is explained by general strain theory. Stressors connect health issues and criminal conduct; when individuals face stress, they may resort to coping mechanisms, including criminal activities or substance abuse (Agnew, 1992, 2001). Health problems introduce strain

by hindering the achievement of valued goals. Research indicates that poor health diminishes individuals' ability to find and maintain employment (Pelkowski & Berger, 2004). Chronic health issues can manifest as pain or limited mobility, contributing to strain and negative emotions (Schroeder et al., 2011). Additionally, poor health can lead to the loss of positive stimuli, making daily life more challenging and reducing participation in enjoyable social activities (Lee, 2012).

As a result, individuals may engage in criminal behavior as a coping strategy. Chronic strain can foster negative emotions such as anger, pushing individuals toward deviant alleviation methods (Agnew, 1992; Schroeder et al., 2011). This criminal coping can include financial crimes to relieve economic stress (Agnew, 2013; Felson et al., 2012), substance use to manage pain (Lee, 2013), or revenge through cyberbullying (Paez, 2018). Most individuals prefer legal coping strategies that comply with parole conditions (e.g., abstaining from alcohol) (Agnew, 2013). However, those who have previously used deviant coping methods (Lacourse et al., 2019) or have affiliations with non-conventional groups, like gangs, are more likely to resort to such methods again. Consequently, poor health upon prison release may contribute to recidivism through these deviant coping behaviors.

The relationship between imprisonment, well-being, and recidivism is examined through new offenses committed by former inmates. Recidivism includes reincarceration due to violations of parole conditions, which affect about one-third of individuals (Hughes, Wilson, & Beck, 2001; Jacobson, 2005). Common parole conditions encompass compliance with laws, residence and travel restrictions, weapon prohibitions, regular reporting, home/work visits, and controlled substance limitations (Travis & Stacey, 2010). Some jurisdictions also mandate employment, education, and abstinence from alcohol (Travis & Stacey, 2010). The number of parole conditions has risen over time, and incarceration-related stressors can lead to technical violations, impacting recidivism rates. Annually, 9% of those under community supervision have their parole revoked (Kaeble, Maruschak, & Bonczar, 2015). Understanding the role of health issues in these violations is crucial for successful reintegration.

Two important aspects of incarceration's effects on health and recidivism are: (1) prison can improve health for some individuals, and (2) healthier individuals may engage in more criminal behavior. Incarceration can provide better healthcare, reducing morbidity (Dumont et al., 2013) and mortality (Mumola, 2007; Rosen et al., 2011; Spaulding et al., 2011). For disadvantaged populations, prison may offer access to healthcare that was previously unavailable (Fahmy & Wallace, 2018). Despite the violence in prison, it can be safer than extremely violent community environments, as evidenced by a 57% lower mortality rate for Black males in state prison compared to the general population (Mumola, 2007). Given that homicide is a leading cause of death among young Black men (Sharkey & Friedson, 2019), prison may provide a protective effect against mortality (Mumola, 2007; Rosen et al., 2011; Spaulding et al., 2011) and potentially morbidity.

Criminal activity is often perpetrated by healthy individuals, as those with mental or physical impairments are generally less capable of committing illegal acts (Bauld et al., 2005; Britto et al., 1998; Schroeder et al., 2011). Engaging in crime poses health risks from violent encounters, such as head trauma, and a deviant lifestyle increases the likelihood of accidents and illnesses associated with substance abuse and smoking (Farrington, 1995; Piquero et al., 2011). This is particularly true for life-course persistent offenders, who engage in riskier behaviors and face higher mortality rates from both natural and unnatural causes (Laub & Vaillant, 2000). Consequently, severe offenders, especially those involved in serious violent crimes, may continue their illegal activities if they remain healthy. This is relevant to the current study, which examines individuals who have committed serious and violent offenses. However, research on juvenile delinquency indicates that adolescents in poor health report greater involvement in delinquent behavior than their healthier peers (Jones & Lollar, 2008; Suris & Parera, 2005).

Mental Health among the prisoners:

Mental disorders are a public health concern all over the globe, and it was estimated that around 450 million people worldwide were affected, more prevalent among prisoners (Solomon et al., 2019). It was also estimated that behavioural

disorders are especially prevalent in prison populations (Brinded et al., 2001), disproportionately high rate of mental disorders in prisons is related to several factors: mental disorders are a danger to the public; intolerance to difficult or disturbing behaviour; failure to promote treatment, care, and rehabilitation, and lack or poor access to mental health services in many countries. Prisons are bad for mental health that have negative effects on mental health including overcrowding, various forms of violence, enforced solitude or conversely, lack of privacy, lack of meaningful activity, isolation from social networks, insecurity about future prospects (work, relationships, etc), and inadequate health services, especially mental health services, in prisons (WHO, 2001).

The prevalence rates for major mental disorders in the prison population when compared with community samples regarding substance misuse, psychotic disorders, major depression, bipolar disorder, obsessive-compulsive disorder, and posttraumatic stress disorder were grossly overrepresented compared with the general population (Brinded et al., 2001).

Prisons have a high percentage of mentally ill prisoners. Firstly, mentally ill persons are more frequently than others involved in crime due to symptoms like impaired judgment, lack of impulse control, suspiciousness, loss of inhibitions, paranoid ideas, inability to trust others, delusions, and hallucinations and most of them are less smart, so easily caught by police. Secondly, prisoner's living conditions in prison make them more susceptible to psychiatric disorders. Because conditions in prison are not conducive to good mental health, prisoners with mental illness are at risk of experiencing deterioration in their mental state (Fazel et al., 2002; Assadi et al., 2006; Birmingham et al., 1996; Baillargeon et al., 2009; James et al., 2006).

Among the prisoners, the psychiatric morbidity including, schizophrenia is higher and perhaps increasing in prison populations compared with general populations and also with dependence syndromes being the most frequent disorders. It is also learned that the early phase of imprisonment is a vulnerable period with a moderately high incidence of adjustment disorders and twice the incidence in solitary

confinement compared with non-solitary confinement. In fact, there is a growing population of mentally ill prisoners being insufficiently detected and treated (Andersen, 2004).

The social environment in prison constituted prison gangs, no systematic good role models to be followed, and many have made beaten, raped, brutalized or lived in fear of overcrowding. As per data of 2006 by the National Human Rights Commission (2016), many Jails have limited sunlight and fresh air, bad odours, no proper health services, no good food, and so on (Dhanuka, 2010). As such, prisoners who experienced lengthy isolation with little mental stimulation experienced poor mental health such as anger, frustration, and anxiety (Nurse et al, 2003), and longer isolation was usually given to male prisoners with psychotic problems (Singleton et al., 2013) than other inmates. Mentally ill persons are more frequently involved in crime due to impaired judgment, lack of impulse control, suspiciousness, loss of inhibitions, paranoid ideas, inability to trust others, delusions, and hallucinations and most of them are less smart, and easily caught by police than normal person (Fazel & Danesh, 2002). A high prevalence of psychiatric disorders among prisoners (Gunn, 2000), and prisons are full of people with serious mental problems with a rapidly increasing population all over the world (Birmingham, 2004). The literature on prisoners is very limited, most of the studies were done in Western countries, and only very minimal done in the Indian context (Bhojak et al., 1998). It is also learnt that a high number of mental illness including undetected and untreated mental illnesses among prisoners (Andersen, 2004), who have serious mental disorders not transferred to a psychiatric hospital even is done but with a long delay (Bowden, 1978), and often rejected on the grounds of being too disturbed or dangerous or being criminals and unsuitable to stay together with non-criminals (Robertson et al., 1994); which implies a need for professional staff such as psychologists and psychiatric input (Coid, 1998). Research findings revealed poor communication between the prison, court, and hospital systems hindering the assessment and management of the mentally disordered offender resulting in delaying medical intervention and also release from custody (Robertson et al., 1994); were medicated by untrained staff which may not train for diagnostic and treatment of mental illness (Jorm, 2000).

Mental disorders are highly stigmatized causing keeping them in secret or private settings to avoid fear of embarrassment or discrimination. In addition to this, records about the prison.

The prisoners whether under trial or convicted spend most of their time behind bars, prisoners are socially isolated which brings feelings of loneliness, despair, and hopelessness. Moreover, the low standards of maintenance in Indian prisons have resulted in prisoners having to live in severely unsanitary conditions, with abysmal infrastructure, for not only mental health care but also for basic physical ailments (Math et al., 2011). Moreover, a prolonged adaptation to such conditions and such frustrations and deprivations of life lead to various psychological disorders in prisoners. Confinement of prisoners leads to disorders like Post Traumatic Stress Disorder and other related issues like decreased self-confidence and self-esteem. Due to these reasons, it has been observed that inmates tend to suffer from mental illnesses three times more than civilians (WHO, 2021). The World Health Organisation defines ‘health’ as a —*complete state of physical, mental and social well-being and not merely the absence of disease or infirmity* (WHO, 2021). Though there have been several infrastructural reforms in Indian prisons, a lot remains to be done in looking after the well-being of the prison inmates’ mental health. The rudimentary level of care provided to prisoners’ mental health has led to Indian prisons becoming dumping grounds for prisoners who suffer from mental ailments. The prevailing conditions in Indian prisons, like the unhygienic conditions of prison cells, inedible food, and lack of administrative control over the treatment meted out towards prisoners and even amongst inmates themselves, create a severe impact on their mental condition (Saha et al., 2014). Many are also beaten and raped by their fellows in prisons (Math et al., 2011).

Furthermore, there is a lack of fresh air and water in prisons, and they are heavily overcrowded. This constant lack of privacy and meaningful activity further leads to prisoners’ mental conditions. Their situation further deteriorates because they have to face a lot of social stigmas and are victims of marginalization due to them being criminals (Math et al., 2011). They also have to bear the consequences of

inadequate awareness amongst jail authorities about mental health and treatment. Instead of receiving treatment in order to alleviate their mental condition, prisoners are kept in isolation with little or no attention being paid to their mental health issues (Math et al., 2011).

Alienation from the family and society is the most prominent cause to damage the well being of prisoners (Yang et al, 2009; Mackenzie & Mitchell, 2005) resulting stress and other mental health related problems in prisoners (Rutherford & Duggan, 2009). Stress and depression are very frequently experienced by prison population (Birmingham, 2004; Gunter, 2004; Drapalski et. al.2009; Lafortune, 2010) and also faces some other problems in prison which deteriorate their psychological wellbeing as problem of overcrowding (Nurse et al. 2003), Stigmatization worries them about their future after release from the prison and leaves most damaging effect on prisoners (Schnittker & John, 2007), unable adjust to the jail environment may caused guilty, shows aggression, suicidal behavior and develops stress and depression, anxiety and other psychiatric problems (Dye, 2010). Inmate prisoners‘ show elevated anxiety depression in comparison to the normal population (Castellano & Soderstrom, 1997).

Some study been conducted on Psychopathological symptoms of prisoners, as such the present study aim to study on some selected psychopathological symptoms - ***Somatization (SOM), Obsessive-Compulsive (OBS), Interpersonal Sensitivity (INT), Depression (DEP), Anxiety (ANX), Hostility (HOS), Phobic Anxiety (PHOB), Paranoid Ideation (PAR), and Psychoticism (PSY)***, and collected research findings on the Psychological pathological symptoms from offenders are presented here which provided information for the bases of framing objectives of the study.

Somatization- The term ‘_somatization‘ was introduced by Wilhelm Stekel in 1925 (Marin & Carron, 2002), it is a conversion of a mental state (such as depression or anxiety) of physical symptoms and existence of physical bodily complaints but an absence of a known medical condition; generation of physical symptom of

a psychiatric condition such as anxiety, appears summarizing behaviour more common in poor family functioning and marital conflict (Aro et al., 1989); complaints focus on cardiovascular, gastrointestinal, respiratory, neurological, Pain and discomfort of the gross musculature, and other somatic equivalents of anxiety are also possible components of Somatization. In other words, Somatization is a tendency to experience and communicate psychological distress as bodily and organic symptoms and to seek medical help for them (Lipowski, 1988). People with somatizations often complain about medical problems, but all their tests come back normal or without a cause for concern. Somatization is a phenomenon where psychological distress is expressed as physical symptoms. For instance, a person who has lost a loved one may somaticize their grief through severe fatigue. The prefix —soma stems from the Greek word for body. Somatic symptoms can range from joint pain to temporary loss of vision. Though they have no underlying physical cause, somatic symptoms are very real. Somatization is not a diagnosis in itself, but it is often part of somatic symptom disorder and conversion disorder, among other conditions.

Obsessive-Compulsive Disorder (OCD)- It is an intrusive thoughts and urges of the need to perform certain routines repeatedly that induce distress or impair general function, and included among anxiety disorders and suggested as the sixth-largest contributor to non-fatal health loss worldwide (WHO, 2017). Obsessive-compulsive disorder (OCD) is a psychiatric condition characterized by persistent and unwanted intrusive thoughts, images, and urges (obsessions) and repetitive behaviors or mental acts (compulsions). Studies have found an estimated prevalence of 0.25%–4% among children and adolescents (Flament et al., 1988), and cause marked functional impairment across multiple domains, including at home, school and socially. In India Dutta Ray was the person who studied (Dutta et al., 1964), followed by Akhtar and his colleagues studied phenomenology and socio-cultural determinants of OCD (Akhtar et al., 1975; Akhtar et al., 1978; Chakraborty & Banerji, 1974) also found a high rate of family history of obsession illness at 26% and premorbid obsession personality at 26%; and the high rates of obsessive personality supported by other research findings (Manchanda et al., 1978 & Dutta, 1979); males have an early onset

of OCD with a higher prevalence of symmetry/religious obsessions, miscellaneous compulsions, and comorbid attention deficit hyperactivity disorder (ADHD) whereas females have a higher prevalence of cleaning compulsions and comorbid trichotillomania (Jaisoorya et al., 2008); OCD patients ‘worst ever’ (lifetime) suicidal ideation at 59% and current suicidal ideation at 28%, and 27% have attempted suicide (Kamath et al., 2007); men suffering more from the psychiatric disorders than women (Ayirolimeethal et al., 2014); and nearly half of the males exhibited high suicidal risk (Kumar et al., 2014). Obsessive-compulsive disorder (OCD) is a neuropsychiatric disorder affecting approximately 1–3% of the population; and characterized with recurrent intrusive ideas, impulses, or urges (obsessions) along with overt or covert behaviors (compulsions) aimed at reducing the distress (Karno et al., 1988; DSM-IV). Individuals with OCD frequently have additional psychiatric disorders concomitantly or at some time during their lifetime (Angst et al., 2005), Major depressive disorder (MDD) is the most frequent additional disorder (Nestadt et al., 2009). The prevalence of comorbid OCD and schizophrenia was estimated at 12.2% by the US National Institute for Mental Health Epidemiologic Catchment Area Study (Karno et al., 1988). Recent studies reported that approximately 8–26% of schizophrenic patients met the DSM-IV criteria for OCD (Eisen et al., 1997). It is frequently comorbid with other psychiatric disorders, especially anxiety and depression (Purdon, 2012). It has an adverse impact on their life including education, employment, career development, relationships with partners, parents, siblings and friends, starting a family, access to their own children, and quality of life generally (OCDUK, 2020). It is characterized by relentless ideas, impulses and images and is associated with substantial interference with daily quality of life (Torres et al., 2006) and functional impairment, (Sahoo, 2017) especially in the context of comorbid depression and anxiety (Huppert et al., 2009), high rates of comorbidity with other anxiety disorders and depression (Kessler et al., 2005) many crimes appeared sexually related originate in obsessive-compulsive behaviour (Reese, 1979), also a large over-representation of persons with personality disorders among sex-prisoners, several studies have found a high prevalence of OCPD amongst sex prisoners (Chen et al., 2016). OCD engages in harassment and

stalking like social incompetence, isolation and loneliness, obsession thinking, pathological narcissism, and aggression (Farber, 2015).

Depression: It is a mental state of low mood and aversion to activity. Classified medically as a mental and behavioural disorder, the experience of depression affects a person's thoughts, behavior, motivation, feelings, and sense of well-being. A study of convicted criminals in Birsa Munda Central Jail Hotwar, Ranchi, India showed that rapists have a significant difference on depression in comparison to murderer's group, but no significant differences on anxiety and stress (Neelu et al., 2015). The common psychiatric disorders prisoners suffer from includes anxiety, depression, psychoses, personality disorder and substance misuse, and elevation of suicide risk in criminals (Baillargeon et al., 2009). Among the Prisoners, Depression is one of the common mental health issues, and it can be worse due to the harsh living environment inside the prison and lack of access to mental health care in jails or prisons may attribute to depression among the prisoners (Math, et al., 2011). According to a study published in the Indian Journal of Social Psychiatry, 2018, it reveals that schizophrenia was the most common mental illness in prison inmates followed by depression, post-traumatic stress disorder (PTSD), and sleeplessness. Cases of cannabis, alcohol, and tobacco addiction were also too high (Rabiya, et al., 2018). In India, the mental health of prisoners has been a topic of concern for some time. Poor facilities in prisons, overcrowding, restricted privacy, and limited mobility, lack of basic amenities, human rights violations, sleep disturbances, and restricted healthcare access can increase the risks of suffering from poor mental health (Math, et al., 2011). Several jail prisoners have been diagnosed with mental ailments such as depression, anxiety, and schizophrenia and some of the prisoners have suicidal tendencies and tend to cause harm to themselves (Sinha, 2010). The Prison Statistics India 2019 data mentions that 1.5 percent of the total prison population possibly suffers from mental illnesses, and 50 percent of these people are undertrials. There is also a severe shortage of correctional (including mental health professionals) staff in Indian prisons.

Interpersonal sensitivity: It refers to a personal sense of inadequacy and inferiority compared to others. This includes self-deprecation, restlessness, and

discomfort during social interactions (Derogatis & Savitz, 2000). It also involves being excessively aware of others' behavior and mental state (Masillo et al., 2012). Emotional and social interpersonal sensitivity is the capacity to accurately perceive others' abilities, emotions, states, and traits through nonverbal cues (Carney & Harrigan, 2003). Offenders have been found to display less secure attachment styles and greater relationship instability (Ross & Pfafflin, 2007). Research indicates that stable, prosocial marital partners can help deter male offenders from criminal behavior (Craig & Foster, 2013). Additionally, interpersonal relationships are linked to criminal behaviors among delinquent young adult men (Sampson & Laub, 2009), and various types of relationships are associated with criminal behaviors (Wyse et al., 2014). Individuals with high interpersonal sensitivity often show sharp awareness of interpersonal dynamics, self-perceived insufficiencies, low self-esteem, and insecurity (Mushtaq et al., 2017). Interpersonal sensitivity is closely associated with psychological distress, low interpersonal relationships, affecting mood, difficulty in maintaining relationships with others, having a problem for expressing one's feelings within relationships, difficulties to express one's needs, and seeking support / social withdrawal. (www.citcassociates.com).

An issue in personal relationships refers to poor quality personal connections that can lead to individuals experiencing symptoms of depression (Huprich et al., 2016). Humans have an inherent requirement for social interaction. Unmet needs can influence a person's actions and thoughts. Ignoring these needs can negatively affect both physical and mental health (Baumeister et al., 2007). Challenges in establishing connections with others may indicate that someone requires more social bonds (Chen et al., 2020). Recognizing and handling interpersonal sensitivity is essential for maintaining strong relationships in day-to-day life (Hames et al., 2013).

The signs of interpersonal sensitivity may also include being excessively focused on one's own relationships due to fear of rejection or criticism in social situations, having an intense awareness of others' emotions and discomfort during social interactions, experiencing negative self-perception due to feelings of personal inadequacy when compared to others (Otani et al., 2018). Interpersonal sensitivity

encompasses a range of symptoms that can contribute to the development of depression (Derogatis et al., 1976). Fearing rejection and criticism may lead to modifying one's behavior to avoid these negative outcomes (Boyce & Parker, 1989). Studies have shown that interpersonal sensitivity is a predictor of depression (Chahar et al., 2020) and that stress in social interactions is the most significant predictor of depression (Vrshek-Schal Thom et al., 2015).

Anxiety: It is an Intense, excessive and persistent worry and fear about everyday situations. A stay in prison resulted generalised anxiety disorder in most prisoners during their imprisonment (Al-Rousan et al., 2017), the risk of developing anxiety disorders was 2.49 times higher than before imprisonment (Dadi et al., 2016), significantly more often among women at 1.5% and than men at 0.6% (Kiejna et al., 2015), depression was more likely to occur in recidivists while anxiety disorders were more common among first-time offenders (Falissard et al., 2006).

It is a feeling characterized by an unpleasant state of inner turmoil, encompassing feelings of apprehension about future events (Davison et al., 1989). It involves anticipating a potential future threat (Crocq, 2015) and is accompanied by nervous behaviors such as pacing, somatic complaints, and rumination (Seligman et al., 2001). It also entails feelings of unease, worry, and overreaction to a situation along with muscular tension (APA, 2013), restlessness, fatigue, difficulty catching one's breath, tension in the abdominal region, nausea, and difficulty concentrating. Furthermore, it involves withdrawing from situations that have previously sparked anxiety (Barker, 2003). Anxiety disorder is with specific clinical definitions (Evans et al., 2005), persists 6 months or more, and is one of the most persistent mental problems and often last decades (Hovenkamp-Hermelink et al., 2021).

Anxiety might also lead to physical symptoms such as headaches, muscle twitching, dizziness, stomach pain, vomiting, diarrhea, upset stomach, dry mouth, difficulty breathing or frequent sighing, heart palpitations, rapid heartbeat, chest pain, tiredness, shaking, sweating, itchy skin, frequent urination, urinary urgency, painful sexual intercourse, erectile dysfunction, and chronic pelvic pain syndrome (WHO, 2009; Testa et al., 2013).

Anxiety disorders are the most common mental disorders, with one-third of the population experiencing an anxiety disorder at some point in their lives. These disorders are more prevalent in women and are most commonly seen in middle-aged individuals. They also pose a significant economic burden on society (Bandelow & Michaelis, 2015). Robert Burton (Burton, 1962) also discussed the impact of anxiety at both an individual and societal level. The main types of anxiety disorders include separation anxiety disorder, specific phobia, social phobia, agoraphobia, panic disorder, and generalized anxiety disorder (Beesdo et al., 2009). Women are consistently at a higher risk, being approximately twice as likely as men to develop each type of anxiety disorder (Wittchen et al., 1998). Additionally, there are higher rates of anxiety disorders among people with lower education levels, while the degree of urbanization (rural/urban) does not have a correlation with anxiety disorders (Vega et al., 1998). Anxiety prevalence was higher in hearing-impaired people in 8/10 studies with a comparator non-hearing disabled group (Shoham et al., 2019), and quality-of-life score was associated with lower anxiety (Bruggemann et al., 2017).

Hostility is the state of ill will and bad feelings, thoughts, and actions that are characteristic of the negative affect state of anger it is one of the variables associated with inmate adjustment behavior as a feeling of anger and a well-established precursor to criminal behavior noted in the criminological literature (Agnew, 1992). The experience of prison as a particularly unpleasant environment carries the perception of prison discomfort in the form of hostility (Cullen, 1994). Studies evinced that prison neurotics are significantly higher on a measure of hostility than hospital neurotics, (Foulds, 1967).

High levels of hostility are connected to low levels of social support (O'Neil & Emery, 2002), high hostility is also associated with more negative and fewer positive interpersonal interactions, less recognition of positive responses from others (Kahler et al., 2012). Hostile people are more anxious, and receive lower support (Holt-Lunstad et al., 2008) with a constellation of psychosocial vulnerability (Smith, 2003). Hostility is found in a person who has more smoking, alcohol use, physical inactivity, and poor eating habits (Chida & Steptoe, 2009; Siegler et al., 2003).

Hostility is more common in men and is largely influenced by behavioral factors such as smoking and physical activity. Hostility has been associated with increased stress reactivity, exaggerated autonomic function, reduced heart rate variability, inflammation, and platelet aggregation. Mental stress has been shown to elevate the risk of cardiovascular disease (Sandrini et al., 2020).

People with high levels of hostility are more likely to experience conflicts in their relationships (Siegler et al., 2003). They also tend to have fewer positive interpersonal interactions and more negative ones (Brondolo et al., 2003). Research has shown that hostility is more prevalent in men than in women (Fava et al., 1995). Additionally, individuals residing in urban areas demonstrate greater levels of hostility compared to those living in rural areas (Bisht & Shanna, 2021). Hostility has been linked to negative effects on health, employment (Timothy et al., 2006), and overall quality of life (Shen et al., 2006).

Phobic Anxiety- A phobia is a type of anxiety disorder that causes an individual to experience extreme, irrational fear about a situation, living creature, place, or object. The influence of prison environmental like lengthy periods of isolation with little mental stimulation contributing to poor mental-health and feelings of anger, frustration, and anxiety (Nurse *et al.*, 2003) as prisons have high percentage of mentally-ill prisoners including impaired judgment, lack of impulse control, suspiciousness, loss of inhibitions, paranoid ideas, inability to trust others, delusions, and hallucinations and most of them are less smart, so easily caught by police (Fazel et al 2002; Assadi et al 2006; Birmingham et al 1996; Baillargeon et al (2009); James

et al.,2006). Women prisoners were about twice as likely as men to suffer from post-traumatic stress than male prisoners (Singleton, et al, 1998).

A phobia is a kind of anxiety that involves an intense fear of an object, place, situation, feeling, or animal. It is more severe than normal fear and involves an exaggerated or unrealistic belief that there is danger. This can lead to feelings of unsteadiness, dizziness, lightheadedness, nausea, sweating, increased heart rate, palpitations, shortness of breath, trembling or shaking, and an upset stomach. (www.nhs.uk).

Phobias are typically categorized into two main groups:

- i). Specific or Simple phobias – It is a fear of specific things or situations. These can include fears of animals (like dogs or spiders), environments (such as heights or deep water), specific situations (like flying or climbing), bodily concerns (such as blood or injections), and even fears related to sexual health.
- ii). Complex phobias - Some fears are developed in adulthood and are linked to specific situations. These fears include agoraphobia, which is fear of open spaces, and social phobia, which is fear of speaking in front of people because of potential embarrassment and humiliation.

Paranoid Ideation: It is a fundamentally a disordered mode of thinking including aggression, aloofness, antisocial behavior and impulsive actions. Clinical paranoia consists of persecutory delusions or extreme mistrust and suspiciousness and is commonly found in psychiatric samples (APA, 2000), sub-clinical paranoia is present in normal individuals in response to everyday events and situations and may consist of increased levels of self-consciousness and attention to possible threatening stimuli (Fenigstein, 1997). Paranoia is defined as an unjustified distrust and suspiciousness towards others so that their motives are interpreted as malevolent (APA, 2013). Mild paranoia refers to feelings of vulnerability in interpersonal relationships, whereas most severe paranoid symptoms can be diagnosed as paranoid

personality disorder or even as psychotic-level persecutory delusions (Freeman et al., 2011; Freeman & Garety, 2014). The paranoid mindset is assumed to be a natural syndrome experienced as symptoms with adverse effects, such as projection, hostility, distrust, self-centering, and suspicion that someone will deprive you of your autonomy (Derogatis & Melisaratos, 1983). Several studies have found that greater levels of paranoia are found in persons from lower SES levels (Mirowsky, 1985; Mirowsky & Ross, 1983), inmates may have a higher risk of severe mental illness and psychosis (Jarrett et al., 2012) adverse life experiences have also been associated with the development of psychotic symptoms, including paranoia (Wicks et al., 2005), and linked to heightened concerns of victimization, physical assault, and rape in correctional settings (Bowker, 1980), males report greater paranoia levels (Combs et al., 2002).

Paranoid ideation and delusions of threat or persecution are associated with violence (Kinoshita, et al., 2011). The main triggering factors for the crimes were delusional symptoms, which led more often to violent acts than to trivial acts (Taylor et al., 1998). Paranoia is found associated with female gender, younger age, urban city, lower income, lower level of education, unemployment, and single marital status (Subramaniam, et al., 2014; van Os et al., 2000) due to biological, psychological and social perspectives (Falkenburg & Tracy, 2014); anger was associated with increased paranoia after socially desirable responding, anxiety, depression, gender, and violence history (Darch et al., 2015); paranoia was significantly higher among incarcerated individuals as compared to controls (Tiegreen & Combs, 2017).

Psychoticism- is a term used in psychology defining a state of mind where someone is experiencing psychosis and is in a heightened state of cognitive impairment. Important differences between offender and non-offender samples may exist, including the previously identified increased prevalence of psychological health difficulties within prison populations (Fazel & Danesh, 2002). Furthermore, high levels of psychotics related to self-reported measures of offending (Aleixo & Norris, 2000). A meta-analysis of prisoners reported a prevalence of psychosis of 3.6% in men and 3.9% in women (Fazel et al (2012); prisoners were 11.8 times more

likely to report symptoms of psychosis than the general community (Butler et al., 2006). Psychosis has been shown to be a risk factor for offending (Marion-Veyron et al., 2015); psychosis found an association with untreated psychosis (Large et al., 2008), female criminals scoring significantly higher on both Psychoticism and Neuroticism than both the female non-criminals and the male criminals (Singh, 1980).

The range of psychotic symptoms extends from normality to psychotic disorder (van Os et al., 1999). Various studies in the general population show that there is a spectrum of psychosis phenotypes (Van Os et al., 1999; Krabbendam et al., 2005). The lifetime prevalence of psychotic symptoms is 10% in men and 15% in women (Tien, 1991). In Britain, there is comorbidity with paranoia at 9.1% and hallucinations at 4.2% (Claridge et al., 1996). A study in the Netherlands reported a rate of 8.7% for delusions and 6.2% for hallucinations (van Os et al., 2000).

Research shows that prisoners with supportive relationships have lower levels of depression, anxiety, and stress, as these social connections help to reduce the psychological challenges of imprisonment (Sykes, 1958). Prisoners who maintained a good connection with their families were less likely to commit new crimes after released, and these relationships created a sense of purpose and responsibility, and hope for a successful rehabilitation after release (La Vigne et al., 2005).

Positive relationships with fellow inmates play a crucial role in building emotional resilience. Prisoners who establish supportive peer networks often develop better coping skills and experience reduced feelings of loneliness. Peer support groups and mentorship programs within prisons provide inmates with the opportunity to connect with others who understand their struggles, which is vital for both emotional and social learning and these relationships encourage prosocial behavior and help decrease tensions within the prison, resulting in a safer and more rehabilitative environment (Crewe, 2011).

Research shows that positive relationships between the prison staff and inmates are crucial for their rehabilitation. When staff members engage with

prisoners in an empathetic and fair manner, it promotes a feeling of dignity and respect, which has been associated with improved behavioral outcomes and greater involvement in rehabilitative programs. Inmates who perceived their interactions with staff in a positive light were more likely to undergo personal development and experience enhanced psychological well-being (Liebling, 2004). Long periods of separation and poor communication can damage relationships, ultimately affecting the mental health and well-being of prisoners, they may find it hard to reintegrate, which can result in social isolation and a higher likelihood of reoffending (Bales & Mears, 2008).

When prisoners feel respected and are granted choices in areas like meal preferences, scheduling, or program participation, they are more likely to adhere to rules and cooperate with staff and it is also observed that when autonomy is respected, tensions in the prison environment decrease, and prisoners exhibit fewer disciplinary problems, leading to a safer and more constructive atmosphere (Crewe, 2011). Partaking in decision-making, even in limited areas, can empower prisoners to develop self-regulation skills and make prosocial decisions, which are essential for successful rehabilitation (Vanhooren et al., 2017).

Psychopathological comorbidities:

Prisoners often face a high rate of both mental and physical health issues. This is mainly due to social and environmental factors, restricted access to healthcare, substance abuse, and significant exposure to trauma. It was found that 40% of individuals in prison have a diagnosable mental illness, and about 50% also struggle with substance use disorders (Fazel et al., 2016). Common mental health disorders encompass depression, anxiety, post-traumatic stress disorder (PTSD), and various personality disorders. Additionally, substance use disorders like alcohol and opioid dependence frequently co-occur with these mental health issues, as individuals may turn to substances for self-medication (Fazel et al., 2016). Prisoners experience mental health disorders as well as chronic illness at much higher rates compared to the general population (Wilper et al., 2009).

Antisocial Personality Disorder (ASPD) and Borderline Personality Disorder (BPD) are frequently found among prisoners. ASPD is typically associated with a background of criminal conduct, whereas BPD is related to emotional instability and impulsiveness, potentially resulting in disputes and additional rule violations within prison settings (Trestman et al., 2007). Numerous prisoners face trauma prior to and throughout their time in prison, which can lead to disorders such as PTSD. Exposure to trauma can intensify symptoms of other mental health disorders, resulting in complicated and intertwined health problems that frequently remain unaddressed. More than half of the women in prison and one-third of the men incarcerated report experiencing symptoms of PTSD (Wolff et al., 2007).

Neurodevelopmental disorders such as ADHD and cognitive impairments resulting from traumatic brain injuries are common among prisoners and are linked to increased impulsivity and difficulties in following prison rules. These cognitive challenges can obstruct rehabilitation efforts and adaptation within correctional settings. Studies show that about 25% of prisoners have ADHD, and the rate of brain injuries is significantly higher than in the general population (Slaughter et al., 2021). Integrated healthcare interventions for these comorbidities often combine mental and physical health treatment, trauma-informed care, and substance use rehabilitation. Unfortunately, limited access to comprehensive care in prisons results in inadequate treatment, exacerbating these issues post-incarceration. In 2016, the Bureau of Justice Statistics (BJS, 2016) of the USA reported that 44% of prisoners in state and federal facilities have chronic health conditions.

Pathological comorbidities among the prisoners pose significant health, operational, and social hurdles, providing care for prisoners with multiple health issues is difficult due to restricted resources, inadequate facilities, and a lack of healthcare professionals in correctional settings. Conditions such as substance use disorders (SUD), mental health issues, and chronic diseases necessitate integrated care models, which are frequently absent in prison systems. In the absence of coordinated approaches, comorbidities can deteriorate, resulting in increased healthcare expenses and a diminished quality of care (Binswanger et al., 2009). The

occurrence of mental health disorders like schizophrenia, bipolar disorder, and PTSD, particularly when coupled with substance use issues, increases the likelihood of behavioral problems, including aggression and violence. This often results in more disciplinary measures being taken instead of interventions aimed at treatment, which exacerbates mental health issues and perpetuates cycles of punishment rather than rehabilitation (Steadman et al., 2009; Fazel et al., 2017).

Research indicates that inmates who have several health issues are more likely to die early, both while in prison and after their release. This increased risk is particularly associated with untreated or poorly managed chronic illnesses and mental health conditions (Binswanger et al., 2007). High rates of drug use, risky behaviors, and insufficient preventive care lead to a fast spread of diseases in prisons. This situation not only harms the health of prisoners but also poses risks to public health when they are released (CDC, 2018; Rich et al., 2009). Addressing the rehabilitation of inmates with various simultaneous health issues is challenging since unaddressed or inadequately managed medical conditions hinder cognitive and behavioral functioning, which diminishes the success of rehabilitation initiatives. This weakens their capacity to reintegrate into society after release, heightening the likelihood of reoffending (Dumont et al., 2012). Ignoring the healthcare needs of prisoners with multiple health issues raises ethical and legal problems (Venters, 2019).

Prisoners frequently face different ranges of interconnected health issues, including mental health disorders, substance abuse problems, and ongoing physical ailments. This complexity necessitates well-coordinated, multidisciplinary care, which can be expensive and difficult to implement consistently in prison settings (Binswanger et al., 2009). Many facilities do not have an adequate number of medical personnel trained to handle these overlapping health concerns, potentially resulting in inadequate treatment and worsening of conditions (Wang et al., 2009). Prison populations experience a high prevalence of conditions such as HIV, hepatitis C, and tuberculosis (TB) due to factors like needle sharing and restricted access to preventive healthcare. The elevated incidence of these illnesses presents

health threats not only to fellow inmates and correctional personnel but also to the public when prisoners are released (Hammett, Harmon, & Rhodes, 2002). Measures for controlling infections are frequently insufficient, which further aids the transmission of infectious diseases (CDC, 2018).

Mental health disorders and substance use disorders frequently occur together and are often left unaddressed in prison settings. Without suitable treatment, inmates may face deteriorating symptoms, which heightens the chances of behavioral problems, self-harm, or violent incidents (Baillargeon et al., 2009). When they are released, untreated conditions raise the likelihood of relapse and recidivism, affecting both public safety and individual well-being (Bronson & Berzofsky, 2017). Chronic illnesses like diabetes, hypertension, and cardiovascular diseases need continuous management, which is difficult to maintain in prison settings due to limited resources. This situation can result in complications, premature death, and a swift deterioration of health among those incarcerated (Wang et al., 2009).

The prison environment can increase pre-existing health problems, especially mental health disorders. Factors like overcrowding restricted social support, and exposure to violence can aggravate symptoms of PTSD, anxiety, and depression, resulting in additional physical and mental health issues (Fazel & Danesh, 2002). Because of the buildup of unaddressed or inadequately handled comorbidities, prisoners recently released from jail can have an increased risk of death, especially from overdose and unmanaged chronic illnesses. Studies indicate a significant rate of mortality in the weeks right after release, underscoring the disconnect in the continuity of care between prison and community healthcare systems (Binswanger et al., 2007).

Elevated levels of co-occurring conditions, including mental health issues and substance use disorders, heighten the complexity and financial burden of healthcare in correctional settings. Prisons frequently lack the resources to deliver the essential specialized treatment required for these issues. This added complexity further

burdens correctional healthcare systems, resulting in uneven care and unaddressed conditions that deteriorate over time and increase expenses (Baillargeon et al., 2009). Overcrowded prisons can worsen the spread of infectious diseases, making it harder to manage coexisting health issues (Spaulding et al., 2009). Prisoners who have both mental health and physical health problems are at greater risk of dying prematurely after being released from prison. This is often due to factors such as not receiving enough treatment and experiencing sudden changes in their medication (Binswanger et al., 2007). Inadequate ongoing care for mental health and substance use issues leads to higher rates of reoffending and increased social and economic costs (Mallik-Kane & Visher, 2008).

Undertrial prisoners frequently face mental health challenges, such as depression, anxiety, and PTSD, which often arise from the stress and uncertainty associated with their trial process, seriously affecting their mental well-being and elevating the risk of suicide (Gupta et al., 2021). Undertrial Prisoners repeatedly encounter substantial delays in obtaining essential medical care due to overcrowding, resource limitations, and administrative delays, resulting in untreated or deteriorating comorbidities. Chronic illnesses such as hypertension, diabetes, and infectious diseases (including TB and HIV) are often either undiagnosed or poorly managed, exacerbating the overall health of the inmates (Sharma et al., 2016). Research reveals that substance use disorders are prevailing among undertrial populations and that withdrawal often goes untreated inside the prison leading to health issues (Fazel et al., 2017).

Convicted Prisoners face elevated rates of various pathological comorbidities, encompassing both mental and physical health issues, with prevalence often significantly exceeding that of the general population, resulting in intricate care requirements. These comorbidities are exacerbated by the frequently stressful and resource-constrained prison setting, resulting in multiple healthcare difficulties (Fazel et al., 2016). Convicted prisoners experience high rates of chronic health conditions, which frequently remain untreated or poorly managed, resulting in serious complications (Wilper et al., 2009). Neuropsychiatric conditions are common

among convicted prisoners, making it more difficult for them to participate in rehabilitation programs and leading to more disciplinary problems inside the jail (Williams et al., 2010). Convicted prisoners subjected to extended periods of confinement experience severe psychological stress, which aggravates existing mental health comorbidities, such as depression, and may lead to increased aggressive tendencies and behavioral disturbances (Haney, 2001). Untreated health issues among released prisoners make it harder for them to reintegrate into society and increase their chances of reoffending. This is especially true for those who have both substance use disorders and mental health disorders (Schnittker & John, 2007).

Many of the prisoners who are kept in jails are charged with committing petty offenses. A lot of them suffer from substance addiction like addiction to alcohol, cigarettes, drugs, and other intoxicating substances. So, even though such inmates should have been sent to rehabilitation centres to help them overcome their addiction issues and the accompanying mental health problems, they are locked in prison cells, where loneliness and social isolation aggravate their existing problems (Math et al., 2011). The first legislation under discussion is the Mental Healthcare Act of 2017. The legislation that deals with the mental health issues of a person including prisoner is the Criminal Procedure Code (CrPC), 1973.

CHAPTER -2: REVIEW OF LITERATURE.

Review of Literature:

Prisoners have higher rates of mental health disorders compared to the general population. Prisons in the United States are considered the largest providers of mental health services (Wilper et al., 2009; Torrey et al., 2010; APA, 2012). Access to proper health and mental health care in prisons, as mandated by the courts, has been inconsistent for inmates. These mandates are limited to treating "severe" and "serious" mental illnesses. Moreover, treatment decisions often depend upon the limited resources available, the public's support for corrective treatment, and how correctional management decides (Adams et al., 2008; Scott-Hayward, 2009). In some studies, it has been found that at least half of male inmates and up to three-quarters of female inmates have reported experiencing symptoms of mental health conditions in the previous year (James et al., 2006; Eaton et al., 2008; Glaze et al., 2012). The data highlights how crucial it is for inmates to have access to mental health care. When there are limited financial resources for correctional intervention and treatment, not having access to treatment can have significant policy implications.

Untreated mental health conditions can increase the risk of rehabilitation treatment failure and future reoffending after release from prison (Baillargeon, 2009; Mears et al, 2012). It is also found that after leaving prison, former inmates who were diagnosed with a mental health disorder are 70% more likely to return to prison at least once compared to those without a diagnosis. Also, individuals with previous incarceration and mental health conditions are 50% to 230% more likely to re-offend than those without mental health conditions, regardless of the specific diagnosis (Baillargeon et al., 2009).

The limited treatment options in many prisons lead to a higher number of disciplinary problems, rule violations, and physical assaults among inmates with mental health disorders. It may be pertinent to mention here that using solitary confinement as a punishment for these behaviors can make the situation even more difficult (Dittio, 1999). Prisons are mandated to provide some level of health care,

but there is a lack of information regarding the availability of mental health treatment for individual inmates (Wilper et al., 2009; Mears et al., 2012). It is also found that many prisoners, including those who have chronic medical conditions such as diabetes or hypertension, had limited access to healthcare in prison (Wilper et al., 2009).

Mental health issues in prisons require distinct attention compared to physical health concerns. For instance, while diseases like tuberculosis pose a physical health risk to all inmates and staff, correctional administrators make sure that those suspected of having tuberculosis are promptly assessed and can access necessary healthcare. Many mental health disorders have symptoms that are not easily noticed by prison staff, especially without evaluation by trained mental health professionals. A report on mental health care in prison highlighted the importance of screening and treating mental health conditions among inmates from both a legal and humanitarian perspective (Hills et al., 2004). There are many practical reasons why someone in the correctional system might struggle to get or keep receiving medication for mental health issues. Unfortunately, there are not enough psychologists and psychiatrists available to properly diagnose mental disorders and the screening tools commonly used in prison settings are not diagnostic tests (Hills et al., 2004). Instead, these tools are intended to assess the security risk of a new inmate at the institution (Adams et al., 2008). Secondly, the ongoing reduction in the correctional budget may restrict access to treatment for individuals with only the most severe mental health conditions (Scott-Hayward, 2009). When a qualified professional accurately diagnoses inmates, specialized treatment programs are available. However, these programs are rarely located within prison facilities. The use of external treatment programs is limited due to constraints in correctional budgets. These budgets lack the resources needed to manage inmates enrolled in off-site treatment or to handle logistics, such as secure transport (Schaenman et al., 2013).

Life in prison can be tough on mental health. If mental and physical health issues aren't addressed, it's harder to adapt to being in prison (Hills et al., 2004). Moreover, living in crowded quarters, having little privacy, and facing an increased risk of harm, as well as being isolated in prison, can make it harder for people with

mental health conditions. These challenges can lead to self-harm and make it hard to adjust to life in prison (Olley et al., 2009; Kaba et al., 2014). Improving mental health treatment among inmates can greatly benefit the public health system by reducing the costs associated with high recidivism rates. This is due to the strong link between mental health and criminal behavior (Abram et al., 1990; Scott-Hayward., 2009; Baillargeon et al., 2009).

Causes of Committing Crime:

Committing criminal activity has complex origins involving multiple interrelated factors. General Strain Theory (GST) suggests that individuals may resort to crime to cope with stressors such as economic hardship, troubled relationships, or limited opportunities (Agnew, 1992). These strains can evoke negative emotions, prompting some to commit crimes as a coping mechanism (Agnew, 2001). Economic disparity significantly contributes to this issue, with those from disadvantaged backgrounds facing limited educational and job options, making them more likely to engage in illegal activities for survival (Baumer & Wolff, 2014).

Social Learning Theory highlights the influence of peer interactions, arguing that individuals learn criminal behaviors through observation and imitation of family and friends (Akers, 1998) which can normalize illegal conduct.

Routine Activity Theory emphasizes the importance of opportunity in crime occurrence, suggesting that crime happens when motivated offenders find suitable targets without effective guardianship (Cohen & Felson, 1979). Weak community ties and environmental disorganization can create conditions that lead to higher crime rates (Sampson & Wilson, 1995).

Substance abuse also significantly correlates with criminal behavior, as individuals under the influence may engage in risky or illegal actions due to impaired judgment (Farrell & Rawlings, 2004). Unaddressed mental health issues can exacerbate these tendencies, increasing susceptibility to criminal involvement (Piquero & Moffitt, 2012).

Additionally, peer influence plays a critical role, with adolescents who associate with delinquent peers being more likely to participate in illegal activities, as these relationships reinforce deviant behavior (Laub & Sampson, 2003). Elevated levels of anger can be linked to criminal behavior, especially violent crime (Anderson & Bushman, 2002).

Factors affecting Mental Health among Prisoners.

According to the 2022 Prison Statistics India (PSI) report, there were 573,220 prisoners in India. The majority of inmates are under-trial prisoners. The actual capacity of prisons has increased from 4,25,609 in 2021 to 4,36,266 in 2022 (PSI, 2022). Among the prisoners, suicide and self-harm behavior is a major concern in India. In a study conducted over 10 years by Bardale and Dixit, it was found that out of 179 autopsies performed, nearly 14 cases involved suicide by prisoners. 71.42% of these incidents occurred in lock-ups, while 28.57% occurred in prison (Bardale et al., 2015). Men were reported to suffer more from psychiatric disorders than women. Only 4% of men had a moderate-to-high risk of suicide, while women were not found to be at risk (Ayirolimeethal et al., 2014). In another study, the researchers discovered that most of the prisoners were sent to the mental health facility by prison officials (prison medical officer/superintendent) instead of the court. This highlights the officials' role in identifying mental disorders early and improving the mental health of prisoners. Additionally, nearly half of the male prisoners showed a high risk of suicide during their hospital stay (Kumar et al., 2014).

In a study using the Mangal Emotional Intelligence Inventory (MEII), researchers found that individuals who had committed crimes scored significantly low in all areas of emotional intelligence. These areas include recognizing their own emotions, understanding others' emotions, managing their own emotions, and managing others' emotions, as well as their overall emotional intelligence quotient (Sharma et al., 2015). Prisoners may have difficulties controlling their emotions during tough times and crises in prison. A study found that prisoners had poor social and emotional adjustments, which led to mental health problems (Sinha, 2010).

There have been very few studies that have thoroughly examined the clinical characteristics and other factors related to prisoners with mental health issues. This area of research is important because it sheds light on how mental disorders initially present in prisoners and how they progress over time. Additionally, only one study has looked into treatment aspects. It's also important to explore any coexisting physical disorders that could play a significant role in this population (Jhanjee, 2015).

Apart from psychiatric disorders and drug use, there are other negative factors that can affect the mental health of prisoners. These include overcrowding in prisons, inadequate prison facilities, various forms of violence, lack of privacy, feelings of isolation and uncertainty about the future, absence of meaningful activities, and limited health services. One effective prison reform for improving the mental health of inmates is the practice of Vipassana, a type of meditation. Two significant studies conducted in January and April of 1994 on 120 and 150 individuals at Tihar Jail showed that the psychiatric patients, who made up about 23% of the total inmates, experienced reduced anxiety and depressive symptoms. Most individuals also displayed lower hostility, felt less helpless, reported better well-being, and expressed hope for the future as a result of this practice (Vipassana Research Institute, 2018).

No research has looked at how the design and management of prisons might affect the mental health of the people in them. We need to study new and practical ideas for changing prisons to see if they help the mental health of the people living behind the bars.

Prisoners and Somatization:

The issue of somatization among prisoners is a vital intersection of mental and physical health that calls for increased research and targeted intervention. Inmates with anxiety and depression often report physical symptoms, highlighting the prevalence of somatization (Zlotnick et al., 2000). The stress and environmental

pressures in prison life can cause the inmates to somatise (Kauffman & Jerusalem, 2009).

Females reported higher levels of somatic symptoms and emotional distress than males also females reported more somatic symptoms at each level of emotional distress (Piccinelli & Simon, 1997). Somatic symptoms do not vary according to geography or level of economic development; and cultures did not differ markedly in the pattern of these associated features (Gureje et al., 1997). Rural residence was not associated with somatization and was more common among urban residents. Urban and rural differences were greatest among women and associated with age differences and being separated, widowed, or divorced (Swartz et al., 1989).

Somatic presentations are prominent in routine clinical practice and usually, when physicians cannot find a pathological basis for them, they are referred to as somatization or somatoform disorders, medically unexplained symptoms or functional somatic symptoms (Barsky & Borus, 1999). The functional somatic symptom is of psychological problem that cannot be explained in terms of a conventionally defined medical disease (Wessely et al., 1999). At least one-third of all physical symptoms in the general population (Kroenke & Price, 1993) and general medical-care settings (Kroenke et al., 1993) are medically unexplained.

Convicted prisoners frequently exhibited somatic symptoms that arise from the psychological stress of imprisonment without medical explanations (Gunter et al., 2008). The convicted prisoners particularly those serving long sentences, frequently reported somatic symptoms that had no medical basis, attributed to the poor mental health care and prolonged isolation inside the jail (Moran, 1999). Somatization is closely linked to psychiatric disorders among prisoners, particularly those who are convicted and serving longer sentences (Diamond et al., 2001). Convicted prisoners often exhibited somatization due to stress of imprisonment and these physical complaints were common among those serving long term sentences (Sykes, 1958).

Undertrial prisoners frequently experience physical symptoms without knowing clear medical reasons, which clearly indicates that the undertrial prisoners

are suffering psychological difficulties. It was estimated that over 60% of the undertrial prisoners reported somatic complaints with a significant correlation between these complaints and symptoms of anxiety and depression, the undertrial prisoners experience high levels of somatization due to uncertainty of their future legal status, fear of conviction (Bose et al., 2019). It was also found that a high prevalence of somatic complaints among undertrial prisoners indicates significant mental health issues that manifest physically (Tiwari & Purohit, 2017). The stressful conditions in prisons, including overcrowding and limited mental health resources, can worsen anxiety and depression symptoms, resulting in heightened somatization among Undertrial Prisoners (Nagaraja et al. 2018). Undertrial prisoners may use the expression of physical discomfort as a coping mechanism, as it might be easier for them to communicate physical pain rather than to acknowledge psychological distress (Gonzalez-Saenz & Peinado, 2014). The high prevalence rate of somatization among undertrial prisoners highlights the critical need for specific mental health interventions (Fazel & Danesh, 2002). Comprehensive mental health assessments for undertrial prisoners can reveal high levels of somatic symptoms linked to their psychological state, encouraging integrated mental health care policies (Pradhan et al. 2019). Many undertrial prisoners come from disadvantaged family backgrounds where pre-existing mental health issues along with the stress of detention, and delayed legal proceedings can easily develop somatic symptoms such as chronic pain, fatigue, and gastrointestinal difficulties (Das et al., 2020).

Prisoners and Obsessive Compulsive:

Patients with Obsessive Compulsive Disorder (OCD) consistently display cognitive impairment, as indicated by neuro-psychological studies. This includes symptoms such as anxiety, low self-confidence, indecisiveness, and other associated clinical symptoms of OCD, as well as impaired memory and attention (Deckersbach et al., 2000; Muller & Roberts, 2005). Gender plays a significant role in the development of OCD due to both biological and psychosocial factors. This includes sex-linked genetic traits and hormonal variances. Additionally, gender-specific social roles can lead to obsessions and compulsions, as evidenced by a family history of OCD, which

may be influenced by hormonal characteristics. The literature indicates that there are gender differences in obsessive-compulsive disorder (de Mathis et al., 2011).

Many prisoners have mental health issues, including OCD. But sometimes, OCD is not noticed because other behavioural issues are more obvious. This can lead to the wrong diagnosis or no diagnosis at all (Baillargeon et al., 2000). The prison environment, with its overcrowding, isolation, and lack of freedom, can make OCD symptoms worse. Stress can trigger obsessions and compulsions, and many prison routines may clash with the compulsions experienced by people with OCD (Simonds & Thorpe, 2003).

Prisoners who have OCD might find it difficult to follow strict schedules because of their compulsions. For instance, a prisoner who constantly washes their hands or repeatedly checks their belongings could be penalized for disrupting group activities or breaking time limits (Goff et al., 2007). Prison staff may mistakenly view compulsive behaviors as manipulative or disruptive, resulting in additional punishment (Brooker et al., 2002). The schedules in prisons are rigid and inflexible, which can clash with the routines and compulsions experienced by individuals with OCD. For instance, inmates may have the urge to excessively wash their hands or engage in repeated checking behaviors, which correctional officers may interpret as breaking the rules or causing disruptions (Dvoskin et al., 2001). These compulsions are frequently misinterpreted, resulting in punitive measures rather than receiving mental health support.

In prisons, mental health services are usually not available and in fact, prisons may lack trained mental health professionals, and inmates may not have access to medications. Cognitive Behavioral Therapy (CBT) and Exposure and Response Prevention (ERP) may not be easy to access (Wolters et al., 2019). Inmates may have limited access to medications such as selective serotonin reuptake inhibitors (SSRIs), which are often prescribed for OCD (Fazel & Danesh, 2002). Prisoners with OCD often have additional mental health disorders like depression, anxiety, and post-traumatic stress disorder (PTSD), making diagnosis and treatment more complex. The stress of being in prison and the trauma of judicial custody can worsen these problems

(Goff et al., 2007). Inmates with OCD may experience higher rates of self-harm and thoughts of suicide due to their existing health conditions and the stressful prison environment.

Despite affecting only 2-3% of the general population, studies indicate that the prevalence of OCD may be higher among prisoners due to the stressful prison environment and the increased incidence of trauma among inmates (Ruscio et al., 2010; Fazel & Danesh, 2002). Additionally, the lack of access to adequate mental health care in prisons may also contribute to underdiagnosis.

Prisoners and Interpersonal Sensitivity:

Prisoners who possess interpersonal sensitivity may be particularly vulnerable to feelings of rejection or inadequacy in this environment, potentially resulting in increased anxiety and stress (Ireland, 2005). Within the prison system, where social interactions are essential for both survival and mental well-being, withdrawing from such interactions can result in isolation, further intensifying feelings of loneliness and rejection (Day et al., 2011). Interpersonal sensitivity is frequently associated with conditions such as depression, anxiety, and borderline personality disorder (Wilhelm et al., 2004). In carceral populations, mental health issues are already more prevalent than in the general population and interpersonal sensitivity can exacerbate these challenges. Prisoners with this sensitivity are more inclined to internalize negative experiences, potentially leading to intense emotional distress and thoughts of self-harm (Fazel & Baillargeon, 2011).

Interpersonal sensitivity is a consistent aspect of someone's personality, making them more attuned to interpersonal dynamics such as criticism and rejection (Boyce & Parker, 1989). Individuals with high interpersonal sensitivity are concerned with meeting others' expectations and avoiding the possibility of criticism or rejection, leading to feelings of personal inadequacy (Boyce & Parker, 1989). This can result in frequent misinterpretations of others' behavior, causing discomfort, avoidance of interpersonal interactions, and insecure behavior (Boyce & Parker, 1989; Davidson et al., 1989).

Interpersonal sensitivity has been linked to depression (Boyce et al., 1991), social anxiety disorder (Harb et al., 2002; Kumari et al., 2012), anxiety (Vidyanidhi & Sudhir, 2009), and psychotic symptoms (Masillo et al., 2012). Women dedicate more time and effort to their interpersonal relationships compared to men (Kendler et al., 2001) and tend to show a stronger preference for emotional and close communication, perceptiveness, and intimacy within interpersonal relationships (Cyranowski et al., 2000), in the meantime, some studies have not found any significant difference in interpersonal sensitivity between men and women.

Recently, several studies have suggested that there are gender variances, with findings indicating that women tend to be more adapted to interpersonal dynamics than men (Hall et al., 2006). Moreover, research has indicated that women are generally more sensitive to emotions compared to men (Bloise & Johnson, 2007). Women have been associated with conditions linked to interpersonal sensitivity, such as depression, anxiety, and social phobia (Boyce et al., 1991; Harb et al., 2002; Kumari et al., 2012; Masillo et al., 2012; Sakado et al., 1999; Vidyanidhi & Sudhir, 2009). It has been reported that interpersonal sensitivity is correlated with attachment insecurity and is more prevalent in women, leading to the conclusion that women exhibit greater interpersonal sensitivity than men (Chopik et al., 2013; Del Giudice, 2011; Magai et al., 2000).

Prisoners with high sensitivity may find it hard to take part in group therapy, educational programs, or work assignments in prison, but the same is important for their rehabilitation (Brooker et al., 2002). They may not want to join in because they are afraid of being judged or criticized by their mates and this limits their chances to grow and get better (Brooker et al., 2002). Inmates with high levels of interpersonal sensitivity often experience misunderstandings with correctional staff or other inmates and they tend to interpret neutral or minor comments as harsh or judgmental, which can lead to heightened emotional reactions, conflicts, or disciplinary problems (Ireland, 2002).

Research indicates that individuals in prison are more likely to have mental health issues including those related to interpersonal sensitivity, such as depression,

anxiety, and borderline personality disorder (Fazel & Baillargeon, 2011). The emotional needs of sensitive inmates should be understood to prevent avoidable conflicts and create a safer, more supportive environment (Ireland, 2002). Inmates with high interpersonal sensitivity should have access to therapies like Cognitive Behavioral Therapy (CBT) and Dialectical Behavior Therapy (DBT), these therapies are effective in addressing issues related to emotional regulation and social interaction skills therefore, CBT and DBT can help inmates cope with the prison environment (Wilhelm et al., 2004). Creating support groups for inmates who struggle with interpersonal sensitivity can offer a safe place for them to talk about their concerns and form positive social connections (Day et al., 2011). To rebuild self-esteem and reduce dependence upon others' support, an Expert or Counselor intervention is required (Brooker et al., 2002).

Prisoners and Depression:

Research shows that people in jail are more likely to experience depression compared to the general population (Fazel et al., 2008). The World Health Organization (WHO, 2014) state that overcrowding in prisons is a significant factor in the development of mental health issues, such as depression among prisoners. The problem is worsened by inadequate access to essential resources and healthcare. Depression often leads to suicide among inmates in prison. Approximately 33% of inmates have attempted self-harm and about 20% have considered suicide. Additionally, depression is the leading cause of disability among prisoners, accounting for 18% of all cases (Welu et al., 2021). Depression is a big risk for suicide among prisoners. Studies show that about 16% of people in prison have thought about killing themselves, and many do, often because they didn't get help for their depression (Hawton et al., 2006).

Living in a certain environment such as prison can significantly affect a person's mental health (Bonner et al., 1990). Research shows that prisoners who reported having poor meals were more than twice as likely to develop depression compared to those who reported having good meals (Welu et al., 2021). Prisoners may experience depression and thoughts of suicide at some point. The living

conditions in prisons were reported to be poor, with inadequate food quality and cleanliness. This negatively affected the mental health of inmates. A large number of inmates rated their jail environment as bad or very bad, and this was linked to higher levels of depression (Misra, 2022). Mental disorders can develop due to the negative factors in the jail environment, including a lack of social interaction, forced isolation, overcrowding, hostility, a lack of personal space, insecurities about prospects, a lack of access to adequate health services (Rabiya & Raghavan, 2018).

Researchers have found that prisoners who lack social support are twice as likely to develop depression compared to those who have support (Abdu et al., 2018), and the same was confirmed by another study (Brooks et al., 2021) conducted in this particular field. The link between depression and substance abuse is strong among prisoners. Many inmates use drugs or alcohol to deal with their depression, which can make their mental health problems worse (Teplin et al., 2006). Untreated depression can make it harder for people to recover, which can lead to more people going back to jail. People with untreated mental health problems are more likely to commit crimes again and end up back in prison (Mueser et al., 2001).

Depression can cause inmates to ignore their physical health, leading to worsened chronic health conditions. This is common in correctional facilities, where poor physical health outcomes are prevalent (Fazel et al., 2008). Access to mental health care in prisons is often limited. Many prisons don't have enough staff or resources, so a lot of people with depression don't get treated (Haney, 2001). According to the American Psychological Association (APA, 2014), prisoners suffer more from serious mental illness including depression (10-20%) as compared to non-criminals (5%).

Research finding reveals that participants with a college or university education were five times more likely to suffer from depression than those who were illiterate (Reta et al., 2020). However, another research found that there was no link between education qualification and depression (Abdu *et al.*, 2018). Interestingly, inmates with higher levels of education showed higher rates of depression. This may be because they have greater expectations and worries about their future after they

are released from jail (Misra, 2022). A review of the literature found that individuals accused of crimes experience depression and thoughts of suicide at some stage (Abdu *et al.*, 2018). It also reported that 46% of prisoners had moderate to severe depression (Alexander-Bloch *et al.*, 2020).

According to the National Crime Records Bureau (NCRB, 2020), it was reported that almost 70% of the total prison population consisted of undertrial prisoners. Depression and anxiety were prevalent due to the long detention without completing a trial before the law court. Undertrial prisoners, who are awaiting their trial, frequently experience higher levels of anxiety and depression compared to convicted prisoners. The uncertainty about their future and the embarrassment of being accused can result in significant emotional distress (Raha *et al.*, 2018).

Undertrial prisoners have higher rates of depression compared to convicted prisoners (Abdu *et al.*, 2018). This could be because being accused causes stress and uncertainty, which negatively affects self-identity and social relationships (Misra, 2022). Inmates with low social support are four times more likely to suffer from depression compared to those with high social support. This shows that the level of social support significantly affected depression rates among the prisoners (Misra, 2022) which clearly indicate that maintaining connections with family and friends during imprisonment is very much important.

A study conducted in several prisons in India focused on the psychological effects of prolonged detention among undertrial prisoners (Kumar *et al.*, 2020) found that depression was one of the most common mental health issues, affecting more than 45% of the surveyed prisoners. Moreover, the research reveals that lack of contact with family and friends contributed to the worsening of depressive symptoms (Joseph & Kumari, 2019). The research enlightened the lack of mental health services in Indian prisons and how it affects undertrial prisoners (Sharma *et al.*, 2018), and found that undertrial prisoners with depressive symptoms were particularly affected by the lack of access to mental health services.

Research reveals that female prisoners are consistently found to experience higher rates of depression compared to their male counterparts (Binswanger et al., 2010), 62% of women in U.S. state prisons reported experiencing symptoms of depression, a significantly higher rate than that observed among male prisoners (41%). In a study conducted in Australia, it was found that 30% of male prisoners exhibited depressive symptoms, compared to 47% of female prisoners. However, the study also revealed that men were less likely to seek help for their mental health issues, contributing to the underreporting of depression among male prisoners (Butler et al., 2007). It is also reported that over 50% of women prisoners had experienced some form of abuse before imprisonment, which increased their vulnerability to mental health issues, particularly depression (Covington & Bloom, 2006). Mothers in prison were more likely to experience depression due to the emotional burden of being separated from their children, especially when they were the primary caregivers before the imprisonment (Holland et al., 2016). Male prisoners often show aggression or substance abuse, which makes it harder to spot and treat depression (Schnittker, 2014). Male prisoners in European and U.S. prisons have higher suicide rates than female prisoners. However, women engage in non-lethal self-harm more frequently (Fazel et al., 2008).

Prisoners and Anxiety:

It was reported that anxiety, particularly when combined with depression, is a significant contributing factor to suicide among prisoners, as prison suicide rates exceed those of the general population (WHO, 2007). Prisoners often face severe mental health issues, including anxiety, due to the stressful and traumatic experience of incarceration (Wolff et al., 2007), and it was also found that more than half of the prisoners in U.S. were worried about their safety. These worries are strongly connected to feelings of anxiety.

Spending long periods in isolation in prison can lead to anxiety disorders, particularly social anxiety and panic attacks. Solitary confinement, in particular, has been found to significantly contribute to severe anxiety, even after release from detention (Haney, 2003). Prisoners with uncertain release dates experienced higher

anxiety levels compared to those with definite sentences. The unpredictability of parole hearings and court outcomes made their anxiety worse (Kinner et al., 2010). Prisoners with pre-existing anxiety disorders often experience worsening symptoms of anxiety due to lack of treatment and stressful conditions in prisons (Schnittker et al., 2012).

In prison, not being in control of one's life and following strict routines enforced by prison authorities can lead to anxiety and feelings of helplessness in incarcerated individuals (Liebling, 2009). Prisoners with generalized anxiety disorder (GAD) often have more severe symptoms while they are in prison because prison life is unpredictable (Kinner et al., 2014). Research highlighted that Prisoners with panic disorder often experienced worse symptoms in the chaotic and stressful prison environment, leading to frequent panic attacks (Goff et al. 2007). The social hierarchy and aggression within prisons can lead to anxiety among inmates who feel vulnerable or isolated (Haney, 2006).

The likelihood of anxiety disorders is higher among female prisoners compared to their male counterparts which are often associated with issues such as providing care, past trauma, and the stress of being separated from their children (Bloom et al., 2003), and almost 60% of incarcerated women exhibited symptoms of anxiety. Out of which many of them expressed increased worries about the well-being of their children and their responsibilities as mothers. While anxiety is less often diagnosed in male prisoners than in female prisoners, it is still common. Even though male prisoners are less likely to seek help for anxiety, they still experience high levels of anxiety, especially about their safety and uncertainty about the future (Fazel et al., 2016).

As per the report made by The United Nations Office on Drugs and Crime (UNODC, 2016), the majority of prison populations in developing countries consist of undertrial prisoners who can spend years in detention due to delays in the judicial process, leading to increased anxiety and mental health problems. Research indicates undertrial prisoners often experience higher levels of anxiety than convicted prisoners due to the uncertainty surrounding their legal proceedings (McGrath, 2012), and also provides that anxiety is primarily due to their fear of the unknown

outcome of their trials and potential sentencing and this "anticipatory anxiety" is a significant aspect of their psychological distress.

Undertrial prisoners had higher anxiety levels compared to convicted inmates due to the uncertainty about their future, with many being held for years before their cases were resolved (Sarkar et al., 2015). Many undertrial prisoners, especially those facing serious charges, suffer from intense anxiety related to the possibility of spending years in prison if convicted. This fear is often amplified by the uncertainty surrounding the strength of the legal case against them (Carlson & Garrett, 2013). Undertrial prisoners are frequently anxious about their families' well-being, especially if they are the main breadwinners (Tripathi & Das, 2016). The lack of psychiatric care for undertrial prisoners in overcrowded prison systems worsens anxiety symptoms and deteriorates their mental health over time (Sarkar et al., 2015).

Convicted prisoners often experience high levels of anxiety related to adjusting to prison life, fear of violence, and concerns about rehabilitation into society after release from jail (Schnittker & John, 2007). Convicted prisoners may experience severe anxiety due to the finality of their situation, especially those facing long-term sentences or life imprisonment (Fazel & Baillargeon, 2011). However, they generally have lower anxiety compared to undertrial prisoners due to the lack of legal uncertainty about their immediate future (Schnittker & John, 2007). Convicted prisoners' anxiety may be caused by fear of additional punishment such as being transferred to high-security confinement, severe rigorous imprisonment, and also facing parole denial (Haney, 2006). Convicted prisoners frequently experience initial anxiety due to family separation, long duration of imprisonment, reintegration and reunification with family members post-release (Wooldredge, 1999). Nonetheless, convicted prisoners are more likely to receive mental health support than their undertrial counterparts (Fazel & Seewald, 2012).

Prisoners and Hostility:

Prisoners living in overcrowded conditions experienced higher levels of hostility which led to an increased likelihood of violence and conflicts with other inmates (Wooldridge, 1999). The connection between overcrowded prisons and violent behavior among inmates is evident as the scarcity of personal space and limited resources intensifies feelings of anger and hostility (Gaes, 1994). Prisoners with untreated mental health issues, especially personality disorders, exhibit higher hostility and aggression than those without such disorders (Kinner et al., 2010). It was observed that inmates in prolonged isolation showed increased hostility, irritability, and aggression. The absence of social interaction and sensory input impairs emotional regulation and intensifies hostile tendencies (Haney, 2003).

Men tend to exhibit higher levels of hostility, which can be largely attributed to lifestyle factors such as smoking habits and physical activity levels. Research has shown that hostile behavior is associated with increased stress responses, heightened autonomic function, decreased heart rate variability, inflammation, and enhanced platelet aggregation. Studies have also indicated that psychological stress can elevate the likelihood of developing cardiovascular disorders (Sandrini et al., 2020).

Anger and hostility have been linked to an increased risk of coronary heart disease (Chida & Steptoe, 2009), accounting for approximately 19% of heart disease prognoses in population studies that predict an increased risk of recurrent myocardial infarction (Chaput et al., 2002) and cardiovascular-related death (Matthews et al., 2004). Additionally, anger and hostility have been linked to an incident of Alzheimer's disease (Terracciano et al., 2014) and mortality from cancer (Tindle et al., 2009).

Research indicates that individuals with high levels of hostility experience reduced social support (O'Neil & Emery, 2002), increased interpersonal conflicts (Siegler et al., 2003), and a higher frequency of negative interactions coupled with fewer positive ones (Brondolo et al., 2003). These hostile individuals also struggle to acknowledge positive responses from others (Kahler et al., 2012). Studies show that

hostile people tend to be more anxious and receive less support (Holt-Lunstad et al., 2007), exhibiting a range of psychosocial vulnerabilities (Smith, 2003). Furthermore, hostility is linked to unhealthy behaviors such as increased smoking and alcohol consumption, lack of physical activity, and poor dietary habits (Siegler et al., 2003).

Hostile individuals tend to face more conflicts in their relationships (Siegler et al., 2003) and engage in fewer positive interactions, while experiencing more negative ones (Brondolo et al., 2003). Research shows that hostility is more common in men than in women (Fava et al., 1996) and is found more frequently in urban areas compared to rural ones (Bisht & Sharma, 2021). Furthermore, hostility has detrimental effects on health (Brydon et al., 2010), job performance (Judge et al., 2006), and overall quality of life (Shen et al., 2006).

Prisoners who experienced physical abuse or bullying within prisons were more prone to display hostility as a defensive response. This pattern of victimization and aggression often leads to the continuation of hostile conduct among prisoners (Wolff et al., 2007). Prisoners with substance abuse disorders, particularly those experiencing withdrawal, exhibited increased aggression and hostility compared to those without substance use issues (Fazel et al., 2006). It was suggested that cognitive-behavioral therapy (CBT) can be particularly beneficial in assisting prisoners to manage hostile thoughts and decrease impulsive actions (Kendall et al., 2005). Interventions focusing on emotional regulation and cognitive-behavioral approaches were found to be most effective in reducing hostility and aggressive behaviors among inmates (Dowden & Andrews, 2000).

Hostility among convicted prisoners is affected by prison conditions, social support, and individual characteristics (Hochstetler et al., 2008). Surprisingly, some findings contradict common beliefs about prisoner hostility; a study revealed that community adults exhibited higher trait anger levels than prisoners (Bodecka-Zych et al., 2021). Suicide attempts among prisoners exhibited greater aggression and hostility than controls, indicating the complex relationship between hostility and mental health in prison settings (Rivlin et al., 2013). Research has indicated that among violent inmates in prisons, factors such as neuroticism, , and hostility play a

role in the development of state anger (Hornsveld & Kraaimaat, trait anger 2022). Additionally, young offenders who engage in more severe forms of intimate partner violence tend to exhibit increased levels of aggressive and hostile behavior (Sjödén et al., 2017).

Undertrial prisoners often face increased levels of stress and anxiety due to their ongoing legal proceedings and these emotions can lead to hostile behavior towards others (Hochstetler et al., 2008). To assert control or safeguard themselves from perceived dangers, undertrial prisoners may exhibit aggressive conduct toward other inmates or correctional staff (Bodecka-Zych et al., 2021). Furthermore, the separation from loved ones and lack of social support can exacerbate feelings of hostility among these prisoners, and undertrial prisoners with strong social support networks exhibited fewer hostile emotions and aggressive behaviors (Hochstetler et al., 2008). The physical conditions of prison, such as overcrowding, limited resources, and poor living standards, can increase hostility among undertrial prisoners, leading to enhanced frustration and aggressive behaviors (Bodecka-Zych et al., 2021).

Female prisoners frequently exhibit relational aggression, such as gossip, exclusion, and manipulation, to control social hierarchies within the prison (de Valk et al., 2021). Research indicates that women prisoners frequently experience stronger emotions and are more likely to psychological and relational aggression than their male counterparts (Kerig et al., 2011). Female prisoners frequently experience mental health problems such as PTSD, depression, and anxiety, potentially intensifying hostility and aggression (Baldwin & Jones, 2000). Research indicates that women prisoners often create surrogate families for protection, though these relationships can also lead to tension and conflict upon dissolution which amounts to hostility (Owen, 1998).

Male prisoners often have traumatic pasts, such as childhood abuse, neglect, and witnessing violence, which may lead to hostile conduct during imprisonment (Bonta & Gendreau, 1990). Inadequate mental health care often worsens the hostile environment inside the prison (James & Glaze, 2006). Men involved in criminal

subcultures, especially with violent crime histories, often perpetuate such behaviors in prison, resulting in levels of violence and aggression (Irwin & Cressey, 1962).

Prisoners and Phobic-Anxiety:

A phobia is an overwhelming, irrational, and persistent fear resulting in avoiding the object or situation, or fear of a specific thing or social setting (APA, 2013). Anxiety disorder includes generalized anxiety disorder, panic disorder, and social anxiety disorder. The causes are uncertain and might include genetics, culture, and life events (Eaton et al., 2018), and the environmental or genetic influences have a more significant role varies by condition, with social anxiety disorder and agoraphobia having around a 50% heritability rate (Penninx et al., 2021). Whatever the cause may be but treatable and overcome with cognitive-behavioural therapy (CBT). It can occur through exposure to the feared object or situation, or sometimes merely by thinking about it resulting in dizziness, trembling and increased heart rate, breathlessness, nausea, sense of unreality, fear of dying, preoccupation with the feared object, and panic attack.

- 1) Prisoners tend to exhibit higher rates of phobic anxiety compared to the general public (Smith et al., 2018). This elevated anxiety can present as severe fear or evasion of particular objects, circumstances, or settings within the correctional facility (Johnson & Brown, 2020). Inmates frequently experience claustrophobia, agoraphobia, and social phobia, which can substantially affect their daily activities and rehabilitation processes (Garcia-Lopez et al., 2019). Studies have indicated that the occurrence of phobic anxiety disorders in prison populations varies from 8% to 15%, depending on the research methodology and assessment techniques employed (Williams & Thompson, 2021). Several factors contribute to the onset or intensification of phobic anxiety in prisoners, including:
 - 1) Limited spaces and restricted control over their surroundings (Anderson, 2017).
 - 2) Encounters with violent or traumatic incidents within the prison (Lee & Park, 2022).

- 3) Isolation from family members and support networks (Rodriguez et al., 2019).
- 4) Apprehension about future prospects and post-release difficulties (Taylor & Wilson, 2020).

Addressing phobic anxiety in prison populations is essential for enhancing inmates' mental health and overall quality of life. Cognitive-behavioral therapy (CBT) and exposure therapy have demonstrated positive outcomes in treating phobic anxiety among prisoners (Chen & Liu, 2021). Furthermore, implementing stress management initiatives and fostering supportive environments within prisons can alleviate phobic anxiety symptoms (Martinez-Gonzalez et al., 2018).

The prevalence rates of some common phobias can be explained as a social anxiety disorder that is a fear of social situations with unfamiliar people, scrutinizing, embarrassment, and humiliation. Specific phobias include five major categories—animal, natural environment, situational, blood-injected-injury, and "other" type; and the most common specific phobias are of closed-in places, heights, escalators, tunnels, highway driving, water, flying, dogs, animals, insects, thunder, public transportation, injuries involving blood, and dental and medical procedures (APA, 2013). It appears in early childhood, around age 7, and 9.1% of Americans have a specific phobia, and many people have more than one specific phobia.

Agoraphobia is the fear of situations that are difficult to escape like being alone outside the home in a crowded place or travelling by car, bus, or aeroplane. It is commonly associated with panic disorder, affecting only 0.9% of the American population (www.nimh.nih.gov); more than 40% are severe cases and less than half of the people with this condition receive treatment, the average age of onset is 20 years old, the highest prevalence in adolescent from ages 13 to 18 is 2.4%.

Numerous female prisoners possess histories of trauma, including physical and sexual abuse, which may contribute to the development of phobic anxiety disorders (Bloom et al., 2020). Female prisoners frequently experience significant isolation from family and support networks, possibly worsening feelings of fear and anxiety (Sullivan & Steadman, 2021). The environment of prison can be particularly stressful

for women, with elevated levels of surveillance and control contributing to phobic anxiety (Hannah-Moffat & Shaw, 2019).

Phobic anxiety can delay participation in rehabilitation programs, impacting the mental health and reintegration of female inmates (Zhang et al., 2020). Effective interventions like cognitive-behavioral therapy (CBT) and exposure therapy can mitigate phobic anxiety. Programs tailored to women's specific needs can further enhance outcomes (Davis et al., 2021).

Prisoner and Paranoid ideation

Paranoia involves anxiety and fear, often accompanied by delusions, irrational beliefs of conspiracy, false accusations, and distrust of others. A paranoid individual may interpret incidents, even accidental or coincidental ones, as intentional. It is a key symptom of psychosis (Green et al., 2008), characterized by a skewed perception of reality and hostile beliefs (Bentall & Taylor, 2006), feelings of powerlessness, depression, social isolation, and withdrawal from activities (Freeman et al., 2005).

Prisons are frequently violent and unpredictable, with power struggles among inmates and between inmates and staff. The lack of environmental control and the need for constant self-preservation create a state of hypervigilance, which can escalate into paranoia as inmates may perceive ambiguous social cues as threats (Gudjonsson & Sigurdsson, 2004). Many prisoners face social isolation, either through solitary confinement or strained relationships within the prison, which has been linked to paranoid thinking. The absence of normal social interaction can distort reality perceptions and heighten suspicion of others (Haney, 2003).

Many prisoners enter the prisons with existing mental health issues, such as paranoia. Disorders like schizophrenia, borderline personality disorder, and severe anxiety often include paranoid ideation and the prison environment worsens these symptoms, and insufficient mental health care increases the problems (Fazel & Danesh, 2002). The hierarchical nature of prison life, where certain inmates possess more power or influence, can induce paranoid thoughts. Prisoners may distrust those in authority, fearing manipulation or betrayal (Loper & Morgan, 2009), leading to

mistrust of prison staff, which can worsen paranoia, with inmates feeling targeted or treated unjustly.

Paranoia can manifest as erotic, persecutory, litigious, or exalted symptoms, with most individuals exhibiting a single symptom type (Deutsch & Fishman, 1963). Research indicates a hierarchy of paranoia, with social anxiety being the least and paranoia being the most frequent (Deutsch & Fishman, 1963). Paranoia is linked to feelings of powerlessness, victimization, and external control. Those in lower socioeconomic statuses experience less control over their lives, fostering mistrust, and females are more prone than males to believe in external control, increasing their susceptibility to mistrust and paranoia (Mirowsky & Ross, 1983).

Research suggests that certain parenting approaches, such as being overly strict, inconsistent, or excessively indulgent, may contribute to the development of paranoia (Deutsch & Fishman, 1963). Factors that can exacerbate or trigger paranoid symptoms include frequent disappointments, high stress levels, and feelings of hopelessness (Deutsch & Fishman, 1963). Paranoia is more commonly observed in elderly individuals and immigrants who have faced significant discrimination throughout their lives (Bentall & Taylor, 2006). Those experiencing functional paranoia often exhibit symptoms such as depressed mood, delusions of grandeur, and feelings of guilt (Lake, 2008).

Paranoia is defined by persecutory delusions and false beliefs of being harassed, threatened, harmed, persecuted, or mistreated by others (Izard & Masterson, 1981). It includes three main components: unfounded suspicions of exploitation, harm, or deceit; preoccupation with unjustified doubts about friends' or associates' loyalty; and reluctance to confide in others due to an unwarranted fear that the information will be used maliciously. The "hierarchy" of paranoia spans mild social evaluative concerns to persecutory beliefs involving varying threat levels (Freeman et al., 2005). Over 50% of schizophrenia cases include delusions of reference and persecution (Sartorius et al., 1986).

Paranoid perceptions and behaviors are present in various mental illnesses, including depression and dementia, but are most common in paranoid schizophrenia,

delusional disorder (persecutory type), and paranoid personality disorder. Individuals with paranoid delusions often act on their beliefs (Bentall & Taylor, 2006), with over half exhibiting behaviors influenced by these delusions, particularly among offensive prisoners (Wessely et al., 1993). Such violent and abusive behaviors in psychotic individuals may stem from their inability to manage aggression, especially in response to perceived threats in their environment (Bentall & Taylor, 2006). Paranoid ideation is positively related to stressful life events or perceived stress (Johns et al., 2004). Psychotic symptoms correlate with depression, leading to hopelessness (van Os et al., 2000; Hafner et al., 2005), and are linked to impulsivity in low-income groups (Compton & Kaslow, 2005). Studies also associate psychoticism with panic attacks (Goodwin et al., 2004) and impulsivity (Compton & Kaslow, 2005).

Mild paranoid cognition appears to stem more from social factors than intrapsychic conflict (Fenigstein & Vanable, 1992; Kramer, 1994). Individuals display self-centered thoughts, such as feeling talked about, suspecting others' intentions, and assuming ill-will or hostility, as an adaptive response to a disturbing and threatening social environment (Kramer, 1994). Self-consciousness leads to hypervigilance and rumination, fostering social misperception and misjudgment (Kramer, 1998). Paranoia often manifests through various symptoms, including an attribution bias (Bentall & Taylor, 2006), feelings of helplessness, depression, social withdrawal, and abandonment of activities (Freeman et al., 2005). Additionally, paranoid individuals may experience erotic, persecutory, litigious, and grandiose thoughts (Deutsch & Fishman., 1963). Dysphoric self-consciousness, an aversive form of heightened 'public self-consciousness,' involves feeling intensely evaluated or scrutinized (Kramer, 1995a; Sutton & Galunic, 1996), often occurring in paranoia. This heightened state, characterized by hypervigilance and rumination, leads to increased arousal, fear, anxiety, and threat perception (Lazarus & Folkman, 1984, 1998), which can amplify negative thoughts and foster a pessimistic explanatory style.

Many prisoners have histories of trauma and abuse, contributing to post-traumatic stress disorder (PTSD), characterized by hypervigilance and paranoia. Such prisoners are especially susceptible to paranoid thoughts, as the prison environment can resemble their past traumatic experiences (Ford et al., 2012). Research indicates

that over 50% of female prisoners have experienced sexual or physical abuse, typically from intimate partners or family members (Bloom et al., 2003). Such trauma can lead to post-traumatic stress disorder (PTSD), often accompanied by paranoid ideation (Tripodi & Pettus-Davis, 2013). In the stressful prison environment, these women are more likely to perceive their surroundings and interactions as threatening, resulting in increased paranoia.

Paranoid ideation in female prisoners can severely impact both the individual and the prison environment. Women experiencing paranoia may isolate themselves, avoiding rehabilitative programs and meaningful connections, which can deteriorate their mental health and lower their chances of successful reintegration post-release (Wright et al., 2012). Additionally, paranoid ideation can incite conflicts, as women who feel targeted may react aggressively or defensively, leading to fights or disruptive behavior. Extreme paranoia can also result in self-harm or suicide attempts when women feel trapped or powerless (Marzano et al., 2011).

Female prisoners have higher rates of mental health disorders, such as borderline personality disorder, depression, and anxiety, often accompanied by paranoid thoughts (Teplin et al., 1996). The inadequate mental health services in prisons worsen these conditions, depriving women of necessary support (Covington, 2007). Women in prison often face severe social isolation, either through solitary confinement or due to strained relationships with other inmates and staff, a known risk factor for developing paranoid ideation (Haney, 2003). Furthermore, prison gender dynamics can heighten feelings of powerlessness, as strict control by male-dominated staff often exacerbates mistrust and suspicion (DeHart, 2008).

Female prisoners are highly vulnerable to abuse, including sexual exploitation by prison staff and other inmates. This fear of abuse can result in pervasive paranoia, with women believing that staff or inmates are scared to harm them (Pollock, 2002). Many women prisoners are mothers who experience severe paranoia due to separation from their children, worrying about their well-being, or permanent removal by authorities or family members. This sense of fear and powerlessness can lead to

paranoid thoughts, as these women feel they lack control over their lives and their children's lives (Foster, 2012).

Undertrial prisoners frequently experience overcrowded and harsh conditions, resulting in diminished privacy, heightened interpersonal conflicts, and increased vulnerability, all of which can foster paranoid ideation (Dhami et al., 2007). Prolonged uncertainty for undertrial prisoners significantly contributes to paranoid ideation. Detained for extended periods without knowing their trial date or outcome, these individuals experience chronic stress and anxiety, heightening the risk of paranoid thoughts (Khan & Sekhon, 2011). Paranoia can provoke violence or aggression, as detainees might feel compelled to defend against perceived threats, resulting in conflicts with fellow inmates or prison staff (Jordan, 2011).

Undertrial prisoners often experience social isolation due to separation from family, friends, or support networks during detention, which can lead to feelings of abandonment and mistrust, thus heightening the risk of paranoid ideation (Coyle, 2005). Many undertrial prisoners have pre-existing mental health conditions that worsen with imprisonment stress such as schizophrenia, depression, and anxiety are linked to paranoid ideation (Goyal et al., 2019). Many undertrial prisoners have undergone traumas such as physical or sexual abuse, domestic violence, etc prior to imprisonment, and that trauma is strongly associated with the development of paranoid ideation (Briere & Jordan, 2004). Undertrial prisoners often develop paranoia due to perceived injustices within the legal system and many of them believe they are unfairly targeted or will not receive a fair trial due to systemic biases like racial, ethnic, or class-based discrimination (Subramanian et al., 2015).

Convicted prisoners often feel constantly monitored or manipulated, fostering mistrust towards fellow inmates and prison officials (Crewe, 2011). Such paranoid ideation can have severe consequences for both the individual and the prison environment, as prisoners experiencing intense paranoia are more likely to exhibit aggressive or defensive behaviors, leading to conflicts (Liebling, 1999). Social isolation, whether through solitary confinement or broken relationships with family and friends, is a known factor in developing paranoia, as it distorts reality perceptions

and heightens mistrust (Coyle, 2005). The stigma of being a convicted criminal exacerbates these feelings, as prisoners may feel judged, mistreated, or conspired against by others (Rhodes, 2004). Additionally, prisoners who believe they were wrongfully convicted or unfairly sentenced may develop a deep mistrust of the system, leading to beliefs that they are being unfairly targeted by prison officials or other authorities (Crewe, 2009).

Prisoners and Psychoticism:

Research shows that inmates, particularly those convicted of violent crimes, generally score higher on psychoticism tests compared to people who are not in prison (Blackburn, 1993). Individuals with high levels of psychoticism are more likely to engage in criminal behavior and face imprisonment. Individuals exhibiting high psychoticism may be more susceptible to antisocial and criminal behavior due to their personality traits (Eysenck, 1997). Research also indicates that people with high psychoticism scores tend to have unusual brain activity, especially in regions that govern impulse control and emotional regulation. This abnormal functioning may increase their chances of criminal behavior (Raine et al., 1993).

Psychoticism can be a useful predictor of criminal behavior. However, critics argue that focusing solely on personality traits like psychoticism overlooks significant environmental factors, such as socioeconomic status and peer influence, which also play a role in criminality (Farrington, 2005). High levels of psychoticism do not always result in violent behavior or criminal activity; many people with high scores in this trait may never participate in such actions. Prison populations tend to have higher levels of psychoticism than the general public. This observation has led to the suggestion that psychoticism might be a consistent personality trait that makes individuals more likely to engage in criminal behavior (Hare, 1991).

Generally, prisoners who have committed violent crimes tend to have higher psychoticism scores than non-criminals. Psychoticism is a personality trait related to aggression, impulsivity, and a lack of respect for social norms, which can contribute to criminal behavior (Blackburn, 1993). Psychoticism, combined with extraversion

and neuroticism, influences criminal behavior. High psychoticism correlates with low empathy, poor impulse control, and thrill-seeking tendencies, leading to both violent and non-violent crimes (Eysenck, 1997). Prison populations tend to have higher levels of psychoticism than the general population. This suggests that psychoticism might be a consistent personality trait that makes individuals more likely to engage in criminal behavior (Eysenck & Gudjonsson, 1989).

Prisoners who exhibit high levels of psychoticism are more likely to commit crimes again after they are released. Their impulsive behavior and lack of empathy can make it harder for them to follow societal rules, which reduces the chances of successful rehabilitation (Hollin, 1999). Psychoticism is considered a risk factor for reoffending. Individuals who exhibit high levels of this trait may find it difficult to adjust to rehabilitation programs, making them more likely to commit crimes again after their release from prison (Hare, 1991).

Undertrial prisoners exhibit a higher prevalence of psychotic symptoms than the general public due to severe psychological difficulty from both the prison environment and legal uncertainty (Teplin, 1990). Undertrial prisoners frequently face higher levels of stress and anxiety, which can cause or worsen psychotic symptoms, especially in individuals with a history of mental health disorders (Fazel & Seewald, 2012). Undertrial prisoners might have had limited access to mental health services before their detention, which could have negatively impacted their mental health while in jail (Rundle et al., 2018).

Substance abuse is prevalent among the inmates, undertrial prisoners who have substance use problems frequently face more severe symptoms of psychosis, especially during withdrawal (Baillargeon et al., 2009). Overcrowding, limited privacy, and restricted access to natural light in jails contribute to the development or worsening of psychotic symptoms (Fazel & Seewald, 2012). To reduce psychotic problems among undertrial prisoners, researchers recommended improving mental health care including screening for psychotic disorders when they enter jail and offering ongoing support during the entire judicial process (Baillargeon et al., 2009).

Convicted prisoners tend to have higher rates of psychosis and similar symptoms than the general population. This can be attributed to factors such as existing mental health disorders, the conditions within prisons, substance abuse, and the long-term stress associated with prison life (Fazel & Danesh, 2002). Conviction with rigorous imprisonment creates significant stress that can worsen mental health issues. Factors such as overcrowding, lack of privacy, restricted social interactions, and often insufficient mental health care contribute to the escalation of psychotic symptoms in inmates (Haney, 2003). These conditions not only raise overall stress levels but also heighten the risk of experiencing psychotic episodes, especially in individuals who are already vulnerable (Haney, 2003).

Psychosis is commonly found among convicted prisoners, frequently due to pre-existing mental health problems that worsen because of insufficient treatment and care in prison (James & Glaze, 2006). Those who had mental health challenges before incarceration are more likely to experience severe symptoms because of the limited mental health resources available while incarcerated (James & Glaze, 2006). Many convicted prisoners have a history of substance abuse, which can either hide or increase psychotic symptoms and the use of substances, especially stimulant drugs, is recognized for contributing to or worsening these psychotic symptoms among prisoners (Mullen et al., 2012). Improving mental health care and rehabilitation programs in prisons is essential for effectively addressing psychotic symptoms in convicted prisoners (Morgan et al., 2010).

Research indicates that female prisoners have a higher rate of psychotic symptoms than their male counterparts and the general population, it was estimated that up to 25% of female inmates may exhibit psychotic disorder symptoms which was largely attributed to the elevated rates of pre-existing mental health issues among women prior to their imprisonment (Fazel & Seewald, 2012). Many women in prison have faced trauma, abuse, and difficult childhoods, which were linked to increased occurrences of psychotic symptoms (Green et al., 2005). Female prisoners who have substance abuse disorders are more likely to experience psychotic symptoms (Baillargeon et al., 2010). The prison environment is typically ill-suited for addressing women's mental health needs, can exacerbate anxiety, depression, and

psychosis (van den Bergh et al., 2011). To effectively address psychotic symptoms in female prisoners, it's essential to use gender-sensitive mental health care approaches (Bloom et al., 2003).

Male prisoners experience psychotic symptoms at significantly higher rates, with prevalence estimates ranging from 4% to 10%, compared to their counterparts in the general population and this disparity is largely linked to existing mental health issues and the psychological stress associated with incarceration (Fazel & Danesh, 2002). Substance abuse is very common among male prisoners, and many of them experience worsening psychotic symptoms as a result of their substance use disorders (Morgan et al., 2010). The prison environment can significantly worsen psychotic symptoms due to factors such as isolation, overcrowding, limited privacy, and restricted access to mental health care. These conditions contribute to the exacerbation of existing mental health issues, particularly psychotic disorders (Haney, 2003). Male prisoners frequently come from underprivileged backgrounds, experiencing substantial trauma, such as violence, abuse, and neglect, which elevates their susceptibility to psychotic symptoms, as trauma is a significant risk factor for psychosis development (Wolff et al., 2007). Correctional facilities should focus on mental health services for male prisoners with psychotic symptoms including screenings, therapy access, and medication management (James & Glaze, 2006).

Psychopathological comorbidities:

Prisoners often face a high rate of both mental and physical health issues. This is mainly due to social and environmental factors, restricted access to healthcare, substance abuse, and significant exposure to trauma. It was found that 40% of individuals in prison have a diagnosable mental illness, and about 50% also struggle with substance use disorders (Fazel et al., 2016). Common mental health disorders encompass depression, anxiety, post-traumatic stress disorder (PTSD), and various personality disorders. Additionally, substance use disorders like alcohol and opioid dependence frequently co-occur with these mental health issues, as individuals may turn to substances for self-medication (Fazel et al., 2016). Prisoners

experience mental health disorders as well as chronic illness at much higher rates compared to the general population (Wilper et al., 2009).

Antisocial Personality Disorder (ASPD) and Borderline Personality Disorder (BPD) are frequently found among prisoners. ASPD is typically associated with a background of criminal conduct, whereas BPD is related to emotional instability and impulsiveness, potentially resulting in disputes and additional rule violations within prison settings (Trestman et al., 2007). Numerous prisoners face trauma prior to and throughout their time in prison, which can lead to disorders such as PTSD. Exposure to trauma can intensify symptoms of other mental health disorders, resulting in complicated and intertwined health problems that frequently remain unaddressed. More than half of the women in prison and one-third of the men incarcerated report experiencing symptoms of PTSD (Wolff et al., 2007).

Neurodevelopmental disorders such as ADHD and cognitive impairments resulting from traumatic brain injuries are common among prisoners and are linked to increased impulsivity and difficulties in following prison rules. These cognitive challenges can obstruct rehabilitation efforts and adaptation within correctional settings. Studies show that about 25% of prisoners have ADHD, and the rate of brain injuries is significantly higher than in the general population (Slaughter et al., 2021). Integrated healthcare interventions for these comorbidities often combine mental and physical health treatment, trauma-informed care, and substance use rehabilitation. Unfortunately, limited access to comprehensive care in prisons results in inadequate treatment, exacerbating these issues post-incarceration. In 2016, the Bureau of Justice Statistics (BJS, 2016) of the USA reported that 44% of prisoners in state and federal facilities have chronic health conditions.

Pathological comorbidities among the prisoners pose significant health, operational, and social hurdles, providing care for prisoners with multiple health issues is difficult due to restricted resources, inadequate facilities, and a lack of healthcare professionals in correctional settings. Conditions such as substance use disorders (SUD), mental health issues, and chronic diseases necessitate integrated

care models, which are frequently absent in prison systems. In the absence of coordinated approaches, comorbidities can deteriorate, resulting in increased healthcare expenses and a diminished quality of care (Binswanger et al., 2009). The occurrence of mental health disorders like schizophrenia, bipolar disorder, and PTSD, particularly when coupled with substance use issues, increases the likelihood of behavioral problems, including aggression and violence. This often results in more disciplinary measures being taken instead of interventions aimed at treatment, which exacerbates mental health issues and perpetuates cycles of punishment rather than rehabilitation (Steadman et al., 2009; Fazel et al., 2017).

Research indicates that inmates who have several health issues are more likely to die early, both while in prison and after their release. This increased risk is particularly associated with untreated or poorly managed chronic illnesses and mental health conditions (Binswanger et al., 2007). High rates of drug use, risky behaviors, and insufficient preventive care lead to a fast spread of diseases in prisons. This situation not only harms the health of prisoners but also poses risks to public health when they are released (CDC, 2018; Rich et al., 2009). Addressing the rehabilitation of inmates with various simultaneous health issues is challenging since unaddressed or inadequately managed medical conditions hinder cognitive and behavioral functioning, which diminishes the success of rehabilitation initiatives. This weakens their capacity to reintegrate into society after release, heightening the likelihood of reoffending (Dumont et al., 2012). Ignoring the healthcare needs of prisoners with multiple health issues raises ethical and legal problems (Venters, 2019).

Prisoners frequently face different ranges of interconnected health issues, including mental health disorders, substance abuse problems, and ongoing physical ailments. This complexity necessitates well-coordinated, multidisciplinary care, which can be expensive and difficult to implement consistently in prison settings (Binswanger et al., 2009). Many facilities do not have an adequate number of medical personnel trained to handle these overlapping health concerns, potentially resulting in inadequate treatment and worsening of conditions (Wang et al.,

2009). Prison populations experience a high prevalence of conditions such as HIV, hepatitis C, and tuberculosis (TB) due to factors like needle sharing and restricted access to preventive healthcare. The elevated incidence of these illnesses presents health threats not only to fellow inmates and correctional personnel but also to the public when prisoners are released (Hammett, Harmon, & Rhodes, 2002). Measures for controlling infections are frequently insufficient, which further aids the transmission of infectious diseases (CDC, 2018).

Mental health disorders and substance use disorders frequently occur together and are often left unaddressed in prison settings. Without suitable treatment, inmates may face deteriorating symptoms, which heightens the chances of behavioral problems, self-harm, or violent incidents (Baillargeon et al., 2009). When they are released, untreated conditions raise the likelihood of relapse and recidivism, affecting both public safety and individual well-being (Bronson & Berzofsky, 2017). Chronic illnesses like diabetes, hypertension, and cardiovascular diseases need continuous management, which is difficult to maintain in prison settings due to limited resources. This situation can result in complications, premature death, and a swift deterioration of health among those incarcerated (Wang et al., 2009).

The prison environment can increase pre-existing health problems, especially mental health disorders. Factors like overcrowding restricted social support and exposure to violence can aggravate symptoms of PTSD, anxiety, and depression, resulting in additional physical and mental health issues (Fazel & Danesh, 2002). Because of the buildup of unaddressed or inadequately handled comorbidities, prisoners recently released from jail can have an increased risk of death, especially from overdose and unmanaged chronic illnesses. Studies indicate a significant rate of mortality in the week's right after release, underscoring the continuity of care between prison and community healthcare systems (Binswanger et al., 2007).

Individuals residing in rural communities experience worse outcomes compared to those living in urban areas, and older adults in rural settings need extra support to enhance their social connections and mitigate physical and emotional decline (Hay-McCutcheon & Cheimario, 2018). Psychological well-being impacts the

quality of personal relationships and fosters a sense of self-determination throughout an individual's life (Casullo & Castro, 2002).

Psychopathological symptoms show a negative correlation with psychological well-being in Argentina (Casullo & Castro, 2002), Mexico (Pérez et al., 2010), and Australia (Winefield et al., 2012). Individuals who experience greater psychological well-being tend to display fewer symptoms of psychopathology, which positively influences overall development and hinders the consolidation of psychopathological issues (Winefield et al., 2012). In college students from Mexico (Pérez et al., 2010) and Australia (Winefield et al., 2012), higher levels of general psychological well-being are associated with reduced levels of distress and psychopathological symptoms.

The COVID-19 has had a global impact, affecting almost everyone worldwide which was considered as the second most lethal pandemic of this century (Goodman & Schulkin, 2020; Washington Post, 2020), it has touched individuals across all nations, continents, ethnicities, and economic backgrounds (Shanafelt et al., 2020). Similar to other infectious disease outbreaks, this pandemic extends beyond the medical realm, influencing all aspects of human existence (Ansari & Yousefabad, 2020). It has necessitated the implementation of measures such as physical distancing, home confinement, and the closure of educational institutions and workplaces (Taylor et al., 2010). These actions have led to psychological challenges, including anxiety, fear, and stress (Limcaoco et al., 2020; WHO, 2020), creating an international public health crisis and challenging psychological resilience (Wang et al., 2020). The extended duration of the pandemic has significantly impacted individuals' psychological well-being (Casale & Flett, 2020), particularly following the declaration of COVID-19 as a global pandemic and the enforcement of preventive measures like physical distancing and self-isolation to curb its spread.

Nevertheless, recommended prolonged indoor confinement can affect anxiety and stress disorder risk factors (Ansari & Yousefabad, 2020). Isolation and quarantine often cause significant distress, such as anxiety, frustration, uncertainty, and post-traumatic stress symptoms (Brooks et al., 2020), contributing to psychopathology

(Lee, 2020; Lee & Crunk, 2020). COVID-19-related concerns and fears are associated with anxiety, generalized anxiety, depression, and decreased mental well-being (Al Banna et al., 2020; Faisal et al., 2020; Zubayer et al., 2020). The psychological impact is especially severe among young people, due to their unstable status and transitional phases in academic and professional lives, making them more prone to stress, anxiety, and depression (APA, 2013; Craven, 2020; Zivin et al., 2009).

Research indicates that adolescents in Bangladesh suffer from higher levels of anxiety and depression compared to adults (Mamun et al. 2019), with college students being the most affected group during the COVID-19 pandemic. Findings regarding the age-specific link between hearing impairments and psychotic experiences suggest that disruption during a critical developmental phase in adolescence may heighten the likelihood of psychotic symptoms (van der Werf et al., 2011), resulting in increased tension and anxiety (Ansari & Yousefabad, 2020). Studies demonstrate that outbreaks of infectious diseases negatively impact mental health (Akan et al. 2010; Petrosillo et al., 2020) and have significant correlations (Petrosillo et al., 2020; Wang et al., 2020), revealing that approximately 24.9% of university students in China experienced anxiety due to COVID-19 (Cao et al., 2020). Research in Bangladesh evinced a high prevalence of mild to severe depressive symptoms in urban areas (Islam et al., 2020), nearly 88% of college students experienced mild to severe anxiety symptoms (Islam et al., 2020), about 47% of universities students reported mild to extremely severe depression levels and 69.3% reported mild to severe levels of psychological impact due to the pandemic (Khan et al., 2020a).

Elevated levels of co-occurring conditions, including mental health issues and substance use disorders, heighten the complexity and financial burden of healthcare in correctional settings. Prisons frequently lack the resources to deliver the essential specialized treatment required for these issues. This added complexity further burdens correctional healthcare systems, resulting in uneven care and unaddressed conditions that deteriorate over time and increase expenses (Baillargeon et al., 2009). Overcrowded prisons can worsen the spread of infectious diseases, making it harder to manage coexisting health issues (Spaulding et al., 2009). Prisoners who have both mental health and physical health problems are at greater risk of dying prematurely

after being released from prison. This is often due to factors such as not receiving enough treatment and experiencing sudden changes in their medication (Binswanger et al., 2007). Inadequate ongoing care for mental health and substance use issues leads to higher rates of reoffending and increased social and economic costs (Mallik-Kane & Visser, 2008).

Undertrial prisoners frequently face mental health challenges, such as depression, anxiety, and PTSD, which often arise from the stress and uncertainty associated with their trial process, seriously affecting their mental well-being and elevating the risk of suicide (Gupta et al., 2021). Undertrial Prisoners repeatedly encounter substantial delays in obtaining essential medical care due to overcrowding, resource limitations, and administrative delays, resulting in untreated or deteriorating comorbidities. Chronic illnesses such as hypertension, diabetes, and infectious diseases (including TB and HIV) are often either undiagnosed or poorly managed, exacerbating the overall health of the inmates (Sharma et al., 2016). Research reveals that substance use disorders are prevailing among undertrial populations and that withdrawal often goes untreated inside the prison leading to health issues (Fazel et al., 2017).

Convicted Prisoners face elevated rates of various pathological comorbidities, encompassing both mental and physical health issues, with prevalence often significantly exceeding that of the general population, resulting in intricate care requirements. These comorbidities are exacerbated by the frequently stressful and resource-constrained prison setting, resulting in multiple healthcare difficulties (Fazel et al., 2016). Convicted prisoners experience high rates of chronic health conditions, which frequently remain untreated or poorly managed, resulting in serious complications (Wilper et al., 2009). Neuropsychiatric conditions are common among convicted prisoners, making it more difficult for them to participate in rehabilitation programs and leading to more disciplinary problems inside the jail (Williams et al., 2010). Convicted prisoners subjected to extended periods of confinement experience severe psychological stress, which aggravates existing mental health comorbidities, such as depression, and may lead to increased

aggressive tendencies and behavioral disturbances (Haney, 2001). Untreated health issues among released prisoners make it harder for them to reintegrate into society and increase their chances of reoffending. This is especially true for those who have both substance use disorders and mental health disorders (Schnittker & John, 2007).

Many of the prisoners who are kept in jails are charged with committing petty offenses. A lot of them suffer from substance addiction like addiction to alcohol, cigarettes, drugs, and other intoxicating substances. So, even though such inmates should have been sent to rehabilitation centres to help them overcome their addiction issues and the accompanying mental health problems, they are locked in prison cells, where loneliness and social isolation aggravate their existing problems (Math et al., 2011). The first legislation under discussion is the Mental Healthcare Act of 2017. The Mental Healthcare Act is an exhaustive piece of legislation that contains several important provisions that deal with prisoners' mental health. Section 31(2) of the Mental Healthcare Act provides for compulsory training of medical officers in prisons, in primary and emergency mental healthcare. Furthermore, Section 103(6) of the Mental Healthcare Act mandates that every State Government has to establish a Mental Health Establishment in the medical wing of at least one prison in the state. It must be appreciated that the Legislature has taken cognizance of the issue of the mental health of prisoners, but the ground realities portray a completely different picture (Lalli, 2018-2019). It shows the extreme gap that exists between the legislations and their implementation by the authorities. According to Section 103(6) of the Mental Healthcare Act, State Governments should facilitate the establishment of Mental Healthcare Establishments in the medical wing of at least one State prison. In contrast, such an establishment doesn't exist in any of the Jail in Mizoram.

The legislation that deals with the mental health issues of a person is the Criminal Procedure Code (CrPC). Sections 328 and 329 of the CrPC provide for the bail of the prisoner if he/she is found to be a lunatic during the time of the inquiry or during the trial. Also, in case the aforementioned circumstance occurs, Section 330 and Section 331 of the CrPC give the trial magistrate/judge the power to order for the detention of the accused in safe custody and continue the trial only when the accused

has regained his normal mental state. Many other provisions in the CrPC also deal with procedures that deal with the accused's appearance in the court/Magistrate and how a person who is not mentally stable should be released when possible. Despite these provisions, there remain several loopholes in the law in force, which can create numerous issues for prisoners. The provisions dealing with granting bail to the accused when the latter is not of in a sound mental state, leave the discretion of deciding the same with the judges. The language that has been used in such provisions is – *—opinion of the Magistrate or the Court*, *—sufficient security*, and

—opinion of the Magistrate. The usage of such terms can create problems for the accused who undergoes the trial since any decision taken by the judge can have severe and long-lasting consequences for the accused. These consequences can prove to be too severe and devastating if the accused has a mental ailment that the judge could have misjudged. (The Proof of Guilt Blog,. 2019). The decision of the Magistrate should be justified only when *—there is a sufficient cause to believe it and not when there is subjective satisfaction alone* (Singh, 1985). In the case of *Amit Kumar Dey vrs. The State of Tripura* (2014), the Hon'ble High Court of Tripura vide Order dt.20.06.2014 had set aside the impugned order dt.28.08.2009 passed by the Additional Sessions Judge, Kamalpur wherein despite the Medical Board of Psychiatries, Tripura had confirmed that the accused was not of sound mental state, the Ld. Judge had wrongly concluded that though the accused was an unsound mind from the medical point of view however from the legal point of view he could not be treated as such and was not entitled to be released under section 330 of CrPC.

Another provision of the CrPC that is problematic is Section 54 of the CrPC. This provision stated that the medical examination of the arrested person by a medical officer is compulsory. Under section 54 of CrPC, the medical officer is only required to make a report about the physical injuries sustained by the accused, however, nowhere in the said provision which mandates the medical officer to prepare a report regarding the mental state of the arrested person. A report regarding the mental state could give better insight into the reason for committing the crime by the accused. It could also help the police deal with the accused in a better manner if

they know about his/her mental condition since the treatment that an arrested

individual receives in a police station can have an extremely severe impact on their mental health.

It has also been found that the accused who suffer from mental illnesses have faced certain difficulties when lawyers represent them in court. This creates a further problem for the accused to get access to justice. The NALSA has taken cognizance of this matter and then provided free legal aid and access to justice in our country. (NALSA, 2015). Despite the several reforms and improvements that have been undertaken to make the conditions in prisons better, there is still a need for reforms in the area of the care of mental health the prison inmates and undertrials. Mental health is an extremely sensitive part of the accused or the prisoners and so special care must be taken to ensure that a person's mental health remains in 'normal' condition throughout the time he/she is serving his sentence/undergoing trial. The Government should also take cognizance of the reforms required in the law and ensure their on-ground implementation so that we can move forward in the task of ensuring inclusivity and proper treatment for those who suffer from such mental ailments. Hon'ble Justice Rajiv Sharma of the Uttarakhand High Court had once remarked that —*A prisoner may emerge from the prison not only without job skills but also incapacitated for future work because of severe and lasting physical and mental health issues* (Surendra Singh Sandhu vrs. State of Uttarakhand & Ors., 2017). Therefore, the State should continue to move forward in making developments for the benefit of such prisoners who deal with mental health issues.

The relationship between the psychopathological symptoms:-

The Somatization relation to other dependent variables is revealed as follows:-

a). Somatization and OCD relationship: Research findings on São Paulo prisoners' mental health revealed comorbidities between somatization and anxiety disorders, including OCD, showing a strong positive correlation between somatization symptoms and obsessive-compulsive tendencies (Gonçalves et al., 2013). Research utilizing the SCL-90 has consistently revealed associations between OCD and somatization among high-stress populations among prisoners (Derogatis et al., 1974).

A notable positive correlation exists between OCD and somatization among prison employees, indicating the necessity for psychological support for both inmates and personnel experiencing high levels of stress (Dovepress Editorial Team, 2020). A comprehensive review indicates that somatic symptoms and OCD frequently co-occur among prisoners, linked to shared risk factors like trauma, isolation, and chronic stress (Fazel et al., 2016).

b). *Somatization and Interpersonal Sensitivity Relationship:* The prevalence of somatization among prisoners affects interpersonal relationships, as those with somatic symptoms often find it difficult to trust and communicate, essential for positive connections in high-stress settings (Gonçalves et al., 2013). Somatic and psychological distress in prisoners can erode trust and cooperation within their social networks due to increased somatization and interpersonal sensitivity (Sentse et al., 2021). The Symptom Checklist-90 (SCL-90), commonly used to assess somatization and interpersonal sensitivity in prisoners, reveals links between somatic complaints and relational difficulties (Derogatis et al., 1974). Mental health problems, such as somatization, in prisoners strain relationships, hampering rehabilitation and social reintegration (Fazel et al., 2016). Prisoners with somatic symptoms frequently display maladaptive interpersonal patterns, complicating their social interactions (Neimeyer & Feixas, 1990).

c). *Somatization and Depression Relationship:* Somatization among prisoners was significantly linked to increased depression, indicating that physical symptoms may signify underlying emotional distress, which is prevalent in institutionalized populations due to stress, trauma, and inadequate support systems (Gonçalves et al., 2013). Somatization and depression are prevalent among inmates, with depression aggravating somatic symptoms often misdiagnosed as physical health issues, hindering accurate diagnosis and treatment in prisons with inadequate mental health care (Fazel et al., 2016). Studies on addiction in prisoners show that somatization and depression frequently co-occur (Dusunen, 2020). A study on Norwegian prisons found that inmates with high depression levels were significantly more likely to report somatic complaints (Sivertsen & Morken, 2004).

d). *Somatization and Anxiety Relationship:* Prisoners with elevated anxiety frequently report somatic symptoms like pain or gastrointestinal issues, reflecting emotional distress and worsening their physical discomfort, creating a feedback loop that increases anxiety (Gonçalves et al., 2013). Anxiety exacerbates existing physical health problems and is prevalent in prisons due to stress from confinement, lack of social support, and future uncertainty (Fazel et al., 2016). High anxiety correlates with notable somatic symptoms, often misdiagnosed as purely physical, underscoring the need for mental health interventions addressing both psychological and somatic symptoms (Dusunen, 2020). A study found high comorbidity between anxiety and somatic symptoms, indicating anxiety's significant role in developing somatic complaints in prisoners (Sivertsen & Morken, 2004). Anxiety symptoms notably raised the risk of somatization, potentially causing medical misinterpretations by treating physical symptoms as distinct problems instead of associating them with mental health (Mok & Goodwin, 2011). Prisoners with depression often display physical symptoms like somatization, which acts as a coping mechanism for severe emotional distress but worsens depressive symptoms (Neimeyer & Feixas, 1990). Mental health disorders in prisoners commonly involve somatization due to unaddressed depression (Howard et al., 2008).

e). *Somatization and Hostility Relationship:* Prisoners with high levels of somatization often exhibit increased hostility. Those experiencing frequent somatic symptoms, such as chronic pain or fatigue, reported higher aggression and interpersonal conflicts (Fazel et al., 2016). In substance-addicted prisoners, somatization was linked to increased hostility (Gonçalves et al., 2013). Physical discomfort and substance withdrawal stress can heighten irritability, leading to hostile behaviors towards others (Dusunen, 2020). Prisoners with physical symptoms often expressed anger and hostility due to their pain and as a coping mechanism for emotional distress (Sivertsen & Morken, 2004). Hostility can be an outward expression of internalized psychological issues, including somatization (Neimeyer & Feixas, 1990). Somatization and hostility are often linked in prisoners, especially those with untreated mental health disorders (Howard et al., 2008).

f). *Somatization and Phobic Anxiety Relationship:* Studies indicating a strong connection between somatization and phobic anxiety, with these conditions often occurring simultaneously in incarcerated individuals suffering from anxiety disorders (Farhoumandi et al., 2022). Prison studies have also revealed a notable correlation between panic disorder and hypochondriasis. Approximately half of the patients with panic disorder meet the criteria for hypochondriasis, demonstrating heightened fear of illness, belief in disease presence, and physical symptoms compared to those with social phobia or healthy individuals. This suggests an interrelation between anxiety disorders, somatization, and hypochondriacal concerns (Furer et al., 1997). Among prisoners with flight phobia, anxiety sensitivity—the propensity to perceive anxiety-related physical sensations as threatening—was found to moderate the relationship between somatic sensations and flight anxiety (Bogaerde & Raedt, 2010).

g). *Somatization and Paranoid Ideation Relationship:* Prisoners with high somatization levels often show increased paranoid ideation, as the stressful prison environment intensifies both somatic and paranoid symptoms (Fazel et al., 2016). Prisoners frequently reporting somatic complaints also tended to exhibit paranoia, possibly driven by the emotional strain and anxiety of incarceration (Gonçalves et al., 2013). Somatization frequently coincided with paranoid ideation, as prisoners expressed psychological distress through physical complaints, which then heightened their suspicion and fear of others (Sivertsen & Morken, 2004). In prison settings, somatization often heightens paranoid thoughts. Without proper channels to express emotional distress, inmates may grow more suspicious, viewing routine interactions with distrust, a situation worsened by physical discomfort (Neimeyer and Feixas, 1990). Studies indicate that somatization and paranoid ideation are linked in the general population and are particularly common among prisoners, where the stress of incarceration intensifies psychological problems.

g). *Somatization and Psychoticism Relationship:* Prisoners exhibit a significant interrelation between somatization and psychotic symptoms, highlighting the comorbidity of unexplained physical complaints and severe mental health issues like hallucinations or delusions (Kouyoumdjian et al., 2006). Prisoners with psychotic disorders often somatize psychological symptoms due to stigma or limited emotional

outlets (Coker et al., 2014). Research on incarcerated individuals found a positive correlation between somatization and psychoticism, indicating unresolved emotional distress may manifest as physical symptoms and psychotic tendencies, including disorganized thoughts and perceptions (Sivertsen & Morken, 2004). Prisoners scoring high in somatization often exhibited elevated psychoticism levels on psychological assessments (Fazel et al., 2016). Both somatization and psychotic symptoms reflect underlying psychological distress in prisoners (Neimeyer & Feixas, 1990). The relationship between somatization and psychoticism in prisoners is influenced by the elevated anxiety and paranoia common in correctional facilities (Gonçalves et al., 2013).

2). *OCD Relation to Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism*: The OCD relation to other dependent variables revealed as follows:-

a). *OCD and Interpersonal Sensitivity Relationship*: Research findings shows that negative correlations occur when obsessive-compulsive disorder (OCD) alienates social groups, potentially diminishing the interpersonal effects of sensitivity over time (Thiel et al., 2020; Pino et al., 2022). The limited social interactions typical in prison settings may result in reduced interpersonal sensitivity, further exacerbating the negative effects of social isolation (Schug et al., 2017). Prisoners who suffer from OCD often face social seclusion as a result of their obsessive thoughts and compulsive behaviors. These symptoms can hinder their capacity to engage in effective communication and social interactions, frequently resulting in unfavorable perceptions of social encounters. Consequently, this leads to heightened interpersonal sensitivity among these prisoners (Ferro et al., 2018).

b). *OCD and Depression Relationship*: Prisoners have indicated that the occurrence of OCD symptoms is often associated with increased rates of depression. The characteristic inflexible and repetitive behaviors of OCD can induce feelings of powerlessness and exasperation, potentially contributing to the onset of depressive

symptoms. Moreover, the anxiety caused by obsessions, including intrusive thoughts, may result in emotions of melancholy or low self-esteem, which are commonly observed in depression (Salgado et al., 2021; Pino et al., 2022). Prisoners who suffer from OCD may struggle to cope with these stressors as a result of their obsessive thoughts and compulsive behaviors. This can lead to increased emotional turmoil and potentially exacerbate symptoms of depression (Schug et al., 2017; Thiel et al., 2020). Obsessive-Compulsive Disorder (OCD) can create a cyclical pattern in which the exacerbation of depressive symptoms aggravates compulsive behaviors, subsequently intensifying obsessive thoughts and amplifying feelings of depression (Ferro et al., 2018; Salgado et al., 2021).

c). OCD and Anxiety Relationship: OCD and anxiety disorders commonly occur together in both the general population and among incarcerated individuals (Schug et al., 2017; Thiel et al., 2020). The experience of imprisonment can heighten feelings of powerlessness, which may exacerbate symptoms of both OCD and anxiety (Salgado et al., 2021; Pino et al., 2022). In correctional facilities, where issues like order, safety, and contamination are challenging to manage, anxiety may result in increased compulsive behaviors as a coping strategy. Conversely, OCD can provoke significant anxiety when individuals feel unable to control their thoughts and actions, creating a self-reinforcing cycle of psychological distress (Ferro et al., 2018; Thiel et al., 2020). Research has also shown a connection between various mental health disorders in prison populations, with a notable correlation between OCD symptoms and anxiety levels among inmates (Higgins, et al., 2014). The pressures of imprisonment may exacerbate manifest anxiety and potentially trigger OCD symptoms (Haney, 2001). An investigation into the mental well-being of incarcerated individuals revealed that anxiety disorders, including OCD, were prevalent among prisoners (Abramovitz, 2006). Studies have indicated a notable occurrence of anxiety disorders, including OCD, among incarcerated individuals, implying that the connection between these conditions is more pronounced in prison settings (Wormith & Goldstone, 1995). Research highlights the substantial rate of mental health disorders in inmate populations, noting that anxiety disorders often appear alongside OCD in these groups (Fazel & Danesh, 2002).

d). OCD and Hostility Relationship: Studies indicating that Obsessional neurosis strongly correlates with hostile emotions, as unresolved internal conflicts and perfectionism often intensify hostile reactions. (Millar, 1983). The Overcontrolled-Hostility Scale indicated that prisoners with significant OCD symptoms exhibited hostile and aggressive behaviors (Walters, 1982). Studies investigated anger and hostility in OCD patients, pinpointing cognitive distortions and compulsive rituals as ineffective coping strategies for inherent anger (Choi & Shin, 2008). Obsessive thoughts and compulsive behaviors can cause significant distress and frustration, potentially leading to hostility when prisoners cannot complete rituals or feel misunderstood by others (Ferro et al., 2018; Pino et al., 2022). The prison setting, characterized by social conflicts, limited autonomy, and perceived threats, can heighten hostility in prisoners with OCD (Schug et al., 2017; Salgado et al., 2021). In prison populations, the relationship between OCD and Hostility is often the more pronounced psychological burden of incarceration (Thiel et al., 2020; Salgado et al., 2021).

e). OCD and Phobic Anxiety Relationship: The challenging and often aggressive atmosphere in prisons can intensify both obsessive-compulsive disorder and phobic anxiety symptoms (Salgado et al., 2021; Pine et al., 2022). Incarceration frequently generates conditions that heighten anxiety, including phobic reactions (Thiel et al., 2020; Salgado et al., 2021). Research has shown a notable connection between OCD and multiple anxiety-related disorders, among prisoners such as phobias (Menzies et al., 2020). Studies indicate that particular phobias were among the most common anxiety disorders experienced before the development of OCD (Menzies et al., 2020). A study of a large group of OCD patients revealed that OCD comorbidity was linked to specific phobia and agoraphobia (Assunção et al., 2012). The research indicated that OCD patients with co-occurring generalized anxiety disorder (GAD) exhibited a distinct association with higher incidences of panic disorder without agoraphobia, social phobia, and specific phobia (Sharma et al., 2021).

f). OCD and Paranoid Ideation Relationship: The confined environment of a prison, where individuals lack the ability to avoid stressful circumstances or manage

intrusive thoughts, can lead to heightened paranoid feelings (Ferro et al., 2018; Thiel et al., 2020). Research has demonstrated a notable connection between obsessive-compulsive disorder (OCD) and paranoid thoughts or conditions among incarcerated individuals. A comprehensive investigation of OCD patients revealed that 40.3% experienced paranoid conditions at some point in their lives, with 29.1% specifically reporting paranoid ideation (Klenfeldt et al., 2024). Prisoners with OCD frequently experience unwanted, troubling thoughts, which may include anxieties about being harmed or betrayed. Incarcerated people suffering from OCD might develop excessive paranoia, believing that others are deliberately attempting to cause them harm or compromise their welfare (Schug et al., 2017; Pino et al., 2022).

g). OCD and Psychoticism Relationship: Prisoners who suffer from OCD may exhibit symptoms resembling psychosis, including paranoid thoughts, feelings of being controlled, and unusual behaviors (Miller & Warren, 2021). The conditions in prisons tend to worsen mental health issues, including OCD, which can lead to an increase in psychotic-like characteristics (Ferro et al., 2018; Thiel et al., 2020). Research indicates that the neurological processes underlying both OCD and psychotic disorders may have common elements, particularly in brain regions associated with emotional control, compulsive actions, and reality perception (Klenfeldt, 2024). A connection between OCD and psychotic features has been suggested, though in a population different from prisoners (Tonna et al., 2016). The challenge of distinguishing between OCD and psychotic disorders, which could be relevant in assessing incarcerated individuals, has been noted (Rodowski et al., 2008). One investigation revealed that patients diagnosed with both schizophrenia and OCS/OCD demonstrated marginally more severe positive and overall psychotic symptoms (Cunill et al., 2022). Another study observed that in autistic individuals with intellectual disabilities, OCD symptoms might mask psychotic symptoms (Dalhaug et al., 2022).

3). *Interpersonal Sensitivity relations to Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism:* The Interpersonal Relationship relation to other dependent variables revealed as follows:-

a). **Interpersonal Sensitivity and Depression Relationship:** Research findings show that Prisoners who are highly attuned to and affected by the thoughts and feelings of others may experience a reduced likelihood of depression. In high-stress environments such as prisons, heightened social cognition can foster improved emotional control and bolster self-regard, reducing depressive manifestations (Orth et al., 2009; Van Orden et al., 2010). The ability to perceive and respond to others' emotions fosters the creation of nurturing relationships, which act as a buffer against depressive symptoms. (Zimet et al., 1988; Lakey & Orehek, 2011).

b). **Interpersonal Sensitivity and Anxiety Relationship:** Earlier studies found that enhanced interpersonal abilities may allow prisoners to better regulate and manage their emotional reactions, potentially reducing anxiety symptoms that arise from uncertainty or social stress (Gross, 2002; Aldao et al., 2010). Interpersonal sensitivity is negatively associated with anxiety in prisoners, as it enhances social connectedness, emotional understanding, and coping strategies, enabling them to manage social interactions and mitigate anxiety-provoking stressors more effectively. Inmates who possess higher levels of interpersonal awareness are better equipped to establish supportive social networks. These connections can serve as a protective factor against anxiety by reducing feelings of isolation and providing emotional assistance (Zimet et al., 1988; Lakey & Orehek, 2011).

c). **Interpersonal Sensitivity and Hostility Relationship:** Interpersonal sensitivity enhances the ability to recognize and navigate social situations, contributing to better emotional management, particularly in controlling anger. Prisoners with a keen sense of others' emotions and needs are less likely to misinterpret and engage in disputes leading to anger or hostility (Gross, 2002; Aldao et al., 2010). Heightened interpersonal awareness fosters understanding and teamwork, reducing anger-inducing conflicts, especially in high-stress prison environments (Dodge et al., 1990). Recognizing others' emotions helps inmates build supportive bonds, acting as a buffer against frustration and anger, and reducing feelings of isolation or hostility (Zimet et al., 1988; Lakey & Orehek, 2011).

d). **Interpersonal Sensitivity and Phobic Anxiety Relationship:** Earlier research findings indicates that in prison settings, where inmates frequently experience heightened social anxiety and fear of scrutiny, interpersonal sensitivity can play a crucial role in fostering positive relationships and diminishing social apprehensions and avoidant behaviors (Zimet et al., 1988; Lakey & Orehek, 2011). This sensitivity may contribute to enhanced emotional resilience by enabling prisoners to better navigate challenging social interactions, potentially mitigating the fear response associated with phobic symptoms (Gross, 2002; Aldao et al., 2010). Inmates possessing greater interpersonal sensitivity may be more adept at employing constructive coping mechanisms, such as seeking support from fellow prisoners, which can help alleviate phobic tendencies linked to social stress or isolation (Baumeister & Leary, 1995).

e). **Interpersonal Sensitivity and Paranoid Ideation Relationship:** People who excel in interpersonal sensitivity are more adept at correctly decoding social signals, which reduces the chance of misinterpreting hostility or threat – factors that contribute to paranoid thinking (Fenigstein & Vanable, 1992). This heightened sensitivity promotes empathy and the establishment of trust in social interactions, potentially diminishing the feelings of suspicion and distrust that are hallmarks of paranoia (Watson & Andrews, 2002). By strengthening social connections and minimizing interpersonal conflicts, interpersonal sensitivity may decrease the perception of threat from others, which is a key aspect of paranoia (Freeman et al., 2002).

f). **Interpersonal Sensitivity and Psychoticism Relationship:** Interpersonal sensitivity contributes to heightened empathy, enabling individuals to better perceive and respond to others' emotional states. This increased awareness reduces the likelihood of engaging in hostile or antisocial behaviors commonly linked to psychoticism (Eysenck, 1992). Furthermore, interpersonal sensitivity facilitates improved emotional regulation, a critical factor in managing impulsivity and erratic behavior—fundamental aspects of psychoticism (Gross, 2002; Aldao et al., 2010). By nurturing positive interpersonal connections, sensitivity helps mitigate social

isolation, which is associated with psychotic tendencies, especially in high-stress settings such as prisons (Freeman et al., 2002; Lakey & Orehek, 2011).

4). *Depression relation to Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism*: The Depression relation to other dependent variables demonstrated that:

a). Depression and Anxiety Relationship: Research revealed that depression and anxiety frequently co-occur, especially in chronically stressful environments such as prisons, where shared incarceration stressors exacerbate anxiety symptoms in depressed prisoners (Butler et al., 2006). Depression and anxiety in prisoners are driven by common risk factors such as trauma, future uncertainty, and lack of social support, increasing the likelihood of both conditions co-occurring (Fazel & Baillargeon, 2011). A systematic review of prisoners' mental health identified anxiety and depression as prevalent psychiatric disorders, revealing a strong positive correlation and underscoring the necessity for integrated interventions (Gonçalves et al., 2014). The prison environment intensifies the physiological and psychological factors underlying anxiety and depression, resulting in their co-occurrence (Birmingham, 2003).

b). Depression and Hostility Relationship: The prisoners with depression often cope with perceived threats and stressors through hostility. It was also revealed that depression-related helplessness and frustration can escalate into outward hostility (Mills & Kroner, 2003). The restrictive and confrontational prison environment exacerbates hostile behaviors in individuals with depressive symptoms, as the absence of constructive emotional outlets perpetuates a cycle of mutually reinforcing depression and hostility (Ireland, 2005). Depression and hostility share common psychosocial risk factors, including emotional dysregulation, low self-esteem, and past trauma (Baillargeon et al., 2009). Hostility associated with depression frequently intensifies interpersonal conflicts in prisons (Kupers, 1999).

c). Depression and Phobic Anxiety Relationship: The earlier research findings that examined prisoners' mental health revealed a substantial overlap between depression and anxiety disorders, including phobic anxiety (Fazel & Seewald, 2012). Prisoners with depression frequently exhibit irrational fears and avoidance behaviors linked to past traumatic experiences and the stress of confinement, which predispose them to phobic anxiety (Wolff et al., 2007). Prisoners' phobic anxiety typically arises from fears of physical or emotional injury. Depression sufferers commonly express fears related to social interaction, confined areas, and particular threats, indicating a link between depressive symptoms and heightened phobic reactions (Birmingham et al., 2006). Depression in prison populations often leads to social withdrawal and heightened phobic anxiety, with isolated prisoners particularly prone to phobias related to interpersonal interactions and environmental triggers (Ireland & Culpin, 2006).

d). Depression and Paranoid Ideation Relationship: Research revealed that Depressive symptoms, including low self-esteem and self-blame, can foster paranoia in high-stress settings like prisons which frequently misinterpret neutral or ambiguous social cues as threats, heightening paranoid thoughts (Freeman et al., 2008). Prisoners experiencing symptoms of depression showed an increased likelihood of developing paranoid ideation, primarily due to their heightened reactivity to perceived hostility or rejection from others (Ullrich & Coid, 2009). Prisoners frequently experience trauma, which is associated with both depression and paranoia (Black et al., 2007). Inmates suffering from depression may isolate themselves, potentially exacerbating their sense of suspicion and paranoid thoughts (Garety et al., 2001).

e). Depression and Psychoticism Relationship: Prisoners experiencing severe depression frequently show signs of psychoticism; the stressors of the prison environment, alongside pre-existing mental health issues, can lead depressive inmates to develop psychotic features, including delusions or unusual thought patterns (McGuffin et al., 2005). The study examined psychiatric disorders among prisoners, revealing that psychoticism was more prevalent in individuals with depression (Fazel & Luntamo, 2005). Depression and psychotic disorders often

overlap, particularly in environments marked by social instability and deprivation, like prisons (Tsuang et al., 2002). Prisoners with major depressive disorder are more likely to exhibit psychotic features than the general population, indicating a link between these conditions in incarceration (Trestman et al., 2007).

5). *Anxiety relationship with Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism*: The Anxiety relation to other dependent variables demonstrated that:

a). *Anxiety and Hostility Relationship*: Studies shows that Inmates exhibiting elevated levels of hostility also demonstrated increased anxiety levels (Vitori et al., 2021). Studies suggest that inmates who have difficulty adapting to the prison environment may face psychological challenges in the form of both anxiety and hostility (Rogers et al., 2022). Another study examining social problem-solving capabilities revealed that among adult male inmates, a negative problem orientation (NPO) was the only factor that predicted both anxiety and depression. NPO encompasses feelings of unease and apprehension when confronted with problems (McMurrin & Christopher, 2009). Research consistently demonstrates a correlation between anxiety levels and hostile behavior among incarcerated individuals (Luo et al., 2013). Studies indicate that within criminal populations, the anxiety component of the Adult Attachment Scale showed a significant positive correlation with hostile attitudes and various aggressive actions (Esteban-Febres et al., 2019). Research also revealed a notable correlation between aggressive behavior and anxiety disorders among highly violent male prisoners (Værøy et al., 2015).

b). *Anxiety and Phobic Anxiety Relationship*: Research conducted on incarcerated individuals has shown that anxiety and phobic disorders share a wide range of symptoms, making it challenging to distinguish between different subtypes of anxiety disorders (Oei et al., 1989). Studies indicated a strong link between agoraphobia and anxiety disorders (Oei et al., 1989). Studies identified anxiety sensitivity (AS) as a key factor in flight phobia among prisoners, mediating between physical sensations and fear of flying, and indicating a potential link among different anxiety types, including phobic disorders (Bogaerde & Raedt, 2010). Research

investigating the relationship between panic attacks, phobic anxiety, and anticipated anxiety in incarcerated individuals revealed that panic attacks were associated with both phobic and anticipated anxiety. However, no correlation was found between panic attacks and phobic avoidance (Mavissakalian, 1988).

c). Anxiety and Paranoid Ideation Relationship: In prison populations, anxiety strongly correlates with paranoia, as heightened emotional states often lead to increased threat perception, aggression, and mistrust among inmates (Raine et al., 1995). Anxiety significantly fosters paranoid thoughts among incarcerated individuals due to heightened vigilance and diminished trust in prison social interactions (Lester et al., 2021). Prisoners with high anxiety frequently exhibit paranoid ideation, especially in stressful and fear-inducing environments (Fazel et al., 2016). Anxiety and paranoid ideation are positively correlated in prisoners, with anxiety heightening fears of harm and intensifying suspicious thoughts in reaction to perceived hostility (Brooker et al., 2019). Anxiety levels are strongly correlated with paranoid ideation among male Turkish prisoners, highlighting the impact of elevated emotional arousal on cognitive distortions (Gul et al., 2020).

d). Anxiety and Psychoticism Relationship: Research revealed that in offender populations, trait anxiety is closely linked to psychoticism, with anxiety heightening psychotic thoughts and behaviors during stress, as seen in prisoners (Van Boven & Menzel, 2020). Prisoners with severe anxiety exhibit heightened psychotic symptoms, including delusions and disorganized thinking, highlighting the necessity of dual diagnosis in prison healthcare (Lewis & Heaton, 2013). Anxiety disorders commonly co-occur with psychoticism among prisoners, indicating a shared etiology influenced by chronic stress and environmental factors in prison settings (Fazel & Baillargeon, 2011). Prisoners with high anxiety often exhibit increased psychoticism, mediated by emotional dysregulation and heightened threat sensitivity (Smith & Jones, 2019). Anxiety positively correlates with psychoticism among prisoners, indicating that increased anxiety may worsen maladaptive thought patterns associated with psychoticism (Bonta & Gendreau, 1990).

6. Hostility relationship to Phobic Anxiety, Paranoid Ideation, and

Psychoticism: The Hostility relation to other dependent variables demonstrated that:

a). Hostility and Phobic Anxiety Relationship: Hostility and phobic anxiety often co-occur among prisoners, possibly indicating an interaction between unresolved anger and incarceration-related fears (Fogel, 1993). The link between hostility and phobic anxiety in prisons underscores the influence of environmental stressors and interpersonal conflicts, emphasizing the necessity for interventions addressing emotional and behavioral regulation (Blaauw et al., 2001). Research indicates that prisoners with higher hostility levels also experience increased phobic anxiety, likely due to the stress and interpersonal conflicts common in incarceration settings (Ahmad & Mazlan, 2014). Prison hostility is positively linked to phobic anxiety, particularly with inadequate coping methods and social isolation, underscoring the reciprocal connection between these emotional states in forensic settings (Hurley & Dunne, 1991). Prisoners with higher hostility levels experience increased phobic anxiety, intensifying their emotional distress and complicating prison adjustment (Senol-Durak & Gencoz, 2010).

b). Hostility and Paranoia Relationship: Research revealed that hostility often accompanies paranoid ideation, showing a reciprocal relationship where heightened suspicion and distrust lead to aggressive thoughts and actions, frequently observed in prisoners with psychiatric conditions (InPACT, 2024; Proceedings, 2024). Individuals with persecutory delusions often exhibit increased hostility, driven by their heightened threat perception and mistrust, which in turn intensifies their paranoid thoughts (Combs et al., 2006). Mediation analysis showed that paranoia predicts hostility through self-directed negative emotions, underscoring their tight link in vulnerable groups (InPACT, 2024; Proceedings, 2024). Paranoia is closely linked to externalizing blame and hostility, behaviors that are intensified in institutional settings like prisons (Freeman et al., 2005). Paranoid ideation and hostility form a feedback loop in which defensive anger and aggressive impulses reinforce suspicious interpretations of others' actions (InPACT, 2024 ; Proceedings, 2024).

c). Hostility and Psychoticism Relationship: Studies provides strong evidence supporting a notable positive correlation between hostility and psychoticism in incarcerated individuals (Hornsveld & Nijman, 2005). Research reveals that aggression strongly correlated with aggression measures, including hostility among prisoners (Archer & Haigh, 1997). Research on incarcerated individuals without prior mental health issues suggests that psychoticism plays a significant role in influencing hostility and other psychological traits (Compton et al., 2008). The relationship between hostility and psychoticism, particularly in forensic populations, is examined as a component of broader personality traits and their link to aggressive conduct and psychological disorders (Hornsveld & Nijman, 2005). Studies expanded the connection between psychoticism and hostility from correctional facilities to the general public, demonstrating positive correlations between the psychoticism factor and measures of anger and aggressive conduct (Schill et al., 1987).

7. *Phobic Anxiety relation to Paranoid Ideation, and Psychoticism:* The Phobic Anxiety relation to other dependent variables showed as follows:

a). Phobic Anxiety and Paranoia Relationship: Research findings indicating that paranoid thoughts among prisoners, highlighting that "incarcerated individuals exhibited significantly higher scores on all paranoia measures compared to the control group (Tiegreen & Combs, 2017). The conditions within correctional facilities may foster an increase in paranoid ideation, although the text does not explicitly address phobic anxiety (Darch et al., 2015). The connection between anger and paranoia in forensic populations reveals that "heightened levels of anger were linked to increased paranoid thoughts (Darch et al., 2015). The findings suggest that in prison environments, there may be a connection between emotional conditions like phobic anxiety and paranoid thoughts (Lim & Mankiewicz, 2024).

b). Phobic Anxiety and Psychoticism Relationship: Studies have indicated that prisoners were found that with mental health disorders demonstrated significantly

higher psychoticism levels when compared to inmates without psychiatric diagnoses (Chahal et al., 2024). Phobic anxiety suggests a link between psychoticism and mental health disorders in incarcerated individuals (Park et al., 2012) indicating that for those with anxiety disorders, the anxiety subscale scores on the SCL-90-R are strongly positively correlated with other subscales, including psychoticism. Research suggests a simultaneous occurrence of phobic anxiety and psychoticism symptoms, pointing to a possible link between these conditions in diverse populations, including incarcerated individuals (Koc et al., 2013). Studies revealed notable positive associations between marriage duration and levels of both phobic anxiety and psychoticism among women who entered matrimony at a young age. This suggests a potential link between these variables, which may also be applicable to incarcerated individuals (Manav, 2023).

8. *Paranoid ideation relation to Psychoticism:* The Paranoid Ideation relation to other dependent variables demonstrated as:

a). Paranoid Ideation and Psychoticism Relationship: Research findings indicating that Paranoid ideation significantly correlates with psychoticism in forensic psychiatric populations, including prisoners, suggesting a heightened tendency for delusional thinking and aggression among inmates (Hornsveld & Nijman, 2005). Paranoid ideation significantly predicts psychoticism in prison populations, as high paranoia correlates with increased psychotic traits, including irrational behavior and aggression (O'Conner & Casey, 2000). The research indicated a strong correlation between increased psychoticism and the development of paranoid thoughts in prisoners, often leading to extreme distrust, suspicion of others, and psychotic episodes (Cohen & Miller, 2010).

Gender difference on psychopathological symptoms:

a). On Somatization: The somatic symptoms are more prevalent among female prisoners due to social norms that prioritize physical complaints over psychological

ones, discouraging emotional vulnerability in men (Barsky et al., 2001). Unresolved trauma from physical and sexual abuse often manifests physically in women, leading to higher somatization rates (Harner & Riley, 2013). Limited access to gender-specific healthcare in women's prisons exacerbates untreated conditions and somatic complaints, while cultural stigmas may cause underreporting in male prisoners (Fazel & Baillargeon, 2011). Gender roles shape the perception and expression of distress: women externalize psychological pain somatically, while men may suppress symptoms (Nolen-Hoeksema, 2012). Incarceration stress affects genders differently, with women prone to anxiety-related somatic symptoms and men experiencing more internalized distress (Gibbs, 1987).

b). On OCD: Female prisoners are more likely to exhibit OCD symptoms than male prisoners, often influenced by hormonal differences, anxiety susceptibility, and pre-incarceration trauma (American Psychiatric Association, 2013). Gender-specific issues, such as caregiving concerns or guilt, may worsen OCD in women (Mathis et al., 2011). Male prisoners may display OCD through rigid routines or behaviors related to control and safety, but stigma may lead to underreporting (Browning et al., 2021). Women in prison often have histories of abuse, linked to higher anxiety and OCD, while men may develop OCD from prison violence or isolation (Fazel & Baillargeon, 2011). Women tend to internalize stress, leading to obsessive thoughts, whereas men often externalize stress through aggression, potentially masking OCD (Liebling & Maruna, 2013). Gender disparities in prison mental health care access affect OCD outcomes, with women's prisons typically offering more resources due to higher reported needs, influencing symptom recognition and diagnosis (Harner et al., 2017).

c). On Interpersonal Sensitivity: The research findings indicated that in male prisons, aggressive masculine norms shape interactions, leading to power struggles and strained social bonds (Sykes, 1958). Non-verbal cues and direct communication establish status and resolve conflicts confrontationally. In contrast, female prisoners form supportive, emotionally bonded relationships, though disruptions cause significant distress (Hannah-Moffat, 2001; Richie, 1996). Gender affects coping mechanisms; men resort to violence or withdrawal, while women form emotional

bonds to manage stress, influencing relationships (Daly & Cody, 1998). Sexual dynamics also differ; male prisoners may use aggressive sexual behavior for dominance or coping, while female prisoners may experience relational violence or manipulation (Daly, 1992). Gender-responsive programs addressing emotional and psychological needs benefit female prisoners (Bloom et al., 2003). Male prisoners often require anger management or social skills training to improve interpersonal relations.

d). On Depression: Female prisoners report higher rates of depression than male prisoners due to greater trauma and victimization, including sexual abuse, both before and during incarceration. Studies show that women in prison often have preexisting mental health issues and are more prone to depression (Teplin et al., 2005). Men, while also affected by depression, are less likely to report or seek help due to cultural norms surrounding masculinity (Kupers, 1999). Women in prison endure higher levels of physical and sexual abuse, correlating strongly with depression and PTSD (Bloom, 1997; Jail Women, 2018). Female prisoners often rely on social support within the prison, which can protect against depression, whereas men may experience emotional isolation, contributing to depressive symptoms (Sykes, 1958). The lack of family and community ties, more common among men, can heighten isolation and hopelessness, contributing to depression (Haney, 2006). Gender-specific needs, such as reproductive health care and trauma-informed care, are under-addressed in male-dominated prison systems, exacerbating depression in women. This neglect in female prison populations leads to untreated or poorly managed depression (Gilfus, 1992; Steadman et al., 2009).

e). On Anxiety: Studies show that female prisoners experience heightened anxiety due to trauma history, disrupted family roles, and stigmatization, reporting higher rates of depression, anxiety, and PTSD than male prisoners (Bloom et al., 2003). In contrast, male prisoners' anxiety is linked to threats of violence, power dynamics, and maintaining masculinity, with less reporting due to social expectations (Kupers, 2008). Female prisoners' anxiety is shaped by increased physical and emotional vulnerability and isolation from families (Tasca et al., 2014), while male prisons focus on institutionalized violence and competition, triggering anxiety through social

hierarchies and conflicts (Haney, 2006). Previous victimization and trauma predispose female prisoners to higher anxiety, exacerbated by the lack of trauma-informed care (Tasca et al., 2014). Despite high trauma levels, male prisoners are less likely to seek help due to mental health stigma, resulting in untreated anxiety (Kupers, 2008). Gender-specific programs addressing mental health, trauma, motherhood, and reintegration reduce anxiety in female prisoners, while male prisoners have fewer specialized services, particularly for emotional regulation and trauma (Covington, 2007).

f). On Hostility: Male prisoners often display overt hostility, including physical aggression, due to social norms emphasizing toughness and dominance (Dutton & Hart, 1992). In high-security prisons, they assert power through aggression in violent, hierarchical environments (Sykes, 1958). Female prisoners, despite high hostility levels, internalize it, showing relational aggression, verbal conflicts, or passive resistance rather than overt violence (Browne, 2000). Women's prison aggression focuses on interpersonal relationships, with less physical confrontation compared to men (Miller & Najavits, 2006). In female prisons, relationships are emphasized, leading to subtle aggression aimed at maintaining social order within close-knit groups. In male prisons, hostile interactions are more overt, reflecting traditional masculinity's emphasis on toughness (Haney, 2006). Male prisoners, socialized to use aggression as a stress and dominance coping mechanism, exhibit more overt hostility, whereas female prisoners, socialized to value emotional expression and relational maintenance, use different coping mechanisms, resulting in less outward hostility (Tannen, 1990). Gender-specific rehabilitative programs are essential; male prisoners may benefit from anger management and de-escalation interventions, while female prisoners need therapeutic programs focusing on healthy relationships and trauma (Chesney-Lind, 2004).

g). On Phobic Anxiety: Research revealed that female prisoners face gender-specific stressors like safety concerns, sexual abuse, and isolation, exacerbating phobic anxiety (Belknap, 2007). These traumas increase their susceptibility to phobic responses. Conversely, male prisoners may internalize anxiety, leading to

agoraphobia or social phobia. Masculinity norms discourage them from seeking mental health support, worsening untreated phobic anxiety (Kupers, 1999). In male prisons, hyper-masculine culture stigmatizes emotional vulnerability, deterring prisoners from expressing anxiety or seeking help (Haney, 2006). In female prisons, despite opportunities for emotional expression, challenges related to relationships, sexual abuse, and caregiving roles increase vulnerability to phobic anxiety (Arditti, 2003). Hormonal fluctuations related to menstruation, pregnancy, or postpartum recovery further intensify anxiety symptoms, increasing vulnerability to anxiety disorders (Kuehner, 2017). Men may exhibit anxiety as anger or aggression, often misinterpreted as other psychological issues rather than phobic anxiety (Schneiderman et al., 2005). Gender disparities in mental health care access play a role. Female prisoners have somewhat better access to trauma and anxiety therapy, though often inadequate (Kupers, 1999). Male prisoners lack gender-responsive mental health services, with their needs frequently overlooked or misdiagnosed as behavioral issues, leading to untreated phobic anxiety (Kupchik & Snyder, 2009).

h). On Paranoid Ideation: Male prisoners are more prone to aggressive or violent paranoia due to the competitive and hierarchical nature of prison environments, leading to fears of victimization (Sykes, 1958; Haney, 2006). In contrast, female prisoners' paranoia is often related to social issues, distrust within close relationships, and vulnerability to interpersonal violence, with concerns about betrayal and manipulation (Kupers, 1999). Overcrowded and high-security male prisons amplify paranoid thoughts about violence and exploitation, driven by survival instincts (Fazel et al., 2016). Female prisons, though less violent, expose women to emotional stressors affecting their social standing and safety, but more supportive environments may alleviate these symptoms (Liebling & Arnold, 2004). Gender differences in coping with paranoia include men internalizing their fears, while women are more expressive about relational issues (Fazel et al., 2016). Additionally, male prisoners are less likely to seek mental health help, whereas women may receive more social or therapeutic interventions (Kupers, 1999). Women with histories of sexual abuse and trauma may experience higher rates of paranoid ideation due to mistrust and hypervigilance (Fazel et al., 2016).

9). On Psychoticism: Male prisoners typically face high violence, social dominance, and competition, worsening psychotic symptoms like paranoia, aggression, and delusions due to the hostile and hierarchical prison environment (Sykes, 1958). Female prisoners encounter less overt violence but suffer from trauma-related mental health issues such as anxiety, depression, and PTSD, often leading to psychotic symptoms. Prior abuse among women exacerbates their mental health problems (Covington, 2008). Men display increased psychoticism due to masculine norms emphasizing strength and dominance, resulting in social isolation and aggression (Kupers, 1999). Conversely, women experience relational trauma and interpersonal conflict, contributing to mental health issues, including psychotic symptoms (Teplin et al., 2005). Gender significantly influences mental health histories in prisoners. Women are more prone to pre-existing mental health issues like mood and anxiety disorders, which the prison environment exacerbates, increasing psychoticism (Fazel et al., 2016). Although men exhibit more antisocial behaviors, they are more vulnerable to psychosis due to stressors unique to male prisons. Treatment and mental health support availability differ by gender. Women's prisons often lack resources for trauma-related mental health issues, leading to higher untreated condition rates, whereas men's prisons may focus more on behavioral control than therapeutic interventions (Liebling & Arnold, 2004).

Furthermore, these results can be utilized to compare how undertrial prisoners and convicted prisoners are currently coping with their issues, which will lay the groundwork for further academic research both nationally and internationally.

The statement of the problems contains the objectives and hypothesis was presented in the next chapter, **Chapter -III, Statements of the Problems.**

CHAPTER -III: STATEMENTS OF THE PROBLEMS.

STATEMENTS OF THE PROBLEMS:

Mental illness is a major contributor to the worldwide burden of mental disorders, accounting for 13% of disability-adjusted life-years lost (Vigo et al., 2016). Therefore, it is crucial to understand how and to what degree environmental factors influence mental health outcomes. Over the past year, 20% of all adults globally experienced a mental disorder.

The lifetime prevalence of mental disorders is two out of seven adults and is expected to remain a primary cause of disease burden (Steel et al., 2013). Such disorders greatly impact individuals' quality of life and pose significant challenges for healthcare systems overall. Consequently, addressing mental disorders is a health priority in both developed and developing nations. The topic of prisoner welfare and rehabilitation is complicated, and there are many problems in the prison system. Here are some important issues that prisoners face, along with references from recent studies and reports:

Overcrowding is a serious problem in prisons around the world. It often leads to stretched resources, limited healthcare access, and more violence among inmates. When prisons are overcrowded, the physical and mental health of inmates can get worse, which can increase the likelihood of them reoffending. This overcrowding harms living conditions and makes it harder for inmates to get the rehabilitation they need (Walmsley, 2020).

Mental health issues are significantly more common among prisoners, largely because of prior conditions and the pressures of being incarcerated. The prison setting can exacerbate mental health issues, particularly in cases of overcrowding or solitary confinement (APA, 2021). The lack of adequate mental health services leads to elevated levels of depression, anxiety, and PTSD among inmates. Effective rehabilitation initiatives are crucial for minimizing recidivism; however, numerous correctional facilities are deficient in proper educational, vocational, and therapeutic offerings.

The U.S. Department of Justice reports that inmates who engage in educational programs have a 43% lower likelihood of reoffending (Davis et al., 2013). Violence, including physical abuse, sexual violence, and coercion, is a prevalent issue within correctional facilities. The abuse from fellow inmates and occasionally from prison staff is a significant worry that is often not reported to the concerned authorities due to the fear of retaliation (Human Rights Watch, 2019).

Mental health issues and substance use disorders are found at significantly higher rates in incarcerated individuals. A large number of inmates do not receive sufficient mental health support or treatment for addiction, which can exacerbate their symptoms, increase the risk of self-harm, and impede rehabilitation efforts (Fazel et al., 2016; Bronson & Berzofsky, 2017). Many Prisoners experience mental health disorders, and these conditions often deteriorate because of the prison environment and a lack of adequate treatment (Fazel & Danesh, 2002).

Prisoners often face restricted access to healthcare services, leading to untreated medical problems, worsening of chronic conditions, and insufficient mental health care (Nichols & McAleer, 2015). Numerous correctional facilities emphasize punitive measures over rehabilitative programs, resulting in elevated recidivism rates as former prisoners face challenges reintegrating into the community upon their release (Petersilia, 2003).

In certain places, prisoners face human rights violations such as solitary confinement, physical abuse, and inadequate food (American Civil Liberties Union, 2014). The financial strain of imprisonment often extends beyond the inmates themselves, affecting their families and communities through lost income and expenses related to legal proceedings (Pew Charitable Trusts, 2018). These problems underscore the widespread difficulties encountered by correctional facilities and emphasize the pressing demand for changes in the prison system.

The prison system faces a series of interrelated issues, incorporating overcapacity, deficient medical services, widespread mental health concerns, limited rehabilitative initiatives, and human rights abuses. Overpopulated facilities in prison

often foster increased aggression and substandard living environments (Beck, 2020). Numerous prisons fail to provide adequate healthcare, leaving many inmates with untreated medical conditions (Davis & Bowers, 2021).

Causes of Committing Crime

Criminal activity remains a constant challenge in society, impacting government policies, economic health, and the well-being of communities. To create effective preventive measures, it is essential to grasp the root causes of criminal behavior. A complex interplay of factors contributes to unlawful actions, including economic and social conditions, mental and emotional influences, surroundings, and societal expectations.

a). Socioeconomic Status

Poverty is a significant factor in criminal behavior. Research shows that individuals from economically disadvantaged backgrounds face numerous challenges that can lead to illegal activities (Davis et al., 2020). Financial struggles may push people to commit theft or drug offenses for survival. Additionally, economically depressed areas often lack adequate educational and job opportunities, perpetuating the cycle of crime (Mears & Andrews, 2021).

Children raised in poverty are more likely to engage in delinquency due to financial instability, such as having unemployed parents and limited parental supervision. Economic deprivation can drive individuals to seek alternative means of acquiring resources, sometimes resulting in criminal acts (McLanahan, 2009).

There is a strong correlation between low socioeconomic status (SES) and elevated crime rates. Those in disadvantaged communities often have limited access to education, job prospects, and social services, fostering a sense of hopelessness that can lead to crime (Sampson & Wilson, 1995). The lack of legitimate opportunities may push individuals, particularly youth, towards street crime for financial survival. This cycle of poverty not only exacerbates criminal behavior but also sustains it across generations (Anderson, 1999).

b). Family Dynamics

The family environment significantly influences an individual's likelihood of engaging in criminal activities. Research shows that children from troubled households—marked by neglect, abuse, or parental criminal behavior—are more likely to commit crimes themselves (Johnson, 2002). Attachment theory indicates that strong emotional bonds with caregivers can deter criminal tendencies, whereas weak attachments may lead to problematic behaviors (Bowlby, 1969). Thus, family structure, parenting styles, and parental attitudes toward crime play vital roles in shaping a child's potential for future criminal involvement.

The dynamics within a family also impact criminal conduct. Studies reveal that children from unstable homes characterized by neglect, domestic violence, or substance abuse are at greater risk of delinquency. Those experiencing family discord or lacking positive role models are more likely to exhibit antisocial behaviors in their teenage years (Farrington et al., 2006). Furthermore, peer influence is critical during adolescence, as associations with delinquent peers can increase the likelihood of criminal behavior (Barnes et al., 2006).

Social learning theory suggests individuals may adopt criminal behaviors by mimicking their peers (Akers, 1998). Teenagers are particularly susceptible to peer pressure, and connections with delinquent friends can enhance their risk of engaging in criminal acts (Klein et al., 2019).

c). Substance Abuse

Substance abuse significantly influences criminal behavior. The National Institute on Drug Abuse (NIDA, 2020) states that drug addiction often drives individuals to commit various crimes, such as burglary, theft, and violence, primarily to fund their addiction. Research shows that those engaged in drug-related offenses typically display high dependency and impulsivity, making rehabilitation challenging. Therefore, comprehensive substance abuse treatment programs could be crucial in reducing crime rates (Latessa & Allen, 1999).

To effectively address this issue, policymakers should prioritize not only the enforcement of laws but also prevention strategies and support for rehabilitation. Evidence-based treatment options, such as cognitive-behavioral therapy and medication-assisted treatment, can be valuable for individuals overcoming addiction (McLellan et al., 2000). Furthermore, investing in educational initiatives and community outreach can help break the link between substance abuse and criminal behavior. Such educational efforts raise awareness of drug-related risks and cultivate essential life skills, empowering individuals to make better choices (Ritter & Cameron, 2006).

d). Peer Influence

Criminal behavior is significantly shaped by peer relationships. According to social learning theory, individuals adopt behaviors through social interactions, particularly with their peers. This influence is especially potent among adolescents, who are eager to gain acceptance from their social circles (Akers, 1998). Studies show that interacting with delinquent peers increases the probability of engaging in criminal acts (Thornberry, 1987).

The impact of peer influence goes beyond simple association; it involves the transfer of attitudes and values that normalize deviant behavior. When young people are surrounded by peers who support and display criminal conduct, they may internalize these patterns, creating a self-reinforcing cycle of delinquency (Sutherland, 1947).

The desire to fit in with group norms can also drive individuals to participate in more dangerous activities they might otherwise avoid. This pressure to conform to group expectations can be particularly strong in settings where criminal behavior is celebrated or downplayed, fostering a culture of delinquency that is challenging to escape (Bradley & Rethorst, 2006).

Furthermore, the influence of social networks is amplified by technology and social media. Online platforms can intensify peer relationships, providing channels

for individuals to connect and share experiences related to criminal activities, further increasing the risks associated with delinquent peer groups (O'Keeffe & Clarke-Pearson, 2011).

On the other hand, positive peer influences can act as protective factors, offering support and encouraging pro-social behaviors. Initiatives that promote healthy peer relationships and establish environments of mutual respect can effectively reduce the risks linked to delinquent associations (Dishion et al., 2004).

e). Social and Cultural Influences

Criminal behavior can be heavily influenced by social and cultural norms. According to the social learning theory, people acquire behaviors, including criminal ones, through their interactions with others (Akers, 1998). In areas where crime is common or accepted, there's a higher likelihood that individuals, particularly young people, will adopt similar conduct. Furthermore, cultural elements like community disorganization and weak social bonds can create an environment that facilitates criminal activity (Sampson, 2006).

The impact of cultural factors should not be underestimated. Societal standards and beliefs shape how individuals perceive crime. For example, societies that are more tolerant of aggressive behavior or retaliatory actions may experience higher rates of violent offenses (Tittle, 2000).

f). Psychological Factors

Criminal behavior is also influenced by psychological factors. Impaired judgment and an increased likelihood of engaging in illegal activities can result from mental health disorders, personality issues, and substance abuse. Research has shown a connection between behavioral problems in childhood and a higher risk of criminal conduct later in life (Moffitt, 2006). Additionally, individuals exhibiting antisocial personality traits may commit crimes without experiencing the typical emotional restraints that prevent most people from breaking the law (Hare, 2003).

The role of mental health in criminal acts is significant. Those experiencing conditions such as depression, anxiety, or personality disorders might resort to illegal activities as an unhealthy way of coping (Farrington & Welsh, 2007). Additionally, the negative perception surrounding mental health often discourages individuals from seeking assistance, potentially worsening their situation and leading to criminal behavior (Vogel et al., 2011).

Environmental elements, including neighborhood disarray and crime rates, can also shape criminal conduct. The broken windows theory proposes that visible indications of disorder, such as vandalism or neglect, can foster an atmosphere conducive to crime (Wilson & Kelling, 1982). When people view their surroundings as neglected or unsafe, they may be more inclined to participate in criminal activities due to a perceived absence of law and order (Sampson & Raudenbush, 2004).

Impact of the imprisonment

Imprisonment significantly affects individuals and society in various ways, including social, economic, and psychological dimensions. These impacts influence family relationships, job availability, community consistency, and government spending. While imprisonment can prevent crime and act as a punishment, it frequently causes serious negative effects on communities, families, and society at large.

a). *Economic Impact:* The imprisonment of individuals removes a segment of the working population from the job market, diminishing overall economic output. This creates notable financial challenges for households, potentially depriving them of a main source of income, and also affects communities by limiting their possible economic growth (Western & Pettit, 2010). The monetary requirements for operating prisons are considerable. As an example, the United States allocates billions of dollars each year to its correctional system. These expenditures encompass not only the physical infrastructure and personnel but also health and psychological care services, all of which are financed through public funds (The Sentencing Project, 2020). A person who has criminal record significantly reduces employment

prospects, particularly for minority groups, which in turn hinders their economic advancement and successful reintegration into society (Pager, 2003). People who have been released from prison encounter prejudice and substantial obstacles to finding jobs because of their criminal history. This discrimination hinders their ability to secure steady employment, making it even more challenging for them to successfully rejoin society (Pager, 2003).

Maintenance of prison is costly. In the United States, federal, state, and local governments spend about \$80 billion each year on incarceration. This large expense takes away funding from other important public services like education and healthcare (Wagner & Rabuy, 2017). Incarceration frequently leads to individuals being removed from the workforce. Most of those imprisoned are of working age, so their absence can lower labor participation and productivity. Additionally, ex-offenders encounter major challenges when trying to find jobs after their release, which can contribute to ongoing economic instability and hinder overall economic growth (Western & Pettit, 2010). Upon release, individuals with a history of incarceration frequently encounter challenges in securing steady work, largely due to societal prejudice and legal restrictions. This not only affects their personal circumstances but also diminishes the overall workforce and economic output (Pager, 2003). Individuals who have been formerly incarcerated face serious challenges in finding stable employment because of stigma and legal restrictions associated with having a criminal record. This not only limits their economic opportunities but also increases the likelihood of reoffending. Research reveals that a person having a criminal record significantly decreases job opportunities for minorities, further worsening economic inequality (Pager, 2003).

Imprisonment can create financial constraints to the affected families, particularly in low-income areas, by eliminating a key source of income. Family members often bear the financial consequences of imprisonment, including legal expenses, costs associated with prison visitation, and the loss of earnings. This can result in increased financial hardship, potentially leading to a cycle of disadvantage and raising the likelihood of future criminal behavior among children (Western &

Pettit, 2010). Most of the prisoners are typically of working age, so their absence can reduce both labor participation and productivity. Moreover, former offenders face significant obstacles when seeking employment after their release, resulting in continued economic instability and delayed overall economic growth (Western & Pettit, 2010). Incarceration frequently removes primary income earners from households, imposing significant economic burdens and heightening poverty rates, especially in disadvantaged communities. The financial strain encompasses legal costs, visitation expenses, and lost income, perpetuating a cycle of poverty. Research demonstrates that imprisonment exacerbates social and economic inequalities, particularly impacting low-income and minority families (Western & Pettit, 2010).

b). Mental and Physical Health Impacts.

Imprisonment negatively impacts physical and mental health, with conditions like overcrowding, violence, and poor healthcare worsening these issues. Post-release, former inmates often experience persistent health problems, burdening public health systems (Massoglia, 2008). The spread of communicable diseases in prisons can harm public health because when inmates are released back into society, they may bring increased health risks that affect the wider community (Schnittker et al., 2011). Imprisonment frequently results in mental health issues such as depression, anxiety, and PTSD, which can continue post-release and hinder successful reintegration into society. Additionally, the insufficient mental health resources in prisons worsen these challenges (Haney, 2001).

Correctional facilities serve as breeding grounds for contagious illnesses like tuberculosis, HIV, and COVID-19, primarily due to cramped living conditions and inadequate healthcare provisions. Upon release, formerly incarcerated individuals may inadvertently introduce these health hazards to their neighborhoods, thereby affecting overall community well-being (Dumont et al., 2012). Families of incarcerated individuals often endure stress, anxiety, and depression due to separation, stigma, and financial strain. Children with incarcerated parents are prone to behavioral and emotional issues, leading to lower academic performance and a

higher probability of future criminal justice involvement (Wildeman & Wakefield, 2014).

Families with incarcerated members frequently experience stress, anxiety, and depression because of separation, stigma, and financial difficulties. Children with an incarcerated parent often face behavioral and emotional challenges, which can lead to poor academic performance and a higher risk of becoming involved in the criminal justice system later on (Wildeman & Wakefield, 2014). Incarceration often causes severe psychological strain due to the stressful, violent prison environment, isolation, and lack of mental health resources. Studies show higher rates of depression, anxiety, and PTSD among prisoners than the general population and these effects can persist post-release, hindering successful re-integration (Fazel & Baillargeon, 2011).

c). Recidivism and Crime Rates

The high frequency of repeat offenses can undermine community stability, resulting in escalating criminal activity and a persistent pattern of imprisonment. Studies indicate that programs focused on rehabilitation and community reintegration can be effective in lowering recidivism rates. However, without adequate assistance, individuals who have been released from prison may revert to unlawful activities (Pew Center on the States, 2011). Although imprisonment is designed to discourage criminal behavior, research findings on its efficacy are inconclusive. An overreliance on incarceration may fail to tackle the underlying factors contributing to crime, such as economic hardship, insufficient education, and mental health challenges. Consequently, the use of imprisonment alone may not effectively reduce criminal activity over time (Travis et al., 2014). High incarceration rates can weaken social cohesion, reducing community bonds and trust (Clear, 2007). This erosion may increase crime rates due to fewer role models and leaders which indicates that incarceration disrupts local networks, complicating community efforts to sustain safety and support systems (Clear, 2007).

Prison frequently fails to reform offenders, instead fostering a pattern of repeated imprisonment. Those who have been previously jailed face challenges such as reduced employment opportunities, negative societal perceptions, and inadequate assistance, which collectively increase the chances of reoffending. Studies indicate that areas with elevated rates of imprisonment tend to witness higher levels of criminal activity, thus sustaining a cycle of criminality (Lynch & Sabol, 2004). According to labeling theory, individuals who are branded as "criminals" may adopt this identity, potentially leading to increased criminal activity. This process impacts not only the labeled individuals but also society's perception and treatment of them, often resulting in further marginalization of ex-offenders and making their reintegration into society more difficult (Becker, 1963).

The prevalence of imprisonment disrupts communities, especially those facing economic hardship and scarce resources. Incarceration weakens community bonds, disrupts family units, and hampers local economic growth by removing individuals from their neighbourhoods (Clear, 2007). Upon release, formerly incarcerated individuals often encounter reentry challenges like limited housing, employment, and social support, leading to potential recidivism. Petersilia observes that legal barriers and societal stigma frequently hinder successful reintegration, contributing to high re-incarceration rates (Petersilia, 2003). High rates of imprisonment can counterintuitively increase criminal activity, as the loss of social and economic stability within communities undermines their ability to maintain public safety (Clear, 2007).

d). Social and Family Disruption: The incarceration of individuals has a detrimental impact on family dynamics, often resulting in children growing up without one or both parents. Research indicates that kids whose parents are in prison face increased risks of developing mental health problems, struggling academically, and experiencing social exclusion (Wildeman & Western, 2010). This situation can lead to far-reaching consequences, perpetuating cycles of economic hardship and criminal behavior across generations. Incarceration can lead to severe psychological stress, potentially causing depression, anxiety, and PTSD due to isolation, lack of

autonomy, and exposure to violence (Haney, 2003). These harsh conditions may result in "institutionalization," making post-release adaptation challenging (Haney, 2003).

Regions with elevated incarceration rates often experience a decline in community empowerment. The frequent removal of individuals from society through imprisonment can deteriorate social connections and erode trust, as residents witness the loss of family members and neighbors to correctional institutions. Moreover, individuals returning from incarceration frequently face societal prejudice, which hampers their effective reintegration and adversely impacts the community's stability and capacity for resilience (Clear, 2009).

e). Racial and Socioeconomic Disparities

Imprisonment affects marginalized racial and ethnic groups, particularly Black and Hispanic communities in the U.S., worsening social inequalities and continuing cycles of poverty, limited education, and fewer job opportunities (Alexander, 2012). People from lower socioeconomic backgrounds are more frequently incarcerated and often face harsher sentences, which further entrenches poverty in these communities. This situation limits social mobility and reinforces systemic disadvantages (Wakefield & Uggen, 2010).

f). Cost to the State and Society:

High prison populations are expensive and take away money from important areas like education, healthcare, and social services. According to the Vera Institute of Justice, the average annual cost to incarcerate one person in the U.S. is approximately 33,000, with some states exceeding 33,000, *with estimates exceeding 60,000* per inmate (Henrichson & Delaney, 2012). These costs put a strain on taxpayers and limit funding for other critical public services.

g). Impact on Families and Children:

Children of incarcerated parents often face significant challenges, including emotional and psychological distress, social stigma, and financial hardship. Studies indicate that these children are more likely to experience academic struggles, mental health issues, and potential involvement with law enforcement (Murray & Farrington, 2008). The consequences of having a parent in prison can profoundly affect a child's overall development and life opportunities. The pattern of imprisonment and adversity frequently extends through multiple generations, as youth brought up in difficult environments may have limited chances to break free from poverty and steer clear of dangerous activities (Wildeman, 2009). Children with incarcerated parents experience various challenges in academics, social interactions, and emotional well-being. The trauma of being separated from a parent, along with the stigma they face, can have long-lasting negative effects on their lives (Wildeman & Wakefield, 2014), it was also pointed out that having a parent in prison increases the likelihood of behavioral issues, lower educational success, and future involvement with the criminal justice system, which continues the cycle of disadvantage. Incarceration has a detrimental impact on families, causing both emotional and financial hardship. When a parent is imprisoned, their children may experience developmental and behavioral challenges. These issues can increase the likelihood of dropping out of school and engaging in criminal activities later in life (Wildeman & Wakefield, 2014).

h). Social Marginalization and Stigmatization:

The prevalence of high incarceration rates can deteriorate community trust, particularly when certain demographics, such as racial minorities, are disproportionately affected. Former inmates often encounter significant challenges when attempting to reintegrate into society, including obstacles in obtaining employment and securing housing. These difficulties can potentially contribute to increased rates of repeat offenses (Clear, 2007). People who have been released from prison face societal prejudice, which hinders their ability to successfully reintegrate into the community. This prejudice extends beyond the individuals themselves,

impacting their family members as well. The resulting consequences can lead to social exclusion and psychological harm (Pager, 2003).

i). Intergenerational Cycles of Incarceration:

The consequences of incarceration can persist across generations. Children whose parents are imprisoned face higher risks of experiencing economic hardship, housing instability, and deteriorated mental well-being, potentially increasing their likelihood of future entanglement with the justice system (Murray & Farrington, 2008). A study shows that having a parent in prison is a strong indicator of a child's potential criminal activity in the future (Murray & Farrington, 2008).

Imprisonment affects not just individuals, but also their families and communities. It leads to psychological distress, economic challenges, social isolation, and disadvantages that can be passed down through generations. To tackle these issues, we need policies that combine punishment with rehabilitation. Community-focused support programs could help lower repeat offenses and assist individuals in reintegrating into society. Possible strategies to consider include alternative sentencing, rehabilitation programs, and support for families impacted by incarceration.

The escalating prevalence of physical, psychological, and economic hardships among incarcerated individuals demands swift and comprehensive intervention. A psychopathological symptom among prisoners are closely linked to environmental events as compared to general people, which is generally unfounded. It is possible that being incarcerated may be associated with more symptoms with higher levels of mental health due to concerns about mistreatment and safety, stigmatization or perceptions of others (Combs et al., 2002; Fenigstein & Venable, 1992) which reflects the influence of context on mental health symptoms (Kramer & Garallda, 1998). Furthermore, the study will examine the role of other theoretically relevant variables in the prediction of mental health among incarcerated participants, and focusing on gender, and legal history (type of charges, length of stay, arrest history) as these have been linked to mental health across studies (Carter, 2001;

Combs et al., 2002; Fenigstein & Venable, 1992). It is important to consider the possible effects of high mental health problems may have regarding ill treatment in correctional settings. Since high levels of mistrust appear to be an important and ubiquitous factor, authorities and mental health professionals need to be prepared for possible difficulties with individuals approaching and adhering to treatment in order to provide the most effective treatment. Optimal treatments should include consistent opportunities for communication and intervention, conversations about confidentiality guidelines to promote open dialogue, continual psychological assessments, and openness towards treatment. The finding of the study can highlight the need of mental health services require to cope with the number of mentally ill inmates, which will demonstrate require forensic psychiatry services, psychological Services or the prison nursing and medical officers with the need of improvement in psychodiagnostic instruments for better treatment in the prison. Very limited research has been carried out to assess and address common mental disorders among prisoners in India.

Mental Health of the Prisoners

Mental health disorders are multiplying among prisoners, with a substantial number of prisoners experiencing unaddressed psychological issues (Pratt, 2022). The scarcity of effective rehabilitation programs frequently contributes to elevated reoffending rates, delaying successful societal reintegration (Lozano, 2019). Human rights violations, including excessive use of force and solitary confinement, compound the hardships faced by inmates and can inflict lasting damage on their mental and physical well-being (Smith, 2021).

Overcrowding creates a significant issue in correctional facilities globally. It contributes to inadequate living environments and increased safety hazards. When prisons are overcrowded, it can heighten tension among inmates, lead to a rise in violent incidents, and exert pressure on available resources. Furthermore, overcrowding complicates the delivery of effective rehabilitation and mental health support services (UNODC, 2019; Aebi & Tiago, 2020). Incarcerated individuals are often exposed to harsh conditions, increasing their risk for physical and mental health

problems. Upon release, these issues can strain public health systems, as many former inmates rely on public healthcare due to unemployment and lack of resources (Binswanger et al., 2009). Severe overcrowding is a common issue in numerous correctional facilities, leading to heightened stress, aggressive behavior, and substandard living environments for inmates (Beck et al., 2016).

Overcrowded prisons create poor living conditions, increased tension, and health issues among the inmates. Overcrowding of the prison is the consequence of the high rate of crimes committed by the individuals, strict laws to the crime, and a lack of alternatives to imprisonment for petty offenses. This issue affects both mental and physical well-being, leads to violence, and hampers rehabilitation efforts (Jacobson, 2005; Gaes, 2002). Numerous inmates face mental health challenges, including depression, anxiety, and PTSD (Post Traumatic Stress Disorder). Correctional facilities frequently do not provide sufficient mental health services and qualified personnel, resulting in unresolved issues that deteriorate over time. Research from the Bureau of Justice Statistics (2017) indicates that almost 40% of state inmates and 30% of federal inmates report experiencing mental health difficulties (James & Glaze, 2006).

Rehabilitation initiatives in correctional facilities frequently lack sufficient funding, vary in quality, and do not adequately meet the varied requirements of inmates. Successful rehabilitation relies on funding for educational programs, job training, and mental health support to lower rates of reoffending. Nevertheless, the limited availability of these resources hinders inmates from successfully reintegrating into society after their release (Andrews & Bonta, 2016; Mears et al., 2019). Racial and ethnic minorities are overrepresented in prison populations, frequently as a result of systemic biases in law enforcement, sentencing policies, and socio-economic conditions. This inequity affects the experiences of prisoners and their access to rehabilitative resources, continuing cycles of disadvantage (Alexander, 2012; Western & Pettit, 2010).

Rehabilitation programs play a crucial role in decreasing recidivism; however, many prisoners do not offer these programs due to financial limitations or a

lack of resources. When such programs do exist, they are often inadequately funded or poorly administered, which reduces their ability to effectively prepare inmates for a successful return to society (Andrews & Bonta, 2010). Violence inside prison is a widespread issue, often intensified by overcrowding, insufficient oversight, and the existence of gangs. Hostile surroundings heighten psychological strain, reduce safety, and may hinder inmates from engaging in rehabilitation programs. Research indicates that overcrowded conditions and the absence of trained corrections personnel play a major role in increasing violence (Gaes, 2002).

Differences in imprisonment rates expose inherent biases in the justice system, frequently affecting minority populations. Black and Latino individuals face incarceration at disproportionately elevated rates, which mirrors broader racial injustices in law enforcement and sentencing practices. The Sentencing Project (2018) underscores how these inequities sustain cycles of poverty, restrict educational and job prospects, and contribute to the fragmentation of communities (Alexander, 2012).

a). Somatization:

In prison settings, inmates often express psychological distress through physical symptoms, a phenomenon known as somatization. This happens when they report physical issues that have no medical explanation, usually linked to mental health problems such as anxiety, depression, or trauma (Dunne et al., 2020). Somatization is especially common in prisons, where mental health resources are limited and stress levels are high. Contributing factors include the psychological effects of being imprisoned, previous traumatic experiences, and the social dynamics inside correctional institutions.

The high incidence of somatization among prisoners is alarming. Research indicates that inmates frequently report symptoms like pain, gastrointestinal problems, and fatigue, which are often associated with untreated mental health disorders (Cloitre et al., 2011). These physical symptoms can negatively impact their overall health, leading to greater healthcare expenses and complications if left unaddressed. Studies

show that prisoners exhibiting higher levels of somatization often misuse medical services for issues that are psychological rather than physical (Hoffman et al., 2016).

Additionally, the prison environment can worsen somatization. Factors such as confinement, social isolation, and lack of control can increase anxiety and stress, causing inmates to express emotional distress through physical symptoms (Williams et al., 2018). Many incarcerated individuals already have existing mental health issues that may become more severe under the pressures of prison life, resulting in more psychological stress that manifests as physical complaints. Additionally, the stigma associated with mental illness within correctional facilities discourages inmates from seeking help, creating a cycle of somatic expression.

The prevalence of trauma among inmates also increases their risk of somatization (Wolff & Draine, 2004). Many prisoners have experienced significant trauma, including violence, abuse, and social exclusion, which can lead to somatic symptoms as a way to cope with unresolved emotional pain. This connection highlights the importance of addressing untreated trauma to prevent somatic expressions, emphasizing the need for targeted mental health services for this population.

To effectively address somatization among prisoners, a comprehensive approach is required. It is essential to improve healthcare providers' understanding and training on the psychological origins of somatic symptoms in correctional settings. Implementing mental health screenings can help identify inmates at risk for somatization, ensuring they receive appropriate care (Kjelsberg et al., 2010). Moreover, integrating mental health services into correctional healthcare can provide necessary support, tackling the root causes of somatic complaints instead of just addressing the symptoms.

b). *Obsessive-Compulsive Disorder:* It involves persistent, unwanted thoughts (obsessions) and repetitive behaviors (compulsions) that individuals feel compelled to perform in response to obsessions or rigid rules (American Psychiatric Association, 2013). OCD affects all demographics, but its prevalence in criminal populations poses unique challenges. Research shows higher rates of mental health

disorders, including OCD, among incarcerated individuals compared to the general population (Fazel & Danesh, 2002).

Prison environments can worsen OCD symptoms due to overcrowding, lack of privacy, and rigid routines, which increase anxiety and stress. Inmates may find these conditions particularly triggering, leading to heightened distress and impaired daily functioning (Byrd & Wheat, 2020). For example, prisoners with OCD might struggle with the inability to perform compulsive rituals in an environment they cannot control. Additionally, the stigma surrounding mental health in prisons may deter inmates from seeking help (Haney, 2006).

The lack of mental health services in many prisons exacerbates the problem. The National Commission on Correctional Health Care (2015) reports that inmates with mental health disorders, including OCD, often have limited access to treatment and resources. This lack of care perpetuates inmates' suffering and increases recidivism rates, as untreated mental health issues may lead to further criminal behavior upon release (Matz et al., 2016). The literature on OCD among prisoners is limited, often focusing on general mental health rather than specific OCD issues. This gap is significant because individuals with OCD have different treatment needs, and their symptoms can severely impair functioning in prison (Alonso et al., 2004). Understanding OCD's prevalence, manifestation, and treatment in incarcerated individuals is crucial for developing appropriate interventions.

The relationship between OCD and criminal behavior needs further exploration. Some studies suggest that compulsions may be linked to certain criminal behaviors, as individuals may act according to obsessive thoughts (Cavedini et al., 2004). Understanding this relationship is essential for creating targeted interventions addressing both mental health and behavioral issues in prisoners.

The prevalence and impact of OCD among prisoners are significant yet often overlooked in correctional mental health. Addressing this issue requires increased awareness, better access to mental health care, and tailored interventions. Future

research should assess OCD's prevalence and symptoms among prisoners and evaluate the effectiveness of various treatments within the correctional setting.

d). *Interpersonal sensitivity:* Interpersonal sensitivity defined as heightened awareness of and response to social interactions, significantly affects prisoners' mental health and behavior. Research indicates that prisoners often have increased interpersonal sensitivity due to the social dynamics of correctional institutions, characterized by power imbalances, limited privacy, and constant surveillance, which heighten vulnerability and mistrust (Haney, 2012). This increased sensitivity may lead to higher stress, anxiety, and conflict susceptibility, complicating rehabilitation.

The prison environment also creates unique social hierarchies and peer pressures, amplifying interpersonal tensions. Prisoners with higher interpersonal sensitivity are prone to misinterpreting benign interactions as threats, potentially leading to aggressive or defensive behaviors (Ireland & Archer, 2004). This sensitivity is linked to poor mental health outcomes, including depression, anxiety, and social withdrawal (Zamble & Porporino, 1988). Addressing these issues is crucial, as unresolved interpersonal difficulties can impede the development of prosocial behaviors essential for reintegration into society.

Despite its significance, the impact of interpersonal sensitivity among prisoners is understudied. Existing research mainly focuses on aggression and mental health outcomes without exploring how interpersonal sensitivity mediates these phenomena. This gap underscores the need for targeted interventions to enhance prisoners' social skills and emotional regulation. Understanding interpersonal sensitivity's role can guide the creation of rehabilitative programs that foster healthier relationships, reduce recidivism, and support societal reintegration.

e). *Depression:* Research indicates that depression rates among prisoners are considerably higher than those in the general public, ranging from 10% to 50% based on the specific prison environment and inmate population (World Health Organization [WHO], 2014). Despite its high occurrence, depression in correctional facilities often remains unidentified and untreated, leading to negative outcomes such

as self-inflicted harm, suicide, and challenges in reintegrating into society after release (Fazel & Seewald, 2012).

Incarcerated individuals are disproportionately affected by depression, a widespread mental health concern. The prison setting, with its characteristics of seclusion, overpopulation, lack of personal space, and exposure to aggression, heightens the susceptibility to mental health disorders, especially depression (Fazel et al., 2016).

The underreporting of mental health problems in prisons is further complicated by social stigma and insufficient mental health resources (Steel et al., 2021). This neglect creates a cycle of deteriorating mental health, hindering inmates' participation in rehabilitation programs and increasing the likelihood of reoffending. Moreover, the combination of socio-economic inequalities, pre-existing mental health issues, and substance abuse problems forms a complex set of factors that increase the risk of depression among prisoners (Choudhry et al., 2020).

Tackling depression in the prison population is not only crucial for individual well-being but also a public health imperative. Effective strategies, including access to psychological support, medication-based treatments, and rehabilitation programs, are vital. Gaining a comprehensive understanding of the extent and causes of depression in this vulnerable group is essential for shaping policies and practices that promote mental health equity within correctional institutions.

f). Anxiety: Anxiety is prevalent in incarcerated populations, significantly affecting their well-being, behavior, and rehabilitation prospects. Overcrowding, violence, isolation, and limited mental health resources in prisons exacerbate anxiety disorders (Haney, 2018). Studies show prisoners experience higher anxiety rates than the general public due to restricted freedom, fear of victimization, and uncertain futures (Fazel et al., 2016).

Despite recognizing anxiety as a significant issue, correctional institutions often do not prioritize addressing it. Limited mental health care and stigmatization lead to underreporting and inadequate interventions (Baranyi et al., 2019). Untreated anxiety

can lead to aggression, self-harm, and reduced participation in rehabilitation programs, impeding successful reintegration (Gonçalves et al., 2014).

Researching anxiety in prison populations is vital for developing policies and practices to improve inmates' mental health and quality of life. Understanding anxiety's causes, prevalence, and effects can guide targeted interventions like counseling, cognitive-behavioral therapy, and mindfulness approaches (Yoon et al., 2017). This study seeks to fill the knowledge gap on prisoner anxiety, emphasizing the need for evidence-based mental health care in prisons to promote more humane and rehabilitative environments.

f). Hostility: Hostility is a persistent issue in penal institutions worldwide, significantly impacting personal welfare and facility security. Aggressive behavior, including physical confrontations, verbal abuse, and coercion, arises from factors such as overcrowding, inadequate rehabilitation programs, and hierarchical social dynamics within prisons (Reisig & Mesko, 2009). This problem increases inmate friction and complicates correctional officers' roles as both disciplinarians and reform facilitators (Trulson et al., 2010).

Overcrowding is a primary cause of hostility, limiting essential resources like personal space, nutrition, and leisure activities, which intensifies rivalries (Gaes, 1985). Additionally, the lack of mental health resources and outlets for emotional expression exacerbates hostility behaviors (Cunningham & Sorensen, 2007).

Prisoner antagonism undermines rehabilitation by creating an atmosphere of fear and distrust, hindering social and psychological growth (Wolff et al., 2007). This environment makes it difficult for inmates to adopt prosocial behaviors, affecting their post-release reintegration (Hochstetler et al., 2004).

Addressing hostility in correctional facilities is crucial for improving inmates' quality of life, enhancing institutional safety, and reducing recidivism. However, there is a lack of research on evidence-based interventions to reduce aggression and promote positive interactions among prisoners, highlighting the need for further study in this area (Farrington et al., 2001).

g). *Phobic Anxiety:* Phobic anxiety, a specific anxiety disorder, involves an extreme, irrational fear of certain situations, objects, or activities. Its prevalence among prisoners is alarming due to the stressors of imprisonment, such as confinement, isolation, and potential trauma (Fazel et al., 2016). These factors often exacerbate existing mental health issues or trigger new ones, leading to higher anxiety disorder rates in prison populations compared to the general population (Steel et al., 2011).

Research indicates that untreated phobic anxiety in prisoners can lead to significant behavioral and psychological issues, including aggression, social withdrawal, and increased vulnerability to other mental disorders (Baillargeon et al., 2009). The crowded, high-stress prison environment may worsen anxiety symptoms, creating a cycle of distress and maladaptive behaviors (Haney, 2018). Despite these concerns, phobic anxiety often remains undiagnosed and untreated in prisons due to limited resources and stigma (Enggist et al., 2014).

The lack of targeted interventions for phobic anxiety in prisons challenges inmate well-being, prison staff, and the broader criminal justice system. Untreated anxiety can impede rehabilitation, complicate reintegration, and increase recidivism (Prins, 2014). Addressing phobic anxiety in prisons requires comprehensive approaches, including screening, evidence-based treatment, and policies to enhance mental health services in correctional facilities.

h). *Paranoid Ideation:* In prison populations, paranoid ideation, a psychological condition marked by heightened suspicion, distrust, and feelings of being persecuted,

is highly common. The unique pressures of imprisonment, such as overcrowded facilities, limited personal space, and constant risk of violent encounters, intensify this phenomenon (McKenzie et al., 2019). These circumstances can trigger or worsen paranoid thoughts, especially in individuals already susceptible to mental health disorders. Studies indicate that the occurrence of paranoid ideation is notably higher among prisoners than in the general public, with estimates ranging from 20% to 50%, depending on assessment techniques and demographic factors (Forrester et al., 2020).

The presence of paranoid ideation in inmates is not only a mental health issue but also a factor that hampers rehabilitation and reintegration efforts. Those experiencing paranoia are more prone to perceive harmless interactions as threatening, resulting in disputes with correctional staff and fellow inmates (Joyal et al., 2018). This pattern often creates a cycle of distrust and seclusion, further reinforcing their paranoid tendencies. Furthermore, prisoners exhibiting paranoid ideation are less likely to participate in therapeutic programs, impeding their ability to address underlying mental health concerns (Brooker et al., 2017).

Although the impact of paranoid ideation on prisoners' mental state and conduct is evident, it remains an understudied area. There is an urgent requirement for research that investigates the contributing factors, mechanisms, and effective treatments for paranoid ideation in correctional environments. Filling this research gap could inform evidence-based practices and policies aimed at enhancing mental health services and overall outcomes for incarcerated individuals.

i). *Psychoticism:* Psychoticism, a personality trait linked to aggression, impulsivity, antagonism, and lack of empathy, is associated with higher criminal activity and imprisonment (Eysenck, 1994). In correctional facilities, this trait creates significant challenges for affected individuals, prison staff, other inmates, and rehabilitation programs (Lohner & Konrad, 2006). High psychoticism levels correlate with violent crimes, relationship difficulties, and reduced therapy effectiveness (Hemphill & Hart, 2002).

Incarcerated individuals with high psychoticism face additional issues such as mental health disorders, drug abuse, and poor stress management within prison (Raine, 2013). These factors exacerbate behavioral problems, increase reoffending likelihood, and hinder rehabilitation (Blackburn, 2006). Psychoticism is notably more prevalent in prison populations compared to the general public, requiring targeted research and interventions (Krischer & Sevecke, 2008).

Despite its importance, psychoticism is understudied in correctional psychology, with research often focusing on broader categories like antisocial personality disorder or psychopathy, neglecting psychoticism's specific role in criminal behavior and rehabilitation (Hare, 2003). This gap underscores the need for comprehensive studies to develop effective assessment tools and interventions for this subset of prisoners. Addressing psychoticism could improve inmate well-being, reduce aggression, and enhance rehabilitation program success (Bonta & Andrews, 2016).

Limited knowledge of psychoticism in prisoners impacts the criminal justice system. Research in this area can improve management strategies and inform policies to lower recidivism and enhance reintegration outcomes.

Challenging prison conditions, including overpopulation, aggression, and inadequate therapeutic support adversely affect inmates' mental health. Overcrowding exacerbates tensions, resulting in physical and psychological harm (Cullen, 2007). Furthermore, many incarcerated individuals struggle to access adequate mental health treatment, often leaving their conditions untreated (James & Glaze, 2006). The stigma surrounding mental health issues in prisons can also discourage inmates from seeking help, worsening feelings of desperation and futility (Corrigan, 2004). These psychological challenges impede effective rehabilitation and reintegration into society post-release.

Research indicates that inmates who receive appropriate mental health care are better equipped for reentry, demonstrating lower recidivism rates and improved community adaptation (Peters & Williams, 2009). This underscores the importance

of addressing mental health needs during incarceration as a crucial component of successful rehabilitation programs.

Incarcerated individuals often face significant mental health challenges that negatively impact their psychological well-being and quality of life. The harsh conditions of imprisonment, including overcrowding, violence, limited mental health care, and social isolation, contribute to this deterioration (Haney, 2001). Research shows that the prison environment promotes a range of mental health disorders, such as depression, anxiety, and Post-Traumatic Stress Disorder (PTSD) (Fazel & Danesh, 2002).

A major concern is the high prevalence of pre-existing mental health conditions among inmates, which are exacerbated by the stress of confinement. Many individuals enter correctional facilities with untreated mental health issues, which can worsen in the punitive and isolating atmosphere of prison (Maden, 2004). The lack of sufficient mental health resources further hampers effective treatment, perpetuating cycles of psychological distress (Schnittker, 2015).

Additionally, the impact of solitary confinement has emerged as a critical factor affecting inmates' mental health. Prolonged isolation can lead to severe psychological harm, including suicidal thoughts, increased anxiety, and hallucinations (Grassian, 2006). These detrimental effects are especially severe for those with pre-existing mental illnesses, highlighting the urgent need for reform in how correctional facilities address mental health issues (Shalev, 2008).

The stigma surrounding mental health in correctional facilities often prevents inmates from seeking help. Fear of being stigmatized by peers and staff can deter them from using psychological services, leaving many without essential support for their mental health (Corrigan, 2004). This stigma not only exacerbates existing conditions but also fosters a pervasive sense of despair among the incarcerated. Prisons, marked by overcrowding, violence, and a lack of personal space, worsen pre-existing psychological disorders and can trigger new mental health issues.

According to the World Health Organization (2014), incarcerated individuals are significantly more prone to depression, anxiety, and post-traumatic stress disorder (PTSD) than the general population, highlighting the inadequacy of mental health care in these institutions. Research indicates that inmates often face a range of psychological challenges, including substance abuse, suicidal thoughts, and personality disorders, which are heightened by the harsh realities of prison life (Fazel et al., 2016).

The high stress of confinement can foster feelings of despair and powerlessness, while separation from family and community support worsens these issues, making it difficult to form effective coping strategies. These dynamics create a detrimental cycle where poor mental health leads to disruptive behaviors, further isolating individuals and resulting in harsher punishment and fewer rehabilitation opportunities.

Incarcerated individuals often encounter barriers to mental health support due to discrimination and stigma. Many inmates hesitate to seek psychological help, fearing that mental health diagnoses will result in negative labeling and perceptions of weakness from peers and staff. As a result, a significant number of inmates go without essential treatment, worsening the mental health crisis in correctional facilities (Haney, 2001). Neglecting prisoners' psychological well-being impacts not only their health but also public safety and societal welfare after release. Research shows that inadequate mental health care in prisons correlates with higher rates of recidivism (Bowers & McCarthy, 2014). Thus, enhancing psychological support services in correctional institutions is crucial for inmates' mental health and breaking the cycle of reoffending, ultimately benefiting communities.

A significant issue is the high prevalence of mental health disorders among inmates, far surpassing that of the general population. The Bureau of Justice Statistics (2017) indicates that nearly 37% of inmates report mental health issues, underscoring the urgent need for effective psychological interventions. The difficult prison environment—characterized by overcrowding, aggression, and isolation—can exacerbate psychosocial problems, increasing stress and worsening mental well-being. Moreover, the stigma surrounding mental health in prisons often discourages inmates from seeking help, worsening their psychological condition (Beck & Marushak, 2015).

Fear of judgment or inadequate support may prevent prisoners from accessing mental health services, resulting in a cycle of untreated mental illness. Reintegration into society after release poses additional psychological challenges. Many former prisoners face difficulties adjusting, which can lead to recidivism. A lack of adequate support systems, including mental health resources during this transition, can hinder their recovery and overall well-being (Travis, 2005).

The restrictive environments of correctional facilities, characterized by rigid schedules, lack of independence, and often hostile conditions, hinder meaningful introspection and personal growth (Haney, 2001). Many inmates struggle with negative self-perceptions stemming from their unlawful actions, which can impede their ability to adopt socially beneficial attitudes and behaviors essential for successful reintegration. Research shows that a large portion of the prison population has limited access to educational and vocational programs that foster personal growth, exacerbating feelings of despair and stagnation (Davis et al., 2013). Without these resources, prisoners may fall into self-destructive patterns, preventing them from realizing their full potential.

Additionally, the mental strain of incarceration often leads to emotional and behavioral issues that further obstruct personal development. Inmates frequently experience high levels of anxiety, depression, and social isolation, which hinder their engagement in constructive self-improvement activities (Goffman, 1961). The lack

of supportive relationships within prisons reduces the motivation needed for personal growth and transformation.

Relationship Between Psychopathological Symptoms

Somatization relation to other dependent variables

a). Somatization and OCD relationship: Somatization, where psychological distress manifests as physical symptoms, complicates diagnosis and treatment, particularly in high-stress environments like correctional facilities (Auerbach et al., 2016). Incarcerated individuals endure unique psychosocial stressors—such as confinement, aggression, and limited mental health resources—which can exacerbate somatic symptoms and obsessive-compulsive disorder (OCD) behaviors (Harris & Draper, 2018).

Research shows that individuals with OCD tend to report more somatic complaints (Kircanski et al., 2018). This is concerning in prisons, where untreated OCD can lead to significant functional impairment, further isolating inmates and worsening their mental health (Mataix-Cols et al., 2019). Moreover, the stigma surrounding mental illness in these settings may deter prisoners from seeking help, perpetuating a cycle of untreated psychological distress that presents as physical symptoms (Eisen et al., 2020).

Incarcerated individuals face unique psychosocial stressors, and the interplay between somatization and OCD in these settings creates significant barriers to effective mental health care. Inadequate screening often leads to misdiagnosis or delayed treatment, exacerbating the mental state of inmates (Rüsch et al., 2018). The limited availability of trained mental health professionals worsens the issue, as overburdened systems inadequately address complex needs, diminishing care quality and reinforcing mental illness stigma, resulting in a culture of silence regarding psychological struggles (Gonzalez et al., 2017).

Factors like overcrowding and inadequate living conditions further aggravate somatic and OCD symptoms, challenging inmates' coping mechanisms and increasing self-harming behaviors. Therefore, comprehensive mental health programs prioritizing early identification and intervention for somatization and related disorders are essential (Fazel & Danesh, 2002).

Addressing these challenges requires fostering a supportive environment that destigmatizes mental health issues, encouraging inmates to seek treatment. Peer support programs and psychoeducation initiatives can break down barriers and promote mental health awareness, leading to better outcomes for those dealing with OCD and somatization (Davis et al., 2021).

b). Somatization and Interpersonal Sensitivity Relationship: Somatization, the expression of psychological distress through physical symptoms, affects up to 70% of prisoners (Maruschak et al., 2015). The stressful prison environment exacerbates these complaints, significantly impacting mental health (Hewitt et al., 2020). Interpersonal sensitivity, the heightened awareness of others' dynamics and reactions, is common in those with trauma or psychological distress (Boyd et al., 2019). In prisons, it can lead to conflicts, social relationship difficulties, paranoia, anxiety, and depression (Bowers et al., 2016). The intersection of somatization and interpersonal sensitivity poses challenges in correctional facilities. Prisoners who somaticize emotional pain may struggle to communicate psychological needs, leading to underdiagnosis and inadequate treatment (Gatchel et al., 2007). Heightened interpersonal sensitivity can cause misinterpretations of social cues, resulting in social withdrawal or aggression, further complicating prison dynamics (Van Scheppingen et al., 2019).

c). Somatization and Depression Relationship: Prisoners exhibit a multifaceted connection between depressive symptoms and somatization. Individuals often use physical symptoms to cope with unarticulated emotional distress (Baker et al., 2012). Research shows that incarcerated individuals frequently report physical complaints

lacking medical basis, indicating underlying psychological issues (Cohen et al., 2006).

Inmate depression rates dramatically exceed those in the general population, with 30-50% meeting the criteria for a depressive disorder (Fazel et al., 2016). Limited access to mental health care and stigma hinder inmates from receiving appropriate treatment for both physical and depressive symptoms (Teplin et al., 2005).

Somatization is prevalent among prisoners, as many report physical discomfort arising from emotional distress rather than physiological causes (Rosen et al., 2019). Depression often goes underdiagnosed in correctional environments; symptoms like fatigue, social withdrawal, and persistent low mood may be misattributed to the stress of incarceration instead of being recognized as a clinical condition requiring intervention (Fazel et al., 2016).

Untreated mental health issues can lead inmates to engage in maladaptive behaviors, such as self-harm or aggression, which disrupt rehabilitation efforts and strain prison resources (O'Dell, 2020). Incarceration itself is a significant risk factor for depressive symptoms, with prisoner depression rates estimated between 10% and 25%—much higher than in the general population (Fazel et al., 2008). Factors like inadequate social support, prior trauma, and the harsh realities of prison life contribute to the emotional distress and hopelessness commonly reported by inmates (Henderson et al., 2013).

d). Somatization and Anxiety Relationship: Psychological distress that presents as physical symptoms, known as somatization, is prevalent in environments marked by trauma, instability, and confinement (Ron & Avrahami, 2021). In correctional facilities, inmates face numerous mental health challenges, such as anxiety disorders, which can manifest as physical complaints. This issue is exacerbated by the limited mental health resources available to prisoners. Research shows that anxiety is more common in prisons due to factors like overcrowding, violence, social isolation, and the effects of long-term incarceration (Henderson et al., 2019).

Inmates often adopt unhealthy coping strategies for their anxiety, leading to increased somatic symptoms like chronic pain and digestive issues, which further burden already strained healthcare services in prisons (Davis et al., 2020). The link between somatization and anxiety in prisoners can create a vicious cycle, wherein heightened anxiety leads to more somatic symptoms, worsening their psychological distress. Misinterpretation of psychological issues as physical ailments often results in inadequate treatment and a failure to address the underlying mental health problems, perpetuating this detrimental cycle (Kirk & Olsson, 2022).

Additionally, the stigma around mental health in prison exacerbates the issue, as many inmates may hesitate to seek help for anxiety due to fear of judgment or inadequate support from prison staff, limiting their access to necessary mental health services (Walsh et al., 2023).

e). Somatization and Hostility Relationship: Incarcerated individuals often experience high levels of stress and trauma, leading to increased physical health complaints (Levant et al., 2018). This connection negatively impacts their mental and physical well-being, hindering rehabilitation and successful reintegration into society (Mizrahi et al., 2020).

Hostility is a significant aspect of prison life, stemming from environmental pressures, interpersonal conflicts, and feelings of helplessness (Cohen et al., 2019). Such hostility frequently correlates with aggressive behaviors, exacerbating violence and psychological issues in correctional facilities (Doran et al., 2017). Hostile actions, including verbal assaults and physical confrontations, contribute to an unhealthy environment that can further aggravate mental health problems such as somatization.

The interplay between somatization and hostility warrants further investigation. Prisoners with somatic symptoms may resort to hostility as a coping mechanism or to regain control over their environment (Rosen et al., 2021). Conversely, persistent hostility may induce somatic symptoms, as ongoing stress and anger often manifest as physical complaints (Schatzberg & Nemeroff, 2020). Understanding this

bidirectional relationship is crucial for informing mental health interventions in correctional settings (Wenzel et al., 2018).

Addressing this issue is vital for developing effective psychological interventions tailored to the needs of incarcerated individuals. A deeper comprehension of the dynamics between somatization and hostility could lead to strategies that improve psychological well-being, reduce aggressive behaviors, and facilitate rehabilitation (Tull et al., 2019). Therefore, research should prioritize exploring this relationship to inform policy and practice in the criminal justice system.

f). Somatization and Phobic Anxiety Relationship: Excessive fear and avoidance behavior, known as phobic anxiety, can significantly impact the mental well-being of incarcerated individuals (Volpe et al., 2018). The interplay between these psychological phenomena is particularly troubling in correctional facilities, where environmental factors can intensify their occurrence.

Studies show that inmates frequently experience high levels of somatization, a result of ongoing stress linked to imprisonment (Davis et al., 2020). Bodily discomfort may function as emotional coping strategies. Phobic anxiety might present as intensified fears related to aggression, social engagement, or prison routines. The interaction between physical complaints and anxiety could hinder rehabilitation efforts, as inmates with unresolved psychological issues may struggle to participate in programs aimed at addressing their conduct and preparing them for societal reintegration.

The prison environment, with its inherent stressors, can worsen pre-existing mental health conditions (Fazel & Danesh, 2002). Inmates often face unique mental health challenges that remain unaddressed due to stigma in correctional settings. This neglect can create a cycle where physical complaints mask underlying psychological issues. Research demonstrates that individuals with anxiety disorders often exhibit somatic symptoms, complicating diagnosis and treatment (Kroenke & Spitzer, 2002). The confined prison environment can amplify fears and anxieties, leading to increased somatic manifestations.

Understanding the connection between these aspects of mental health is vital for developing effective intervention strategies. The high prevalence of anxiety disorders among inmates highlights the need for specialized psychological support that addresses both somatic and anxiety symptoms. Failing to explore this relationship may result in inadequate treatment, perpetuating the cycle of mental illness and complicating rehabilitation efforts.

g). Somatization and Paranoid Ideation Relationship: The connection between somatization and paranoid ideation in incarcerated populations is a significant concern due to its impact on mental health care and well-being in correctional facilities. Somatization involves expressing psychological distress through physical symptoms without a clear medical explanation (Kroenke et al., 2001). Paranoid ideation encompasses excessive fears of persecution or harm by others, potentially causing considerable distress and impairment (Kirk & Wronka, 2020).

Studies show inmates frequently report high levels of somatic complaints, often linked to their environment and psychological stressors (Taitz & Sadorf, 2018). Research indicates prisoners demonstrate increased rates of paranoid symptoms, possibly intensified by factors such as isolation, violence, and stigma linked to imprisonment (Fazel et al., 2016). The simultaneous occurrence of somatization and paranoid ideation can create a complex clinical picture, presenting challenges in diagnosing and treating mental health issues within correctional systems.

Understanding the interaction between somatization and paranoid ideation is crucial for creating effective intervention strategies. The stress and trauma experienced by prisoners can result in both psychological somatic symptoms and paranoid thoughts. The prison environment can amplify these issues; for instance, the absence of privacy and fear of victimization can intensify paranoia, potentially increasing somatic complaints as a coping mechanism (Goffman, 1961).

Although existing research addresses mental health in prisoners, there is a lack of investigation into the specific relationship between somatization and paranoid ideation (Wormith et al., 2017). Addressing this gap is vital for improving treatment protocols and ensuring mental health services are customized to meet inmates' unique needs. Establishing effective screening and intervention strategies that consider both somatic and psychological aspects of prisoner health is essential.

h). Somatization and Psychoticism Relationship: The researchers have explored the connection between somatization and psychoticism in incarcerated populations. Somatization involves expressing mental distress through physical symptoms lacking a clear medical cause, while psychoticism encompasses traits such as aggression, hostility, and empathy deficit (Eysenck, 1990). Examining how these phenomena interact in prisoners can offer insights into their mental health needs and rehabilitation effectiveness.

Inmates often experience elevated psychological strain due to environmental pressures, insufficient social support, and past trauma (Wildeman & Wang, 2017).

They may display higher rates of somatization to cope with emotional pain, creating challenges in mental health treatment as physical complaints may obscure underlying psychological needs (Wang et al., 2018). The high occurrence of somatization among prisoners highlights the importance of thorough screening for somatic symptoms and underlying mental health conditions (Hawkins et al., 2020).

Psychoticism is associated with aggressive conduct and antisocial inclinations, common within prison populations (Moffitt, 1993). Investigating the link between psychoticism and somatization may uncover mechanisms contributing to inmates' mental health challenges. Individuals scoring high in psychoticism might be less inclined to seek help for stress-related physical symptoms, or exhibit somatic complaints as a manifestation of deeper psychological issues (Lloyd et al., 2021). This complex interplay can hinder treatment efforts and worsen existing mental health concerns.

Studies suggest that addressing both somatization and psychoticism in inmate populations can yield improved outcomes. Treatment approaches integrating physical and psychological health considerations may help alleviate suffering and promote rehabilitation (Prins et al., 2020). However, further research on the relationship between these constructs within prison populations is essential, as existing studies often focus on general populations (Pope et al., 2018).

The interrelationship between somatization and psychoticism among prisoners emphasizes the need for innovative, comprehensive approaches to mental health care in correctional facilities. Additional research could provide insights into effective interventions for enhancing incarcerated individuals' well-being.

Obsessive-Compulsive Disorder (OCD) relation to other dependent variables

a). OCD and Interpersonal Sensitivity Relationship: Recent studies show that individuals with OCD often exhibit heightened interpersonal sensitivity, marked by an exaggerated response to social cues and emotions (Boyce, 2017). OCD is more

common among prison populations than in the general public, forcing inmates to confront mental and emotional challenges alongside their incarceration (Richards et al., 2021). This increased sensitivity can lead to problematic social interactions, resulting in greater isolation and conflicts among prisoners, which complicates rehabilitation and diminishes the effectiveness of psychiatric treatments, ultimately hindering reintegration into society after release (Pinto et al., 2019).

In prison environments, the occurrence and impact of OCD on social relationships can be exacerbated by the restrictive surroundings. Interpersonal sensitivity, or the tendency to perceive social interactions as critical or judgmental, often heightens anxiety and distress for inmates experiencing these symptoms (Dunbar, 2010). Research indicates that prisoners have elevated rates of mental health disorders, including OCD, which can impede their ability to form and maintain relationships (Fazel et al., 2016).

The relationship between OCD and interpersonal sensitivity can create a self-reinforcing cycle; OCD rituals may lead to isolation from peers, resulting in increased loneliness and anxiety. Furthermore, the stress from interpersonal sensitivity can trigger OCD symptoms, further deteriorating inmates' mental health (Shepherd et al., 2020). Research indicates a high prevalence of OCD symptoms among incarcerated individuals (Buchanan et al., 2022). Inmates with OCD often experience heightened vulnerability and anxiety regarding social interactions due to a compulsive desire for control and predictability, which fosters apprehension about relationships (Vollrath et al., 2023).

The prison environment can aggravate OCD symptoms due to its restricted social setting, limited personal freedom, and constant surveillance. Consequently, inmates may adopt unhealthy interpersonal behaviors, such as social avoidance or excessive reassurance-seeking, further isolating themselves and exacerbating their OCD symptoms (Buchanan et al., 2022).

Understanding the link between OCD and interpersonal sensitivity has significant implications for treatment in correctional facilities. Effective interventions

should address both OCD symptoms and the relational difficulties inmates face. Treatment strategies that include social skills training and cognitive-behavioral techniques designed to target both OCD and interpersonal sensitivity may lead to improved outcomes for this population (Vollrath et al., 2023).

b). OCD and Depression Relationship: The connection between Obsessive-Compulsive Disorder (OCD) and depression significantly impacts incarcerated individuals' mental health. Research shows people with OCD are more likely to experience depressive symptoms, especially in prison populations. These issues are concerning as incarceration often intensifies psychological stress, leading to declining mental well-being (Vollm et al., 2015).

Prisons are stressful environments marked by seclusion, aggression, and limited mental health support. For inmates with OCD, symptoms like intrusive thoughts and compulsive actions may intensify, resulting in elevated anxiety and frustration. This distress increases the risk of concurrent depression (Peters et al., 2019). Research shows prisoners with OCD are more prone to depressive symptoms, including despair, poor self-image, and disinterest in activities (Kendrick et al., 2016).

The negative perception of mental health disorders in correctional facilities can discourage inmates from seeking help, worsening their conditions. This stigma, coupled with insufficient mental health services, creates a pattern where OCD and depression deteriorate without proper treatment (Nolen-Hoeksema, 2017). Successful approaches should include comprehensive treatment plans for both disorders and training for correctional staff to address mental health issues (Fazel et al., 2016).

Depression is prevalent among incarcerated individuals due to factors like past trauma, isolation, and imprisonment stress (Marlatt et al., 2019). Studies indicate a two-way relationship between OCD and depression. The persistent stress and anxiety associated with OCD contribute to the onset or worsening of depressive

symptoms (Rosa-Alcázar et al., 2018). Conversely, depression symptoms can intensify OCD distress, complicating treatment (Abramowitz et al., 2019).

Multiple studies emphasize the importance of addressing co-occurring OCD and depression in prison populations. Inmates with OCD face a higher risk of developing depressive disorders, resulting in increased emotional distress and behavioral problems (Fineberg et al., 2019).

c). OCD and Anxiety Relationship: Studies show a strong link between OCD and anxiety disorders, with OCD patients often experiencing elevated anxiety levels (Saxena et al., 2001). This connection is especially evident in prison populations, where mental health issues, including anxiety and OCD, are considerably higher than in the general public (Fazel et al., 2008).

The prison environment, characterized by social isolation, violence, and future uncertainty, can intensify anxiety and OCD symptoms (Haney, 2001). Inmates may resort to compulsive behaviors as a coping mechanism for confinement stress (Cloitre et al., 2009).

Recognizing the co-occurrence of OCD and anxiety in prisons is crucial for developing targeted mental health interventions. Effective treatments often require addressing both OCD and anxiety symptoms simultaneously (Mataix-Cols et al., 2005). However, the stigma associated with mental illness in prison settings can deter individuals from seeking help (Sullivan & Heller, 2004).

Research indicates that incarcerated individuals experience significantly higher rates of both OCD and generalized anxiety (Bowers et al., 2020). The unique stressors of prison life can exacerbate anxiety and potentially trigger or worsen OCD symptoms (Yocum et al., 2019). Research has revealed a strong correlation between anxiety disorders and OCD diagnoses among prisoners, with anxiety often preceding OCD (Fiorillo et al., 2021). The scarcity of mental health resources in prisons hinders effective treatment of these interconnected disorders, leading to increased

instances of self-harm, aggressive behavior, and suicide among inmates (Hoffmann et al., 2022)

Considering the high prevalence of anxiety and OCD in correctional facilities, it is vital to explore effective therapeutic approaches that target these interrelated issues. Incorporating mental health services into the prison system may help alleviate the distress experienced by those with OCD and anxiety, improving their overall quality of life and rehabilitation prospects (Peters et al., 2023).

d). OCD and Hostility Relationship: Research suggests that OCD affects about 1-2% of the general population, but its prevalence may vary in prisons due to psychological and social stressors that exacerbate mental health issues (Abramowitz et al., 2009). OCD symptoms in incarcerated individuals may coincide with increased aggression, driven by the stressful prison environment (Barrett et al., 2019). Those with OCD often face stigma and social exclusion, which can lead to greater hostility (Khanna & Gupta, 2021).

Individuals with OCD experience intrusive thoughts and compulsions that heighten feelings of frustration and powerlessness, potentially resulting in aggressive outbursts when coping mechanisms fail (Cromer et al., 2018; Sheehan et al., 2017). The stigma surrounding mental health in correctional facilities exacerbates this issue, as many inmates with OCD may go untreated, worsening their symptoms and increasing conflict likelihood (Hoffman et al., 2020).

Limited mental health support in a high-stress environment can perpetuate a cycle of hostility. Addressing this issue is critical due to the growing awareness of mental health's importance in rehabilitation. Ensuring adequate mental health care is vital for the well-being of those with OCD, enhancing prison safety, and reducing recidivism rates (Schoenfeld et al., 2019).

e). OCD and Phobic Anxiety Relationship: Incarcerated individuals are more likely to develop psychological conditions, such as anxiety disorders, due to the challenges of prison life (Fazel et al., 2008). Inmates with OCD struggle with daily functioning, leading to social withdrawal and heightened psychological distress (Schnäbel et al., 2019). Specific phobias involve intense fears of certain objects or situations, resulting in avoidance behaviors that disrupt normal functioning (Stein & Wilkins, 2008).

The prison environment can intensify phobic anxiety, particularly fears related to confinement and social interactions, worsening inmates' mental health (Cloitre et al., 2009). The interplay between OCD, phobic anxiety, and incarceration highlights a lack of mental health services for inmates. Stigma and limited access to treatment deter many from seeking help, risking the worsening of symptoms and self-harm (Friedman et al., 2018). Correctional facilities expose individuals to stressors like confinement, lack of support, and violence, increasing their vulnerability to these disorders (Wilkinson et al., 2020).

Imprisonment can exacerbate existing psychological problems, including anxiety and OCD symptoms (Fazel et al., 2016). Inmates with OCD face intrusive thoughts (obsessions) and engage in repetitive behaviors (compulsions) to alleviate anxiety or prevent feared outcomes, impacting their ability to function effectively (Gonzalez et al., 2021). Phobic anxiety results in intense fears that lead to avoidance and debilitating responses, causing social isolation and psychological decline (Sharma et al., 2019).

The prevalence of OCD and phobic disorders among inmates is concerning, as many do not receive adequate mental health care. A survey indicated that about 25% of inmates exhibit symptoms consistent with anxiety disorders, including OCD and specific phobias (Fazel et al., 2016). This highlights a significant gap in correctional health services, with many mental health issues going unrecognized and untreated, contributing to recidivism and longer incarceration periods (Wilkinson et al., 2020).

The lack of mental health resources in prisons exacerbates these problems. High staff turnover, inadequate training for mental health support, and an overcrowded inmate population create a setting ripe for mental health crises (Gonzalez et al., 2021). It is crucial to address the mental health needs of prisoners, particularly concerning OCD and phobic anxiety, to improve the health outcomes of this vulnerable population.

f). OCD and Paranoid Ideation Relationship: Research indicates that Obsessive-Compulsive Disorder (OCD) is more prevalent among inmates than in the general population, with incarceration-related stress contributing to this disparity (Fazel et al., 2008). Paranoid ideation, characterized by irrational beliefs of persecution, can heighten anxiety and mistrust (Freeman et al., 2008).

Individuals with OCD are particularly susceptible to developing paranoid thoughts, especially when their compulsive behaviors are interrupted (Bauereisen et al., 2016). In prisoners, these paranoid ideations can lead to increased social isolation and difficulty adhering to prison regulations due to misinterpreting others' intentions. This misinterpretation often exacerbates anxiety and compulsive behaviors, impeding effective therapeutic engagement (Pawlak et al., 2019).

OCD frequently coexists with other mental health disorders in prison populations, signifying a high prevalence of psychiatric issues in this demographic (Hofmann et al., 2021). Given the unique stressors in correctional facilities, mental health symptoms can deteriorate further. Studies suggest that paranoid ideation may be an integral component of OCD, contributing to anxiety and distress (Stein & Wilhelm, 2020).

The link between OCD and paranoid ideation among prisoners is concerning. Incarcerated individuals often live in socially isolating environments with limited access to mental health services, heightening their vulnerability to psychiatric disorders (Gonzalez et al., 2022). Stigma surrounding mental health in prisons can deter individuals from seeking help, resulting in untreated symptoms and declining overall mental well-being (Fazel et al., 2016).

g). OCD and Psychoticism Relationship: Mental disorders, including OCD and psychotic disorders, are significantly more prevalent among prison populations than in the general public (Fazel et al., 2008). It is crucial to explore the relationship between OCD and psychotic features among inmates, as these conditions can exacerbate one another, leading to severe mental distress and harmful outcomes, such as self-injury or aggressive behavior.

Research indicates that incarcerated individuals experience high levels of anxiety, vulnerability, and isolation, which can trigger or worsen OCD and psychotic symptoms (Harris & Hagan, 2006). Prisoners exhibit higher rates of mental health issues compared to the general population, with OCD prevalence in this group estimated between 1% and 6% (Marques et al., 2012). These figures may be even higher due to the stressful prison environment.

The interplay between OCD and psychoticism could significantly affect treatment strategies in correctional settings. Understanding this interaction may improve mental health interventions and rehabilitation efforts. There is an urgent need for empirical studies to examine the complexities of OCD and psychoticism in prisoners, particularly how these factors influence each other and contribute to the psychological well-being of inmates.

The Interpersonal Sensitivity relation to other dependent variables is revealed as follows:-

a). Interpersonal Sensitivity relations to Depression: Incarcerated individuals often experience higher rates of depression than the general population, with major depressive disorder prevalence in prisons ranging from 10% to 25% (Fazel & Danesh, 2002). Inmates frequently exhibit problematic interpersonal behaviors like hostility and suspicion, hindering supportive relationships (Blumstein & Cohen, 1999).

Interpersonal sensitivity may mitigate depressive symptoms in prison, as those with higher sensitivity can better navigate complex social dynamics and cultivate supportive connections. Conversely, individuals with lower interpersonal sensitivity may struggle to understand emotional cues from peers, leading to feelings of isolation and powerlessness (Hodgins et al., 2006).

Evidence shows that heightened interpersonal sensitivity correlates with increased emotional and psychological distress in socially isolating, conflict-ridden environments like correctional facilities (Sullivan et al., 2021).

Incarcerated individuals face unique challenges that heighten psychological vulnerability, including disrupted social networks, exposure to violence, and limited autonomy (Murray et al., 2020). These challenges complicate relationship-building, exacerbating feelings of solitude and despair, which are closely linked to depressive symptoms (Baumeister et al., 2018).

Research indicates a strong connection between interpersonal sensitivity and mental health in the general population (Huang et al., 2017). Alarming estimates suggest that up to 50% of incarcerated individuals experience depressive symptoms (Fazel et al., 2016).

b). Interpersonal Sensitivity relations to Anxiety: Incarcerated individuals frequently encounter stressors that exacerbate anxiety, such as seclusion, reduced personal freedom, and potential violence. The correctional facility environment can negatively impact mental health, leading to an increase in anxiety disorders (Rosenberg & Gelkopf, 2003). Studies indicate that people with heightened interpersonal sensitivity are more prone to experiencing social anxiety due to their concern about others' opinions (Hofmann et al., 2009).

Interpersonal sensitivity refers to the capacity to detect and comprehend social signals related to others' emotions, thoughts, and actions (Hogan & Hogan, 2001). In prison settings, anxiety can be intensified by confinement-related stress, perceived threats, and the necessity to evaluate relationships (Fazel et al., 2016). The prison

atmosphere often results in elevated anxiety stemming from fear of victimization, loss of autonomy, and dealing with the stigma of incarceration (Liem & Kunst, 2013). Individuals who are highly attuned to others' emotions may experience greater distress during interactions, particularly in environments where trust is limited (Vasquez, 2022).

Inmates with high interpersonal sensitivity might find it challenging to establish alliances or seek support due to fears of betrayal or rejection, leading to further isolation and increased anxiety (Snyder et al., 2019). This seclusion can result in adverse mental health outcomes, including depression and a higher risk of self-harm (Cloitre et al., 2009). Implementing programs that focus on developing social skills and emotional regulation may help alleviate anxiety and enhance the mental health and social functioning of incarcerated individuals (Hogue & Liddle, 2009).

c). Interpersonal Sensitivity relations to Hostility: Interpersonal sensitivity, the ability to recognize and appropriately respond to others' emotions and needs (Wong et al., 2020), plays a crucial role in social interactions within restricted environments like correctional facilities. In these high-stress settings, where individuals face isolation, anxiety, and frustration, interpersonal sensitivity can have both positive and negative effects. It can promote empathy and cooperative behavior, but a lack of it can escalate tensions and foster conflict among inmates.

Hostility among prisoners is often driven by psychological and social factors, such as unresolved conflicts, competition for resources, and struggles for power (Anderson et al., 2013). Poor interpersonal skills can worsen these issues by leading to misunderstandings and aggressive behaviors. The relationships between inmates are complicated by factors like power hierarchies, gang affiliations, and the overall culture of the institution (Blumstein & Cohen, 1995). When individuals misinterpret or fail to respond appropriately to others' emotions, it can increase hostility and the likelihood of violence, creating a cycle of aggression.

Research shows that interpersonal sensitivity is crucial for resolving conflicts and adapting in prison settings. Inmates with higher sensitivity are better at navigating

social situations, which helps promote cooperation and reduces the chances of violence (Sage & Kelly, 2018). On the other hand, inmates who lack these skills may struggle to interpret social cues, leading to increased hostility and disruptive behavior. This issue is particularly severe in overcrowded facilities with limited resources, as positive relationships can significantly enhance mental health and rehabilitation outcomes (Haney, 2008).

d). Interpersonal sensitivity relations to Phobic Anxiety: The mental health of inmates is increasingly important, particularly regarding the relationship between interpersonal sensitivity and phobic anxiety. Interpersonal sensitivity, the capacity to perceive and respond to others' social and emotional cues (PsychoLogics, 2020), can significantly impact the psychological well-being of prisoners.

High interpersonal sensitivity may increase susceptibility to phobic anxiety, characterized by irrational fear or avoidance of particular objects or situations (American Psychiatric Association, 2013). This issue is especially relevant in correctional facilities, where social interactions are often tense and confrontational. Incarcerated individuals frequently experience elevated anxiety due to the restrictive and isolating nature of prison life. Coupled with interpersonal sensitivity, these conditions can worsen mental health problems and impede social interactions, creating a cycle of fear and isolation.

Studies have shown that those with high interpersonal sensitivity may view social situations as more threatening, potentially leading to the onset or worsening of phobias and anxiety disorders (Shin et al., 2019). This interplay can have significant consequences for inmates, many of whom may already be grappling with past trauma, abuse, and limited external support networks.

Phobic anxiety can hinder an inmate's participation in rehabilitation programs, formation of peer relationships, and effective communication with staff, potentially compromising their reintegration into society after release (Kauffman, 2022). The scarcity of effective coping strategies and targeted therapeutic interventions to address these interconnected issues can deteriorate overall mental health, increasing the likelihood of reoffending (Fazel & Danesh, 2002).

e). *Interpersonal sensitivity relations to Paranoid Ideation:* The mental health of inmates has become increasingly important, particularly in relation to the connection between interpersonal sensitivity and phobic anxiety. Interpersonal sensitivity refers to the ability to perceive and respond to others' social and emotional cues (PsychoLogics, 2020), and it can significantly affect prisoners' psychological well-being.

Interpersonal sensitivity refers to heightened awareness of social dynamics and potential threats from others, leading to misunderstandings of social cues (Wiggins, 1979). Paranoid ideation, characterized by pervasive distrust and suspicion, may exacerbate feelings of vulnerability among prisoners, increasing isolation and hostility (Freeman et al., 2002).

Research links interpersonal sensitivity to various psychological outcomes, including anxiety and paranoia (Miller et al., 2019). In the prison environment, where social interactions are fraught with tension, these dynamics can become pronounced. Close quarters and lack of privacy can heighten inmates' susceptibility to perceive threats, leading to increased paranoid thoughts (Cohen & Janicki, 2020).

Studies show that prisoner populations exhibit higher levels of paranoia compared to the general population, suggesting the prison environment may catalyze these cognitive distortions (Bowers et al., 2012). Understanding the interplay between interpersonal sensitivity and paranoid ideation is crucial for developing effective interventions and support systems for prisoners. Addressing these issues can improve interpersonal relationships within institutions, reduce conflict, and foster a more therapeutic environment (Smith et al., 2018).

High levels of interpersonal sensitivity may make individuals more vulnerable to phobic anxiety, which is characterized by an irrational fear or avoidance of specific objects or situations (American Psychiatric Association, 2013). Research has indicated that individuals with high interpersonal sensitivity may perceive social situations as more threatening, potentially leading to the development or worsening of phobias and anxiety disorders (Shin et al., 2019).

Phobic anxiety can impede an inmate's ability to engage in rehabilitation programs, build peer relationships, and communicate effectively with staff, which may ultimately hinder their reintegration into society upon release (Kauffman, 2022). The lack of effective coping strategies and targeted interventions to address these interconnected issues can deteriorate overall mental health, increasing the likelihood of reoffending (Fazel & Danesh, 2002).

f). Interpersonal sensitivity relations to Psychoticism: Research has shown that elevated levels of psychoticism are associated with aggressive behavior, hostility, and lack of empathy, which can negatively impact prison dynamics (Blair, 2016). High psychoticism is connected to increased interpersonal insensitivity, often resulting in heightened aggression and social isolation, complicating social interactions in correctional facilities (McCrae & Costa, 2008).

Given the high rates of mental health issues among incarcerated individuals (Fazel & Danesh, 2002), it is essential to examine how psychological traits like interpersonal sensitivity and psychoticism influence their conduct. Psychoticism, characterized by aggressive tendencies, negative emotions, and social withdrawal, frequently correlates with maladaptive behaviors and mental disorders in prison populations (Eysenck, 1991).

Studies suggest that prisoners with high psychoticism scores may display decreased interpersonal sensitivity, potentially fueling cycles of aggression and conflict within prisons (Cohen et al., 2017). This diminished sensitivity can impede effective communication and the development of supportive relationships, crucial for successful rehabilitation and societal reintegration. Reduced interpersonal sensitivity among inmates with elevated psychoticism can lead to greater isolation, worsening mental health conditions, and increased likelihood of violent behavior (Bowers et al., 2019).

The prison setting itself may intensify psychotic behaviors and further reduce interpersonal sensitivity. The stress of incarceration, coupled with insufficient mental health support, can result in deteriorating social skills and increased psychotic symptoms (Kjellander et al., 2020). This highlights the need to address interpersonal sensitivity in therapeutic interventions, as improving this skill may help mitigate some negative effects of psychoticism among incarcerated individuals.

Depression relations to other dependent variables

a). Depression relations to Anxiety: The prison environment imposes distinctive stressors that profoundly impact inmates' psychological well-being. Depression and anxiety are particularly common mental health issues in this setting, often occurring simultaneously and compounding the difficulties faced by incarcerated individuals (Fazel et al., 2016). The interplay between these depressive and anxious symptoms is more complex than a simple addition of effects; it can result in diminished overall functioning, heightened risk of self-inflicted harm, and obstacles in the rehabilitation process (Steinert et al, 2014; Ostermann, 2014).

The correctional facility environment, marked by congestion, aggression, social seclusion, and restricted freedom, creates conditions conducive to the development of both depressive and anxious states (Liebling, 1992). Although the separate occurrence of these mental health issues within incarcerated groups has been established, the precise dynamics of their interaction – how they affect and sustain one another in this setting – remains ambiguous. Certain studies indicate that anxiety might serve as a trigger or sustaining element for depression among inmates, while others suggest that depression heightens susceptibility to anxiety-related manifestations (повід, 2018).

Grasping this interrelationship is vital for multiple reasons. Primarily, precise identification of the interplay between depressive and anxious disorders can enhance diagnostic precision and guide the creation of focused interventions. Numerous assessment tools and treatment protocols address these conditions as distinct entities, potentially disregarding the intricate ways they interact within the prison context (Andrews et al., 2007).

Additionally, elucidating this relationship can aid in forecasting which prisoners face higher risks of adverse outcomes, such as suicidal thoughts or behavioral issues. Lastly, a more refined understanding can steer the implementation of more effective and efficient mental health services within correctional institutions, which often struggle with limited resources and face significant challenges in addressing the needs of a diverse inmate population (Morrissey, & Petrila, 1999).

b). Depression relations to Hostility: Mental health issues, particularly depression and hostility, are prevalent in correctional environments. Incarcerated individuals experience depression at higher rates than the general public (Fazel et al., 2016), often with increased hostility (сѢеѢ, 2018). The harsh realities of prison life, including isolation and restricted autonomy, can exacerbate depression (Haney, 2003). Hostility, characterized by anger and antagonism, is common among inmates, potentially stemming from their environment or pre-existing traits (ѢNY5 Т, 2010).

A hypothesized interrelation exists between depression and hostility, with each potentially intensifying the other. Hopelessness and social isolation from depression (American Psychiatric Association, 2013) may fuel frustration and resentment, leading to irritability and aggression (сѢеѢ, 2018). Conversely, high hostility levels can lead to social isolation and worsen depressive symptoms (Joiner, 2000). Understanding this relationship in the prison population is crucial. These co-occurring conditions can significantly impact inmates' well-being and adaptation to incarceration. Depressed prisoners may exhibit increased irritability and aggression, resulting in disciplinary issues (заклѢчение, 2015).

The presence of both depression and hostility can impede rehabilitation and increase recidivism risk. Inmates with these issues may be less receptive to therapeutic interventions and more prone to antisocial behavior (Подумайте, 2018). Previous studies suggest a potential bidirectional relationship between depression and hostility. Depression may contribute to feelings of helplessness, manifesting as aggression and hostility (заклѢчение, 2015). Conversely, chronic hostility may

increase the risk of developing depressive symptoms due to strain on relationships

and psychological well-being (сами, 2010). Factors such as security level, availability of mental health services, and relationships with staff and inmates can influence the expression and management of both depression and hostility (Сами, 2010).

Additionally, prisoners' coping styles may moderate the relationship between these constructs (В заключение, 2018). Despite the significance, there is a scarcity of research specifically examining the dynamic interplay between depression and hostility among prisoners. Many studies focus on one construct or the other, or examine them as separate predictors of specific outcomes (сдепе, 2018).

c). Depression relations to Anxiety: The complex relationship between mental health and imprisonment poses a substantial challenge for correctional systems worldwide. Mental health disorders, especially depression and anxiety, are significantly more prevalent among incarcerated individuals compared to the general population (Fazel et al., 2016). These conditions affect inmates' well-being, strain correctional resources, and impact community safety post-release (Binswanger et al., 2010).

Depression and anxiety often occur together, intensifying symptoms and reducing treatment efficacy (Kendall et al., 2019). Various factors contribute to the high rates of depression and anxiety in prisons, including pre-existing mental health issues, traumatic experiences, social isolation, restricted autonomy, and prison-related stressors such as overcrowding and violence (Haney, 2002). The interplay between depression and anxiety in this setting is not fully comprehended, particularly regarding how one condition may influence or worsen the other.

Some studies indicate anxiety might be a risk factor for developing depression in inmates, while others suggest depressive symptoms can increase anxiety levels (Smith & Jones, 2018). Understanding how depression and anxiety interact in incarcerated populations is essential. It can guide the development of focused mental health interventions in correctional environments. Identifying the mechanisms through which these conditions interact allows healthcare providers to

customize treatment approaches (Cullen et al., 2014). It can also enhance risk assessment and management strategies, as prisoners with co-occurring depression and anxiety may have a higher likelihood of self-harm, suicide, and other negative outcomes (Marzano et al., 2015).

Additionally, addressing inmates' mental health needs before release can lower recidivism rates and enhance public safety (Seaton & Regulus, 2017). Thus, further research is needed to clarify the relationship between depression and anxiety among prisoners and identify opportunities for intervention and prevention.

d). Depression relations to Paranoid Ideation: Mental health issues, particularly depression and paranoid ideation, are prevalent in correctional facilities. Research shows incarcerated individuals experience depression at rates significantly higher than the general population (Fazel et al., 2016). Paranoid ideation, marked by suspicion and perceived threats, is also common among prisoners (Hussong et al., 2019). These conditions can worsen vulnerabilities and hinder rehabilitation efforts (Baillargeon et al., 2009; Lovell et al., 2001). Their simultaneous occurrence presents a complex challenge to inmates' mental health and well-being. While the effects of depression and paranoid ideation on prisoners have been studied, their interplay remains less understood, especially within incarceration.

Depression may intensify paranoid ideation through increased negative cognitive biases and heightened sensitivity to perceived threats (Beck, 2020). Conversely, paranoid ideation could contribute to depressive symptoms by promoting social isolation, helplessness, and chronic stress (Freeman et al., 2005). Understanding this relationship is crucial for developing effective interventions. Depression is highly common in correctional environments, often surpassing rates seen in the general population (Fazel et al., 2016). Factors such as social isolation, loss of autonomy, exposure to violence, and pre-existing trauma contribute to the increased risk of depression among inmates (Sykes, 1958). Concurrently, paranoid ideation, characterized by distrust and suspicion of others' motives, is also elevated in prison settings.

The adversarial nature of prison life and the constant threat of victimization may foster hypervigilance and contribute to paranoid thoughts (Haney, 2003). The co-occurrence of depression and paranoid ideation can have compounding effects, potentially resulting in increased distress, impaired social functioning, and heightened risk of self-harm and violence (Teplin et al., 2002). Despite the potential bidirectional relationship, the exact mechanisms linking depression and paranoid ideation among prisoners remain unclear. Some research suggests cognitive biases, such as attentional biases towards threat and negative interpretations of ambiguous social cues, may mediate the relationship (Beck, 1976; Bentall et al., 2001). However, few studies have specifically examined these cognitive processes in incarcerated populations.

d). Depression relations to Psychoticism: The overlap between mental health issues and imprisonment poses a multifaceted problem, as mental disorders are highly prevalent among incarcerated populations (Fazel et al., 2016). Inmates frequently exhibit higher rates of mental health conditions compared to the general public, with depression and psychotic disorders being notably common (Fazel et al., 2017).

These two conditions, depression and psychoticism, are particularly worrisome, often occurring simultaneously and intensifying the challenges faced by prisoners (Smith et al., 2018). Depression, marked by persistent sadness, disinterest, and feelings of despair, can significantly hinder an individual's ability to function and reintegrate into society (American Psychiatric Association, 2013).

Psychoticism, a personality trait characterized by nonconformity, impulsiveness, and a tendency towards psychotic-like experiences (Eysenck & Eysenck, 1976), has been associated with various negative outcomes, including heightened risk of antisocial behavior and substance misuse (Heaven, 1996). Recent findings indicate a potential connection between psychoticism and mood disorders, with some studies suggesting that individuals with high levels of psychoticism may be more susceptible to developing depressive symptoms (Chapman et al., 1994).

In the prison setting, this relationship may be amplified by the stressors of confinement, such as social isolation, loss of personal autonomy, and exposure to violent situations (Sykes, 1958). Certain research proposes a possible link between depressive symptoms and the worsening of psychotic features, leading to increased risks of self-harm, violence, and overall poorer mental health outcomes (Jones, 2020). Consequently, comprehending this dynamic could result in improved screening processes, customized therapeutic approaches, and ultimately, a decrease in recidivism rates (Andrews & Bonta, 2010).

Anxiety relations to other dependent variables

a). Anxiety relations to Hostility: Correctional facilities are inherently stressful environments, marked by overcrowding, violence, and restricted freedom, profoundly affecting inmates' mental well-being (Sykes, 1958). Anxiety disorders are notably common in prisons, with rates considerably higher than in the general public (Fazel et al., 2016). Hostility, including anger, resentment, and aggression, is frequently observed in incarcerated populations (Bonta & Gendreau, 2005).

Both anxiety and hostility are independently associated with negative outcomes such as increased violence and disciplinary issues in prisons (сами знаете кто, 2024), but their relationship remains insufficiently explored. Various theoretical frameworks suggest a link between anxiety and hostility. Cognitive appraisal models propose that anxious individuals may perceive ambiguous situations as threatening, leading to increased arousal and subsequent anger and hostility (Lazarus & Folkman, 1984).

Frustration-aggression theory suggests that thwarted goals and unmet needs, common in prison settings, can trigger both anxiety and aggressive behaviors (Berkowitz, 1989). Despite these connections, limited empirical research examines the interplay between anxiety and hostility among incarcerated individuals. Imprisonment can worsen existing mental health conditions and contribute to new psychological issues, particularly anxiety disorders (Fazel et al., 2016). Anxiety has

been theoretically and empirically connected to increased hostility and aggression (Berkowitz, 1990; Wilkowski & Robinson, 2008). Hostile behaviors, including verbal aggression, physical confrontations, and non-compliance with prison regulations, challenge institutional safety and rehabilitation efforts (сами знаете кто, 2023).

The frustration-aggression hypothesis suggests that frustration, often arising from anxiety-inducing situations, can lead to aggressive behavior (Dollard et al., 1939). Cognitive appraisal models indicate that anxious individuals may interpret ambiguous situations as threatening, resulting in increased defensiveness and hostility (Lazarus & Folkman, 1984). Moreover, anxiety can impair emotional regulation, increasing impulsive and aggressive reactions (ГЛР всякие, 2024).

b). Anxiety relations to Paranoid Ideation: Mental health disorders are more common among incarcerated individuals than in the general population, with anxiety disorders and paranoid ideation being especially prevalent (Fazel et al., 2016). Anxiety, marked by excessive worry and physical arousal, can significantly hinder an inmate's ability to function effectively in prison (American Psychiatric Association, 2013). Paranoid ideation, involving suspicion and the belief that others intend harm, can intensify psychological distress and interpersonal challenges for prisoners (Freeman & Garety, 2014).

The overlap between mental health issues and the correctional system poses a complex challenge, particularly regarding high rates of anxiety and paranoid ideation among inmates. While anxiety disorders occur in the general population, the prison environment intensifies these vulnerabilities (Haney, 2002). This situation is complicated by the potential for these anxieties to develop into or intertwine with paranoid ideation, affecting both the individual's well-being and the security of the correctional facility (Novick et al., 1993).

Paranoid ideation, characterized by persistent mistrust and suspicion of others' motives, is more common in prison populations compared to the community (Coid et al., 2006). This can range from mild suspicion to fixed, delusional beliefs of persecution or threat. Research indicates a strong link between anxiety and paranoid

ideation, with anxiety potentially triggering or worsening paranoid thoughts (Freeman & Garety, 2003).

In the prison context, this relationship may be amplified by inherent power imbalances and the risk of victimization. The simultaneous occurrence of anxiety and paranoid ideation in correctional settings presents a significant challenge for inmates and staff. High anxiety levels may fuel paranoid beliefs, resulting in increased vigilance, misinterpretation of social cues, and defensive behaviors (Bentall et al., 2009).

There is a gap in understanding the specific mechanisms by which anxiety contributes to paranoid ideation in prisoners. While studies have examined the prevalence of mental health disorders in correctional settings, few have specifically investigated the interaction between anxiety subtypes and the spectrum of paranoid ideation. Moreover, there is a need to explore how factors unique to the prison environment influence this relationship (Metzner et al., 2010).

c). Anxiety relations to Psychoticism: The convergence of anxiety and psychoticism in prison populations poses a substantial challenge for correctional institutions and mental health experts. Although anxiety and psychotic disorders have been separately examined in prison contexts, their co-occurrence remains inadequately studied (Fazel et al., 2016).

Anxiety and psychoticism can profoundly affect an inmate's adaptation to prison life, rehabilitation potential, and overall quality of life (Birmingham et al., 2009). This gap is concerning given the higher prevalence of both disorders among prisoners compared to the general public (James & Glaze, 2006). Anxiety disorders, including generalized anxiety disorder, panic disorder, and social anxiety disorder, are marked by undue worry, fear, and evasive behaviors (American Psychiatric Association, 2013).

In prison, these anxieties can be intensified by overcrowding, violence, isolation, and uncertainty about future prospects (Liebling, 2004). These disorders

can hinder an individual's capacity to operate effectively within the confining prison environment. Elevated anxiety levels can result in increased aggression, self-harm, and difficulties in complying with prison regulations (Bapat et al., 2018).

Psychoticism is characterized by unconventional behavior, impulsivity, social withdrawal, and unusual thoughts and actions (Eysenck & Eysenck, 1976). High levels of psychoticism may increase vulnerability to developing psychotic disorders, particularly in stressful circumstances (van Os et al., 2009).

In correctional facilities, individuals with high psychoticism might struggle with interpersonal relationships, interactions with authority figures, and adherence to strict routines, leading to conflicts and disciplinary issues. The simultaneous presence of anxiety and psychoticism may intensify the symptoms and difficulties associated with each condition. An anxious inmate with high psychoticism might experience heightened paranoia and distrust, leading to social isolation and increased susceptibility to victimization. Conversely, impulsivity linked to psychoticism could result in maladaptive coping strategies for managing anxiety, such as substance abuse or aggressive behavior.

Gender Difference in Psychopathological Symptoms among the Prisoners

a). Somatization : Research shows women are more prone than men to report somatic complaints, evident in both general and incarcerated populations. Ulaş and Keleş (2021) found female inmates reported somatic symptoms more frequently than males. This difference may stem from biological, psychological, and sociocultural factors shaping distress expression. Biologically, women might report somatic symptoms due to hormonal changes during menstruation, pregnancy, and menopause, intensifying pain or discomfort sensations (Buchanan et al., 2020).

Psychologically, women are often socialized to be more body-aware and likely to seek help for physical symptoms, increasing somatization chances (Hiller et al., 2018). Females reported higher levels of somatic symptoms and emotional distress than males also females reported more somatic symptoms at each level of emotional distress (Piccinelli & Simon, 1997). Somatic symptoms do not vary according to geography or level of economic development; and cultures did not

differ markedly in the pattern of these associated features (Gureje et al., 1997). Men, socialized to conform to masculine ideals emphasizing emotional restraint, may underreport somatic symptoms (Mahalik et al., 2003), potentially expressing psychological suffering through behavioral issues or aggression (Nolen-Hoeksema et al., 2008).

The prison environment amplifies these gender differences. High-stress conditions, marked by violence, isolation, and limited healthcare access, significantly impact mental and physical health. Female inmates may face unique stressors, like separation from children and traumatic experiences, leading to higher somatic symptom reporting (Chesney et al., 2021). Male inmates might channel distress through externalizing behaviors, concealing somatic symptoms (Teplin et al., 2006). These gender differences have significant implications for correctional facility treatment.

Understanding female inmates' expression of psychological distress through somatic symptoms calls for an integrated approach to mental health treatment, including regular screening for somatic complaints and addressing underlying psychological issues (Gonzalez et al., 2019). Male inmates might benefit from programs promoting emotional expression and offering alternative coping strategies for managing distress (Gonzalez et al., 2019).

b). Obsessive Compulsive Disorder: Recent research indicates that OCD is common among prisoners, with estimates showing that 2% to 8% of inmates are affected (Falkenbach et al., 2010). There are noticeable gender differences in OCD symptoms; men are more prone to contamination fears and aggressive obsessions, whereas women frequently report compulsions related to checking and ordering (Torres et al., 2015).

Gender plays a significant role in the development of OCD due to both biological and psychosocial factors. This includes sex-linked genetic traits and hormonal variances. Additionally, gender-specific social roles can lead to obsessions and compulsions, as evidenced by a family history of OCD, which may be influenced

by hormonal characteristics. The literature indicates that there are gender differences in obsessive-compulsive disorder (de Mathis et al., 2011).

The psychological and physical conditions in prisons can worsen OCD symptoms, especially for women who might encounter additional stressors, such as a history of trauma or higher rates of co-occurring disorders like depression or anxiety (Hannah et al., 2020). Women in prison are also more likely to have suffered abuse, which may contribute to the onset and worsening of OCD symptoms, posing a dual challenge in treatment (Hyland et al., 2021).

Biologically, studies have found that estrogen may influence serotonin systems, which are linked to OCD (Beard et al., 2016). Consequently, hormonal changes could affect the severity and manifestation of OCD symptoms in women. In male prisoners, a stronger inclination toward aggressive and antisocial behaviors may be associated with their OCD symptoms, resulting in a more violent expression of the disorder within the prison environment (Maldonado et al., 2017).

Moreover, treatment strategies for OCD in prisons often overlook these gender differences. Cognitive-behavioral therapy (CBT), especially exposure and response prevention (ERP), is considered effective; however, the emotional needs of female prisoners might necessitate a more trauma-informed approach that recognizes their unique experiences (Hannah et al., 2020). Conversely, treatment for male prisoners might concentrate more on managing aggression, given the prevalence of such behaviors in their OCD presentations.

The stigma surrounding mental health in prison settings can deter individuals from seeking help, worsening symptoms and perpetuating a cycle of untreated mental illness (Hawkins et al., 2019). Gender-sensitive policies that foster mental health awareness and create specialized programs could significantly improve the treatment of OCD among prisoners.

c). Interpersonal Sensitivity (INT): Interpersonal sensitivity has been linked to depression (Boyce et al., 1991), social anxiety disorder (Harb et al., 2002; Kumari et

al., 2012), anxiety (Vidyanidhi & Sudhir, 2009), and psychotic symptoms (Masillo et al., 2012). Women dedicate more time and effort to their interpersonal relationships compared to men (Kendler et al., 2001) and tend to show a stronger preference for emotional and close communication, perceptiveness, and intimacy within interpersonal relationships (Cyranowski et al., 2000), in the meantime, some studies have not found any significant difference in interpersonal sensitivity between men and women .

Recently, several studies have suggested that there are gender variances, with findings indicating that women tend to be more adapted to interpersonal dynamics than men (Hall et al., 2006). Moreover, research has indicated that women are generally more sensitive to emotions compared to men (Bloise & Johnson, 2007). Women have been associated with conditions linked to interpersonal sensitivity, such as depression, anxiety, and social phobia (Boyce et al., 1991; Harb et al., 2002; Kumari et al., 2012; Masillo et al., 2012; Sakado et al., 1999; Vidyanidhi & Sudhir, 2009). It has been reported that interpersonal sensitivity is correlated with attachment insecurity and is more prevalent in women, leading to the conclusion that women exhibit greater interpersonal sensitivity than men (Chopik et al., 2013; Del Giudice, 2011; Magai et al., 2000).

e). Depression: Research reveals that female prisoners are consistently found to experience higher rates of depression compared to their male counterparts (Binswanger et al., 2010), 62% of women in U.S. state prisons reported experiencing symptoms of depression, a significantly higher rate than that observed among male prisoners (41%). In a study conducted in Australia, it was found that 30% of male prisoners exhibited depressive symptoms, compared to 47% of female prisoners. However, the study also revealed that men were less likely to seek help for their mental health issues, contributing to the underreporting of depression among male prisoners (Butler et al., 2007).

It is also reported that over 50% of women prisoners had experienced some form of abuse before imprisonment, which increased their vulnerability to mental health issues, particularly depression (Covington & Bloom, 2006). Mothers in prison

were more likely to experience depression due to the emotional burden of being separated from their children, especially when they were the primary caregivers before the imprisonment (Holland et al., 2016). Male prisoners often show aggression or substance abuse, which makes it harder to spot and treat depression (Schnittker, 2014). Male prisoners in European and U.S. prisons have higher suicide rates than female prisoners. However, women engage in non-lethal self-harm more frequently (Fazel et al., 2008).

f). Anxiety: The likelihood of anxiety disorders is higher among female prisoners compared to their male counterparts which are often associated with issues such as providing care, past trauma, and the stress of being separated from their children (Bloom et al., 2003), and almost 60% of incarcerated women exhibited symptoms of anxiety. Out of which many of them expressed increased worries about the well-being of their children and their responsibilities as mothers. While anxiety is less often diagnosed in male prisoners than in female prisoners, it is still common. Even though male prisoners are less likely to seek help for anxiety, they still experience high levels of anxiety, especially about their safety and uncertainty about the future (Fazel et al., 2016).

g). Hostility: Men tend to exhibit higher levels of hostility, which can be largely attributed to lifestyle factors such as smoking habits and physical activity levels. Research has shown that hostile behavior is associated with increased stress responses, heightened autonomic function, decreased heart rate variability, inflammation, and enhanced platelet aggregation. Studies have also indicated that psychological stress can elevate the likelihood of developing cardiovascular disorders (Sandrini et al., 2020).

Research indicates that individuals with high levels of hostility experience reduced social support (O'Neil & Emery, 2002), increased interpersonal conflicts (Siegler et al., 2003), and a higher frequency of negative interactions coupled with fewer positive ones (Brondolo et al., 2003). These hostile individuals also struggle to

acknowledge positive responses from others (Kahler et al., 2012). Studies show that hostile people tend to be more anxious and receive less support (Holt-Lunstad et al., 2007), exhibiting a range of psychosocial vulnerabilities (Smith, 2003). Furthermore, hostility is linked to unhealthy behaviors such as increased smoking and alcohol consumption, lack of physical activity, and poor dietary habits (Siegler et al., 2003).

Female prisoners frequently exhibit relational aggression, such as gossip, exclusion, and manipulation, to control social hierarchies within the prison (de Valk et al., 2021). Research indicates that women prisoners frequently experience stronger emotions and are more likely to psychological and relational aggression than their male counterparts (Kerig et al., 2011). Female prisoners frequently experience mental health problems such as PTSD, depression, and anxiety, potentially intensifying hostility and aggression (Baldwin & Jones, 2000). Research indicates that women prisoners often create surrogate families for protection, though these relationships can also lead to tension and conflict upon dissolution which amounts to hostility (Owen, 1998).

Male prisoners often have traumatic pasts, such as childhood abuse, neglect, and witnessing violence, which may lead to hostile conduct during imprisonment (Bonta & Gendreau, 1990). Inadequate mental health care often worsens the hostile environment inside the prison (James & Glaze, 2006). Men involved in criminal subcultures, especially with violent crime histories, often perpetuate such behaviors in prison, resulting in levels of violence and aggression. (Irwin & Cressey, 1962).

h). Phobic Anxiety: Numerous female prisoners possess histories of trauma, including physical and sexual abuse, which may contribute to the development of phobic anxiety disorders (Bloom et al., 2020). Female prisoners frequently experience significant isolation from family and support networks, possibly worsening feelings of fear and anxiety (Sullivan & Steadman, 2021). The environment of prison can be particularly stressful for women, with elevated levels of surveillance and control contributing to phobic anxiety (Hannah-Moffat & Shaw, 2019).

Phobic anxiety can delay participation in rehabilitation programs, impacting the mental health and reintegration of female inmates (Zhang et al., 2020). Effective interventions like cognitive-behavioral therapy (CBT) and exposure therapy can mitigate phobic anxiety. Programs tailored to women's specific needs can further enhance outcomes (Davis et al., 2021).

i). Paranoid Ideation: Paranoid ideation in female prisoners can severely impact both the individual and the prison environment. Women experiencing paranoia may isolate themselves, avoiding rehabilitative programs and meaningful connections, which can deteriorate their mental health and lower their chances of successful reintegration post-release (Wright et al., 2012). Additionally, paranoid ideation can incite conflicts, as women who feel targeted may react aggressively or defensively, leading to fights or disruptive behavior. Extreme paranoia can also result in self-harm or suicide attempts when women feel trapped or powerless (Marzano et al., 2011).

Many prisoners have histories of trauma and abuse, contributing to post-traumatic stress disorder (PTSD), characterized by hypervigilance and paranoia. Such prisoners are especially susceptible to paranoid thoughts, as the prison environment can resemble their past traumatic experiences (Ford et al., 2012). Research indicates that over 50% of female prisoners have experienced sexual or physical abuse, typically from intimate partners or family members (Bloom et al., 2003). Such trauma can lead to post-traumatic stress disorder (PTSD), often accompanied by paranoid ideation (Tripodi & Pettus-Davis, 2013). In the stressful prison environment, these women are more likely to perceive their surroundings and interactions as threatening, resulting in increased paranoia.

Female prisoners have higher rates of mental health disorders, such as borderline personality disorder, depression, and anxiety, often accompanied by paranoid thoughts (Teplin et al., 1996). The inadequate mental health services in prisons worsen these conditions, depriving women of necessary support (Covington, 2007). Women in prison often face severe social isolation, either through solitary confinement or due to strained relationships with other inmates and staff, a known risk

factor for developing paranoid ideation (Haney, 2003). Furthermore, prison gender dynamics can heighten feelings of powerlessness, as strict control by male-dominated staff often exacerbates mistrust and suspicion (DeHart, 2008).

Female prisoners are highly vulnerable to abuse, including sexual exploitation by prison staff and other inmates. This fear of abuse can result in pervasive paranoia, with women believing that staff or inmates are scared to harm them (Pollock, 2002). Many women prisoners are mothers who experience severe paranoia due to separation from their children, worrying about their well-being, or permanent removal by authorities or family members. This sense of fear and powerlessness can lead to paranoid thoughts, as these women feel they lack control over their lives and their children's lives (Foster, 2012).

j). Psychoticism: Research indicates that female prisoners have a higher rate of psychotic symptoms than their male counterparts and the general population, it was estimated that up to 25% of female inmates may exhibit psychotic disorder symptoms which was largely attributed to the elevated rates of pre-existing mental health issues among women prior to their imprisonment (Fazel & Seewald, 2012). Many women in prison have faced trauma, abuse, and difficult childhoods, which were linked to increased occurrences of psychotic symptoms (Green et al., 2005). Female prisoners who have substance abuse disorders are more likely to experience psychotic symptoms (Baillargeon et al., 2010). Prison environment ill-suited to women's mental health needs, can exacerbate anxiety, depression, and psychosis (van den Bergh et al., 2011). To effectively address psychotic symptoms in female prisoners, it's essential to use gender-sensitive mental health care approaches (Bloom et al., 2003).

Male prisoners experience psychotic symptoms at significantly higher rates, with prevalence estimates ranging from 4% to 10%, compared to their counterparts in the general population and this disparity is largely linked to existing mental health issues and the psychological stress associated with incarceration (Fazel & Danesh, 2002). Substance abuse is very common among male prisoners, and many of them

experience worsening psychotic symptoms as a result of their substance use disorders (Morgan et al., 2010). The prison environment can significantly worsen psychotic symptoms due to factors such as isolation, overcrowding, limited privacy, and restricted access to mental health care. These conditions contribute to the exacerbation of existing mental health issues, particularly psychotic disorders (Haney, 2003). Male prisoners frequently come from underprivileged backgrounds, experiencing substantial trauma, such as violence, abuse, and neglect, which elevates their susceptibility to psychotic symptoms, as trauma is a significant risk factor for psychosis development (Wolff et al., 2007). Correctional facilities should focus on mental health services for male prisoners with psychotic symptoms, including screenings, therapy access, and medication management (James & Glaze, 2006).

Operational area of the study-Mizoram

Mizoram, located in northeastern India, shares a 510 km porous international border with Myanmar and a 318 km interstate boundary with Bangladesh, as well as a 164.6 km internal boundary with Assam (www.timesofindia, 2025). These borders present unique, multi-dimensional challenges—security threats, infrastructural deficits, public health crises, social tensions, and economic exclusion—that complicate governance and development in the region.

Security Threats and Border Management: Border communities face severe insecurity and exposure to political instability. Many border areas are militarized due to geopolitical tensions. The India-Pakistan and Israel-Palestine borders experience cross-border firing and displacement (Singh et al., 2018). Border control policies often violate human rights, with families separated by visa restrictions, causing emotional distress (Newman, 2006).

Mizoram's border security is frequently criticized as inadequate. In early 2025, state legislators highlighted that remote border constituencies like West Tuipui have only seven police personnel guarding lengthy stretches (www.hindustantimes.com, 2025). The porous nature of these borders facilitates:

- a). Illegal migration from Myanmar's Chin state and Bangladesh, often in pursuit of ethnic ties or economic survival (www.apnews.com, 2025).
- b). Narcotics trafficking, with seizures jumping from 154 kg meth in 2023 to 628 kg in 2024, and 81 kg heroin seized in 2024(www.hindustantimes.com,. 2025) .
- c). Explosives smuggling, including over 2,000 kg of explosives and 13,000 gelatine sticks, likely headed toward militants in Myanmar and Bangladesh (www.waaringbul.com, 2025)

Furthermore, Assam Rifles have warned of the Free Movement Regime (FMR) being exploited by insurgents—human traffickers and those smuggling weapons—making border fencing a contentious but security-driven proposal (www.civildaily.com, 2025) .

Interstate Disputes: Mizoram–Assam Border: Border populations face restricted mobility due to legal frameworks and physical barriers, impeding access to essential services and livelihoods. Residents may have dual or unclear national identities, leading to statelessness or denial of government services (Newman, 2006). In the Rohingya border area between Myanmar and Bangladesh, individuals lack legal recognition, excluding them from basic services (UNHCR, 2022).

Unresolved boundary lines with Assam, rooted in 1875 vs 1993 demarcation discrepancies, have led to periodic violent clashes and ongoing tension (www.timesofindia,2025).

Infrastructure and Connectivity Deficits: Border regions lack adequate infrastructure and public services, with underdeveloped roads, utilities, healthcare, and education compared to national averages. These deficits hinder quality of life and marginalize border communities (Wani & Parveen, 2022).

Mizoram's geography—mountainous and remote—exacerbates infrastructure challenges:

- 1) The state's road density (46.37 km/100 km²) is far below India's national average of 116 km/100 km² (www.thehindu.com, 2025).
- 2) Limited air and rail connectivity—Aizawl remains unlinked by railway, though the Bairabi–Sairang line is expected mid-2025 (www.timesofindia, 2025).
- 3) Poor infrastructure critically constrains economic opportunities, heightens vulnerability during crises like landslides or floods, and isolates border communities.

Public Health Vulnerabilities

Living near conflict and violence can cause severe psychological effects. Research shows elevated anxiety, depression, and PTSD among border residents (Alegria et al., 2008). Limited access to mental health services and cultural barriers prevent treatment seeking. In militarized zones, trauma from violence can have intergenerational impacts (Wells et al., 2013).

Mizoram's border location intensifies public health risks:

- a). The border with Bangladesh and Myanmar has led to malaria resurgence since 2019, including artemisinin-resistant strains from Bangladesh and gene mutations in Lunglei district (www.iwmf.org, 2025)
- b). Cross-border movements during the COVID-19 pandemic brought refugees into camps where access to PCR testing, sexual health services, and contraceptives was scarce.
- c). The state's AIDS prevalence is one of the highest in India (~2.37%), worsened by limited reproductive health infrastructure in refugee areas.

Social and Cultural Disruption

Border fencing and visa restrictions threaten the Zo community's traditional lifestyle:

- The FMR allowed cross-border familial, cultural, and economic exchanges up to 16 km (www.hindustantimes.com,2025).

- Proposed fencing of the Indo–Myanmar boundary prompted large-scale anti-fencing rallies in Champhai and Zokhawthar, reflecting fears of disrupted kinship ties (www.en.wikipedia.org, 2025).

Cultural advocacy groups such as the Zo Reunification Organization (ZORO) criticize fence measures that undermine their ancestral lands, cultural unity, and cross-border livelihoods (www.en.wikipedia.org, 2025).

Economic Marginalization

Border areas are economically marginalized due to limited investment and developmental neglect. Governments prioritize urban and industrial zones, reducing employment and market connectivity (Grineski, 2009). Workers face exploitative conditions with limited labor protections, especially undocumented immigrants (Pinedo et al., 2020). Border zones in Mizoram remain economically neglected:

- a). Rural poverty stands at ~35%, significantly higher than the national rural average of ~25% (www.apnews.com, 2025).
- b). Agriculture, the dominant livelihood, is prone to disruption from security fencing, insurgency, and infrastructural sprays.
- c). Limited economic opportunities push many into informal trade or illicit economies. Local youth reports attribute rising black money, smuggling, drug use, and real estate inflation to porous borders.

Although national infrastructure investments like the Kaladan Transit Project bring promise, benefits often bypass remote border communities (www.en.wikipedia.org, 2025).

Humanitarian and Refugee Burden

Border regions, often first receiving migrants fleeing conflict and poverty, face resource strains and community tensions. In fragile areas like the Sahel region

and Colombia-Venezuela border, population increases from migration can overwhelm infrastructure, increase job competition, and spark xenophobia (UNHCR, 2022).

Mizoram hosts thousands of Myanmar Chin refugees, fleeing conflict and natural disaster:

- a). The Chin refugee influx during COVID-19 and continuing human rights violations have overstretched health infrastructure, quarantine zones, and social services.
- b). Refugee women often lack access to reproductive health supplies, increasing risks of sexual violence and unproductive health crises.
- c). There is no national Indian refugee policy; Mizoram manages these crises via ad hoc arrangements, often overburdening civil society groups.

The objective of the study:

Based on the available research, the following objectives will be attempted for the present study:

- 1) To study the prevalent psychopathological symptoms between Convicted and Undertrial prisoners of the samples
- 2) To study the prevalent psychopathological symptoms between male and female prisoners of the samples
- 3) To study the relationship between the psychopathological symptoms
- 4) To study the __gender‘ and __types of inmates‘ independent effect on psychopathological symptoms.
- 5) To study the __gender‘ and __types of inmates‘ interaction effect on psychopathological symptoms.

Hypothesis:

To meet the objectives of the study, the following hypotheses were framed:

- 1) There will be a different prevalent level of psychopathological symptoms between Convicted and Undertrial prisoners of the samples

- 2) There will be a different prevalent level of psychopathological symptoms between male and female prisoners of the samples
- 3) It was expected that the *Somatization (SOM)*, *Obsessive-Compulsive (OBS)*, *Interpersonal Sensitivity (INT)*, *Depression (DEP)*, *Anxiety (ANX)*, *Hostility (HOS)*, *Phobic Anxiety (PHOB)*, *Paranoid Ideation (PAR)*, and *Psychoticism (PSY)* will have significant positive relationships.
- 4) The *_gender* and *_types of inmates* will have a significant independent effect on psychopathological symptoms.
- 5) The interaction of the *_gender* and *_types of inmates* will have a significant level on psychopathological symptoms.

The methods and procedure of the present study will be present in the next chapter:

Chapter IV: Methods and Procedures.

CHAPTER – IV: METHODS AND PROCEDURES

Samples-

A total of 160 inmates were selected from the Central Jail in Aizawl,

Mizoram, using random or purposive sampling methods. The sample consisted of equal numbers of convicted and under-trial prisoners (80 each), as well as an equal gender distribution (80 males and 80 females). Participants were chosen from a list of prisoners with similar demographic profiles, including an age range of 20 to 50 years, sex, education level, and length of imprisonment. The selection criteria also required good physical health, as confirmed by official jail health records. Inmates who had been incarcerated for less than six months were excluded from the psychological evaluation.

Inclusion Criteria for Sample Selection:

The inmate has been staying in prison for *more than six months*.

Male or female gender among the inmates.

Inmates' age ranges between 20 to 50 years.

Inmates having good/not have critical physical health problems.

Inmates who have given consent or willingly participate in the study.

Exclusion Criteria for Sample Selection:

The inmate who has been staying in Prison for *less than six months*

Age of the Inmates less than 20 years and more than 50 years of age.

Inmates were not having good / having critical physical health problems.

Inmates who did not give consent or were not willing to participate in the study.

The age range from 20-50 years among incarcerated individuals is crucial in research settings for various reasons. This demographic often exhibits a distinctive combination of developmental, societal, and behavioral elements that can provide valuable research insights. People within this age span frequently participate in different phases of unlawful activities and repeat offenses. Research indicates that individuals in their twenties are more prone to engaging in high-risk behaviors, while those between their thirties and fifties may demonstrate patterns of reoffending, especially among those with extensive criminal records. This age range aids researchers in comprehending crime trends and recidivism patterns throughout early and middle adulthood.

Research within this age group can reveal how employment, education, and family connections influence criminal behavior, rehabilitation, and post-incarceration reintegration challenges. Mental health concerns and substance abuse problems are prevalent among this age demographic, often correlating with their criminal activities. Furthermore, individuals within this age range typically have greater familial obligations, resulting in their imprisonment having far-reaching consequences for their households and broader social circles.

Prisoners with short-term judicial custody typically display behavioral tendencies that differ from those of long-term inmates. Specifically, individuals incarcerated for fewer than 6 months may not undergo the same level of adaptation to the prison environment, a factor crucial for assessing long-term consequences. By excluding these short-term offenders, researchers can direct their attention to subjects with more uniform and representative prison experiences.

Brief periods of incarceration may not elicit the same psychological responses, such as heightened stress, depressive symptoms, or anxious states, as extended prison terms. By omitting individuals with sentences under 6 months, researchers can better evaluate the mental health implications specific to prolonged confinement. Many correctional facilities offer rehabilitation programs, educational initiatives, and mental health resources that require substantial time commitments, often rendering them less accessible or effective for inmates serving shorter sentences. Those incarcerated for brief periods typically face charges for minor infractions and may exhibit different patterns of recidivism compared to long-term prisoners. Eliminating short-term inmates from studies allows for a more focused examination of these effects in research concerning prison health dynamics.

Sample character (distribution of demographic profiles): The distribution of age groups of the study was 16% belonged below 25 years, 33% to 26-33 years, 24% to 31-35 years, 17% to 36-40 years, and 10% to 41 year and above age. Among the samples, 59% were below class 10 level of education, 29% had class 12, 12% had BA and 3% had MA level of education. Most of the prisoners were unemployed constituting 49%, 43% belonged to business, 3% to Group IV, 3.95% to Group B, and .05 % to Group A. Research suggests that insufficient education and economic

difficulties may be factors contributing to criminal activities. This aligns with prior findings indicating that unfavorable living environments, including overcrowded spaces, unsanitary conditions, and inadequate nourishment, were associated with psychological challenges among inmates (Saha et al., 2014).

Psychological Tool Used:

The present study used the following psychological tools to discern the psychopathological symptoms among the inmates.

(i) ***Socio-Demographic Data Sheet (Tochhawng, 2022)***: It is a Semi-structured Performa. To examine the demographic characteristics of the sample or subjects, the researcher developed a Socio-Demographic Data Sheet, which was a semi-structured form. This form gathered essential information about various socio-demographic variables, including age, sex, religion, education, marital status, residence, occupation, health record, type of offense, date of entry, duration, and status of the subjects. This data sheet served as a source of information for the qualitative study.

(ii) ***Inform Consent Form (Tochhawng, 2022)***: The researcher constructed the Inform Consent Form following the guidelines of Mizoram University and UGC rules and regulations regarding Ph D research, and also the APA research code of ethics (2014). It contains information about the purpose of the research and the expected participation of the sample, participation is solely depending on voluntary and the willingness of the subject who may leave at any time without any liabilities, participation should not cause any harm to the subject, assurance of confidentiality on all responses given by the subject, only with the moral consent in writing the researcher entertained psychological evaluation on the subject.

(iii) ***The Symptom Questionnaire (SCL-90-R; Derogatis (1983))***, was designed to evaluate a broad range of the symptoms of psychopathology. The good internal consistency reliability (Cronbach's alpha coefficients ranged from 0.78 to 0.96) examines the nine primary symptom dimensions. The Symptom Checklist 90-R

(SCL-90-R) is a widely applied self-assessment instrument for a broad range of mental disorders that assesses the subjective symptom burden in patients with mental disorders. Alongside the high acceptance and extensive worldwide application of the instrument as an outcome instrument in the treatment of patients with affective disorders of the SCL-90-R. It measures psychological symptoms and psychological distress. It is designed to be appropriate for use with individuals from the community, as well as individuals with either medical or psychiatric conditions. The SCL-90-R assesses psychological distress in terms of nine primary symptom dimensions and three summary scores termed global scores. The SCL-90-R is normed on individuals 13 years and older. It consists of 90 items. The principal symptom dimensions are labelled as *Somatization (SOM)*, *Obsessive-Compulsive (OBS)*, *Interpersonal Sensitivity (INT)*, *Depression (DEP)*, *Anxiety (ANX)*, *Hostility (HOS)*, *Phobic Anxiety (PHOB)*, *Paranoid Ideation (PAR)*, and *Psychoticism (PSY)*.

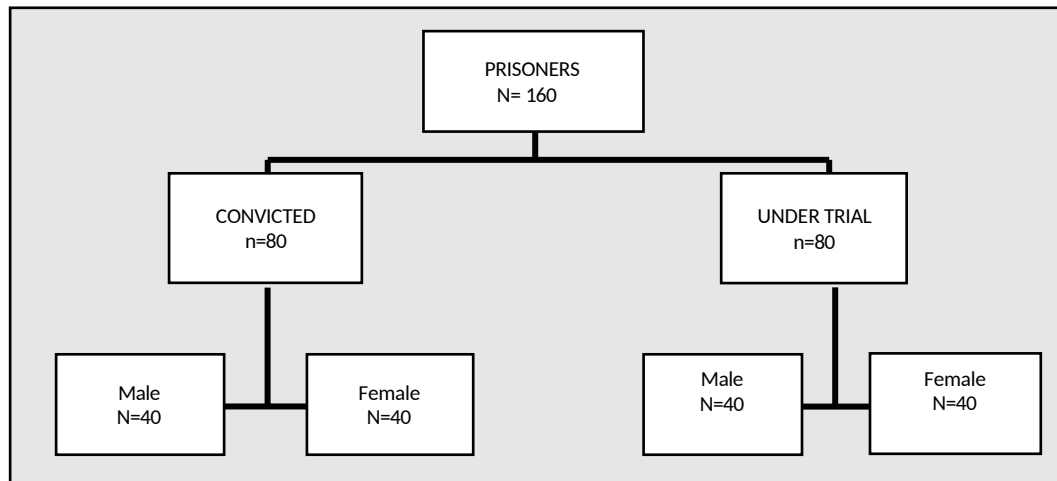
It was designed to reflect psychopathology in nine primary-symptom dimensions constituting the psychological state. This scale has enjoyed widespread use as a self-report symptom inventory. It has been used as both a screening device and an outcome measure across a broad-spectrum of clinical and research contexts. SCL-90-R was reliable and valid scale (Derogatis, 1983) and the Alpha value reached 0.97. Each item of SCL-90-R has five responses, which are: "extremely", "quite a bit", "moderately", "a little bit" and "not at all". These responses are given the values of "4", "3", "2", "1", and "0", respectively. The items of the scale covered 9 main dimensions, as follows:

Design of Study

The research employed a 2 x 2 factorial design, incorporating 160 inmates (80 convicted and 80 undertrial prisoners) and 160 individuals based on gender (80 males, 80 females). This cross-sectional investigation aimed to compare four distinct groups: (i) 40 males convicted, (ii) 40 males undertrial, (iii) 40 females convicted, and (iv) 40 females undertrial on nine psychopathological symptoms.

Figure-1: Showing the 2 X 2 factorial design (2 types of inmates x 2 types of genders) which included 160 samples {80 undertrial (40 male and 40

female) and 80 convicted (40 male and 40 female) prisoners}.



Procedures

The psychological tests were constructed or collected, and necessary preparations were made for the samples that were not well versed in the original language. Translation and back translation were conducted, followed by the validation of the translated scale through a pilot study and found its applicability as all subscales were reliability were above .70 ($\alpha=.70$). Necessary permissions from the authorities were obtained for the selection of samples. The required sample, in line with the study's objectives, was selected from the list of inmates maintained by the Central Jail, Aizawl, Mizoram using random and purposive sampling procedures. All selected participants were informed about the study, the expected participation from them, and the assurance of confidentiality regarding their personal information. They were then asked for their willingness to participate, and only those who provided consent were entertained for psychological evaluation. The scale was administered under individual conditions and free from disturbances, following the test manual's prescriptions and the APA ethical code of research (APA, 2016). All queries and doubts were clarified for the participants.

Statistical Analysis

To test the hypotheses set forth for the study, the following statistical analysis were employed:

The psychometric properties of the items, scale, and sub-scales of the psychological measures were ascertained to warrant their applicability for use in the population of the proposed study.

Descriptive statistics (Mean, Standard-Deviation, Skewness, Kurtosis, & graphical method) was employed to outline the general nature of the participants along with the ‘_level of substance use’ and ‘_ecology’ on the psychological measures.

The assumptions underlying univariate, bivariate, and multivariate statistics (such as logistic regression analysis) were ascertained, and where necessary, permissible transformations and standardization of the comprehensive score on the scale and sub-scales of psychological measures were performed. Univariate, bivariate, and multivariate statistics, where applicable, were employed to test the occurrence of differences and relationships for drawing inferences. Results of the study were presented in the next chapter – **CHAPTER V: Results and Discussions.**

CHAPTER V: RESULTS AND DISCUSSIONS.

The present study entitled —A Comparative Psychopathological Assessment of Convicted and Undertrial Prisonersll intended to examine the psychopathological condition of the prisoners by using the Symptom Questionnaire (SCL-90R) which included (i) Somatization, (ii) OCD, (iii) Interpersonal Sensitivity, (iv) Depression, (v) Anxiety, (vi) Hostility, (vii) Phobic Anxiety, (viii) Paranoid Ideation, and (ix) Psychoticism. Additionally, the correlation between the dependent variables should be determined to estimate the extent of the relationship between these variables for further analysis. The literature and theory provided the estimation that the undertrial prisoner could have a higher pathology than a convicted prisoner though both of them were in stressful situations.

Sample characteristics: The present study employed 160 samples, comprising 80 convicted (40 male and 40 female) and 80 under-trials (40 male and 40 female) prisoners screened out from 761 (456 male and 305 female) prisoners of Central Jail Aizawl based on the sociodemographic profiles (Tochhawng, 2021) which included types of the prisoners (under trial and convicted), gender (male and female), age (30 to 50 year), educational qualification (below graduate level), permanent address/locality (urban and rural), duration of imprisonment (not less than 6 months), physical health condition (no critical physical problems) from the record of the Central Jail located in Aizawl, Mizoram. Representative of non-prisoner samples were collected to match the prisoner samples on demographic profiles such as gender, age, locality, educational qualification, and physical condition but not having any criminal records were initiated for comparison with prisoners. The samples were selectively collected to control extraneous variables, and a random sampling procedure was applied as far as possible.

Table- 1: Showing the sample characteristics of the study

1. Distribution of the types of prisoners				
Under trial	Convicted	Non-prisoner (normal/control)		Total
80	80	80		240
2. Distribution of gender representation				
Male prisoners		Male prisoners		Total
120		120		240)
3. Distribution of age groups				
30-35 age	36-40 age	41-45 age	46-50 age	Total
96	84	48	12	240
4. Distribution of locality/ecology				
Urban		Rural		Total
120		120		240
5. Educational Qualification				
Below class X	Class XII	Above Graduate		Total
144	72	24		240

Sample characteristics were made up of three types of Prisoners (80 under trial, 80 convicted and 80 non-prisoners), two genders (80 male and 80 female), four age groups (96 from 30-35 age, 84 from 36-40 age group, 48 from 41 to 45 age group and 12 from 46 to 50 age group), two levels of ecology (120 urban and 120 rural), and three educational levels (144 were below class x, 72 were Class XII, 24 were above graduate. The well-match distribution of the sample characteristics was attempted for the three types/categories of prisoner groups to control the possible extraneous variable influences.

Psychometric Adequacy Checked: The study employed the Symptom Questionnaire (SCL-90R; Derogatis et al., 2000) which measures nine types of psychopathological conditions. The scale was constructed for other cultures and not for the targeted

population of this study which demands checking the applicability of the scale (Witkin & Berry, 1975). The subscales of the SCL-90R were checked on reliability (Cronbach Alpha), Homogeneity (Levene test), and normality (descriptive) as presented in Table-2.

Table -2: Showing Normality (Mean, SD, Kurtosis, Skewness), Reliability, and Homogeneity on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism for the targeted population.

Types of Inmates	Statistics	Somatization	OCD	Interpersonal	Depression	Anxiety	Hostility	Phobic Anxiety	Paranoid Ideation	Psychoticism
Convicted	Mean	31.25	19.43	16.65	31.85	22.28	11.89	16.02	14.05	22.92
	SD	4.32	3.10	3.66	4.35	4.11	3.15	3.14	3.13	4.06
	Skewness	0.67	0.76	0.77	0.78	0.85	-0.87	0.75	0.86	0.84
	Kurtosis	0.83	-0.87	-0.75	0.77	0.91	-0.86	0.84	-0.88	0.94
Undertrial	Mean	37.57	25.59	26.82	39.17	28.69	21.18	22.06	19.91	28.91
	SD	4.75	3.07	4.95	4.26	3.14	3.11	4.11	3.97	4.07
	Skewness	0.66	0.84	0.89	0.78	0.74	-0.84	0.89	0.84	0.87
	Kurtosis	0.87	0.85	0.87	0.89	0.92	0.94	0.92	0.98	0.94
Total Samples	Mean	34.41	22.51	21.73	35.51	25.48	16.53	19.04	16.98	25.92
	SD	4.53	3.08	4.30	4.31	3.63	3.15	3.63	3.55	4.07
	Skewness	0.66	-0.80	-0.83	0.78	0.79	-0.85	-0.87	-0.85	0.86

	Kurto sis	- 0.85	- 0.86	- 0.81	- 0.83	- 0.83	- 0.90	- 0.88	- 0.93	- 0.94
Reliability (Alpha)		.87	.77	.85	.79	.86	.88	.84	.84	.82
Homogeneity (Levene test)		.27	.26	.19	.23	.18	.17	.20	.19	.22
t-test between Convicted and Undertrial		4.57 **	14.0 9 **	18.7 5**	13.2 1**	21.2 9**	20.8 5**	20.1 4**	20.1 5**	20.1 7**
**. Correlation is significant at the 0.01 level (2-tailed).										

The results in Table 2 demonstrated that the reliability coefficients (Cronbach's alpha) of the scales for the target population were highly reliable, as all coefficients were .77 to .87, which confirms the scales' applicability in the population under study.

The Kurtosis and skewness were within the acceptable range (± 2), and the Homogeneity test was within an acceptable range (Levene; all non-significant) which also propounded the trustworthiness of the scales.

The data has met the assumptions of parametric statistics (Normality, reliability and homogeneity) which advocate using the parametric statistics may be used for further analysis.

The results of the study were interpreted and discussed following the sequence of the objective of the study as follows;

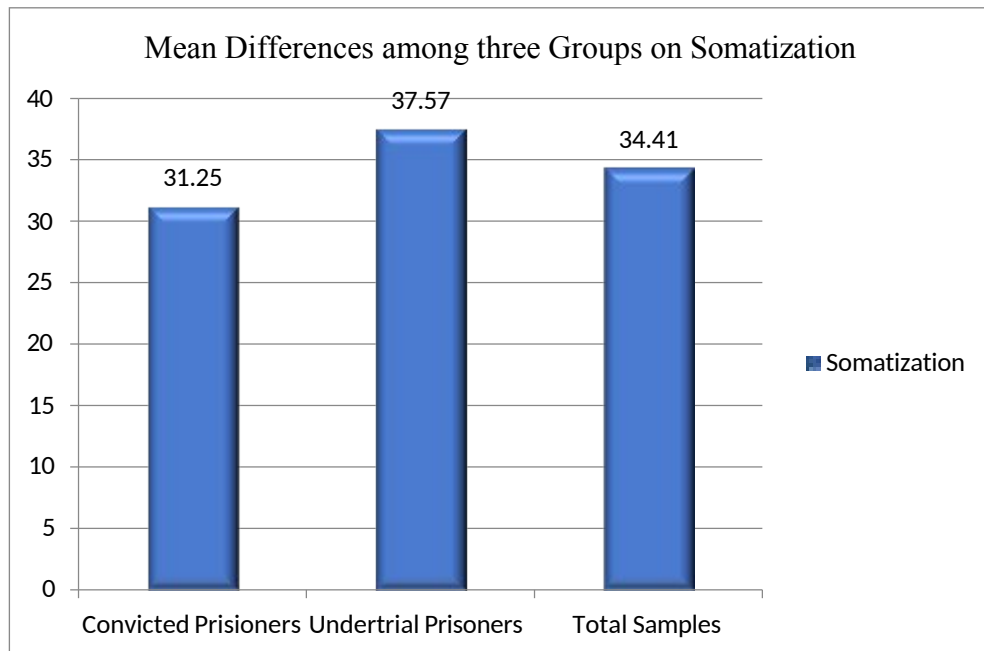
Objective -1: To study the prevalent psychopathological symptoms between Convicted and Undertrial prisoners of the samples

a) Differential prevalence of psychopathological symptoms between convicted and under-trial prisoner samples: Firstly, the difference between two types of prisoners – the under-trial and convicted prisoners were compared on various psychopathological symptoms (dependent variables)

To examine the prevalence of the selected psychopathological symptoms, the Symptom Questionnaire (SCL-90R; Derogatis et al., 2000) was administered, and an independent t-test was calculated which revealed the prevalence differences between the convicted and undertrial prisoners.

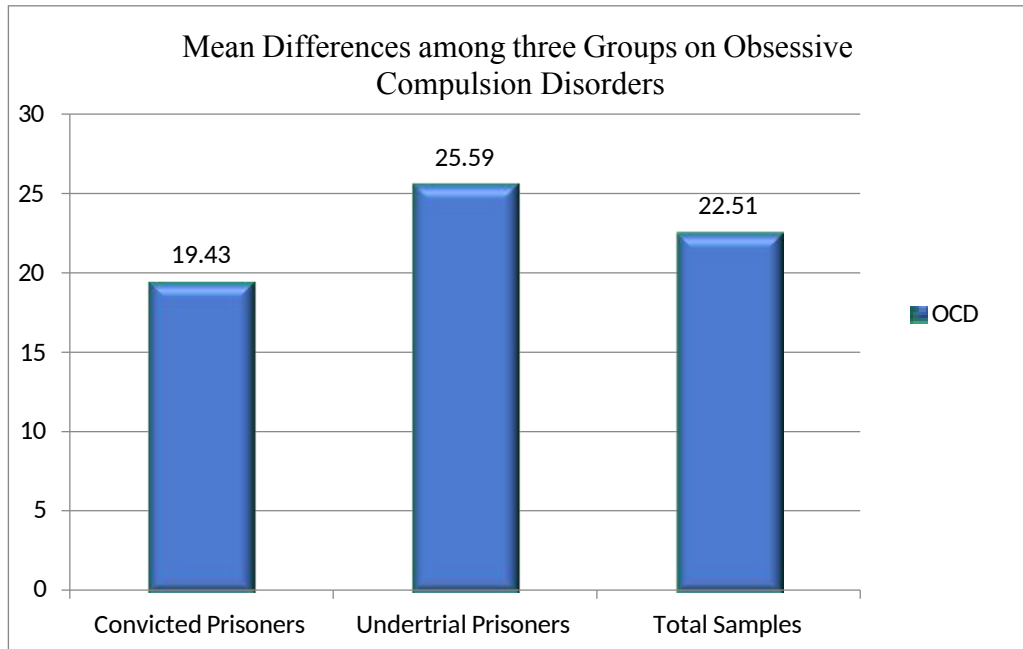
i). On somatization: Undertrial prisoners had a higher prevalence of Somatization ($M = 31.25; 37.57; t = 14.57; p > .01$) than convicted prisoners at .01 significant levels. The finding got the support of earlier research findings that Undertrial prisoners often suffer from increased levels of anxiety, depression, and physical health concerns than convicted prisoners which was due to uncertainty of their detention duration and the ongoing legal proceedings they face (Penal Reform International, 2018). A study on the psychological well-being of incarcerated individuals in India revealed that undertrials experienced a higher rate of somatization compared to those already convicted; it was further observed that the uncertainty and lack of clarity surrounding the legal outcomes for undertrials led to increased anxiety, which in turn manifested as physical symptoms (Pandey & Kumar, 2019). The uncertain circumstances faced by undertrial prisoners may render them more vulnerable to physical ailments, in contrast to convicted prisoners who may have established methods for managing the more consistent environment of incarceration (Goff et al., 2007). Undertrial prisoners exhibited significantly more somatic complaints than convicted prisoners, likely due to their uncertain legal and personal status, which exacerbates anxiety and depressive symptoms (Goyal et al., 2011). Undertrial prisoners often use somatic symptoms to express psychological discomfort, especially when other coping mechanisms are limited (Fazel & Baillargeon, 2011). Undertrial prisoners endure substantial psychological stress from extended detention without conviction, often resulting in somatic symptoms. Conversely, having adapted to their sentences, convicted prisoners may exhibit fewer physical stress symptoms (Slade & Forrester, 2013). Undertrial prisoners in India exhibited notably higher somatic complaints compared to convicted prisoners (Agrawal et al., 2016).

Figure-2: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Somatization



ii). On OCD: Undertrial prisoners had a higher prevalence of OCD than Convicted prisoners at .01 significant level ($M = 19.43; 25.59; t = 14.09; p > .01$). The finding got the support of earlier research findings that Undertrial prisoners showed a higher prevalence of Obsessive-Compulsive Disorder (OCD) than convicted prisoners due to the uncertainty and anxiety of awaiting trial, which contribute to the increased OCD symptoms among undertrials (Khan & Dhar, 2017), have a higher prevalence of OCD than convicted ones, due to the greater anxiety and stress from legal uncertainties affecting those awaiting trial (Bansal & Srivastava, 2018), uncertainty and heightened anxiety associated with their unresolved legal status (Arora & Gupta, 2018). Research also reveals that Undertrial prisoners have high incidence rates which are associated with stress caused by unresolved legal issues and the uncertainty surrounding ongoing trials, which worsens anxiety-related conditions like obsessive-compulsive disorder (Khan & Chawla, 2017).

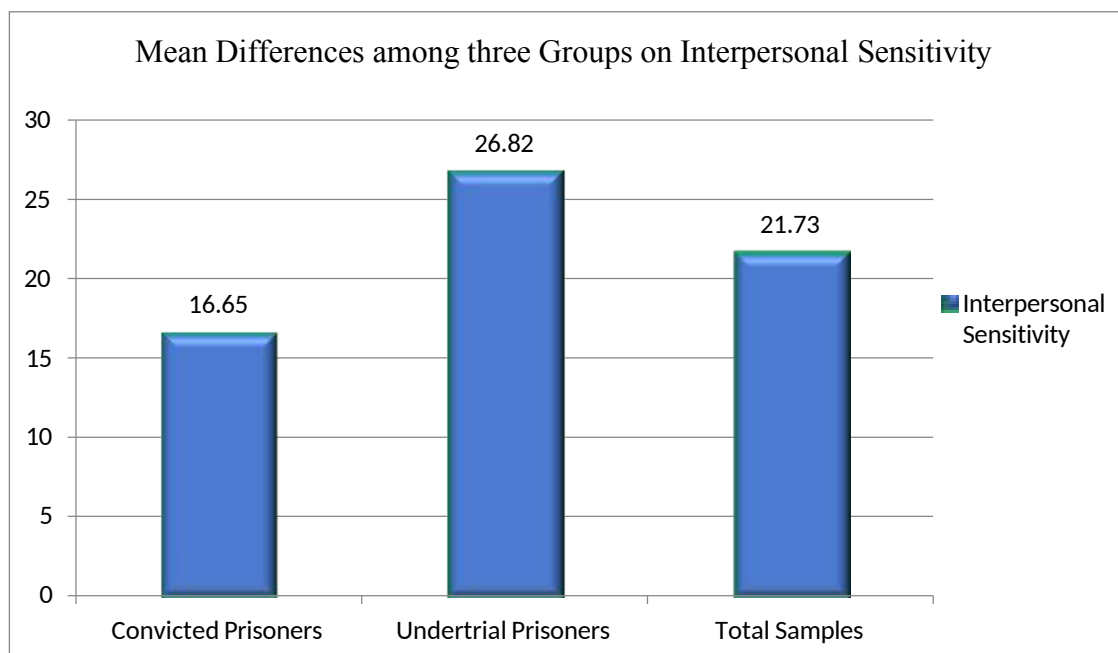
Figure-3: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on OCD.



iii). On Interpersonal Sensitivity relation: convicted prisoners scored lower on Interpersonal ($M = 16.65$; 26.82 ; $t = 14.09$; $p > .01$) than undertrial at .01 significant level. The finding got the support of earlier research finding that Convicted prisoners, having accepted their status, may become more withdrawn or adapts to reduce interpersonal engagement, whereas undertrial prisoners, facing legal uncertainty, may require more interpersonal support (Reddy & Purohit, 2012). Long-term incarceration's social isolation and strict environment may diminish convicted prisoners' interpersonal skills, while undertrial prisoners, despite stress, may maintain stronger interpersonal connections due to the uncertainty and temporary nature of their detention. Convicted prisoners' structured environment and coping mechanisms may result in lower interpersonal engagement and trust compared to undertrial prisoners, who maintain greater outside-world connections and exhibit less prison adaptation (Sharma & Sinha, 2015). Convicted prisoners often become more isolated and socially withdrawn, reducing their interpersonal skills, whereas undertrial prisoners may retain stronger social abilities through ongoing legal and family interactions (Sharma & Ram, 2018). The isolation of convicted prisoners can

diminish their interpersonal engagement, whereas undertrial prisoners, facing uncertain outcomes, might maintain stronger connections to cope with stress (Singh & Varma, 2015).

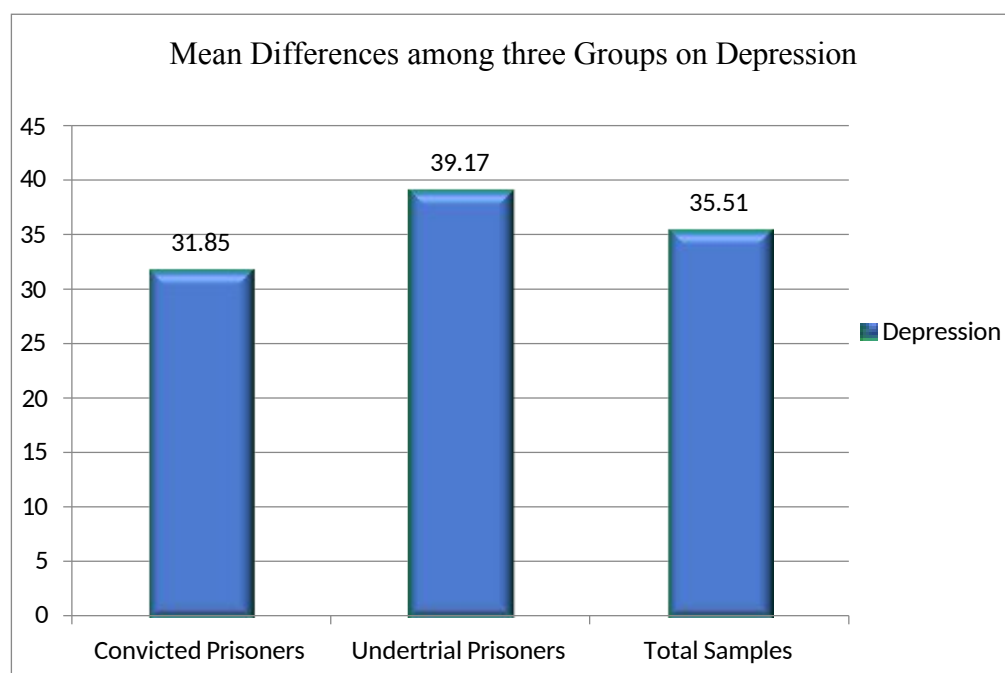
Figure-4: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Interpersonal Sensitivity.



iv). On Depression: Undertrial prisoners had a higher prevalence of Depression than Convicted prisoners with a .01 significant level ($M = 31.85$; 39.17 ; $t = 13.21$; $p > .01$). The finding got the support of earlier research finding that Undertrial prisoners have higher rates of depression compared to convicted prisoners (Abdu et al., 2018). This could be because being accused causes stress and uncertainty, which negatively affects self-identity and social relationships (Indian J Psychiatry, 2022). Inmates with low social support are four times more likely to suffer from depression compared to those with high social support. This shows that the level of social support significantly affected depression rates among the prisoners (Indian J Psychiatry, 2022) which clearly indicates that maintaining connections with family and friends during imprisonment is very much important. A study conducted in several prisons in India focused on the psychological effects of prolonged detention among undertrial

prisoners (Kumar et al., 2020) found that depression was one of the most common mental health issues, affecting more than 45% of the surveyed prisoners. Moreover, the research reveals that lack of contact with family and friends contributed to the worsening of depressive symptoms (Joseph & Kumari, 2019). The research enlightened the lack of mental health services in Indian prisons and how it affects undertrial prisoners (Sharma et al., 2018), and found that undertrial prisoners with depressive symptoms were particularly affected by the lack of access to mental health services. Undertrial prisoners exhibited significantly higher depression levels than convicted ones due to uncertainty and lack of control over their legal outcomes, causing greater psychological distress (Ali & Bhatti, 2018).

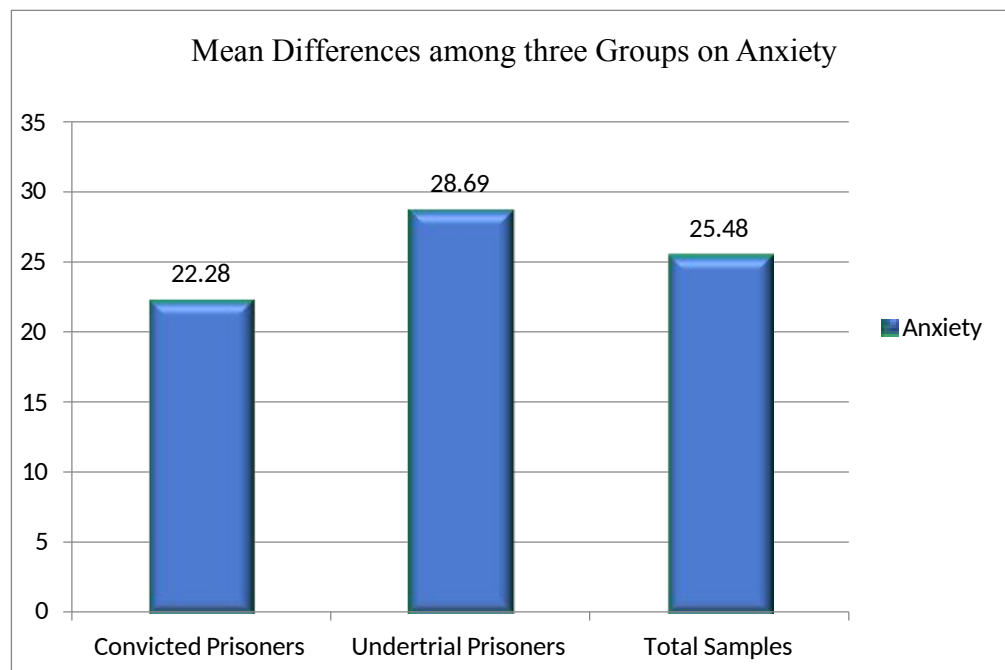
Figure-5: Showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Depression.



v). On Anxiety: Undertrial prisoners had a higher prevalence of Anxiety than Convicted prisoners with a .01 significant level ($M = 22.28$; 28.69 ; $t = 21.29$; $p > .01$). The finding got the support of earlier research finding that Undertrial prisoners had higher anxiety levels compared to convicted inmates due to the uncertainty about their future, with many being held for years before their cases were resolved (Sarkar

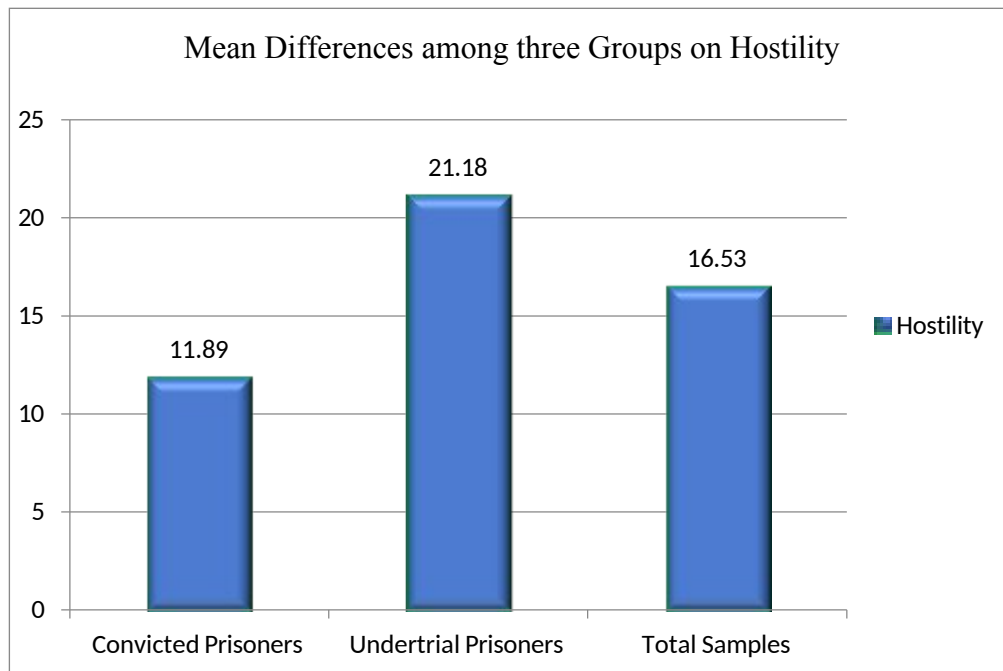
et al., 2015). Many undertrial prisoners, especially those facing serious charges, suffer from intense anxiety related to the possibility of spending years in prison if convicted. This fear is often amplified by the uncertainty surrounding the strength of the legal case against them (Carlson & Garrett, 2013). Undertrial prisoners are frequently anxious about their families' well-being, especially if they are the main breadwinners (Tripathi & Das, 2016). The lack of psychiatric care for undertrial prisoners in overcrowded prison systems worsens anxiety symptoms and deteriorates their mental health over time (Sarkar et al., 2015). Convicted prisoners may experience severe anxiety due to the finality of their situation, especially those facing long-term sentences or life imprisonment (Fazel & Baillargeon, 2011). However, they generally have lower anxiety compared to undertrial prisoners due to the lack of legal uncertainty about their immediate future (Schnittker & John, 2007).

Figure-6: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Anxiety.



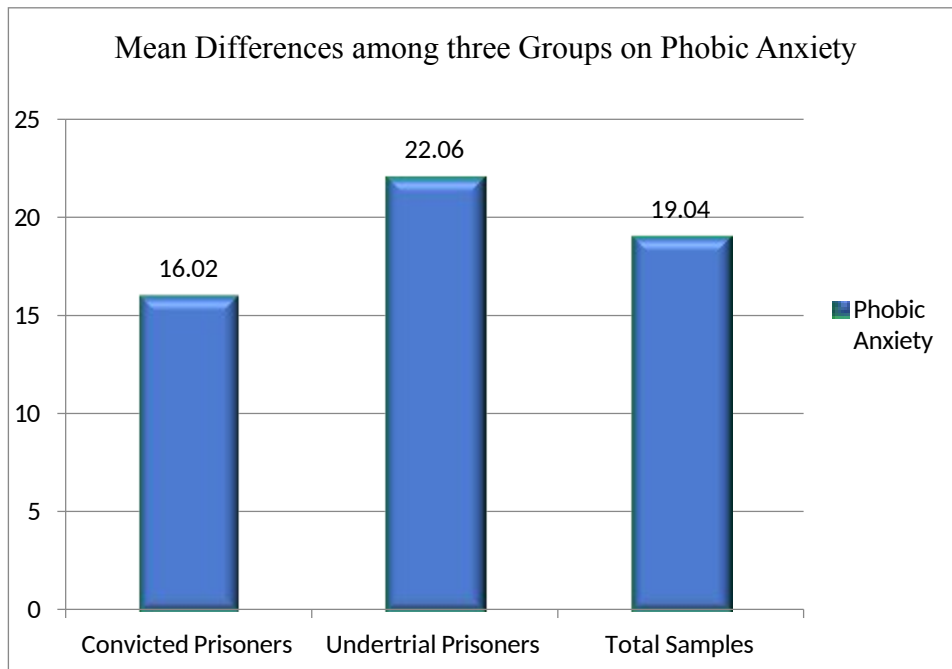
vi). On Hostility: Undertrial prisoners had a higher prevalence of hostility than Convicted prisoners with a .01 significant level ($M = 11.89$; 21.18 ; $t = 20.85$; $p > .01$). The finding got support of earlier research finding that Undertrial prisoners exhibited significantly higher hostility levels than convicted prisoners, primarily due to prolonged legal uncertainty (Sinha & Purohit, 2016). In contrast, convicted prisoners, despite the stress of their sentences, generally displayed lower hostility due to greater clarity about their future. Undertrial prisoners, often face increased levels of stress and anxiety due to their ongoing legal proceedings and these emotions can lead to hostile behavior towards others (Hochstetler et al., 2008). To assert control or safeguard themselves from perceived dangers, undertrial prisoners may exhibit aggressive conduct towards other inmates or correctional staff (Bodecka-Zych et al., 2021). Furthermore, the separation from loved ones and lack of social support can exacerbate feelings of hostility among these prisoners, and undertrial prisoners with strong social support networks exhibited fewer hostile emotions and aggressive behaviors (Hochstetler et al., 2008). The physical conditions of prison, such as overcrowding, limited resources, and poor living standards, can increase hostility among undertrial prisoners, leading to enhanced frustration and aggressive behaviors (Bodecka-Zych et al., 2021). Researchers suggest that stress and uncertainty about legal status increase hostility in undertrial prisoners, while convicted prisoners, with a defined status and predictable environment, show lower hostility levels (Chand & Yadav, 2017).

Figure-7: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Hostility.



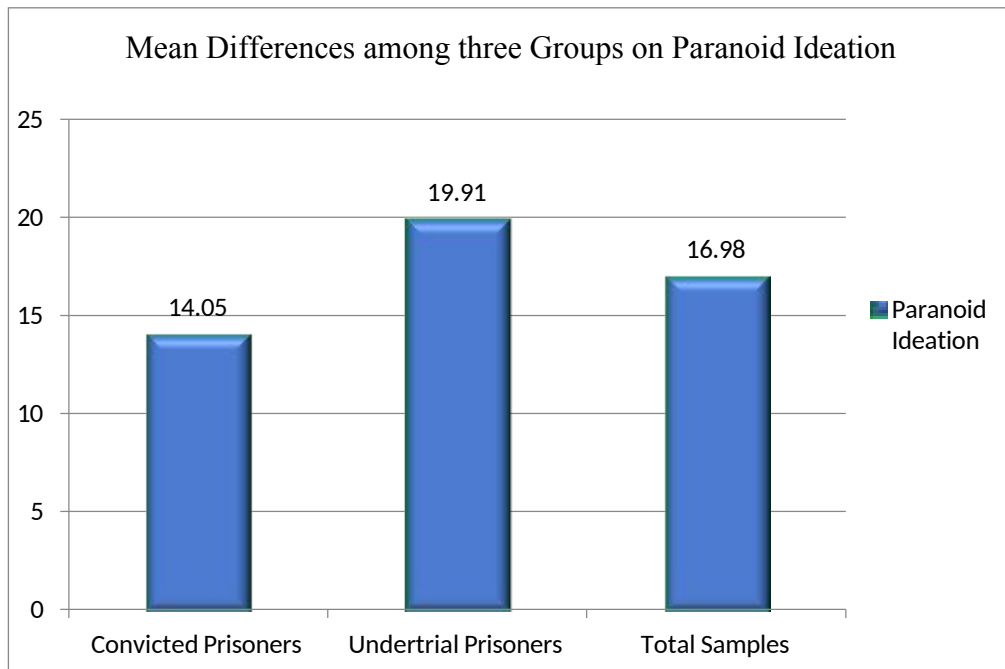
vii). On Phobic Anxiety: Undertrial prisoners had a higher prevalence of Phobic Anxiety than Convicted prisoners with a .01 significant level ($M = 16.02; 22.06; t = 20.14; p > .01$). The finding got the supports of earlier research finding that Pre-trial detainees are more vulnerable to psychological distress, including phobias, anxiety, and depression, compared to sentenced inmates, possibly due to the uncertainties surrounding their trial outcomes, potential loss of freedom, and lack of adequate support systems (Fazel & Danesh, 2002; Diamond et al., 2001). Research reveals that convicted prisoners adapt to their sentences through "institutionalization," (Goffman, 1961) whereas undertrial prisoners, lacking this adjustment, frequently exhibit more phobic disorders and anxiety symptoms due to fewer coping mechanisms and greater psychological distress (Andersen et al., 2000). Undertrial prisoners experience significantly higher anxiety and phobia scores than convicted prisoners (Goyal et al., 2022), with greater mental distress likely due to the indeterminate nature of their status and perceived lack of control (Fazel & Danesh, 2002; Kumar et al., 2018).

Figure-8: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Phobic anxiety.



viii). On Paranoid ideation: Undertrial prisoners had a higher prevalence of Paranoia than Convicted prisoners with a .01 significant level ($M = 14.05$; 19.91 ; $t = 20.15$; $p > .01$). The finding got support of earlier research finding that Undertrial prisoners exhibited higher paranoia levels than convicted inmates due to the persistent fear of uncertain outcomes and perceived lack of future control (Goyal & Singh, 2022). Undertrial prisoners often endure overcrowded, harsh conditions, leading to reduced privacy, increased conflicts, and heightened vulnerability, fostering paranoid ideation (Dhami et al., 2007). Extended uncertainty regarding trial dates or outcomes causes chronic stress and anxiety, increasing the risk of paranoia (Khan & Sekhon, 2011). Paranoia can lead to violence or aggression as detainees might feel the need to defend against perceived threats, causing conflicts with other inmates or staff (Jordan, 2011). As compared to Convicted prisoners, Undertrial prisoners often develop paranoid ideation due to social isolation, pre-existing mental health conditions exacerbated by imprisonment stress, previous traumas, and perceived legal injustices stemming from systemic biases (Briere & Jordan, 2004; Coyle, 2005; Goyal et al., 2019; Subramanian et al., 2015).

Figure-9: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Paranoid Ideation.



ix). On Psychoticism: Undertrial prisoners had a higher prevalence of Psychoticism than Convicted prisoners with a .01 significant level ($M = 22.92$; 28.91 ; $t = 14.09$; $p > .01$). The finding supports earlier research finding that undertrial prisoners exhibit more psychotic symptoms than the convicted one due to severe psychological stress from the prison environment and legal uncertainty (Teplin, 1990). Elevated stress and anxiety can induce or worsen psychotic symptoms, especially in those with preexisting mental health issues (Fazel & Seewald, 2012). Limited access to mental health services before detention can further deteriorate their mental health in jail (Rundle et al., 2018). Prolonged pre-trial detention significantly impacts prisoners' mental well-being, exacerbating prior conditions or inducing new psychiatric problems due to insufficient support (Haider, 2023; Amrit et al., 2022). Extended pre-trial detention imposes significant psychological stress on inmates, often worsening existing mental health issues or causing new ones due to inadequate psychiatric care (Haider, 2023; Amrit et al., 2022). Overcrowded conditions and insufficient mental health services exacerbate psychosis symptoms, particularly for those undertrial prisoners without a definitive sentence (Chicago School, 2019).

Figure-10: showing the mean difference among Convicted Prisoners, Undertrial Prisoners and Total samples on Psychoticism.

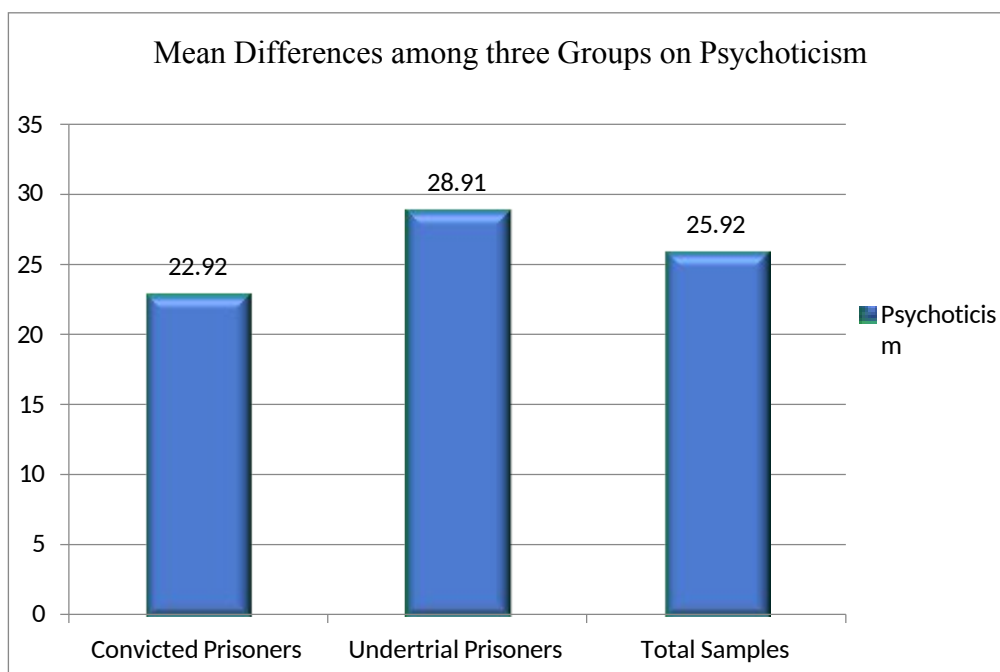


Table -3: Showing the Mean, SD, Kurtosis, Skewness and t-test (Independent-t-test) difference in Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism for convicted and undertrial prisoner samples

types of inmates	Statistics	Somatization	OCD	Interpersonal	Depression	Anxiety	Hostility	Phobic	Paranoia	Psychoticism
Convicted	Mean	31.25	19.43	16.65	31.85	22.28	11.89	16.02	14.05	22.99
Prisoners	SD	4.32	3.10	3.66	4.35	4.11	3.15	3.14	3.13	4.06
	Skewness	0.67	0.76	0.77	0.78	0.85	-0.87	0.75	0.86	0.84
	Kurtosis	0.83	-0.87	-0.75	0.77	0.91	-0.86	0.84	-0.88	0.94

Undertrial	Mean	37.57	25.59	26.82	39.17	28.69	21.18	22.06	19.91	28.9
Prisoners	SD	4.75	3.07	4.95	4.26	3.14	3.11	4.11	3.97	4.07
	Skewness	0.66	0.84	0.89	0.78	0.74	-0.84	0.89	0.84	0.87
	Kurtosis	0.87	0.85	0.87	0.89	0.92	0.94	0.92	0.98	0.94
	Mean	34.41	22.51	21.73	35.51	25.48	16.53	19.04	16.98	25.9
Total Prisoners	SD	4.53	3.08	4.3	4.31	3.63	3.15	3.63	3.55	4.07
	Skewness	0.66	-0.8	-0.83	0.78	0.79	-0.85	-0.87	-0.85	0.86
	Kurtosis	-0.85	-0.86	-0.81	-0.83	-0.83	-0.9	-0.88	-0.93	-0.94
t-test between Convicted and Undertrial		4.57*	14.09**	18.75**	13.21**	21.29**	20.85**	20.14**	20.15**	20.17*
**. Correlation is significant at the 0.01 level (2-tailed).										

Objective 2: To study the prevalent psychopathological symptoms between male and female prisoners of the samples

To assess the significant difference in the prevalence of selected psychopathological symptoms, an independent t-test was computed between male and female samples which were presented in Table -4:

Resulted portrayed that:

i). On somatization: Male samples had a lower prevalence of Somatization (M 31.65; 37.15; $t = 3.78$; $p > .01$) than female samples at .01 significant level, The finding was supported by earlier research finding that Female prisoners exhibit more somatic complaints and disorders than male prisoners, likely due to mental health issues and higher trauma rates among incarcerated women (Jordan et al., 1996). Female prisoners exhibit significantly higher instances of somatization compared to males, indicating gender differences in mental health symptoms (Teplin et al., 1996). Studies show that somatization disorders are more common among female prisoners, due to increased stress and unique mental health requirements (Birmingham et al., 1996). The study compares male and female Canadian prisoners, revealing that women report higher rates of somatization and mental health symptoms, likely influenced by pre-incarceration traumas and prison conditions (Steward, 2000). Research shows that incarcerated women report higher psychological distress and more somatic symptoms than men, attributed to differences in their experiences and coping mechanisms during imprisonment (Wolff & Shi, 2012).

ii). On OCD: Male samples had a lower prevalence of OCD than Female samples with a .01 significant level (M= 19.62; 25.40; $t = 3.17$; $p > .01$), The finding supported by earlier research finding that OCD is more frequently reported in women, including those in prison, where female inmates commonly experience contamination-related obsessions and compulsions, unlike their male counterparts (Fineberg et al., 2011). Gender variations in OCD symptoms suggest a lower prevalence among male compared to female prisoners, possibly due to differences in

symptom manifestation and cultural impacts on diagnosis (Torresan et al., 2013). Female prisoners have a higher likelihood of being diagnosed with obsessive-compulsive disorder (OCD) and other mental health issues compared to their male counterparts, highlighting significant gender disparities in mental health treatment within the prison system (Gunter, et al., 2008). Neurological and hormonal factors may explain the higher prevalence of OCD among women prisoners than their male counterparts, potentially elucidating similar patterns in prison populations (Mataix-Cols et al., 2008).

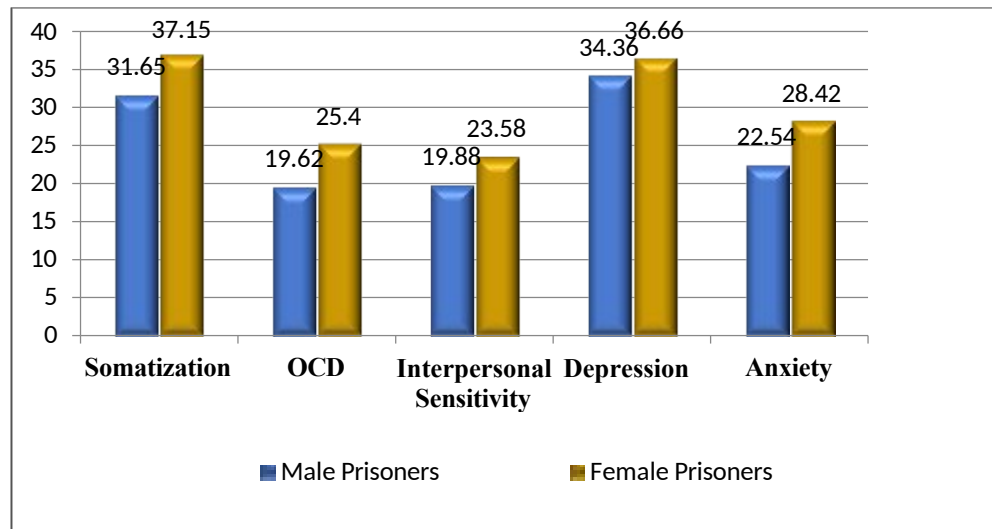
iii). On Interpersonal Sensitivity relations: Male samples had lower Interpersonal relations ($M = 19.88$; 23.58 ; $t = 4.72$; $p > .01$) than female samples at a .01 significant level. The finding got the support of earlier research findings that highlight gender differences in interpersonal behaviors and rule-breaking among incarcerated individuals, revealing that women are more inclined than men to form supportive and familial relationships in prison (Alarid, 2000). Female prisoners typically establish close interpersonal bonds and pseudo-families, whereas male prisoners generally adopt hierarchical and distant social structures (George, 2014). Male prisoners frequently endure "the pains of imprisonment," leading to greater interpersonal detachment and weaker relational connections than female prisoners (Sykes, 1958). Female prisoners create supportive, familial bonds, contrasting the individualistic and competitive nature of male prisoners (Giallombardo, 1966). Male prisons hinder the formation of close interpersonal relationships, promoting isolation and mistrust (Trammell, 2012).

iv). On Depression: Male samples had a lower prevalence of Depression than Female samples with a .01 significant level ($M = 34.36$; 36.66 ; $t = 4.72$; $p > .01$). The finding supported by earlier research finding that Female inmates typically exhibit higher rates of depression than their male counterparts, attributed to distinct social and psychological stressors (Fazel et al., 2016). Research on prisoners' mental health reveals higher depression rates among women and a substantial depression burden on men due to incarceration-related factors (Fazel & Baillargeon, 2011). Female prisoners often exhibit elevated depressive symptoms, primarily due to social

isolation and trauma that disproportionately impact them (Wormith & Andronis, 2012). Higher depression rates among female prisoners are linked to gender-specific prison experiences, such as heightened trauma and victimization, which exacerbate depressive symptoms (Linden & Parsonage, 2013). Male inmates exhibit notably lower depression prevalence than their female counterparts, who are more prone to mood disorders and associated mental health problems (Pietrzak & Southwick, 2011).

v). On Anxiety: Male samples had a lower prevalence of Anxiety than female samples with a .01 significant level ($M = 22.54; 28.42; t = 3.68; p > .01$). The finding supports an earlier research finding indicates that anxiety disorders are more prevalent among female prisoners, who also face a higher risk of various mood and anxiety disorders than male inmates (Fazel et al., 2016). Female prisoners demonstrated higher rates of anxiety, depression, and serious psychological distress than male prisoners, emphasizing the gender disparity in mental health within correctional facilities (Bureau of Justice Statistics, 2011). Female prisoners are more likely to report anxiety disorders due to the emotional and social factors affecting their prison experiences (Linden & Parsonage, 2013). Research indicates that male prisoners exhibit lower anxiety levels compared to female prisoners, who consistently report significantly higher anxiety across various prison populations (Wormith & Andronis, 2012). Gender disparities in mental health exist among prisoners, with female inmates displaying consistently higher rates of anxiety and depression than males (González & Morales, 2020).

Figure-11: showing the mean difference between Male prisoners and female prisoners on Somatization, OCD, Interpersonal Sensitivity, Depression and Anxiety among the samples.



vi). *On Hostility*: Male samples had a higher prevalence of Hostility than females with a .01 significant level ($M = 14.66; 18.40; t = 4.13; p > .01$). The finding got the support of an earlier research indicates that male prisoners exhibit more hostility and aggression than female prisoners, highlighting behavioral and psychological differences among incarcerated populations (Walmsley, 2016). Gender differences in prisoners' mental health reveal that men display more externalized behaviors like hostility, whereas women exhibit higher rates of internalized symptoms such as depression (Tyler et al., 2019). Research indicates that male prisoners display more overt hostility linked to impulsivity and externalizing disorders compared to females (Caffman & Steinberg, 2000). Psychological assessments of inmates reveal higher levels of hostility and aggression among males compared to females (Blanchette & Brown, 2006). Predictors of violent and hostile behaviors among incarcerated individuals were analyzed, revealing higher anger and hostility levels in male prisoners than in females (Howard & Dixon, 2013).

vii). On Phobic Anxiety: Male samples had a lower prevalence of Phobic female samples with a .01 significant level ($M = 16.76; 21.23; t = 3.18; p > .01$). The finding supports an earlier research finding that indicates that female prisoners are more prone to anxiety-related disorders, including phobias, than male prisoners (Fazel & Baillargeon, 2011). Female prisoners exhibited a significantly higher prevalence of anxiety disorders, including phobias, than their male counterparts (68.9% vs. 56.1%) (Goncalves et al., 2013). Numerous female prisoners possess histories of trauma, including physical and sexual abuse, which may contribute to the development of phobic anxiety disorders (Bloom et al., 2020). Female prisoners frequently experience significant isolation from family and support networks, possibly worsening feelings of fear and anxiety (Sullivan & Steadman, 2021). The environment of prison can be particularly stressful for women, with elevated levels of surveillance and control contributing to phobic anxiety (Hannah-Moffat & Shaw, 2019). Increased phobic disorder in incarcerated women compared to men correlates with abuse and trauma histories (Binswanger et al., 2010; Severson & Postmus, 2020).

viii). On Paranoid Ideation: Male samples had a lower prevalence of Paranoia than Female samples with a .01 significant level ($M = 15.61; 18.35; t = 4.21; p > .01$). The finding got support from earlier research finding that female prisoners have higher rates of mental health disorders, such as borderline personality disorder, depression, and anxiety, often accompanied by paranoid thoughts (Teplin et al., 1996). Women in prison frequently face severe social isolation, either through solitary confinement or due to strained relationships with other inmates and staff, a known risk factor for developing paranoid ideation (Haney, 2003). Female prisoners are highly susceptible to abuse, including sexual exploitation by staff and inmates, leading to pervasive paranoia and the belief that others fear harming them. (Pollock, 2002). Incarcerated mothers often suffer from extreme paranoia, worrying about their children's well-being and the possibility of permanent separation due to their powerlessness and lack of control over their own and their children's lives. (Foster, 2012).

ix). On Psychoticism: Male samples had a lower prevalence of Psychoticism than Female samples with a .01 significant level ($M = 24.62; 27.22; t = 4.20; p > .01$), the finding got the support of earlier research finding that indicates that female prisoners

have a higher rate of psychotic symptoms than their male counterparts and the general population, it was estimated that up to 25% of female inmates may exhibit psychotic disorder symptoms which was largely attributed to the elevated rates of pre-existing mental health issues among women prior to their imprisonment (Fazel & Seewald, 2012). Many women in prison have faced trauma, abuse, and difficult childhoods, which were linked to increased occurrences of psychotic symptoms (Green et al., 2005). Female prisoners who have substance abuse disorders are more likely to experience psychotic symptoms (Baillargeon et al., 2010). The prison environment is typically ill-suited for addressing women's mental health needs, can exacerbate anxiety, depression, and psychosis (van den Bergh et al., 2011). To effectively address psychotic symptoms in female prisoners, it's essential to use gender-sensitive mental health care approaches (Bloom et al., 2003).

Figure-12: showing the mean difference between Male prisoners and Female prisoners on hostility, Phobic Anxiety, Paranoid Ideation and Psychoticism among the samples.

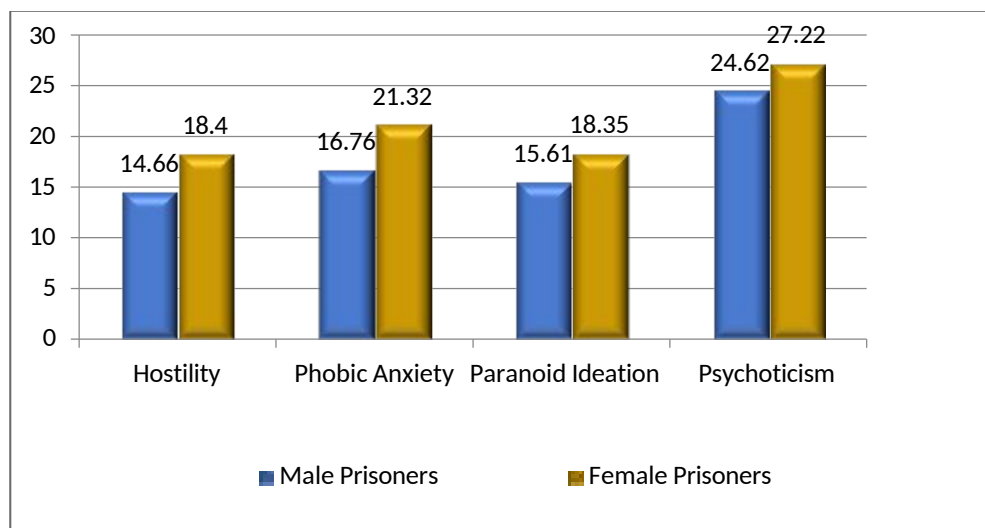


Table -4: Showing the Mean, SD, Kurtosis, Skewness and t-test (Independent-t-test) difference in Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid ideation, and Psychoticism for male and female prisoner samples.

Gender	Stats	Somatization	OCD	Interpersonal	Depression	Anxiety	Hostility	Phobic	Paranoia	Psychoticism
Male	Mean	31.65	19.62	19.88	34.36	22.54	14.66	16.76	15.61	24.62
	SD	4.69	3.45	4.82	5.72	4.40	3.36	3.30	3.15	4.21
	Skewness	-0.69	0.78	-.77	-0.74	-0.75	0.88	-0.86	0.89	-0.85
	Kurtosis	-0.76	-0.89	-.71	-0.86	-0.76	-0.87	-0.82	-0.89	-0.89
Female	Mean	37.15	25.40	23.58	36.66	28.42	18.40	21.32	18.35	27.22
	SD	4.37	2.71	3.78	3.90	2.86	2.94	3.32	3.35	3.93
	Skewness	0.72	-0.82	-0.89	-0.72	-0.75	-0.93	0.90	-0.93	0.87
	Kurtosis	-0.94	-0.83	-.91	-0.92	-0.91	-0.86	-0.88	-0.87	0.99
Total	Mean	34.41	22.51	21.73	35.51	25.48	16.53	19.04	16.98	25.92
	SD	4.53	3.08	4.30	4.75	3.63	3.15	3.96	3.95	4.07
	Skewness	0.66	0.80	-0.83	0.82	0.79	-0.85	-0.87	-0.85	0.86
	Kurtosis	-0.85	-0.86	-0.81	-0.83	-0.83	-0.90	-0.88	-0.93	-0.94
t-test between Convicted and Undertrial		3.78*	3.71*	4.67**	4.72**	3.68**	4.13**	3.18*	4.21*	4.20*
		**. Correlation is significant at the 0.01 level (2-tailed).								

Objective -3: To study the relationship between the psychopathological symptoms

To examine any significant relationship between psychopathological symptoms, a Pearson's Correlation was computed and presented in Table-5.

The results illustrated that:

1). Somatization relation to OCD, Interpersonal, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism:

The Somatization relation to other dependent variables was computed and revealed :-

i). Somatization and OCD relationship: Results provided that Somatization had a significant positive relationship with OCD which explains that when somatization is high the OCD is also high along with it ($r=.57$; $p>.01$) and significant at .01 level which was supported by earlier research findings on São Paulo prisoners' mental health revealed comorbidities between somatization and anxiety disorders, including OCD, showing a strong positive correlation between somatization symptoms and obsessive-compulsive tendencies (Gonçalves et al., 2013). Research utilizing the SCL-90 has consistently revealed associations between OCD and somatization among high-stress populations among prisoners (Derogatis et al., 1974). A notable positive correlation exists between OCD and somatization among prison employees, indicating the necessity for psychological support for both inmates and personnel experiencing high levels of stress (Dovepress Editorial Team, 2020). A comprehensive review indicates that somatic symptoms and OCD frequently co-occur among prisoners, linked to shared risk factors like trauma, isolation, and chronic stress (Fazel et al., 2016).

b). Somatization and Interpersonal Sensitivity Relationship: Results provided that Somatization had a significant negative relationship with Interpersonal relationships which explains that high in somatization was accompanied by lower in interpersonal relationships ($r= -.54$; $p>.01$) and significant at .01 level which was supported by earlier research findings that prevalence of somatization among prisoners affects interpersonal relationships, as those with somatic symptoms often find it difficult to trust and communicate, essential for positive connections in high-stress settings (Gonçalves et al., 2013). Somatic and psychological distress in prisoners can erode

trust and cooperation within their social networks due to increased somatization and interpersonal sensitivity (Sentse et al., 2021). The Symptom Checklist-90 (SCL-90), commonly used to assess somatization and interpersonal sensitivity in prisoners, reveals links between somatic complaints and relational difficulties (Derogatis et al., 1974). Mental health problems, such as somatization, in prisoners strain relationships, hampering rehabilitation and social reintegration (Fazel et al., 2016). Prisoners with somatic symptoms frequently display maladaptive interpersonal patterns, complicating their social interactions (Neimeyer & Feixas, 1990).

c). *Somatization and Depression Relationship:* Results provided that Somatization had a significant positive relationship with Depression ($r=.41$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Somatization among prisoners was significantly linked to increased depression, indicating that physical symptoms may signify underlying emotional distress, which is prevalent in institutionalized populations due to stress, trauma, and inadequate support systems (Gonçalves et al., 2013). Somatization and depression are prevalent among inmates, with depression aggravating somatic symptoms often misdiagnosed as physical health issues, hindering accurate diagnosis and treatment in prisons with inadequate mental health care (Fazel et al., 2016). Studies on addiction in prisoners show that somatization and depression frequently co-occur (Dusunen, 2020). A study on Norwegian prisons found that inmates with high depression levels were significantly more likely to report somatic complaints (Sivertsen & Morken, 2004).

d). *Somatization and Anxiety Relationship:* Results provided that Somatization had a significant positive relationship with Anxiety ($r=.42$; $p>.01$) and significant at the .01 level which was supported by earlier research findings that Prisoners with elevated anxiety frequently report somatic symptoms like pain or gastrointestinal issues, reflecting emotional distress and worsening their physical discomfort, creating a feedback loop that increases anxiety (Gonçalves et al., 2013). Anxiety exacerbates existing physical health problems and is prevalent in prisons due to stress from confinement, lack of social support, and future uncertainty (Fazel et al., 2016). High anxiety correlates with notable somatic symptoms, often misdiagnosed as purely physical, underscoring the need for mental health interventions addressing

both psychological and somatic symptoms (Dusunen, 2020). A study found high comorbidity between anxiety and somatic symptoms, indicating anxiety's significant role in developing somatic complaints in prisoners (Sivertsen & Morken, 2004). Anxiety symptoms notably raised the risk of somatization, potentially causing medical misinterpretations by treating physical symptoms as distinct problems instead of associating them with mental health (Mok & Goodwin, 2011). Prisoners with depression often display physical symptoms like somatization, which acts as a coping mechanism for severe emotional distress but worsens depressive symptoms (Neimeyer & Feixas, 1990). Mental health disorders in prisoners commonly involve somatization due to unaddressed depression (Howard et al., 2008).

e). Somatization and Hostility Relationship: Results provided that Somatization had a significant positive relationship with Anger ($r=.57$; $p>.01$) and was significant at the .01 level which was supported by earlier research findings that Prisoners with high levels of somatization often exhibit increased hostility. Those experiencing frequent somatic symptoms, such as chronic pain or fatigue, reported higher aggression and interpersonal conflicts (Fazel et al., 2016). In substance-addicted prisoners, somatization was linked to increased hostility (Gonçalves et al., 2013). Physical discomfort and substance withdrawal stress can heighten irritability, leading to hostile behaviors towards others (Dusunen, 2020). Prisoners with physical symptoms often expressed anger and hostility due to their pain and as a coping mechanism for emotional distress (Sivertsen & Morken, 2004). Hostility can be an outward expression of internalized psychological issues, including somatization (Neimeyer & Feixas, 1990). Somatization and hostility are often linked in prisoners, especially those with untreated mental health disorders (Howard et al., 2008).

f). Somatization and Phobic Anxiety Relationship: Results provided that Somatization had a significant positive relationship with Phobic ($r=.43$; $p>.01$) and significant at .01 level which was supported by earlier research findings indicating a strong connection between somatization and phobic anxiety, with these conditions often occurring simultaneously in incarcerated individuals suffering from anxiety disorders (Farhoumandi et al., 2022). Prison studies have also revealed a notable correlation between panic disorder and hypochondriasis. Approximately half of the

patients with panic disorder meet the criteria for hypochondriasis, demonstrating heightened fear of illness, belief in disease presence, and physical symptoms compared to those with social phobia or healthy individuals. This suggests an interrelation between anxiety disorders, somatization, and hypochondriacal concerns (Furer et al., 1997). Among prisoners with flight phobia, anxiety sensitivity—the propensity to perceive anxiety-related physical sensations as threatening—was found to moderate the relationship between somatic sensations and flight anxiety (Bogaerde & Raedt, 2010).

g). *Somatization and Paranoid Ideation Relationship:* Results provided that Somatization had a significant positive relationship with Paranoia ($r=.49$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Prisoners with high somatization levels often show increased paranoid ideation, as the stressful prison environment intensifies both somatic and paranoid symptoms (Fazel et al., 2016). Prisoners frequently reporting somatic complaints also tended to exhibit paranoia, possibly driven by the emotional strain and anxiety of incarceration (Gonçalves et al., 2013). Somatization frequently coincided with paranoid ideation, as prisoners expressed psychological distress through physical complaints, which then heightened their suspicion and fear of others (Sivertsen & Morken, 2004). In prison settings, somatization often heightens paranoid thoughts. Without proper channels to express emotional distress, inmates may grow more suspicious, viewing routine interactions with distrust, a situation worsened by physical discomfort. (Neimeyer and Feixas, 1990). Studies indicate that somatization and paranoid ideation are linked in the general population and are particularly common among prisoners, where the stress of incarceration intensifies psychological problems.

g). *Somatization and Psychoticism Relationship:* Results provided that Somatization had a significant positive relationship with psychoticism ($r=.48$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Prisoners exhibit a significant interrelation between somatization and psychotic symptoms, highlighting the comorbidity of unexplained physical complaints and

severe mental health issues like hallucinations or delusions (Kouyoumdjian et al., 2006). Prisoners with psychotic disorders often somatize psychological symptoms due to stigma or limited emotional outlets (Coker et al., 2014). Research on incarcerated individuals found a positive correlation between somatization and psychoticism, indicating unresolved emotional distress may manifest as physical symptoms and psychotic tendencies, including disorganized thoughts and perceptions (Sivertsen & Morken, 2004). Prisoners scoring high in somatization often exhibited elevated psychoticism levels on psychological assessments (Fazel et al., 2016). Both somatization and psychotic symptoms reflect underlying psychological distress in prisoners (Neimeyer & Feixas, 1990). The relationship between somatization and psychoticism in prisoners is influenced by the elevated anxiety and paranoia common in correctional facilities (Gonçalves et al., 2013).

2). *OCD Relation to Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism:* The *OCD* relation to other dependent variables was computed and revealed:-

a). *OCD and Interpersonal Sensitivity Relationship:* Results provided that *OCD* had a significant negative relationship with Interpersonal relationships which explains that high in somatization was accompanied by lower in interpersonal relationships ($r = -.31$; $p > .01$) and significant at .01 level which was supported by earlier research findings that negative correlations occur when obsessive-compulsive disorder (*OCD*) alienates social groups, potentially diminishing the interpersonal effects of sensitivity over time (Thiel et al., 2020; Pino et al., 2022). The limited social interactions typical in prison settings may result in reduced interpersonal sensitivity, further exacerbating the negative effects of social isolation (Schug et al., 2017). Prisoners who suffer from *OCD* often face social seclusion as a result of their obsessive thoughts and compulsive behaviors. These symptoms can hinder their capacity to engage in effective communication and social interactions, frequently resulting in unfavorable perceptions of social encounters. Consequently, this leads to heightened interpersonal sensitivity among these prisoners (Ferro et al., 2018).

b). OCD and Depression Relationship: Results provided that OCD had a significant positive relationship with Depression ($r=.43$; $p>.01$) and significant at .01 level which was supported by earlier research findings that prisoners have indicated that the occurrence of OCD symptoms is often associated with increased rates of depression. The characteristic inflexible and repetitive behaviors of OCD can induce feelings of powerlessness and exasperation, potentially contributing to the onset of depressive symptoms. Moreover, the anxiety caused by obsessions, including intrusive thoughts, may result in emotions of melancholy or low self-esteem, which are commonly observed in depression (Salgado et al., 2021; Pino et al., 2022). Prisoners who suffer from OCD may struggle to cope with these stressors as a result of their obsessive thoughts and compulsive behaviors. This can lead to increased emotional turmoil and potentially exacerbate symptoms of depression (Schug et al., 2017; Thiel et al., 2020). Obsessive-Compulsive Disorder (OCD) can create a cyclical pattern in which the exacerbation of depressive symptoms aggravates compulsive behaviors, subsequently intensifying obsessive thoughts and amplifying feelings of depression (Ferro et al., 2018; Salgado et al., 2021).

c). OCD and Anxiety Relationship: Results provided that OCD had a significant positive relationship with Anxiety ($r=.41$; $p>.01$) and significant at the .01 level which was supported by earlier research findings indicates that OCD and anxiety disorders commonly occur together in both the general population and among incarcerated individuals (Schug et al., 2017; Thiel et al., 2020). The experience of imprisonment can heighten feelings of powerlessness, which may exacerbate symptoms of both OCD and anxiety (Salgado et al., 2021; Pino et al., 2022). In correctional facilities, where issues like order, safety, and contamination are challenging to manage, anxiety may result in increased compulsive behaviors as a coping strategy. Conversely, OCD can provoke significant anxiety when individuals feel unable to control their thoughts and actions, creating a self-reinforcing cycle of psychological distress (Ferro et al., 2018; Thiel et al., 2020). Research has also shown a connection between various mental health disorders in prison populations, with a notable correlation between OCD symptoms and anxiety levels among inmates (Higgins, et al., 2014). The pressures of imprisonment may exacerbate

manifest anxiety and potentially trigger OCD symptoms (Haney, 2001). An investigation into the mental well-being of incarcerated individuals revealed that anxiety disorders, including OCD, were prevalent among prisoners (Abramovitz, 2006). Studies have indicated a notable occurrence of anxiety disorders, including OCD, among incarcerated individuals, implying that the connection between these conditions is more pronounced in prison settings (Wormith & Goldstone, 1995). Research highlights the substantial rate of mental health disorders in inmate populations, noting that anxiety disorders often appear alongside OCD in these groups (Fazel & Danesh, 2002).

d). *OCD and Hostility Relationship:* Results provided that OCD had a significant positive relationship with Hostility ($r=.39$; $p>.01$) and was significant at the .01 level which was supported by earlier research findings that Obsessional neurosis strongly correlates with hostile emotions, as unresolved internal conflicts and perfectionism often intensify hostile reactions. (Millar, 1983). The Overcontrolled-Hostility Scale indicated that prisoners with significant OCD symptoms exhibited hostile and aggressive behaviors. (Walters, 1982). Research evinced that anger and hostility in OCD patients, pinpointing cognitive distortions and compulsive rituals as ineffective coping strategies for inherent anger (Choi & Shin, 2008). Obsessive thoughts and compulsive behaviors can cause significant distress and frustration, potentially leading to hostility when prisoners cannot complete rituals or feel misunderstood by others (Ferro et al., 2018; Pino et al., 2022). The prison setting, characterized by social conflicts, limited autonomy, and perceived threats, can heighten hostility in prisoners with OCD (Schug et al., 2017; Salgado et al., 2021). In prison populations, the relationship between OCD and Hostility is often the more pronounced psychological burden of incarceration (Thiel et al., 2020; Salgado et al., 2021).

e). *OCD and Phobic Anxiety Relationship:* Results provided that OCD had a significant positive relationship with Phobic Anxiety ($r=.59$; $p>.01$) and significant at .01 level which was supported by earlier research findings that the challenging and often aggressive atmosphere in prisons can intensify both obsessive-compulsive disorder and phobic anxiety symptoms (Salgado et al., 2021; Pine et al., 2022).

Incarceration frequently generates conditions that heighten anxiety, including phobic reactions (Thiel et al., 2020; Salgado et al., 2021). Research has shown a notable connection between OCD and multiple anxiety-related disorders, among prisoners such as phobias (Menzies et al., 2020). Studies indicate that particular phobias were among the most common anxiety disorders experienced before the development of OCD (Menzies et al., 2020). A study of a large group of OCD patients revealed that OCD comorbidity was linked to specific phobia and agoraphobia. (Assunção et al., 2012). The research indicated that OCD patients with co-occurring generalized anxiety disorder (GAD) exhibited a distinct association with higher incidences of panic disorder without agoraphobia, social phobia, and specific phobia. (Sharma et al., 2021).

f). *OCD and Paranoid Ideation Relationship:* Results provided that OCD had a significant positive relationship with Paranoid Ideation ($r=.30$; $p>.01$) and significant at .01 level which was supported by earlier research findings that the confined environment of a prison, where individuals lack the ability to avoid stressful circumstances or manage intrusive thoughts, can lead to heightened paranoid feelings (Ferro et al., 2018; Thiel et al., 2020). Research has demonstrated a notable connection between obsessive-compulsive disorder (OCD) and paranoid thoughts or conditions among incarcerated individuals. A comprehensive investigation of OCD patients revealed that 40.3% experienced paranoid conditions at some point in their lives, with 29.1% specifically reporting paranoid ideation (Klenfeldt et al., 2024). Prisoners with OCD frequently experience unwanted, troubling thoughts, which may include anxieties about being harmed or betrayed. Incarcerated people suffering from OCD might develop excessive paranoia, believing that others are deliberately attempting to cause them harm or compromise their welfare. (Schug et al., 2017; Pino et al., 2022).

g). *OCD and Psychoticism Relationship:* Results provided that OCD had a significant positive relationship with psychoticism ($r=.25$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Prisoners who suffer from OCD may exhibit symptoms resembling psychosis, including paranoid thoughts, feelings of being controlled, and unusual behaviors (Miller & Warren,

2021). The conditions in prisons tend to worsen mental health issues, including OCD, which can lead to an increase in psychotic-like characteristics (Ferro et al., 2018; Thiel et al., 2020). Research indicates that the neurological processes underlying both OCD and psychotic disorders may have common elements, particularly in brain regions associated with emotional control, compulsive actions, and reality perception (Klenfeldt, 2024). A connection between OCD and psychotic features has been suggested, though in a population different from prisoners (Tonna et al., 2016). The challenge of distinguishing between OCD and psychotic disorders, which could be relevant in assessing incarcerated individuals, has been noted (Rodowski et al., 2008). One investigation revealed that patients diagnosed with both schizophrenia and OCS/OCD demonstrated marginally more severe positive and overall psychotic symptoms (Cunill et al., 2022). Another study observed that in autistic individuals with intellectual disabilities, OCD symptoms might mask psychotic symptoms (Dalhaug et al., 2022).

3). Interpersonal Sensitivity relations to Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism: The *Interpersonal Relationship* relation to other dependent variables was computed and revealed :-

a). *Interpersonal Sensitivity and Depression Relationship:* Results provided that Interpersonal Sensitivity had a significant negative relationship with Depression ($r = -.29$; $p > .01$) and significant at .01 level which was supported by earlier research findings that Prisoners who are highly attuned to and affected by the thoughts and feelings of others may experience a reduced likelihood of depression. In high-stress environments such as prisons, heightened social cognition can foster improved emotional control and bolster self-regard, reducing depressive manifestations (Orth et al., 2009; Van Orden et al., 2010). The ability to perceive and respond to others' emotions fosters the creation of nurturing relationships, which act as a buffer against depressive symptoms (Zimet et al., 1988; Lakey & Orehek, 2011).

b). *Interpersonal Sensitivity and Anxiety Relationship:* Results provided that Interpersonal Sensitivity had a significant negative relationship with Anxiety ($r = -.45$; $p > .01$) and significant at the .01 level which was supported by earlier research

findings that Enhanced interpersonal abilities may allow prisoners to better regulate and manage their emotional reactions, potentially reducing anxiety symptoms that arise from uncertainty or social stress (Gross, 2002; Aldao et al., 2010). Interpersonal sensitivity is negatively associated with anxiety in prisoners, as it enhances social connectedness, emotional understanding, and coping strategies, enabling them to manage social interactions and mitigate anxiety-provoking stressors more effectively. Inmates who possess higher levels of interpersonal awareness are better equipped to establish supportive social networks. These connections can serve as a protective factor against anxiety by reducing feelings of isolation and providing emotional assistance (Zimet et al., 1988; Lakey & Orehek, 2011).

c). *Interpersonal Sensitivity and Hostility Relationship:* Results provided that Interpersonal Sensitivity had a significant negative relationship with Anger ($r = -.47$; $p > .01$) and was significant at the .01 level which was supported by earlier research findings that Interpersonal sensitivity enhances the ability to recognize and navigate social situations, contributing to better emotional management, particularly in controlling anger. Prisoners with a keen sense of others' emotions and needs are less likely to misinterpret and engage in disputes leading to anger or hostility (Gross, 2002; Aldao et al., 2010). Heightened interpersonal awareness fosters understanding and teamwork, reducing anger-inducing conflicts, especially in high-stress prison environments (Dodge et al., 1990). Recognizing others' emotions helps inmates build supportive bonds, acting as a buffer against frustration and anger, and reducing feelings of isolation or hostility (Zimet et al., 1988; Lakey & Orehek, 2011).

d). *Interpersonal Sensitivity and Phobic Anxiety Relationship:* Results provided that Interpersonal Sensitivity had a significant negative relationship with Phobic ($r = -.46$; $p > .01$) and significant at .01 level which was supported by earlier research findings In prison settings, where inmates frequently experience heightened social anxiety and fear of scrutiny, interpersonal sensitivity can play a crucial role in fostering positive relationships and diminishing social apprehensions and avoidant behaviors (Zimet et al., 1988; Lakey & Orehek, 2011). This sensitivity may

contribute to enhanced emotional resilience by enabling prisoners to better navigate challenging social interactions, potentially mitigating the fear response associated with phobic symptoms (Gross, 2002; Aldao et al., 2010). Inmates possessing greater interpersonal sensitivity may be more adept at employing constructive coping mechanisms, such as seeking support from fellow prisoners, which can help alleviate phobic tendencies linked to social stress or isolation (Baumeister & Leary, 1995).

e). Interpersonal Sensitivity and Paranoid Ideation Relationship: Results provided that Interpersonal Sensitivity had a significant negative relationship with Paranoia ($r = -.54$; $p > .01$) and significant at .01 level which was supported by earlier research findings that People who excel in interpersonal sensitivity are more adept at correctly decoding social signals, which reduces the chance of misinterpreting hostility or threat – factors that contribute to paranoid thinking (Fenigstein & Venable, 1992). This heightened sensitivity promotes empathy and the establishment of trust in social interactions, potentially diminishing the feelings of suspicion and distrust that are hallmarks of paranoia (Watson & Andrews, 2002). By strengthening social connections and minimizing interpersonal conflicts, interpersonal sensitivity may decrease the perception of threat from others, which is a key aspect of paranoia (Freeman et al., 2002).

f). Interpersonal Sensitivity and Psychoticism Relationship: Results provided that Interpersonal Sensitivity had a significant negative relationship with psychoticism ($r = -.58$; $p > .01$) and significant at .01 level which was supported by earlier research findings that Interpersonal sensitivity contributes to heightened empathy, enabling individuals to better perceive and respond to others' emotional states. This increased awareness reduces the likelihood of engaging in hostile or antisocial behaviors commonly linked to psychoticism (Eysenck, 1992). Furthermore, interpersonal sensitivity facilitates improved emotional regulation, a critical factor in managing impulsivity and erratic behavior—fundamental aspects of psychoticism (Gross, 2002; Aldao et al., 2010). By nurturing positive interpersonal connections, sensitivity helps mitigate social isolation, which is associated with psychotic tendencies, especially in high-stress settings such as prisons (Freeman et al., 2002; Lakey & Orehek, 2011).

4). Depression relation to Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism:

The *Depression* relation to other dependent variables was computed and demonstrated that:

i). Depression and Anxiety Relationship: Results provided that Depression had a significant positive relationship with Anxiety ($r=.54$ $p>.01$) and was significant at the .01 level which was supported by earlier research findings that depression and anxiety frequently co-occur, especially in chronically stressful environments such as prisons, where shared incarceration stressors exacerbate anxiety symptoms in depressed prisoners (Butler et al., 2006). Depression and anxiety in prisoners are driven by common risk factors such as trauma, future uncertainty, and lack of social support, increasing the likelihood of both conditions co-occurring (Fazel & Baillargeon, 2011). A systematic review of prisoners' mental health identified anxiety and depression as prevalent psychiatric disorders, revealing a strong positive correlation and underscoring the necessity for integrated interventions (Gonçalves et al., 2014). The prison environment intensifies the physiological and psychological factors underlying anxiety and depression, resulting in their co-occurrence (Birmingham, 2003).

ii). Depression and Hostility Relationship: Results provided that Depression had a significant positive relationship with Hostility ($r=.24$; $p>.01$) and was significant at the .01 level which was supported by earlier research findings that indicate that prisoners with depression often cope with perceived threats and stressors through hostility, it was also revealed that depression-related helplessness and frustration can escalate into outward hostility (Mills & Kroner, 2003). The restrictive and confrontational prison environment exacerbates hostile behaviors in individuals with depressive symptoms, as the absence of constructive emotional outlets perpetuates a cycle of mutually reinforcing depression and hostility (Ireland, 2005). Depression and hostility share common psychosocial risk factors, including emotional dysregulation, low self-esteem, and past trauma (Baillargeon et al., 2009). Hostility

associated with depression frequently intensifies interpersonal conflicts in prisons (Kupers, 1999).

iii). *Depression and Phobic Anxiety Relationship:* Results provided that Depression had a significant positive relationship with Phobic ($r=.42$; $p>.01$) and significant at .01 level which was supported by earlier research findings that examining prisoners' mental health, revealing a substantial overlap between depression and anxiety disorders, including phobic anxiety (Fazel & Seewald, 2012). Prisoners with depression frequently exhibit irrational fears and avoidance behaviors linked to past traumatic experiences and the stress of confinement, which predispose them to phobic anxiety (Wolff et al., 2007). Prisoners' phobic anxiety typically arises from fears of physical or emotional injury. Depression sufferers commonly express fears related to social interaction, confined areas, and particular threats, indicating a link between depressive symptoms and heightened phobic reactions (Birmingham et al., 2006). Depression in prison populations often leads to social withdrawal and heightened phobic anxiety, with isolated prisoners particularly prone to phobias related to interpersonal interactions and environmental triggers (Ireland & Culpin., 2006).

iv). *Depression and Paranoid Ideation Relationship:* Results provided that Depression had a significant positive relationship with Paranoia ($r=.40$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Depressive symptoms, including low self-esteem and self-blame, can foster paranoia in high-stress settings like prisons which frequently misinterpret neutral or ambiguous social cues as threats, heightening paranoid thoughts (Freeman et al., 2008). Prisoners experiencing symptoms of depression showed an increased likelihood of developing paranoid ideation, primarily due to their heightened reactivity to perceived hostility or rejection from others (Ullrich & Coid, 2009). Prisoners frequently experience trauma, which is associated with both depression and paranoia (Black et al., 2007). Inmates suffering from depression may isolate themselves, potentially exacerbating their sense of suspicion and paranoid thoughts. (Garety et al., 2001).

v). *Depression and Psychoticism Relationship:* Results provided that Depression had a significant positive relationship with psychoticism ($r=.39$ $p>.01$) and significant at .01 level which was supported by earlier research findings that prisoners experiencing severe depression frequently show signs of psychoticism, the stressors of the prison environment, alongside pre-existing mental health issues, can lead depressive inmates to develop psychotic features, including delusions or unusual thought patterns (McGuffin et al., 2005). The study examined psychiatric disorders among prisoners, revealing that psychoticism was more prevalent in individuals with depression (Fazel & Luntamo, 2005). Depression and psychotic disorders often overlap, particularly in environments marked by social instability and deprivation, like prisons (Tsuang et al., 2002). Prisoners with major depressive disorder are more likely to exhibit psychotic features than the general population, indicating a link between these conditions in incarceration (Trestman et al., 2007).

5). *Anxiety relationship with Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism:*

The **Anxiety** relation to other dependent variables was computed and demonstrated that:

i). *Anxiety and Hostility Relationship:* Results provided that Anxiety had a significant positive relationship with Hostility ($r=.54$; $p>.01$) and was significant at the .01 level which was supported by earlier research findings that Inmates exhibiting elevated levels of hostility also demonstrated increased anxiety levels (Vitori et al., 2021). Studies suggest that inmates who have difficulty adapting to the prison environment may face psychological challenges in the form of both anxiety and hostility (Rogers et al., 2022). Another study examining social problem-solving capabilities revealed that among adult male inmates, a negative problem orientation (NPO) was the only factor that predicted both anxiety and depression. NPO encompasses feelings of unease and apprehension when confronted with problems (McMurrin & Christopher, 2009). Research consistently demonstrates a correlation between anxiety levels and hostile behavior among incarcerated individuals (Luo et al., 2013). Studies indicate that within criminal populations, the anxiety component

of the Adult Attachment Scale showed a significant positive correlation with hostile attitudes and various aggressive actions (Esteban-Febres et al., 2019). Research also revealed a notable correlation between aggressive behavior and anxiety disorders among highly violent male prisoners (Værøy et al., 2015).

ii). Anxiety and Phobic Anxiety Relationship: Results provided that Anxiety had a significant positive relationship with Phobic Anxiety ($r=.56$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Research conducted on incarcerated individuals has shown that anxiety and phobic disorders share a wide range of symptoms, making it challenging to distinguish between different subtypes of anxiety disorders (Oei et al., 1989). Studies indicated a strong link between agoraphobia and anxiety disorders (Oei et al., 1989). Studies identified anxiety sensitivity (AS) as a key factor in flight phobia among prisoners, mediating between physical sensations and fear of flying, and indicating a potential link among different anxiety types, including phobic disorders. (Bogaerde & Raedt, 2010). Research investigating the relationship between panic attacks, phobic anxiety, and anticipated anxiety in incarcerated individuals revealed that panic attacks were associated with both phobic and anticipated anxiety. However, no correlation was found between panic attacks and phobic avoidance (Mavissakalian, 1988).

iii). Anxiety and Paranoid Ideation Relationship: Results provided that Anxiety had a significant positive relationship with Paranoid Ideation ($r=.43$; $p>.01$) and was significant at .01 level which was supported by earlier research findings that in prison populations, anxiety strongly correlates with paranoia, as heightened emotional states often lead to increased threat perception, aggression, and mistrust among inmates (Raine et al., 1995). Anxiety significantly fosters paranoid thoughts among incarcerated individuals due to heightened vigilance and diminished trust in prison social interactions (Lester et al., 2021). Prisoners with high anxiety frequently exhibit paranoid ideation, especially in stressful and fear-inducing environments (Fazel et al., 2016). Anxiety and paranoid ideation are positively correlated in prisoners, with anxiety heightening fears of harm and intensifying suspicious thoughts in reaction to perceived hostility (Brooker et al., 2019). Anxiety levels are

strongly correlated with paranoid ideation among male Turkish prisoners, highlighting the impact of elevated emotional arousal on cognitive distortions (Gul et al., 2020).

iv). Anxiety and Psychoticism Relationship: Results provided that Anxiety had a significant positive relationship with psychoticism ($r=.39$ $p>.01$) and was significant at .01 level which was supported by earlier research findings that in offender populations, trait anxiety is closely linked to psychoticism, with anxiety heightening psychotic thoughts and behaviors during stress, as seen in prisoners (Van Boven & Menzel, 2020). Prisoners with severe anxiety exhibit heightened psychotic symptoms, including delusions and disorganized thinking, highlighting the necessity of dual diagnosis in prison healthcare (Lewis & Heaton, 2013). Anxiety disorders commonly co-occur with psychoticism among prisoners, indicating a shared etiology influenced by chronic stress and environmental factors in prison settings (Fazel & Baillargeon, 2011). Prisoners with high anxiety often exhibit increased psychoticism, mediated by emotional dysregulation and heightened threat sensitivity (Smith & Jones, 2019). Anxiety positively correlates with psychoticism among prisoners, indicating that increased anxiety may worsen maladaptive thought patterns associated with psychoticism (Bonta & Gendreau, 1990)

9. Hostility relationship to Phobic Anxiety, Paranoid Ideation, and Psychoticism:

The *Hostility* relation to other dependent variables was computed and demonstrated that:

i). Hostility and Phobic Anxiety Relationship: Results provided that Hostility had a significant positive relationship with Phobic Anxiety ($r=.59$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Hostility and phobic anxiety often co-occur among prisoners, possibly indicating an interaction between unresolved anger and incarceration-related fears (Fogel, 1993). The link between hostility and phobic anxiety in prisons underscores the influence of

environmental stressors and interpersonal conflicts, emphasizing the necessity for interventions addressing emotional and behavioral regulation (Blaauw et al., 2001). Research indicates that prisoners with higher hostility levels also experience increased phobic anxiety, likely due to the stress and interpersonal conflicts common in incarceration settings (Ahmad & Mazlan, 2014). Prison hostility is positively linked to phobic anxiety, particularly with inadequate coping methods and social isolation, underscoring the reciprocal connection between these emotional states in forensic settings (Hurley & Dunne, 1991). Prisoners with higher hostility levels experience increased phobic anxiety, intensifying their emotional distress and complicating prison adjustment (Senol-Durak & Gencoz, 2010).

ii). Hostility and Paranoia Relationship: Results provided that Hostility had a significant positive relationship with Paranoid Ideation ($r=.52$; $p>.01$) and was significant at .01 level which was supported by earlier research findings that Hostility often accompanies paranoid ideation, showing a reciprocal relationship where heightened suspicion and distrust lead to aggressive thoughts and actions, frequently observed in prisoners with psychiatric conditions (InPACT 2024 Proceedings, 2024). Individuals with persecutory delusions often exhibit increased hostility, driven by their heightened threat perception and mistrust, which in turn intensifies their paranoid thoughts (Combs et al., 2006). Mediation analysis showed that paranoia predicts hostility through self-directed negative emotions, underscoring their tight link in vulnerable groups (InPACT 2024 Proceedings, 2024). Paranoia is closely linked to externalizing blame and hostility, behaviors that are intensified in institutional settings like prisons (Freeman et al., 2005). Paranoid ideation and hostility form a feedback loop in which defensive anger and aggressive impulses reinforce suspicious interpretations of others' actions (InPACT 2024 Proceedings, 2024)

iii). Hostility and Psychoticism Relationship: Results provided that Hostility had a significant positive relationship with psychoticism ($r=.52$ $p>.01$) and

was significant at .01 level which was supported by earlier research findings that provides strong evidence supporting a notable positive correlation between hostility and psychoticism in incarcerated individuals (Hornsveld & Nijman, 2005). Research reveals that aggression strongly correlated with aggression measures, including hostility among prisoners (Archer & Haigh, 1997). Research on incarcerated individuals without prior mental health issues suggests that psychoticism plays a significant role in influencing hostility and other psychological traits (Compton et al., 2008). The relationship between hostility and psychoticism, particularly in forensic populations, is examined as a component of broader personality traits and their link to aggressive conduct and psychological disorders (Hornsveld & Nijman, 2005). Studies expanded the connection between psychoticism and hostility from correctional facilities to the general public, demonstrating positive correlations between the psychoticism factor and measures of anger and aggressive conduct. (Schill et al., 1987).

10. *Phobic Anxiety relation to Paranoid Ideation, and Psychoticism:*

The Anger relation to other dependent variables was computed and demonstrated that:

i). Phobic Anxiety and Paranoia Relationship: Results provided that Phobic Anxiety had a significant positive relationship with Paranoid Ideation ($r=.33$; $p>.01$) and was significant at .01 level which was supported by earlier research findings that paranoid thoughts among prisoners, highlighting that "incarcerated individuals exhibited significantly higher scores on all paranoia measures compared to the control group (Tiegreen & Combs, 2017). The conditions within correctional facilities may foster an increase in paranoid ideation, although the text does not explicitly address phobic anxiety (Darch et al., 2015). The connection between anger and paranoia in forensic populations revealed that "heightened levels of anger were linked to increased paranoid thoughts (Darch et al., 2015). The findings suggest that in prison environments, there may be a connection between emotional conditions like phobic anxiety and paranoid thoughts (Lim & Mankiewicz, 2024).

ii). *Phobic Anxiety and Psychoticism Relationship*: Results provided that Phobic Anxiety had a significant positive relationship with psychoticism ($r=.39$ $p>.01$) and was significant at .01 level which was supported by earlier research findings that prisoners found that those with mental health disorders demonstrated significantly higher psychoticism levels when compared to inmates without psychiatric diagnoses (Chahal et al., 2024). Phobic anxiety suggests a link between psychoticism and mental health disorders in incarcerated individuals (Park et al., 2012) indicating that for those with anxiety disorders, the anxiety subscale scores on the SCL-90-R are strongly positively correlated with other subscales, including psychoticism. Research suggests a simultaneous occurrence of phobic anxiety and psychoticism symptoms, pointing to a possible link between these conditions in diverse populations, including incarcerated individuals (Koc et al., 2013). Studies revealed notable positive associations between marriage duration and levels of both phobic anxiety and psychoticism among women who entered matrimony at a young age. This suggests a potential link between these variables, which may also be applicable to incarcerated individuals (Manav, 2023).

11. *Paranoid ideation relation to Psychoticism*:

The *Paranoid Ideation* relation to other dependent variables was computed and demonstrated that:

i). *Paranoid Ideation and Psychoticism Relationship*: Results provided that Paranoid Ideation had a significant positive relationship with psychoticism ($r=.55$ $p>.01$) and was significant at .01 level which was supported by earlier research findings that Paranoid ideation significantly correlates with psychoticism in forensic psychiatric populations, including prisoners, suggesting a heightened tendency for delusional thinking and aggression among inmates (Hornsveld & Nijman, 2005). Paranoid ideation significantly predicts psychoticism in prison populations, as high paranoia correlates with increased psychotic traits, including irrational behavior and aggression (O'Conner & Casey, 2000). The research indicated a strong correlation between increased psychoticism and the development of paranoid thoughts in

prisoners, often leading to extreme distrust, suspicion of others, and psychotic episodes (Cohen & Miller, 2010).

Table -5: Showing the relationship between Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism for whole sample samples.

Variables	Somatization	OCD	Interpersonal Sensitivity	Depression	Anxiety	Hostility	Phobic Anxiety	Paranoid Ideation	Psychoticism
Somatisation	1	.37**	-.35**	.31**	.33**	.37**	.43**	.39**	.38**
OCD		1	-.30**	.33**	.36**	.39**	.37**	.30**	.25**
Interpersonal			1	-.29**	-.35**	-.36**	-.33**	-.35**	-.32**
Depression				1	.44**	-.23**	.42**	.32**	.38**
Anxiety					1	.40**	.41**	.39**	.37**
Anger						1	.42**	.43**	.45**
Phobic							1	.39**	.38**
Paranoia								1	.33**
Psychoticism									1
**. Correlation is significant at the 0.01 level (2-tailed).									

Objective -4: To study the _gender_ and _types of inmates_ independent effect on psychopathological symptoms.

To examine the independent effect of _Type of prison_ and _gender_ on Somatization, OCD, Depression, Anxiety, Anger, Phobic, Paranoia, and Psychoticism, One-way ANOVA was employed and the outcomes were presented in Table-6.

Independent Effect of the types of prison:

The results provided that the effect of ‘types of prison’ on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism that

(i) **On Somatization:** The ‘Types of prison’ independently affected 21% on Somatization ($F= 308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that high-security prisons impose stricter controls, increased isolation, and limited social interaction, contributing to psychological stress and somatization (Haney, 2006). Harsh conditions and reduced autonomy in these environments correlate with higher levels of somatic complaints like headaches, gastrointestinal issues, and fatigue (Smith, 2006). In contrast, prisoners in low-security facilities often report fewer somatic symptoms due to greater freedom of movement, program access, and social interaction, which reduce psychological distress (World Health Organization, 2014). Research links solitary confinement to higher risks of somatic symptoms, including cardiovascular problems, sleep disturbances, and chronic pain, driven by stress and sensory deprivation (Grassian, 2006). Overcrowding, prevalent in many prisons, worsens somatization due to limited medical care, poor hygiene, and chronic stress (Fazel & Baillargeon, 2011).

(ii) **On OCD:** The ‘Types of prison’ independently affected 21% on OCD ($F= 308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that Prison type influences environmental stress, interpersonal conflict, and restrictions, exacerbating OCD symptoms (Haney, 2006). Maximum-security prisons increase anxiety and compulsive behaviors due to strict surveillance, overcrowding, and limited autonomy. Open or lower-security prisons offer a more supportive environment, reducing OCD symptoms. Highly rigid routines and controls in certain prisons may trigger or reinforce OCD behaviors (Baumeister & Leary, 1995). Higher-security prisons often lack adequate mental health care, leaving OCD symptoms untreated, while lower-security settings provide better access to therapy and support. Social interactions and isolation, varying by prison type, affect coping with intrusive

thoughts and compulsions. Greater social support in some prisons may lessen OCD severity (Zimet et al., 1988).

(iii) **On Interpersonal Relations:** The ‘Types of prison’ independently affected 21% on Interpersonal relations ($F= 308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that Maximum-security prisons enforce rigid routines and isolation, impeding healthy interpersonal relationships and increasing hostility or withdrawal. Lower-security prisons promote interaction and social support, encouraging cooperation and trust among inmates (Haney, 2006). High-security environments emphasize dominance and competition, straining relationships and fostering conflict. Conversely, less restrictive settings support community-building and prosocial behavior (Sykes, 1958). High-stress conditions in stricter prisons heighten interpersonal conflict and hinder positive relationships, while lower-stress environments enhance emotional regulation and conflict resolution, improving interpersonal relations (Fazel et al., 2016). Access to mental health support and group programs in prisons promotes healthier interactions by developing communication and empathy skills (Kupchik & Snyder, 2009).

(iv) **On Depression:** The ‘Types of prison’ independently affected 21% on Depression ($F= 308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that Maximum-security prisons' isolation, strict routines, and reduced autonomy lead to higher depression rates compared to low-security prisons, which offer humane conditions, socialization, and recreational opportunities (Haney, 2006). High-security prisons' limited social interaction exacerbates loneliness and hopelessness, while low-security prisons promote interpersonal interaction, buffering against depressive symptoms (Fazel et al., 2016). Prisons prioritizing rehabilitation and mental health services reduce depression rates, whereas under-resourced environments see higher rates (Kupchik & Snyder, 2009). High-security prisons' strict regimentation triggers helplessness, a depression trigger, while open prisons' relaxed rules preserve prisoners' agency, reducing depressive symptoms (Sykes, 1958).

(v) **On Anxiety:** The ‘Types of prison’ independently affected 21% on Anxiety ($F=308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that prisons that encourage healthy social interactions and provide mental health services, like open prisons, can help alleviate anxiety, while high-security facilities that restrict these opportunities tend to worsen symptoms (Kupchik & Snyder, 2009). Maximum-security prisons often heighten inmate stress due to strict surveillance, limited autonomy, and frequent violence, which can increase anxiety (Haney, 2006; Sykes, 1958). In contrast, low-security prisons with relaxed rules, greater freedom, and less conflict can reduce anxiety by minimizing environmental stressors (Liebling & Arnold, 2004). Overcrowding in high-security facilities further fuels feelings of claustrophobia and uncertainty (Fazel et al., 2016). Additionally, limited control over daily routines in high-security prisons is linked to helplessness and increased anxiety, whereas more autonomy in low-security prisons is associated with lower anxiety levels (Haney, 2006).

(vi) **On Hostility:** The ‘Types of prison’ independently affected 21% on Hostility ($F=308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that prisons lacking adequate mental health resources experience higher hostility, while those focusing on rehabilitation and mental health support better mitigate hostility by addressing its causes (Kupchik & Snyder, 2009). Maximum-security prisons, marked by limited autonomy, intense surveillance, and strict control, often amplify hostility, increasing frustration, aggression, and conflicts (Haney, 2006; Sykes, 1958). In contrast, open and low-security prisons, which promote social interaction and rehabilitation, report lower hostility levels and encourage prosocial behaviors, reducing stress-related aggression (Liebling & Arnold, 2004). Overcrowding, common in high-security prisons, exacerbates competition for resources, heightening tension and hostility (Fazel et al., 2016). Hostility in these environments is linked to dominance hierarchies and survival mechanisms, with inmates using aggression to establish dominance or self-protection, perpetuating hostility (Kupers, 1999).

(vii) **On Phobic Anxiety:** The ‘Types of prison’ independently affected 21% on Phobic ($F=308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that

Solitary confinement in high-security prisons significantly increases anxiety and fear, while overcrowding leads to social phobias due to lack of privacy (Fazel et al., 2016). Maximum-security prisons, with confined spaces, limited freedom, and constant surveillance, often worsen phobic symptoms such as claustrophobia, agoraphobia, and social anxiety due to stress-inducing conditions (Haney, 2006; Sykes, 1958). Conversely, low-security or open prisons, by allowing more movement and interaction, reduce phobic triggers and alleviate fear-based disorders through less stressful environments (Liebling & Arnold, 2004). Intimidation and violence in maximum-security prisons exacerbate social interaction phobias. Lower-security environments, with fewer threats, help prisoners build trust and reduce such fears (Kupers, 1999). Prisons that neglect mental health and therapeutic interventions contribute to persistent phobic symptoms, whereas those focusing on rehabilitation by providing counseling and support groups mitigate these symptoms (Kupchik & Snyder, 2009).

(viii) ***On Paranoid Ideation:*** The ‘Types of prison’ independently affected 21% on Paranoia ($F= 308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that social hierarchies and gang dominance further contribute to inmate paranoia, which is exacerbated in maximum-security settings but lessened in safer, open prisons (Kupers, 1999). Solitary confinement in high-security prisons significantly increases paranoia by depriving inmates of social interaction, reinforcing suspicion and hypervigilance, whereas lower-security environments counteract these effects through counseling and group activities (Kupchik & Snyder, 2009). Maximum-security prisons, characterized by intense surveillance, strict control, and violent dynamics, often heighten paranoia, causing inmates to feel constantly watched or threatened, thereby increasing mistrust and defensive behavior (Haney, 2006; Sykes, 1958). In contrast, lower-security or open prisons offer more social interaction, autonomy, and reduced stress, mitigating paranoid tendencies and fostering trust and cooperation (Liebling & Arnold, 2004). Overcrowding in high-security facilities intensifies competition for resources, escalating suspicion and hostility (Fazel et al., 2016).

(ix) ***On Psychoticism:*** The ‘_Types of prison’ independently affected 21% on psychoticism ($F= 308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that high-security prisons' competitive and hostile social environment triggers paranoid ideation and worsens psychotic symptoms, while lower-security prisons' less adversarial dynamics reduce these stressors (Sykes, 1958). Maximum-security prisons' strict surveillance, isolation, and regimentation create high-stress environments that exacerbate psychotic symptoms due to lack of autonomy, violence, and hypervigilance (Haney, 2006), with solitary confinement leading to sensory deprivation and cognitive disorganization (Grassian, 2006). In contrast, open and low-security prisons reduce environmental triggers of psychoticism by offering more freedom, social interaction, structured activities, and therapeutic programs (Liebling & Arnold, 2004). Overcrowding increases stress, contributing to paranoia and delusions, with limited mental health care worsening the issue (Fazel et al., 2016). Rehabilitation-focused prisons are more likely to offer mental health interventions, unlike high-security facilities that may lack sufficient resources, leading to untreated or worsening symptoms (Kupers, 1999).

Independent Effect of Gender:

The results provided that the effect of ‘_Gender’ on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism that

i) ***On Somatization:*** The ‘_Gender’ independently affected 16 % on Somatization ($F= 13.70$; $\eta^2=.16$; $p > .01$) which was in line with the earlier findings that somatic symptoms are more prevalent among female prisoners due to social norms that prioritize physical complaints over psychological ones, discouraging emotional vulnerability in men (Barsky et al., 2001). Unresolved trauma from physical and sexual abuse often manifests physically in women, leading to higher somatization rates (Harner & Riley, 2013). Limited access to gender-specific healthcare in women's prisons exacerbates untreated conditions and somatic complaints, while cultural stigmas may cause underreporting in male prisoners (Fazel & Baillargeon,

2011). Gender roles shape the perception and expression of distress: women externalize psychological pain somatically, while men may suppress symptoms (Nolen-Hoeksema, 2012). Incarceration stress affects genders differently, with women prone to anxiety-related somatic symptoms and men experiencing more internalized distress (Gibbs, 1987).

ii). On OCD: The *_Gender_* independently affected 32 % on OCD ($F= 94.38$; $\eta^2=.32$; $p > .01$) which was in line with the earlier findings that female prisoners are more likely to exhibit OCD symptoms than male prisoners, often influenced by hormonal differences, anxiety susceptibility, and pre-incarceration trauma (American Psychiatric Association, 2013). Gender-specific issues, such as caregiving concerns or guilt, may worsen OCD in women (Mathis et al., 2011). Male prisoners may display OCD through rigid routines or behaviors related to control and safety, but stigma may lead to underreporting (Browning et al., 2021). Women in prison often have histories of abuse, linked to higher anxiety and OCD, while men may develop OCD from prison violence or isolation (Fazel & Baillargeon, 2011). Women tend to internalize stress, leading to obsessive thoughts, whereas men often externalize stress through aggression, potentially masking OCD (Liebling & Maruna, 2013). Gender disparities in prison mental health care access affect OCD outcomes, with women's prisons typically offering more resources due to higher reported needs, influencing symptom recognition and diagnosis (Harner et al., 2017).

iii). On Interpersonal Sensitivity: The *_Gender_* independently affected 20% on Interpersonal relations ($F= 50.12$; $\eta^2=.20$; $p > .01$) which was in line with the earlier findings that in male prisons, aggressive masculine norms shape interactions, leading to power struggles and strained social bonds (Sykes, 1958). Non-verbal cues and direct communication establish status and resolve conflicts confrontationally. In contrast, female prisoners form supportive, emotionally bonded relationships, though disruptions cause significant distress (Hannah-Moffat, 2001; Richie, 1996). Gender affects coping mechanisms; men resort to violence or withdrawal, while women form emotional bonds to manage stress, influencing relationships (Daly & Cody, 1998).

Sexual dynamics also differ; male prisoners may use aggressive sexual behavior for dominance or coping, while female prisoners may experience relational violence or manipulation (Daly, 1992). Gender-responsive programs addressing emotional and psychological needs benefit female prisoners (Bloom et al., 2003). Male prisoners often require anger management or social skills training to improve interpersonal relations.

iv). On Depression: The ‘_Gender’ independently affected 28% on Depression ($F=77.01$; $\eta^2=.28$; $p > .01$) which was in line with the earlier findings that female prisoners report higher rates of depression than male prisoners due to greater trauma and victimization, including sexual abuse, both before and during incarceration. Studies show women in prison often have preexisting mental health issues and are more prone to depression (Teplin et al., 2005). Men, while also affected by depression, are less likely to report or seek help due to cultural norms surrounding masculinity (Kupers, 1999). Women in prison endure higher levels of physical and sexual abuse, correlating strongly with depression and PTSD (Bloom, 1997; Jail Women, 2018). Female prisoners often rely on social support within the prison, which can protect against depression, whereas men may experience emotional isolation, contributing to depressive symptoms (Sykes, 1958). The lack of family and community ties, more common among men, can heighten isolation and hopelessness, contributing to depression (Haney, 2006). Gender-specific needs, such as reproductive health care and trauma-informed care, are under addressed in male-dominated prison systems, exacerbating depression in women. This neglect in female prison populations leads to untreated or poorly managed depression (Gilfus, 1992; Steadman et al., 2009).

v). On Anxiety: The ‘_Gender’ independently affected 22% on Anxiety ($F=55.29$; $\eta^2=.22$; $p > .01$) which was in line with the earlier findings that female prisoners experience heightened anxiety due to trauma history, disrupted family roles, and stigmatization, reporting higher rates of depression, anxiety, and PTSD than male prisoners (Bloom et al., 2003). In contrast, male prisoners' anxiety is linked to threats of violence, power dynamics, and maintaining masculinity, with less reporting due to social expectations (Kupers, 2008). Female prisoners' anxiety is shaped by increased

physical and emotional vulnerability and isolation from families (Tasca et al., 2014), while male prisons focus on institutionalized violence and competition, triggering anxiety through social hierarchies and conflicts (Haney, 2006). Previous victimization and trauma predispose female prisoners to higher anxiety, exacerbated by the lack of trauma-informed care (Tasca et al., 2014). Despite high trauma levels, male prisoners are less likely to seek help due to mental health stigma, resulting in untreated anxiety (Kupers, 2008). Gender-specific programs addressing mental health, trauma, motherhood, and reintegration reduce anxiety in female prisoners, while male prisoners have fewer specialized services, particularly for emotional regulation and trauma (Covington, 2007).

vi). On Hostility: The ‘_Gender’ independently affected 21% on Anger ($F = 53.14$; $\eta^2 = .21$; $p > .01$) which was in line with the earlier findings that male prisoners often display overt hostility, including physical aggression, due to social norms emphasizing toughness and dominance (Dutton & Hart, 1992). In high-security prisons, they assert power through aggression in violent, hierarchical environments (Sykes, 1958). Female prisoners, despite high hostility levels, internalize it, showing relational aggression, verbal conflicts, or passive resistance rather than overt violence (Browne, 2000). Women's prison aggression focuses on interpersonal relationships, with less physical confrontation compared to men (Miller & Najavits, 2006). In female prisons, relationships are emphasized, leading to subtle aggression aimed at maintaining social order within close-knit groups. In male prisons, hostile interactions are more overt, reflecting traditional masculinity's emphasis on toughness (Haney, 2006). Male prisoners, socialized to use aggression as a stress and dominance coping mechanism, exhibit more overt hostility, whereas female prisoners, socialized to value emotional expression and relational maintenance, use different coping mechanisms, resulting in less outward hostility (Tannen, 1990). Gender-specific rehabilitative programs are essential; male prisoners may benefit from anger management and de-escalation interventions, while female prisoners need therapeutic programs focusing on healthy relationships and trauma (Chesney-Lind, 2004).

vii). On Phobic Anxiety: The ‘Gender’ independently affected 21 % on Phobic ($F=50.23$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that female prisoners face gender-specific stressors like safety concerns, sexual abuse, and isolation, exacerbating phobic anxiety (Belknap, 2007). These traumas increase their susceptibility to phobic responses. Conversely, male prisoners may internalize anxiety, leading to agoraphobia or social phobia. Masculinity norms discourage them from seeking mental health support, worsening untreated phobic anxiety (Kupers, 1999). In male prisons, hyper-masculine culture stigmatizes emotional vulnerability, deterring prisoners from expressing anxiety or seeking help (Haney, 2006). In female prisons, despite opportunities for emotional expression, challenges related to relationships, sexual abuse, and caregiving roles increase vulnerability to phobic anxiety (Arditti, 2003). Hormonal fluctuations related to menstruation, pregnancy, or postpartum recovery further intensify anxiety symptoms, increasing vulnerability to anxiety disorders (Kuehner, 2017). Men may exhibit anxiety as anger or aggression, often misinterpreted as other psychological issues rather than phobic anxiety (Schneiderman et al., 2005). Gender disparities in mental health care access play a role. Female prisoners have somewhat better access to trauma and anxiety therapy, though often inadequate (Kupers, 1999). Male prisoners lack gender-responsive mental health services, with their needs frequently overlooked or misdiagnosed as behavioral issues, leading to untreated phobic anxiety (Kupchik & Snyder, 2009).

viii). On Paranoid Ideation: The ‘Gender’ independently affected 18 % on Paranoid Ideation ($F=43.04$; $\eta^2=.18$; $p > .01$) which was in line with the earlier findings that male prisoners are more prone to aggressive or violent paranoia due to the competitive and hierarchical nature of prison environments, leading to fears of victimization (Sykes, 1958; Haney, 2006). In contrast, female prisoners' paranoia is often related to social issues, distrust within close relationships, and vulnerability to interpersonal violence, with concerns about betrayal and manipulation (Kupers, 1999). Overcrowded and high-security male prisons amplify paranoid thoughts about violence and exploitation, driven by survival instincts (Fazel et al., 2016). Female prisons, though less violent, expose women to emotional stressors affecting their social standing and safety, but more supportive environments may alleviate these

symptoms (Liebling & Arnold, 2004). Gender differences in coping with paranoia include men internalizing their fears, while women are more expressive about relational issues (Fazel et al., 2016). Additionally, male prisoners are less likely to seek mental health help, whereas women may receive more social or therapeutic interventions (Kupers, 1999). Women with histories of sexual abuse and trauma may experience higher rates of paranoid ideation due to mistrust and hypervigilance (Fazel et al., 2016).

ix). On Psychoticism: The ‘Gender’ independently affected 23% on psychoticism ($F= 57.48$; $\eta^2=.23$; $p > .01$) which was in line with the earlier findings that male prisoners typically face high violence, social dominance, and competition, worsening psychotic symptoms like paranoia, aggression, and delusions due to the hostile and hierarchical prison environment (Sykes, 1958). Female prisoners encounter less overt violence but suffer from trauma-related mental health issues such as anxiety, depression, and PTSD, often leading to psychotic symptoms. Prior abuse among women exacerbates their mental health problems (Covington, 2008). Men display increased psychoticism due to masculine norms emphasizing strength and dominance, resulting in social isolation and aggression (Kupers, 1999). Conversely, women experience relational trauma and interpersonal conflict, contributing to mental health issues, including psychotic symptoms (Teplin et al., 2005). Gender significantly influences mental health histories in prisoners. Women are more prone to pre-existing mental health issues like mood and anxiety disorders, which the prison environment exacerbates, increasing psychoticism (Fazel et al., 2016). Although men exhibit more antisocial behaviors, they are more vulnerable to psychosis due to stressors unique to male prisons. Treatment and mental health support availability differ by gender. Women's prisons often lack resources for trauma-related mental health issues, leading to higher untreated condition rates, whereas men's prisons may focus more on behavioral control than therapeutic interventions (Liebling & Arnold, 2004).

Table -6: Showing the Independent effect of ‘Criminal’ and ‘Gender’ on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety,

Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism for whole sample samples:-

Dependent	Independent	Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Somatization	types of inmates	1997.14	3/197	1997.12	308.62	0	0.21
	Gender	212.18	2/198	212.18	13.70	0	0.16
OCD	types of inmates	865.28	3/197	865.28	198.59	0	0.18
	Gender	557.78	2/198	557.78	94.37	0	0.32
Interpersonal Sensitivity	types of inmates	1166.40	3/197	1166.45	354.49	0	0.21
	Gender	367.21	2/198	367.205	50.11	0	0.20
Depression	types of inmates	933.12	3/197	933.12	174.48	0	0.21
	Gender	557.78	2/198	557.78	77.01	0	0.28
Anxiety	types of inmates	2054.4	3/197	2054.41	453.20	0	0.21
	Gender	644.41	2/198	644.40	55.29	0	0.21
Hostility	types of inmates	1978.2	3/197	1978.21	434.93	0	0.19
	Gender	609.01	2/198	609.01	53.12	0	0.21
Phobic Anxiety	types of inmates	1824.1	3/197	1824.08	401.47	0	0.16
	Gender	551.12	2/198	551.12	50.22	0	0.21
Paranoid Ideation	types of inmates	1717.01	3/197	1716.98	406.19	0	0.17
	Gender	456.02	2/198	456.02	43.03	0	0.17
Psychoticism	types of inmates	1794.03	3/197	1794.01	419.10	0	0.18
	Gender	595.13	2/198	595.12	57.58	0	0.22

Objective-5: To study the _gender' and _types of inmates' *interaction effect* on psychopathological symptoms

Two-way ANOVA was employed to assess the Interaction Effect of the _Types of Prisoners and Gender' on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism among the samples.

Results revealed that:

The results provided that the effect of _Types of prisoners and Gender' on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism that

(i) On Somatization: The interaction between 'Types of Prisoners and Gender' had an impact of 28% on Somatization, ($F= 136.03$; $\eta^2=.28$; $p > .01$) which was in line with the earlier findings that Gender significantly impacts somatization among prisoners, with higher rates in female inmates. Women in prison often face greater psychological distress, including somatization, due to trauma, abuse, and gendered power dynamics (Gendreau et al., 2007). Female prisoners exhibit higher somatic complaints, reflecting different coping mechanisms and incarceration experiences (Fazel et al., 2008). Undertrial prisoners experience higher psychological distress, leading to somatization (Sarkar et al., 2015), while convicted prisoners face somatization from institutional stress (Kinner et al., 2010). Women, particularly those in pre-trial detention or serving sentences for non-violent offenses, exhibit more somatic complaints due to gender-specific stressors (Sarkar et al., 2015). Overcrowding and limited healthcare in prisons exacerbate somatic complaints in both genders, with harsh prison conditions worsening mental health, including somatization (Fazel et al., 2006).

(ii) On OCD: The interaction effect between 'Types of Prisoners and Gender' was 22 % on OCD ($F= 300.77$; $\eta^2=.22$; $p > .01$) which was in line with the earlier findings indicates that the nature of the crime committed may be linked to the frequency of OCD symptoms among offenders. Violent criminals, for instance,

might exhibit distinct psychological characteristics compared to those who commit non-violent offenses (Dvoskin & Grab, 2006). It is important to note the gender-specific manifestations of mental health disorders, particularly OCD. Evidence suggests that men and women may display varying symptoms, employ different coping mechanisms, and respond differently to treatment. Female inmates may encounter gender-specific stressors that could potentially intensify OCD symptoms (Kelsey & Browne, 2020). A review of existing literature reveals that experiences of gender-based violence and trauma can lead to an increased occurrence of mental health issues, including OCD, among incarcerated women (Wright & Tompkins, 2006).

(iii) On Interpersonal Sensitivity: The interaction between 'Types of Prisoners and Gender' had affected 24% on Interpersonal relations ($F= 343.05$; $\eta^2= .24$; $p > .01$) which was in line with the earlier findings has demonstrated that the nature of an offense impacts relationships between inmates. For example, those who commit violent crimes may encounter more interpersonal challenges, whereas non-violent offenders tend to develop more collaborative connections (Toch, 1997). The social dynamics within prisons are shaped by factors such as the surrounding environment and established power structures among various prisoner groups, including the influence of gang affiliations and protective associations (Simpson, 2010). The formation of social networks and support systems in correctional facilities is also affected by gender. Female prisoners typically exhibit distinct patterns of interpersonal relationships compared to their male counterparts (Schenker & McDaniel, 2013). Studies suggest that women often place a higher value on relationships and display greater empathy, creating supportive environments among female inmates (Covington, 2002). It is worth examining how male prisoners may engage in more competitive and aggressive behaviors, influencing their interactions and perceptions of bonds, and how this differs from the dynamics observed among female inmates (Hurst, 2012).

(iv) On Depression: The interaction between 'Types of Prisoners and Gender' had affected 15% on Depression ($F= 190.55$; $\eta^2= .15$; $p > .01$) which was in line with the

earlier finding suggests a correlation between specific criminal behaviors and varying levels of depression. Violent offenders, for instance, may experience higher rates of depression due to the psychological consequences of their actions and the stressors associated with incarceration (Fazel & Danesh, 2002). Factors such as isolation, overcrowding, and inadequate treatment in prison environments disproportionately impact different types of inmates, resulting in increased depression rates (Haney, 2006). Women often exhibit higher rates of depression, influenced by factors like trauma, systemic gender-based discrimination, and interpersonal relationships (Tatum, & Thompson, 2009). Evidence indicates that female prisoners have a higher prevalence of diagnosed depression compared to their male counterparts, often attributed to differing life experiences and societal expectations (Kemp, & Razali, 1999). The impact of past trauma, such as abuse or violence, on mental health is more pronounced in female prisoners than in males, contributing to elevated depression rates (Covington, 1998).

(v) ***On Anxiety:*** The interaction between 'Types of Prisoners and Gender' had affected 31% on Anxiety ($F = 66.22$; $\eta^2 = .31$; $p > .01$) which was in line with the earlier findings indicates that the nature of the crime committed affects anxiety levels in offenders. For example, those convicted of violent offenses may experience increased anxiety due to isolation and perceived threats within the prison environment (Gonzalez & Sullivan, 2010). Factors such as prison conditions, overcrowding, and insufficient mental health resources contribute to elevated anxiety among inmates, particularly violent offenders (Hannover, 2011). The manifestation of anxiety differs between male and female prisoners. Women may experience anxiety related to past trauma or relationship issues, while men might express anxiety through aggressive behavior and conduct problems (Blitz, & Wolfe, 2009). Research suggests that female inmates tend to have higher anxiety levels compared to their male counterparts, often stemming from traumatic experiences, relationship challenges, and the stress of imprisonment (Tatz, & McCarthy, 2007). The prevalence of trauma histories among female prisoners contributes to their increased anxiety levels. In contrast, male prisoners may grapple with anxiety related to

distinct social dynamics and competitive environments (Hannah-Moffat & Shaw, 2000).

(vi) **On Hostility:** The interaction between 'Types of Prisoners and Gender' had affected 29% on Hostility ($F= 552.31$; $\eta^2=.29$; $p > .01$) which was in line with the earlier findings that the level of hostility exhibited by inmates can vary based on their offense type. For example, those convicted of violent crimes may display more aggressive behavior, influenced by their personal history and the stress of confinement (Siegel, 2016). Additionally, the security level of the correctional facility can impact hostile conduct among various prisoner categories (Hannover & Möller, 2015). Gender also plays a role in how hostility is expressed. Studies indicate that male inmates tend to show more direct aggression, while female inmates might resort to relational aggression or social manipulation to express hostility (Schaefer & Latzman, 2020). In female prisons, unique social dynamics, such as rivalry for resources or status, can foster hostile behavior. In contrast, male inmates are more likely to engage in direct, confrontational hostility (Bloom, 2003). Furthermore, the interplay between offense type and gender contributes to variations in hostile behavior. For instance, female violent offenders may exhibit a distinct form of hostility compared to their male counterparts, influenced by societal expectations and norms (Cohen & Piquero, 2009).

(vii) **On Phobic Anxiety:** The interaction between 'Types of Prisoners and Gender' had affected 27 % of Phobic anxiety ($F= 427.96$; $\eta^2=.27$; $p > .01$) which was in line with the earlier findings indicates that various categories of inmates, including those convicted of violent and non-violent crimes, may experience differing degrees of phobic anxiety based on their individual histories and circumstances (Mason, 2009). The prison environment itself, characterized by issues such as overcrowding, limited personal space, and restricted movement, can intensify phobic anxiety, particularly among distinct inmate groups (Fazel & Danesh, 2002). Gender also plays a role in how phobic anxiety manifests and its prevalence within correctional facilities. Studies show that incarcerated women tend to report higher rates of anxiety disorders compared to their male counterparts, which may be attributed to varying

social factors and trauma-related experiences (Blitz, 2006). Female prisoners often encounter unique social dynamics that can contribute to heightened phobic anxiety, such as concerns about violence or social isolation. These experiences can result in anxiety manifestations specific to their gender-related incarceration experiences (Van Olphen & Gilbert, 2010). The interplay between inmate classification and gender may give rise to distinct forms of phobic anxiety. For instance, male inmates convicted of violent offenses might develop situational phobias related to dominance and aggression, while female non-violent offenders could experience phobias associated with interpersonal dynamics and personal safety (Davis, 2018).

(viii) On Paranoid ideation: The interaction between 'Types of Prisoners and Gender' had affected 25 % of Paranoia ($F= 360.48$; $\eta^2= .25$; $p > .01$) which was in line with the earlier findings that various categories of inmates, including those who have committed violent and non-violent crimes, show differing degrees of paranoia based on their personal histories, encounters, and the specifics of their crimes (Fazel & Danesh, 2002). Conditions within prisons, such as overcrowding, violent incidents, and insufficient mental health support, can intensify paranoid thoughts and actions among prisoners, particularly in certain offender types who might already be susceptible to such feelings (Hannover & Möller, 2015). The manifestation of paranoid symptoms can differ between male and female inmates, with women potentially experiencing paranoia more closely tied to interpersonal dynamics and past traumatic experiences (Morrissey, 2003). Female prisoners may exhibit higher levels of paranoia due to histories of violence or trauma, which can influence their perception of interactions within the prison setting (Van Olphen, & Gilbert, 2010). The interplay between prisoner classification and gender contributes to paranoia. For example, male inmates convicted of violent offenses may experience paranoia related to issues of dominance and personal safety, while female prisoners might have specific paranoid thoughts concerning interpersonal relationships and potential victimization (Davis, 2018).

(ix) On Psychoticism: The interaction between 'Types of Prisoners and Gender' had affected 30 % of psychoticism ($F= 585.01$; $\eta^2=.30$; $p > .01$) which was in line

with the earlier findings that Psychotic symptoms may vary in intensity and nature among diverse inmate populations, such as those convicted of violent crimes versus non-violent offenses (Fazel & Danesh, 2002). The conditions within correctional facilities can intensify psychotic manifestations, especially for inmates predisposed to such disorders based on their criminal history. Environmental factors including overcrowding, solitary confinement, and heightened stress levels can magnify psychotic experiences (Hannover & Möller, 2015). Women in prison often have more extensive histories of trauma, which may be linked to the emergence of psychotic symptoms. The distinct social challenges faced by incarcerated females could further aggravate these symptoms (Bloom & Covington, 2008). It is important to investigate how psychotic symptoms might present differently in male and female prisoners, with variations frequently influenced by social dynamics, past trauma, and emotional expression (Hannah-Moffat, 2001). The interplay between offense type and gender impacts psychotic symptoms. For example, male inmates convicted of violent crimes might experience psychotic symptoms related to dominance and aggression, while female offenders may display symptoms associated with relational trauma and mistreatment (Davis, 2018).

Table- 7: Showing the interaction effect (Two way ANOVA) of the type of prison and gender on dependent variables among the samples.

Independent	Dependent	Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Types of Prison and Gender	Somatization	2214.67	3	738.22	136.21	.00	0.27
	OCD	1419.61	3	473.2	300.80	.01	0.22
	Interpersonal	1527.12	3	509.04	343.10	.00	0.24
	Depression	1483.37	3	494.45	190.50	.02	0.14
	Anxiety	2686.84	3	895.61	662.20	.01	0.31
	Anger	2574.24	3	858.08	552.30	.02	0.29
	Phobic	2362.94	3	787.64	428.34	.03	0.26
	Paranoia	2162.06	3	720.68	360.52	.02	0.24
	Psychoticism	2376.18	3	792.06	585.34	.01	0.30

CHAPTER –VI
SUMMARY AND CONCLUSION

The present study entitled —A Comparative Psychopathological Assessment of Convicted and Undertrial Prisonersll was designed to study the prevalence level of psychopathological problems among the prisoners in Central Jail, Aizawl, Mizoram by comparing undertrial prisoners and convicted prisoners, male and female prisoners, prisoners and non prisoners on selected psychopathological problems.

The study focused on psychopathological problems (Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Aggression, Phobic Anxiety, Paranoid Ideation and Psychoticism) to examine the significant differences among the groups (Convicted and Undertrial Prisoners, male and female, prisoners and non-prisoners) to determine any significant independent and interaction effect of the independent variables on dependent variables among the targeted population. To evaluate the psychopathological problems among the samples, *The Symptom Checklist 90 Revised (SCL-90-R*; Derogatis, 2000) was used.

To meet the objectives of the study, 160 prisoners' samples comprised of 80 convicted (40 male and 40 female) and 80 under-trials (40 male and 40 female) from the record maintained by Central Jail Aizawl, Mizoram were selected out of the total of 761 prisoners (456 men and 305 women). The samples were chosen based on sociodemographic criteria outlined by Toichhawng (2021), which encompassed prisoner status (under trial or convicted), sex, age range (30 to 50 years), education level (below bachelor's degree), residential area (urban or rural), incarceration period (minimum 6 months), and physical health status (no severe physical ailments). To compare with the prisoner samples, non-prisoner samples were gathered to match demographic characteristics such as gender, age, location, education level, and physical condition, but without having any previous criminal record. The sampling process was designed to control for irrelevant variables, and a random selection method was employed whenever possible. The Co relational design was used to compare two groups of prisoners (Convicted and Undertrial prisoners), and 2 genders (80 Male and 80 Female samples) were initiated for the eight cells of the designs. The scale was administered under individual conditions and free from disturbances, following the test manual's prescriptions and the APA ethical code of research (APA, 2016).

The sample characteristics of the study were an age range from 30 to 50 years as well distribution of age, education qualification (below graduate level), permanent address/locality (urban and rural), duration of imprisonment (not less than 6 months) and physical health condition (no critical physical problems) from the official record of the Central jail, Aizawl, Mizoram.

The study was framed with the objectives of examining any significant difference between Convicted prisoner samples and Undertrial prisoner samples, Female Convicted prisoners' samples and Male prisoners' samples on psychopathological problems; to examine any significant relationship pertaining to the psychopathological symptoms among the samples; to examine any significant an independent and interactive effect on psychopathological symptoms.

To meet the objectives of the study, hypotheses were also formulated that prisoners samples will score higher prevalence on psychopathological symptoms than non-prisoners samples; Undertrial prisoners samples will score higher on psychopathological symptoms than convicted prisoners samples; Female Undertrial prisoners samples will have higher scores on psychopathological symptoms than the Convicted Male prisoners samples.

The samples of Convicted and Undertrial Prisoners were collected from Central Jail, Aizawl, Mizoram. The sample of the study had an equal representation of two types of inmates such as Convicted and Undertrial Prisoners, Convicted male prisoners and Convicted female prisoners, Undertrial male prisoners and Undertrial female prisoners were randomly selected from the list of the prisoners at Central Jail, Aizawl, Mizoram. Whereas the non-prisoners samples were selected with an aimed of well-match of the prisoners samples following purposive sampling procedure on the ground of demographic profiles such as age, education qualification (below graduate level), permanent address/locality (urban and rural), duration of imprisonment (not less than 6 months) and physical health condition (no critical physical problems) from the official record of the Central jail, Aizawl, Mizoram.

The raw was ensured for any missing and extreme outliers which can adulterate the results of the study. The researcher carefully checked out to find any

missing or incomplete data from the datasheet as no missing or extreme outliers not presented, and then decided to go forward for further statistical analysis.

The psychopathological test employed was standardized test which was originally constructed for other populations, and need to be checked for appropriateness for the targeted population. A pilot study was done to check the reliability, homogeneity and normality and found the applicability for the selected population under study.

Summary of the Findings

Following the sequence of the objectives and hypothesis, the sectional analysis and discussion were done as follows:

First Objectives was to study the prevalent psychopathological symptoms among the samples. The results of the study evinced that undertrial prisoners were higher on all of those psychological symptoms which confirmed hypothesis -1 as expected

Second objective was to examine the prevalence of psychopathological symptoms between male and female, and demonstrated that male and females were higher than male prisoners on all of the psychopathological symptoms and significant at .01 levels which confirmed hypothesis -2 as expected.

Third objectives was to study the relationship between the psychopathological symptoms among the samples, and the results demonstrated that all psychopathological symptoms were positively related but negative relationship with interpersonal sensitivity, and hostility and depression which showed that the high prevalence of one psychopathological symptom can invited occurrence of others among prisoners which accepts the hypothesis -3

Fourth Objective was designed to study the __gender‘ and __types of inmates‘ independent effect on psychopathological symptoms. The __gender‘ and __types of inmates‘ independent effect on psychopathological symptoms which demonstrated the significant independent effect of __gender‘ and __types of inmates‘ on all psychopathological symptoms among the prisoners which accepts the hypothesis – 4.

Fifth Objective was designed to study the __gender and types of inmates‘ interaction effect on psychopathological symptoms. The __gender and types of inmates‘ interaction effect on psychopathological symptoms were found on all psychopathological symptoms and significant at .01 levels which accepts the hypothesis – 5.

Limitations of the study and suggestions

The very nature of the topic under study brings forth certain limitations, although, it was conducted with utmost care.

Samples were taken from the prison setting; all were living together in a limited space and facilities with strict rules. So, an environment free from destruction was not affordable inside the jail even due care was tried to maintain. All the psychological measures demands a quiet and isolated environment for conduction. Though special care and effort were made, an ideal environment free from distraction could not be fully maintained. However, the participants could perform and complete the test without much difficulty.

The present study employed standardized psychological test which may not contained some psychopathological symptoms and may not included in the findings.

The samples size of the study was not big enough to represent for making generalization about the prisoners.

The present study did not observed the effect of demographic factors on psychopathology rather control not to influenced the independent and dependent variables.

The study inability to included some psychological variables such as personality, intelligence were not included in the study which would contribute to insightful effect on psychopathology.

Suggestions for future study

Based on the limitation faced in the study, some suggestions were made below for future research: -

Inclusion of a bigger sample would provide more information with and indept understanding about the coueses of psychopathology.

Addition of physiological measurement would help to get more information related to an independent and dependent relationship.

Inclusion of demographic factors can enrich information about the factors of psychological functions among inmates.

Inclusion of some more psychological variable as independent or dependent variables would contribute more information.

Inclusion of qualitative study is suggested for future research to extract an in-depth information, which otherwise may not be feasible in quantitative studies.

Employing psychological measures tapping on externalising behavior might show a better picture of prisoner's emotional state.

Significant of the study:

To the best of my knowledge, this study is one of the first in-depth, large-scale studies that investigated psychological problems among the jail inmates who were convicted and under-trial prisoners from Central Jail, Aizawl in Mizoram.

Though some limitations were met in the conduction of the study, still it contributed insightful information about the prevalence of the psychopathological symptoms of prisoners related to Somatization, OCD, Interpersonal, Depression, Anxiety, Anger, Phobic, Paranoia, and Psychoticism, gender difference, types of

prisoner differences, the relationship between the nine psychopathological symptoms among the prisoners. Overall results highlighted the prevalence of psychopathological symptoms among the prisoners with more attention to be paid to the under-trial prisoners which may deteriorate their psychological function.

Informed Consent Form (Tochhawng, 2022)

(English)

You are invited to participate in research, topic on —A Comparative Psychopathological Assessment of Convicted and Undertrial Prisoners. This is a research project being conducted by Ms. Johny Lalengmawia Tochhawng Scholar of Prof. Zokaitluangi, Department of Clinical Psychology, Mizoram University. It should take approximately 1 hour to complete.

Your participation in this research is voluntary. You may refuse to take part in the research or exit the research at any time without penalty. You are free to decline to answer any particular question you do not wish to answer for any reason.

You will receive no direct benefits from participating in this research study. However, your responses may help us learn more about psychological conditions based on which I can give you suggestions on how to cope with your problems, if there is any.

There are no foreseeable risks involved in participating in this study other than those encountered in day-to-day life. Some of the questions may be sensitive, some questions may cause emotional discomfort, some may be distressing to you as you think about your experiences.

Your answers will be stored in a password protected electronic format and identifying information such as your name, email address, or IP address will not be collected. Therefore, your responses will remain anonymous. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study.

If you have questions at any time about the study or the procedures, you may contact my research supervisor, Professor Zokaitluangi, via phone at 9436151606 or via email at zktluangi.psy@mzu.edu.in.

You have read the above information. Kindly give your response and agreement:

I do hereby given my Consent:

- I voluntarily agree to participate ☐ Agree ☐ Disagree
- I am 18 years of age or older

Signature:_____

Thank You

Investigator: Johny Lalengmawia Tochwawng

Phone :

SI No:_____

Informed Consent Form (Tochhawng, 2022)

(Mizo)

Research —A Comparative Psychopathological Assessment of Convicted and Undertrial Prisonersll tih a tan hian min pui turin ka sawm che a. He research hi, kei, Ms. Johny Lalengmawia Tochhawng, Ph D research Department of Clinical Psychology, Mizoram University ah Prof Zokaitluangi kaihhruaina hnuai ah ka ti mek ah hian min pui turin ka sawm che a. Darkar khat vel zawhna chhan chung hi a ni a nga.

I inhuamna ang a min puihna ka dil a, I peihloh hun hun ah I tawp san thei anga engmah harsatna a awmlo ang. Zawhna te hi chhan njuam I tihloh chuan I chhanglo thei tho ang

Min puih avang hian hlawkpuina I nei dawn lo a. Kei zirna ah min puihka ngaih avangin I hawhhawmna avanga ti tur I ni a. He min puihna avangin thil tam tak erawh chu ka zir phah theih dawn ani.

Min puihna avanga harsatna I neihna tur a awmlo a. zawhna thenkhat chu chhan nuam I ti lo palh thei . Mah se min chhan theih hram chuan ka lawm hle ang.

I chhanna ah hian I hming a in ziaflo a. churang chuan I chhanna a nih tuman an hrethei dawnlo a ni.

Engemaw hriat chianloh I neih chuan min hrih la ka lo sawifiah ang.

Engemawh vanga min hrih hreh pawhin ka supervisor, Professor Zokaitluangi hi a phone 9436151606 or via email :zktluangi.psy@mzu.edu.in. ah te hian I zawtfiah thei ang.

A chhunga research sawifiahna te khi i chhiar tawh chuan, khawngaih takin min puih duh leh duhloh a hnuai ah hian I ziaflo dawn nia.

Ka duhthlanna hetiang hian ka pe e:

- Keima duhthu ngei a ti ka ni e  ka remti e  Ka remti lo
- Kum 18 ka ni / aiin ka upa tawh e

Hming ziahna:_____

Ka lawm e

Research titu: Johny Lalengmawia Tochwawng

Phone :

SI No:_____

Socio-Demographic Data (Tochhawng, 2022)**(English)**

1. Age : _____
2. Birth Place : _____
3. Permanent address : _____
4. Sex : _____
5. Educational Qualification: _____
6. Any major Illness : _____
7. If, since, when : _____
8. Any hospitalization : _____
9. If, reason (s) : _____
10. If, Duration : _____
11. Reason for imprisonment : _____
12. Status of the case : _____
13. Physical Health Condition:
 - a) Hb: : Normal/not normal
 - b) Temperature : Normal/not normal
 - c) BP : Normal/not normal
14. Others (if any) :
15. What test have you taken : rt-pcr test / rapid antigen test

Socio-Demographic Data (Tochhawng, 2022)

(Mizo)

1. Kum : _____
2. Pianna khua : _____
3. Awmna nghet : _____
4. Mipa/Hmeichhia : _____
5. Lehkha zir san zawng : _____
6. Natna benvawn neih : _____
7. Engtik atangin nge : _____
8. Damdawiin admit tawh em : _____
9. Engvangnge (s) : _____
10. Awm rei chhung : _____
11. Jail tan chhan : _____
12. Jail a dinhmun : _____
13. Taksa hriselna dinhmun:
 - a) Hb : Normal/not normal
 - b) Temperature : Normal/not normal
 - c) BP : Normal/not normal
 - d) Damlohna I nei em? : _____
14. Thil dang tul apiang : _____
15. Heng ang hi I test em? : rt-pcr test / cpt for covid nasal swab

SYMPTOM CHECK LIST-90 (ENG)

Appendix - V

Study _____

ID _____
Date ____/____/____

Symptom Checklist 90-R

Below is a list of problems and complaints that people sometimes have. Please read each one carefully and **enter the number** that best describes how much you were bothered by that problem during the past week.

Please enter only ONE.

FOR THE PAST WEEK, HOW MUCH WERE YOU BOTHERED BY:

	Not At All	A Little Bit	Moderately	Quite A Bit	Extremely
1. Headaches	0	1	2	3	4
2. Nervousness or shakiness inside	0	1	2	3	4
3. Unwanted thoughts, words, or ideas that won't leave your mind	0	1	2	3	4
4. Faintness or dizziness	0	1	2	3	4
5. Loss of sexual interest or pleasure	0	1	2	3	4
6. Feeling critical of others	0	1	2	3	4
7. The idea that someone else can control your thoughts	0	1	2	3	4
8. Feeling others are to blame for most of your troubles	0	1	2	3	4
9. Trouble remembering things	0	1	2	3	4
10. Worried about sloppiness or carelessness	0	1	2	3	4
11. Feeling easily annoyed or irritated	0	1	2	3	4
12. Pains in heart or chest	0	1	2	3	4
13. Feeling afraid in open spaces or on the streets	0	1	2	3	4
14. Feeling low in energy or slowed down	0	1	2	3	4
15. Thoughts of ending your life	0	1	2	3	4
16. Hearing words that others do not hear	0	1	2	3	4
17. Trembling	0	1	2	3	4
18. Feeling that most people cannot be trusted	0	1	2	3	4
19. Poor appetite	0	1	2	3	4
20. Crying easily	0	1	2	3	4

Study _____

ID _____
Date ____/____/____**FOR THE PAST WEEK, HOW MUCH WERE YOU BOTHERED BY:**

	Not At All	A Little Bit	Moderately	Quite A Bit	Extremely
21. Feeling shy or uneasy with the opposite sex	0	1	2	3	4
22. Feeling of being trapped or caught	0	1	2	3	4
23. Suddenly scared for no reason	0	1	2	3	4
24. Temper outbursts that you could not control	0	1	2	3	4
25. Feeling afraid to go out of your house alone	0	1	2	3	4
26. Blaming yourself for things	0	1	2	3	4
27. Pains in lower back	0	1	2	3	4
28. Feeling blocked in getting things done	0	1	2	3	4
29. Feeling lonely	0	1	2	3	4
30. Feeling blue	0	1	2	3	4
31. Worrying too much about things	0	1	2	3	4
32. Feeling no interest in things	0	1	2	3	4
33. Feeling fearful	0	1	2	3	4
34. Your feelings being easily hurt	0	1	2	3	4
35. Other people being aware of your private thoughts	0	1	2	3	4
36. Feeling others do not understand you or are unsympathetic	0	1	2	3	4
37. Feeling that people are unfriendly or dislike you	0	1	2	3	4
38. Having to do things very slowly to insure correctness	0	1	2	3	4
39. Heart pounding or racing	0	1	2	3	4
40. Nausea or upset stomach	0	1	2	3	4
41. Feeling inferior to others	0	1	2	3	4
42. Soreness of your muscles	0	1	2	3	4
43. Feeling that you are watched or talked about by others	0	1	2	3	4
44. Trouble falling asleep	0	1	2	3	4

FOR THE PAST WEEK, HOW MUCH WERE YOU BOTHERED BY:

	Not At All	A Little Bit	Moderately	Quite A Bit	Extremely
45. Having to check and double-check what you do	0	1	2	3	4
46. Difficulty making decisions	0	1	2	3	4
47. Feeling afraid to travel on buses, subways, or trains	0	1	2	3	4
48. Trouble getting your breath	0	1	2	3	4
49. Hot or cold spells	0	1	2	3	4
50. Having to avoid certain things, places, or activities because they frighten you	0	1	2	3	4
51. Your mind going blank	0	1	2	3	4
52. Numbness or tingling in parts of your body	0	1	2	3	4
53. A lump in your throat	0	1	2	3	4
54. Feeling hopeless about the future	0	1	2	3	4
55. Trouble concentrating	0	1	2	3	4
56. Feeling weak in parts of your body	0	1	2	3	4
57. Feeling tense or keyed up	0	1	2	3	4
58. Heavy feelings in your arms or legs	0	1	2	3	4
59. Thoughts of death or dying	0	1	2	3	4
60. Overeating	0	1	2	3	4
61. Feeling uneasy when people are watching or talking about you	0	1	2	3	4
62. Having thoughts that are not your own	0	1	2	3	4
63. Having urges to beat, injure, or harm someone	0	1	2	3	4
64. Awakening in the early morning	0	1	2	3	4
65. Having to repeat the same actions such as touching, counting, washing	0	1	2	3	4
66. Sleep that is restless or disturbed	0	1	2	3	4
67. Having urges to break or smash things	0	1	2	3	4
68. Having ideas or beliefs that others do not share	0	1	2	3	4

Study _____

ID _____
Date ____/____/____**FOR THE PAST WEEK, HOW MUCH WERE YOU BOTHERED BY:**

	Not At All	A Little Bit	Moderately	Quite A Bit	Extremely
69. Feeling very self-conscious with others	0	1	2	3	4
70. Feeling uneasy in crowds, such as shopping or at a movie	0	1	2	3	4
71. Feeling everything is an effort	0	1	2	3	4
72. Spells of terror or panic	0	1	2	3	4
73. Feeling uncomfortable about eating or drinking in public	0	1	2	3	4
74. Getting into frequent arguments	0	1	2	3	4
75. Feeling nervous when you are left alone	0	1	2	3	4
76. Others not giving you proper credit for your achievements	0	1	2	3	4
77. Feeling lonely even when you are with people	0	1	2	3	4
78. Feeling so restless you couldn't sit still	0	1	2	3	4
79. Feelings of worthlessness	0	1	2	3	4
80. Feeling that familiar things are strange or unreal	0	1	2	3	4
81. Shouting or throwing things	0	1	2	3	4
82. Feeling afraid you will faint in public	0	1	2	3	4
83. Feeling that people will take advantage of you if you let them	0	1	2	3	4
84. Having thoughts about sex that bother you a lot	0	1	2	3	4
85. The idea that you should be punished for your sins	0	1	2	3	4
86. Feeling pushed to get things done	0	1	2	3	4
87. The idea that something serious is wrong with your body	0	1	2	3	4
88. Never feeling close to another person	0	1	2	3	4
89. Feelings of guilt	0	1	2	3	4
90. The idea that something is wrong with your mind	0	1	2	3	4

APPENDIX - VI

Symptom Checklist 90-R (Mizo)

Instruction: A hnuai a natna cchi hrang hrang te hi mi tam tak te natna neih thin a nk a.
Ngun takin Bchhiarla, tun kar chhung mai a I natna nen a in an chuan, a in an nasat dan a
zirin zawhna te hi I chhang dawn nia

0= ni lo; 1= tlem nei, 2= nei deuh thin, 3= nei ve fo, 4= nei deuh reng

SL. No	Nat dan chi hrang hrang te	Nei lo	Nei deu h	Nei ve thi n	Nei fo	Nei deu h ren g
1	Luna I nei thei thin em?	0	1	2	3	4
2	I hlauthawngin, chhungrilah I khur thin em?					
3	Thil tha lo/hauhawm lo thleng dawn tlat I ngaihtuah thin em?					
4	I chau ngawih ngawih thin em?					
5	Tisa chakna I hloh em?					
6	Midang rin harsa I ti thin em?					
7	Midang thu thu a awm tlatin I inhria em?					
8	I harsatna tawhah midang puh I ching em?					
9	Thil tha lo I chungah a thleng dawn tlatin I hria em?					
10	Fimkhurna I thlachham em?					
11	Thil I ning zung zung thin em?					
12	I awmbawr leh I thin te a na vung vung thin em?					
13	Hmun ruak zau leh kawttler te I rap thin em?					
14	I zawi ngawih ngawih em?					
15	Mahni nunna lak duh rum rum chang i nei em?					

16	Midangte hriat ve miah loh thawm engemaw i hre thin em ?					
17	Chhan mumal awm lovin i tim sung sung thin em?					
18	Midang I ring zo lo thin em?					
19	Chaw chakna I hloh em?					
20	Thil ho te ah pawh i tap mai zel em?					
21	I zak ngawih ngawih thin em ?					
22	I tawt up up thin em?					
23	A chhan mumal awm lovin I thlabar thin em?					
24	I thin a ram viau thin em?					
25	In Atanga chhuah I hlau tlat thin em?					
26	Harsatna lo thleng hi nangma thiam lohah I ngai thin em?					
27	I hnungzang a na ngut ngut in I hria em?					
28	I hmabakah harsatna hmachhawn tur nei tlatin I in hria em?					
29	I khua a har veng veng thin em?					
30	Lungngai ngawih ngawihin I awm thin em?					
31	Thil I ngaihtuah vak vak thin em?					
32	Engkim hi I ning ngawih ngawih em?					
33	I hlauthawng ngawih ngawih em?					
34	I rilru a na hma em?					
35	Midangten I rilru an hre vek in I ngai thin em?					
36	Midangten an hrethiam lo che niin I hre thin em?					
37	Midangten an ngaina lo che niin I hre thin em?					
38	Mahni insiam that harsa I ti em?					
39	I thin a phu dawt dawt thin em?					
40	I pum a na in, I luak te a chhuak thin em?					
41	Midangte phak lo riau vin I inhre thin em?					
42	I taksa a rawl thum in I hria em?					
43	Midangten an chhinchhiah bik tlat che in I hria em?					

44	I mut a chhuak ngawih ngawih thin em?					
45	I thil tih tawh pawh I ennaawm leh kher loh chuan I ngaih a tha lo tlat em?					
46	Thutlukna siam I harsat em?					
47	Lirthei a chuan I hlau thin em?					
48	Thawk harsa tihchang I nei thin em?					
49	I taksa a vawt or lum pup pup chang I nei thin em?					
50	Thil thenkhat or hmun thenkhat pumpelh duh I nei thin em?					
51	Rilru mang thut chang I nei thin em?					
52	I taksa engemaw lai a chawmawlh thin em?					
53	I hrawkah hnawhtu awm tlatin I hre thin em?					
54	I hmalam hun a thim riauvin I hre thim em?					
55	Ngaihtuahna fim hman theih tlat loh chang I nei thin em?					
56	I taksa a chau ngawih ngawih thin em?					
57	Hlauthawng deuhva awm ringawt chang I nei em?					
58	I kut leh ke te a rit deuh luk in I hre thin em?					
59	Thi mai dawna inhriatna te i nei thin em?					
60	Thil I ei vak vak thin em?					
61	Mi hmel eng hmuh huphurh tlat chang i nei ngai em?					
62	Tangkaina lei lo riauvin I inhre thin em?					
63	Midang tihnat chak tlat chak I nei ngai em?					
64	Zing hma takah I harh hlawl thin em?					
65	Mahni inrinhlelh tlat chang I nei thin em?					
66	Mut thilh theih loh chang I nei ngai em?					
67	Thil tihchhiat leh tharum thawh chak tlat chang i nei ngai em ?					
68	Midangin an huphurh tlat che in I hria em?					
69	Midang bula awm peih loh chang I nei thin em?					

70	Mipui zinga awm peihloh tlat chang i nei thin em?					
71	Thil a harsa zawngin I ngaihtuah ngai em?					
72	I chia i hma em ?					
73	Mipui zingah ei leh in i huphurh thin em?					
74	Midang nen inhnial buai I hrat em?					
75	Mahni chauh a awm or thil tih I huphurh thin em?					
76	Midangten I thiltha tih an theihngihlh vek in I hre thin em?					
77	Mipui zingah pawh mal riauvin i inhre thin em?					
78	I thu hle hle thei lo thin em?					
79	Hlutna nei lo riauvin I inhria em?					
80	I thil hmuh leh hriat te kha lem leh ho riau va hriat chang I nei em?					
81	Au vak vak te, thil paihdarh te i ching em ?					
82	Mipui zinga awm I zo lo thin em?					
83	Midangten an duh tihhlawhtlinna hmanrua ah chauh an hmang che in I hria em?					
84	Tisa chakna in i rilru a tibuai thin em?					
85	Thil I tihsualin hremna tuar ngei dawnin I inhria em?					
86	Midangten an nawr kal ngai reng chi I ni em?					
87	I taksa ah engemaw dik lo awm tlatin I hre thin em?					
88	Midangte hnaiha awm I peih lo thin em?					
89	Sual ngawih ngawihin I inhre thin em?					
90	Rilru kha I nei fo em?					

Abréviations

AIDS	- Acquired Immunodeficiency Syndrome
APA	-American Psychological Association
C.C	- Consideration of Charges
CDC	- Center for Disease Control and Prevention
CJ	– Central Jail
COPA	- Committee on Psychology and AIDS
CrPC	– Code of Criminal Procedure
DLSA	- District Legal Services Authority
DSM	- Diagnostic and Statistical Manual of Mental Disorders
FMR	- Free Movement Regime.
GHQ	- General Health Questionnaire
IPC	– Indian Penal Code.
MSLSA	- Mizoram State Legal Services Authority
NALSA	- National Legal Services Authority
NDPS	– Narcotic Drugs and Psychotropic Substances
NSSO	- National Sample Survey Organization
PCR	- Polymerase Chain Reaction.
POCSO	– Prevention of Children from Sexual Offences.
PTSD	- Post Traumatic Stress Disorder.
PWB	- Psychological Well Being
PwDs	-Persons with Disabilities
QOL	- Quality of Life
RI	– Rigorous Imprisonment.
SC	– Supreme Court of India
SCC	– Supreme Court Cases.
SCL	- Symptom check list
Sec	- Section
SI	– Simple Imprisonment.
UNHCR	- United Nations High Commissioner for Refugee.
WHO	- World Health Organization.
ZORO	- Zo Reunification Organization

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ABSTRACT

A COMPARATIVE PSYCHOPATHOLOGICAL ASSESSMENT OF CONVICTED AND UNDER-TRIAL PRISONERS.

**AN ABSTRACT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF
PHILOSOPHY**

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**DEPARTMENT OF CLINICAL PSYCHOLOGY
SCHOOL OF MEDICAL AND PARAMEDICAL SCIENCES**

JUNE, 2025

**A COMPARATIVE PSYCHOPATHOLOGICAL ASSESSMENT OF
CONVICTED AND UNDER-TRIAL PRISONERS.**

BY

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Submitted

**In partial fulfillment of the requirement of the degree of Doctor of Philosophy in
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INTRODUCTION

Prisons separate individuals from their loved ones, spouses, sexual relationships, employment, social circles, communities, and religious practices, placing them in a morally challenging environment for extended periods. Research on the impact of environmental factors on inmates' mental well-being revealed that participants attributed poor mental health and emotions such as anger, frustration, and anxiety to prolonged isolation with minimal mental stimulation. While prisoners typically have 8-9 hours of time outside their cells, it is not unusual for those in high-security facilities to be confined to their cells for 19-20 hours, and sometimes up to 23 hours daily (Nurse et al., 2003). According to a 2006 report by the National Human Rights Commission, prison overcrowding aggravates conditions for inmates (Prison population in India. 2006). Correctional facilities house numerous individuals with severe mental health issues, and the global prison population is expanding rapidly (Birmingham, 2004).

Prisons have a high percentage of mentally ill prisoners. Firstly, mentally ill persons are more frequently than others involved in crime due to symptoms like impaired judgment, lack of impulse control, suspiciousness, loss of inhibitions, paranoid ideas, inability to trust others, delusions, and hallucinations and most of them are less smart, so easily caught by police. Secondly, prisoner's living conditions in prison make them more susceptible to psychiatric disorders. Because conditions in prison are not conducive to good mental health, prisoners with mental illness are at risk of experiencing deterioration in their mental state. (Fazel et al., 2002; Assadi et al., 2006; Birmingham et al., 1996; Baillargeon et al., 2009; James et al., 2006).

The prevalence rates for major mental disorders in the prison population when compared with community samples regarding substance misuse, psychotic disorders, major depression, bipolar disorder, obsessive-compulsive disorder, and posttraumatic stress disorder were grossly overrepresented compared with the general population (Brinded et al., 2001).

The prison population from a health point of view is an underserved section of the society and often neglected though they carry a different burden of illnesses than other members of the society. Their illnesses are determined both by the environment where they have come and the prison in which they live in (NCRB, 2019). Studies on psychiatric morbidity in Indian prisons are very limited and limited research has been carried out to assess and address common mental disorders among prisoners and out of them only one study was from Central Jail, Jaipur located in a central area of Rajasthan (Bhojak et al., 1998). However, as per the study conducted by the National Commission for Women in the Central Prison, Bangalore it was found that the rates of symptoms of common mental disorder among undertrial are higher as compared to convict prisoners. Common symptoms were unhappiness (73% versus 43%), worrying (65% versus 29%), poor sleep and appetite (65% of undertrials) (Murthy et al., 1998). In the recent Prison Mental Health Study, 197 women who were interviewed for psychiatric morbidity, 2.5% had dysthymia (minor depression), 4.6% had specific phobia, 1.5% social phobia and one person had a panic disorder (Math et al., 2011). Among the entire prison population evaluated for this study (5024), lifetime and current rates of dysthymia were 2.9% and 2.5% respectively. The prevalence of major depressive disorders was relatively higher (Murthy et al., 1998; Math et al., 2011). Among the prisoners, who are male, on remand, and psychotic are likely to be locked up longer than other inmates (Singleton *et al.*, 1998). Mental health symptoms in prison have been linked to violence, self-harm, suicide, and victimization (Wolff et al., 2016). Offenders residing in prison face many problems. Isolation from their families, overcrowding in prison, guilt, and stigmatization are the main causes of deterioration in the mental health of prisoners.

The prisoners are suffering from different kinds of diseases that are determined both by the environment in which they come and by the prison in which they live (Prison Statistics of India, 2015). Prisoners are kept in prisons for their rehabilitation as a part of their punishment since prison is not a place where someone would like to live. It is the responsibility of the state to provide the basic needs of the prisoners, facilities, and medical care. Sooner or later, most of the prisoners would have to

come back to society to be a part of it, so their health and behavioral problems need to be monitored and taken care of so that they do not repeat or become involved again in any criminal activity. (National Mental Health Survey of India, 2015).

"Prisoner" is a legal term for a person prosecuted for a felony but not applicable to a person prosecuted for a misdemeanor (Phillips, 1960). Prisoners could be broadly divided into two groups 'undertrial' and 'convicted' prisoners.

An '**undertrial prisoner**' is a person who has been arrested for an alleged offence not followed by a grant of bail, committed to judicial custody and against whom a criminal trial has been initiated by a competent authority (www.lawyersclubindia.com, 2023). They are presumed innocent until proven guilty and have certain rights and protections under the law (Dhanuka, 2010). As such, though they are prisoners but have some rights under the Prisoners Act (1900, 1955) and Jail Act (1894) including the right to a fair and speedy trial, without unnecessary delays or adjournments, the right to legal aid and representation by a lawyer of their choice, or a free legal counsel if they cannot afford a lawyer, the right to be treated humanely with dignity, and not subjected to torture or ill-treatment, or discrimination (www.indiacode.nic.in).

A **convicted prisoner** is "a person found guilty of a crime and sentenced by a court" or "a person serving a sentence in prison" (Webster's New World Dictionary of the American Language. (1978, p-311), are often also known as "prisoners" or "inmates" (p-292). The social environment in prison constituted prison gangs, no systematic good role models to be followed, and many have made beaten, raped, brutalized or lived in fear of overcrowding. As per data of 2006 by the National Human Rights Commission (2016), many Jails have limited sunlight and fresh air, bad odours, no proper health services, no good food, and so on (Dhanuka, 2010). As such, prisoners who experienced lengthy isolation with little mental stimulation experienced poor mental health such as anger, frustration, and anxiety (Nurse et al, 2003), and longer isolation was usually given to male prisoners with psychotic problems (Singleton et al., 2013) than other inmates. Mentally ill persons are more frequently involved in crime due to impaired judgment, lack of impulse control, suspiciousness, loss of

inhibitions, paranoid ideas, inability to trust others, delusions, and hallucinations and most of them are less smart, and easily caught by police than normal person (Fazel & Danesh, 2002). A high prevalence of psychiatric disorders among prisoners (Gunn, 2000), and prisons are full of people with serious mental problems with a rapidly increasing population all over the world (Birmingham, 2004). The literature on prisoners is very limited, most of the studies were done in Western countries, and only very minimal done in the Indian context (Bhojak et al., 1998). It is also learnt that a high number of mental illness including undetected and untreated mental illnesses among prisoners (Andersen, 2004), who have serious mental disorders not transferred to a psychiatric hospital even is done but with a long delay (Bowden, 1978), and often rejected on the grounds of being too disturbed or dangerous or being criminals and unsuitable to stay together with non-criminals (Robertson et al., 1994); which implies a need for professional staff such as psychologists and psychiatric input (Coid, 1998). Research findings revealed poor communication between the prison, court, and hospital systems hindering the assessment and management of the mentally disordered offender resulting in delaying medical intervention and also release from custody (Robertson et al., 1994); were medicated by untrained staff which may not train for diagnostic and treatment of mental illness (Jorm, 2000). Mental disorders are highly stigmatized causing keeping them in secret or private settings to avoid fear of embarrassment or discrimination. In addition to this, records about the prison.

The prisoners whether under trial or convicted spend most of their time behind bars, prisoners are socially isolated which brings feelings of loneliness, despair, and hopelessness. Moreover, the low standards of maintenance in Indian prisons have resulted in prisoners having to live in severely unsanitary conditions, with abysmal infrastructure, for not only mental health care but also for basic physical ailments (Math et al., 2011). Moreover, a prolonged adaptation to such conditions and such frustrations and deprivations of life lead to various psychological disorders in prisoners. Confinement of prisoners leads to disorders like Post Traumatic Stress Disorder and other related issues like decreased self-confidence and self-esteem. Due to these reasons, it has been observed that inmates tend to suffer from mental

illnesses three times more than civilians (WHO, 2021). The World Health Organisation defines 'health' as a *"complete state of physical, **mental** and **social** well-being, and not merely the absence of disease or infirmity"* (WHO, 2021). Though there have been several infrastructural reforms in Indian prisons, a lot remains to be done in looking after the well-being of the prison inmates' mental health. The rudimentary level of care provided to prisoners' mental health has led to Indian prisons becoming dumping grounds for prisoners who suffer from mental ailments. The prevailing conditions in Indian prisons, like the unhygienic conditions of prison cells, inedible food, and lack of administrative control over the treatment meted out towards prisoners and even amongst inmates themselves, create a severe impact on their mental condition (Saha et al., 2014). Many are also beaten and raped by their fellows in prisons (Math et al., 2011).

Furthermore, there is a lack of fresh air and water in prisons, and they are heavily overcrowded. This constant lack of privacy and meaningful activity further leads to prisoners' mental conditions. Their situation further deteriorates because they have to face a lot of social stigmas and are victims of marginalization due to them being criminals (Math et al., 2011). They also have to bear the consequences of inadequate awareness amongst jail authorities about mental health and treatment. Instead of receiving treatment in order to alleviate their mental condition, prisoners are kept in isolation with little or no attention being paid to their mental health issues (Math et al., 2011).

Alienation from the family and society is the most prominent cause to damage the well being of prisoners (Yang et al, 2009; Mackenzie & Mitchell, 2005) resulting stress and other mental health related problems in prisoners (Rutherford & Duggan, 2009). Stress and depression are very frequently experienced by prison population (Birmingham, 2004; Gunter, 2004; Drapalski et. al. 2009; Lafortune, 2010) and also faces some other problems in prison which deteriorate their psychological wellbeing as problem of overcrowding (Nurse et al. 2003), Stigmatization worries them about their future after release from the prison and leaves most damaging effect on prisoners (Schnittker & John, 2007), unable adjust to the jail environment may cause

guilty, shows aggression, suicidal behavior and develops stress and depression, anxiety and other psychiatric problems (Dye, 2010). Inmate prisoners' show elevated anxiety depression in comparison to the normal population (Castellano & Soderstrom, 1997).

Criminals who have done extremely heinous crime are kept in an isolated and segregated cells in prison make them frustrated, depressed and develop mental disorder in criminals (Nurse et al. 2003) or may have has in their past history of treatment of mental disorders and diagnosis of schizophrenia and depression (Singleton et al., 1998; Coid et al., 2003). Sex prisoners were five times more likely to have been hospitalized for schizophrenia or other psychotic disorders, and were three times more likely to have a history of bipolar disorder, and exhibit elevated rates of mental illness, sexual disorders, personality disorders and substance abuse disorder (Eheret al., 2010).

Some study been conducted on Psychopathological symptoms of prisoners, as such the present study aim to study on some selected psychopathological symptoms - ***Somatization (SOM), Obsessive-Compulsive (OBS), Interpersonal Sensitivity (INT), Depression (DEP), Anxiety (ANX), Hostility (HOS), Phobic Anxiety (PHOB), Paranoid Ideation (PAR), and Psychoticism (PSY)***, and collected research findings on the Psychological pathological symptoms from offenders are presented here which provided information for the basset of framing objectives of the study.

Somatization- The term 'somatization' was introduced by Wilhelm Stekel in 1925 (Marin & Carron, 2002), it is a conversion of a mental state (such as depression or anxiety) of physical symptoms and the existence of physical bodily complaints but an absence of a known medical condition; generation of physical symptoms of a psychiatric condition such as anxiety, appears summarizing behaviour more common in poor family functioning and marital conflict (Aro et al., 1989); complaints focus on cardiovascular, gastrointestinal, respiratory, neurological, Pain and discomfort of the gross musculature, and other somatic equivalents of anxiety are also possible components of Somatization. In other words, **Somatization** is a

tendency to experience and communicate psychological distress as bodily and organic symptoms and to seek medical help for them (Lipowski, 1988). People with somatizations often complain about medical problems, but all their tests come back normal or without a cause for concern. The issue of somatization among prisoners is a vital intersection of mental and physical health that calls for increased research and targeted intervention. Inmates with anxiety and depression often report physical symptoms, highlighting the prevalence of somatization. (Zlotnick et al., 2000). The stress and environmental pressures in prison life can cause the inmates to somatise. (Kauffman & Jerusalem, 2009).

Females reported higher levels of somatic symptoms and emotional distress than males also females reported more somatic symptoms at each level of emotional distress (Piccinelli & Simon, 1997). Somatic symptoms do not vary according to geography or level of economic development; and cultures did not differ markedly in the pattern of these associated features (Gureje et al., 1997). Rural residence was not associated with somatization and was more common among urban residents. Urban and rural differences were greatest among women and associated with age differences and being separated, widowed, or divorced (Swartz et al., 1989).

Somatic presentations are prominent in routine clinical practice and usually, when physicians cannot find a pathological basis for them, they are referred to as somatization or somatoform disorders, medically unexplained symptoms or functional somatic symptoms (Barsky & Borus, 1999). The functional somatic symptom is of psychological problem that cannot be explained in terms of a conventionally defined medical disease (Wessely et al., 1999). At least one-third of all physical symptoms in the general population (Kroenke & Price, 1993) and general medical-care settings (Kroenke et al., 1993) are medically unexplained.

Convicted prisoners frequently exhibited somatic symptoms that arises from the psychological stress of imprisonment without medical explanations (Gunter et al., 2008). The convicted prisoners particularly those serving long sentences, frequently reported somatic symptoms that had no medical basis, attributed to the poor mental health care and prolonged isolation inside the jail (Moran, 1999). Somatization is

closely linked to psychiatric disorders among prisoners, particularly those who are convicted and serving longer sentences (Diamond et al., 2001). Convicted prisoners often exhibited somatization due to stress of imprisonment and these physical complaints were common among those serving long term sentences (Sykes, 1958).

Undertrial prisoners frequently experience physical symptoms without knowing clear medical reasons, which clearly indicates that the undertrial prisoners are suffering psychological difficulties. It was estimated that over 60% of the undertrial prisoners reported somatic complaints with a significant correlation between these complaints and symptoms of anxiety and depression, the undertrial prisoners experience high levels of somatization due to uncertainty of their future legal status, fear of conviction (Bose et al., 2019). It was also found that a high prevalence of somatic complaints among undertrial prisoners indicates significant mental health issues that manifest physically. (Tiwari & Purohit, 2017). The stressful conditions in prisons, including overcrowding and limited mental health resources, can worsen anxiety and depression symptoms, resulting in heightened somatization among Undertrial Prisoners (Nagaraja et al. 2018). Undertrial prisoners may use the expression of physical discomfort as a coping mechanism, as it might be easier for them to communicate physical pain rather than to acknowledge psychological distress. (Gonzalez-Saenz & Peinado, 2014). The high prevalence rate of somatization among undertrial prisoners highlights the critical need for specific mental health interventions. (Fazel & Danesh, 2002). Comprehensive mental health assessments for undertrial prisoners can reveal high levels of somatic symptoms linked to their psychological state, encouraging integrated mental health care policies. (Pradhan et al. 2019). Many undertrial prisoners come from disadvantaged family backgrounds where pre-existing mental health issues along with the stress of detention, and delayed legal proceedings can easily develop somatic symptoms such as chronic pain, fatigue, and gastrointestinal difficulties (Das et al., 2020).

Obsessive-Compulsive Disorder (OCD)- It is an intrusive thoughts and urges of the need to perform certain routines repeatedly that induce distress or impair general

function, and included among anxiety disorders and suggested as the sixth-largest contributor to non-fatal health loss worldwide (WHO, 2017). Obsessive-compulsive disorder (OCD) is a psychiatric condition characterized by persistent and unwanted intrusive thoughts, images, and urges (obsessions) and repetitive behaviors or mental acts (compulsions).

Many prisoners have mental health issues, including OCD. But sometimes, OCD is not noticed because other behavioural issues are more obvious. This can lead to the wrong diagnosis or no diagnosis at all (Baillargeon et al., 2000). The prison environment, with its overcrowding, isolation, and lack of freedom, can make OCD symptoms worse. Stress can trigger obsessions and compulsions, and many prison routines may clash with the compulsions experienced by people with OCD. (Simonds & Thorpe, 2003).

Prisoners who have OCD might find it difficult to follow strict schedules because of their compulsions. For instance, a prisoner who constantly washes their hands or repeatedly checks their belongings could be penalized for disrupting group activities or breaking time limits. (Goff et al., 2007). Prison staff may mistakenly view compulsive behaviors as manipulative or disruptive, resulting in additional punishment. (Brooker et al., 2002). The schedules in prisons are rigid and inflexible, which can clash with the routines and compulsions experienced by individuals with OCD. For instance, inmates may have the urge to excessively wash their hands or engage in repeated checking behaviors, which correctional officers may interpret as breaking the rules or causing disruptions (Dvoskin et al., 2001). These compulsions are frequently misinterpreted, resulting in punitive measures rather than receiving mental health support.

In prisons, mental health services are usually not available and in fact, prisons may lack trained mental health professionals, and inmates may not have access to medications. Cognitive Behavioral Therapy (CBT) and Exposure and Response Prevention (ERP) may not be easy to access. (Wolters et al., 2019). Inmates may have limited access to medications such as selective serotonin reuptake inhibitors (SSRIs), which are often prescribed for OCD (Fazel & Danesh, 2002). Prisoners with OCD often have additional mental health disorders like depression, anxiety, and post-

traumatic stress disorder (PTSD), making diagnosis and treatment more complex. The stress of being in prison and the trauma of judicial custody can worsen these problems. (Goff et al., 2007). Inmates with OCD may experience higher rates of self-harm and thoughts of suicide due to their existing health conditions and the stressful prison environment.

Despite affecting only 2-3% of the general population, studies indicate that the prevalence of OCD may be higher among prisoners due to the stressful prison environment and the increased incidence of trauma among inmates (Ruscio et al., 2010; Fazel & Danesh, 2002). Additionally, the lack of access to adequate mental health care in prisons may also contribute to underdiagnosis.

Interpersonal sensitivity: It refers to a personal sense of inadequacy and inferiority compared to others. This includes self-deprecation, restlessness, and discomfort during social interactions (Derogatis & Savitz, 2000). It also involves being excessively aware of others' behavior and mental state (Masillo et al., 2012). Emotional and social interpersonal sensitivity is the capacity to accurately perceive others' abilities, emotions, states, and traits through nonverbal cues (Carney & Harrigan, 2003). Offenders have been found to display less secure attachment styles and greater relationship instability (Ross & Pfafflin, 2007). Research indicates that stable, prosocial marital partners can help deter male offenders from criminal behavior (Craig & Foster, 2013). Additionally, interpersonal relationships are linked to criminal behaviors among delinquent young adult men (Sampson & Laub, 2009), and various types of relationships are associated with criminal behaviors (Wyse et al., 2014).

Individuals with high interpersonal sensitivity often show sharp awareness of interpersonal dynamics, self-perceived insufficiencies, low self-esteem, and insecurity. (Mushtaq et al., 2017). Interpersonal sensitivity is closely associated with psychological distress, low interpersonal relationships, affecting mood, difficulty in maintaining relationships with others, having a problem expressing one's feelings within relationships, difficulty expressing one's needs, and seeking support/social withdrawal. (www.citcassociates.com).

An issue in personal relationships refers to poor quality personal connections that can lead to individuals experiencing symptoms of depression (Huprich et al., 2016). Humans have an inherent requirement for social interaction. Unmet needs can influence a person's actions and thoughts. Ignoring these needs can negatively affect both physical and mental health (Baumeister et al., 2007). Challenges in establishing connections with others may indicate that someone requires more social bonds (Chen et al., 2020). Recognizing and handling interpersonal sensitivity is essential for maintaining strong relationships in day-to-day life (Hames et al., 2013).

The signs of interpersonal sensitivity may also include being excessively focused on one's own relationships due to fear of rejection or criticism in social situations, having an intense awareness of others' emotions and discomfort during social interactions, experiencing negative self-perception due to feelings of personal inadequacy when compared to others (Otani et al., 2018). Interpersonal sensitivity encompasses a range of symptoms that can contribute to the development of depression (Derogatis et al., 1976). Fearing rejection and criticism may lead to modifying one's behavior to avoid these negative outcomes (Boyce & Parker, 1989). Studies have shown that interpersonal sensitivity is a predictor of depression (Chahar et al., 2020) and that stress in social interactions is the most significant predictor of depression (Vrshek-Schal Thom et al., 2015).

Interpersonal sensitivity has been linked to depression (Boyce et al., 1991), social anxiety disorder (Harb et al., 2002; Kumari et al., 2012), anxiety (Vidyanidhi & Sudhir, 2009), and psychotic symptoms (Masillo et al., 2012). Women dedicate more time and effort to their interpersonal relationships compared to men (Kendler et al., 2001) and tend to show a stronger preference for emotional and close communication, perceptiveness, and intimacy within interpersonal relationships (Cyranowski et al., 2000), in the meantime, some studies have not found any significant difference in interpersonal sensitivity between men and women.

Recently, several studies have suggested that there are gender variances, with findings indicating that women tend to be more adapted to interpersonal dynamics than men (Hall et al., 2006). Moreover, research has indicated that women are generally more

sensitive to emotions compared to men (Bloise & Johnson, 2007). Women have been associated with conditions linked to interpersonal sensitivity, such as depression, anxiety, and social phobia (Boyce et al., 1991; Harb et al., 2002; Kumari et al., 2012; Masillo et al., 2012; Sakado et al., 1999; Vidyanidhi & Sudhir, 2009). It has been reported that interpersonal sensitivity is correlated with attachment insecurity and is more prevalent in women, leading to the conclusion that women exhibit greater interpersonal sensitivity than men (Chopik et al., 2013; Del Giudice, 2011; Magai et al., 2000).

Prisoners with high sensitivity may find it hard to take part in group therapy, educational programs, or work assignments in prison, but the same is important for their rehabilitation (Brooker et al., 2002). They may not want to join in because they are afraid of being judged or criticized by their mates and this limits their chances to grow and get better (Brooker et al., 2002). Inmates with high levels of interpersonal sensitivity often experience misunderstandings with correctional staff or other inmates and they tend to interpret neutral or minor comments as harsh or judgmental, which can lead to heightened emotional reactions, conflicts, or disciplinary problems (Ireland, 2002).

Research indicates that individuals in prison are more likely to have mental health issues including those related to interpersonal sensitivity, such as depression, anxiety, and borderline personality disorder. (Fazel & Baillargeon, 2011). The emotional needs of sensitive inmates should be understood to prevent avoidable conflicts and create a safer, more supportive environment. (Ireland, 2002). Inmates with high interpersonal sensitivity should have access to therapies like Cognitive Behavioral Therapy (CBT) and Dialectical Behavior Therapy (DBT), these therapies are effective in addressing issues related to emotional regulation and social interaction skills therefore, CBT and DBT can help inmates cope with the prison environment (Wilhelm et al., 2004). Creating support groups for inmates who struggle with interpersonal sensitivity can offer a safe place for them to talk about their concerns and form positive social connections. (Day et al., 2011). To rebuild self-esteem and reduce dependence upon others' support, an Expert or Counselor intervention is required (Brooker et al., 2002).

Depression: It is a mental state of low mood and aversion to activity. Classified medically as a mental and behavioural disorder, the experience of depression affects a person's thoughts, behavior, motivation, feelings, and sense of well-being. Among Prisoners, Depression is one of the common mental health issues, and it can be worse due to the harsh living environment inside the prison and lack of access to mental health care in jails or prisons may attribute to depression among the prisoners (Math et al., 2011). According to a study published in the Indian Journal of Social Psychiatry, 2018, it reveals that schizophrenia was the most common mental illness in prison inmates followed by depression, post-traumatic stress disorder (PTSD), and sleeplessness. Cases of cannabis, alcohol, and tobacco addiction were also too high (Rabiya et al., 2018). In India, the mental health of prisoners has been a topic of concern for some time. Poor facilities in prisons, overcrowding, restricted privacy, limited mobility, lack of basic amenities, human rights violations, sleep disturbances, and restricted healthcare access can increase the risks of suffering from poor mental health (Math et al., 2011). Several jail prisoners have been diagnosed with mental ailments such as depression, anxiety, and schizophrenia and some of the prisoners have suicidal tendencies and tend to cause harm to themselves (Sinha, 2010). The Prison Statistics India 2019 data mentions that 1.5 percent of the total prison population possibly suffers from mental illnesses, and 50 percent of these people are undertrials. There is also a severe shortage of correctional (including mental health professionals) staff in Indian prisons.

Research shows that people in jail are more likely to experience depression compared to the general population (Fazel et al., 2008). The World Health Organization (WHO, 2014) states that overcrowding in prisons is a significant factor in the development of mental health issues, such as depression among prisoners. The problem is worsened by inadequate access to essential resources and healthcare. Depression often leads to suicide among inmates in prison. Approximately 33% of inmates have attempted self-harm, and about 20% have considered suicide. Additionally, depression is the leading cause of disability among prisoners, accounting for 18% of all cases (Welu et al., 2021). Depression is a big risk for suicide among prisoners. Studies show that about 16% of people in prison have

thought about killing themselves, and many do, often because they didn't get help for their depression (Hawton et al., 2006).

Living in a certain environment such as prison can significantly affect a person's mental health (Bonner et al., 1990). Research shows that prisoners who reported having poor meals were more than twice as likely to develop depression compared to those who reported having good meals (Welu et al., 2021). Prisoners may experience depression and thoughts of suicide at some point. The living conditions in prisons were reported to be poor, with inadequate food quality and cleanliness. This negatively affected the mental health of inmates. A large number of inmates rated their jail environment as bad or very bad, and this was linked to higher levels of depression (Indian J Psychiatry, 2022).

Researchers have found that prisoners who lack social support are twice as likely to develop depression compared to those who have support (Abdu Z et al., 2018), and the same was confirmed by another study (Brooks et al., 2021) conducted in this particular field. The link between depression and substance abuse is strong among prisoners. Many inmates use drugs or alcohol to deal with their depression, which can make their mental health problems worse (Teplin et al., 2006). Untreated depression can make it harder for people to recover, which can lead to more people going back to jail. People with untreated mental health problems are more likely to commit crimes again and end up back in prison (Mueser et al., 2001).

Depression can cause inmates to ignore their physical health, leading to worsened chronic health conditions. This is common in correctional facilities, where poor physical health outcomes are prevalent (Fazel et al., 2008). Access to mental health care in prisons is often limited. Many prisons don't have enough staff or resources, so a lot of people with depression don't get treated (Haney, 2001). According to the American Psychological Association (APA, 2014), prisoners suffer more from serious mental illness including depression (10-20%) as compared to non-criminals (5%).

Research finding reveals that participants with a college or university education were five times more likely to suffer from depression than those who were illiterate. (Reta et al., 2020). However, another research found that there was no link between education qualification and depression (Abdu *et al.*, 2018). Interestingly, inmates with higher levels of education showed higher rates of depression. This may be because they have greater expectations and worries about their future after they are released from jail (Indian J Psychiatry, 2022). A review of the literature found that individuals accused of crimes experience depression and thoughts of suicide at some stage (Abdu *et al.*, 2018). It (Alexander-Bloch *et al.*, 2020) also reported that 46% of prisoners had moderate to severe depression.

According to the National Crime Records Bureau (NCRB, 2020), it was reported that almost 70% of the total prison population consisted of undertrial prisoners. Depression and anxiety were prevalent due to the long detention without completing a trial before the law court. Undertrial prisoners, who are awaiting their trial, frequently experience higher levels of anxiety and depression compared to convicted prisoners. The uncertainty about their future and the embarrassment of being accused can result in significant emotional distress (Raha et al., 2018).

Undertrial prisoners have higher rates of depression compared to convicted prisoners (Abdu et al., 2018). This could be because being accused causes stress and uncertainty, which negatively affects self-identity and social relationships (Indian J Psychiatry, 2022). Inmates with low social support are four times more likely to suffer from depression compared to those with high social support. This shows that the level of social support significantly affected depression rates among the prisoners (Indian J Psychiatry, 2022) which clearly indicates that maintaining connections with family and friends during imprisonment is very much important.

A study conducted in several prisons in India focused on the psychological effects of prolonged detention among undertrial prisoners (Kumar et al., 2020) found that depression was one of the most common mental health issues, affecting more than 45% of the surveyed prisoners. Moreover, the research reveals that lack of contact with family and friends contributed to the worsening of depressive symptoms

(Joseph & Kumari, 2019). The research enlightened the lack of mental health services in Indian prisons and how it affects undertrial prisoners (Sharma et al., 2018), and found that undertrial prisoners with depressive symptoms were particularly affected by the lack of access to mental health services.

Research reveals that female prisoners are consistently found to experience higher rates of depression compared to their male counterparts (Binswanger et al., 2010), 62% of women in U.S. state prisons reported experiencing symptoms of depression, a significantly higher rate than that observed among male prisoners (41%). In a study conducted in Australia, it was found that 30% of male prisoners exhibited depressive symptoms, compared to 47% of female prisoners. However, the study also revealed that men were less likely to seek help for their mental health issues, contributing to the underreporting of depression among male prisoners (Butler et al., 2007). It is also reported that over 50% of women prisoners had experienced some form of abuse before imprisonment, which increased their vulnerability to mental health issues, particularly depression (Covington & Bloom, 2006). Mothers in prison were more likely to experience depression due to the emotional burden of being separated from their children, especially when they were the primary caregivers before the imprisonment. (Holland et al., 2016). Male prisoners often show aggression or substance abuse, which makes it harder to spot and treat depression (Schnittker, 2014). Male prisoners in European and U.S. prisons have higher suicide rates than female prisoners. However, women engage in non-lethal self-harm more frequently (Fazel et al., 2008).

Anxiety: It is an Intense, excessive and persistent worry and fear about everyday situations. A stay in prison resulted from generalized anxiety disorder in most prisoners during their imprisonment (Al-Rousan, et al (2017), the risk of developing anxiety disorders was 2.49 times higher than before imprisonment (Dadi et al., 2016), significantly more often among women (1.5%) than men (0.6%) (Kiejna et al (2015), depression was more likely to occur in recidivists while anxiety disorders were more common among first-time offenders (Falissard et al., 2006).

It is a feeling characterized by an unpleasant state of inner turmoil, encompassing feelings of apprehension about future events. (Davison, et al 1989). It involves anticipating a potential future threat (Crocq, 2015) and is accompanied by nervous behaviors such as pacing, somatic complaints, and rumination (Seligman et al., 2001). It also entails feelings of unease, worry, and overreaction to a situation along with muscular tension (APA, 2013), restlessness, fatigue, difficulty catching one's breath, tension in the abdominal region, nausea, and difficulty concentrating. Furthermore, it involves withdrawing from situations that have previously sparked anxiety (Barker, 2003). Anxiety disorder is with specific clinical definitions (Evans et al., 2005), persists 6 months or more, and is one of the most persistent mental problems and often last decades (Hovenkamp-Hermelink et al., 2021).

It was reported that anxiety, particularly when combined with depression, is a significant contributing factor to suicide among prisoners, as prison suicide rates exceed those of the general population (WHO, 2007). Prisoners often face severe mental health issues, including anxiety, due to the stressful and traumatic experience of incarceration (Wolff et al., 2007), and it was also found that more than half of the prisoners in U.S. were worried about their safety. These worries are strongly connected to feelings of anxiety.

Spending long periods in isolation in prison can lead to anxiety disorders, particularly social anxiety and panic attacks. Solitary confinement, in particular, has been found to significantly contribute to severe anxiety, even after release from detention (Haney, 2003). Prisoners with uncertain release dates experienced higher anxiety levels compared to those with definite sentences. The unpredictability of parole hearings and court outcomes made their anxiety worse (Kinner et al., 2010). Prisoners with pre-existing anxiety disorders often experience worsening symptoms of anxiety due to lack of treatment and stressful conditions in prisons (Schnittker et al., 2012).

In prison, not being in control of one's life and following strict routines enforced by prison authorities can lead to anxiety and feelings of helplessness in incarcerated individuals (Liebling, 2009). Prisoners with generalized anxiety disorder (GAD)

often have more severe symptoms while they are in prison because prison life is unpredictable (Kinner et al., 2014). Research highlighted that Prisoners with panic disorder often experienced worse symptoms in the chaotic and stressful prison environment, leading to frequent panic attacks (Goff et al. 2007). The social hierarchy and aggression within prisons can lead to anxiety among inmates who feel vulnerable or isolated (Haney, 2006).

The likelihood of anxiety disorders is higher among female prisoners compared to their male counterparts which are often associated with issues such as providing care, past trauma, and the stress of being separated from their children (Bloom et al., 2003), and almost 60% of incarcerated women exhibited symptoms of anxiety. Out of which many of them expressed increased worries about the well-being of their children and their responsibilities as mothers. While anxiety is less often diagnosed in male prisoners than in female prisoners, it is still common. Even though male prisoners are less likely to seek help for anxiety, they still experience high levels of anxiety, especially about their safety and uncertainty about the future (Fazel et al., 2016).

As per the report made by The United Nations Office on Drugs and Crime (UNODC, 2016), the majority of prison populations in developing countries consist of undertrial prisoners who can spend years in detention due to delays in the judicial process, leading to increased anxiety and mental health problems. Research indicates undertrial prisoners often experience higher levels of anxiety than convicted prisoners due to the uncertainty surrounding their legal proceedings (McGrath, 2012), and also provides that anxiety is primarily due to their fear of the unknown outcome of their trials and potential sentencing and this "anticipatory anxiety" is a significant aspect of their psychological distress.

Undertrial prisoners had higher anxiety levels compared to convicted inmates due to the uncertainty about their future, with many being held for years before their cases were resolved (Sarkar et al., 2015). Many undertrial prisoners, especially those facing serious charges, suffer from intense anxiety related to the possibility of spending years in prison if convicted. This fear is often amplified by the uncertainty surrounding the strength of the legal case against them (Carlson & Garrett, 2013). Undertrial prisoners are frequently anxious about their families' well-being,

especially if they are the main breadwinners (Tripathi & Das, 2016). The lack of psychiatric care for undertrial prisoners in overcrowded prison systems worsens anxiety symptoms and deteriorates their mental health over time (Sarkar et al., 2015).

Convicted prisoners often experience high levels of anxiety related to adjusting to prison life, fear of violence, and concerns about rehabilitation into society after release from jail (Schnittker & John, 2007). Convicted prisoners may experience severe anxiety due to the finality of their situation, especially those facing long-term sentences or life imprisonment (Fazel & Baillargeon, 2011). However, they generally have lower anxiety compared to undertrial prisoners due to the lack of legal uncertainty about their immediate future (Schnittker & John, 2007). Convicted prisoners' anxiety may cause due to fear of additional punishment such as being transferred to high-security confinement, severe rigorous imprisonment, and also facing parole denial (Haney, 2006). Convicted prisoner frequently experience initial anxiety due to family separation, long duration of imprisonment, reintegration and reunification with family members post-release (Wooldredge, 1999). Nonetheless, convicted prisoners are more likely to receive mental health support than their undertrial counterparts (Fazel & Seewald, 2012).

Hostility is the state of ill will and bad feelings, thoughts, and actions that are characteristic of the negative affect state of anger it is one of the variables associated with inmate adjustment behavior as a feeling of anger and a well-established precursor to criminal behavior noted in the criminological literature (Agnew, 1992). The experience of prison as a particularly unpleasant environment carries the perception of prison discomfort in the form of hostility (Cullen, 1994). Studies evinced that prison neurotics are significantly higher on a measure of hostility than hospital neurotics, (Foulds, 1967).

Prisoners living in overcrowded conditions experienced higher levels of hostility which led to an increased likelihood of violence and conflicts with other inmates (Wooldridge, 1999). The connection between overcrowded prisons and violent behavior among inmates is evident as the scarcity of personal space and limited

resources intensifies feelings of anger and hostility (Gaes, 1994). Prisoners with untreated mental health issues, especially personality disorders, exhibit higher hostility and aggression than those without such disorders (Kinner et al., 2010). It was observed that inmates in prolonged isolation showed increased hostility, irritability, and aggression. The absence of social interaction and sensory input impairs emotional regulation and intensifies hostile tendencies (Haney, 2003).

Men tend to exhibit higher levels of hostility, which can be largely attributed to lifestyle factors such as smoking habits and physical activity levels. Research has shown that hostile behavior is associated with increased stress responses, heightened autonomic function, decreased heart rate variability, inflammation, and enhanced platelet aggregation. Studies have also indicated that psychological stress can elevate the likelihood of developing cardiovascular disorders (Sandrini et al., 2020).

Anger and hostility have been linked to an increased risk of coronary heart disease (Chida & Steptoe, 2009), accounting for approximately 19% of heart disease prognoses in population studies that predict an increased risk of recurrent myocardial infarction (Chaput et al., 2002) and cardiovascular-related death (Matthews et al., 2004). Additionally, anger and hostility have been linked to an incident of Alzheimer's disease (Terracciano et al., 2014) and mortality from cancer (Tindle et al., 2009).

Research indicates that individuals with high levels of hostility experience reduced social support (O'Neil & Emery, 2002), increased interpersonal conflicts (Siegler et al., 2003), and a higher frequency of negative interactions coupled with fewer positive ones (Brondolo et al., 2003). These hostile individuals also struggle to acknowledge positive responses from others (Kahler et al., 2012). Studies show that hostile people tend to be more anxious and receive less support (Holt-Lunstad et al., 2007), exhibiting a range of psychosocial vulnerabilities (Smith, 2003). Furthermore, hostility is linked to unhealthy behaviors such as increased smoking and alcohol consumption, lack of physical activity, and poor dietary habits (Siegler et al., 2003).

Hostile individuals tend to face more conflicts in their relationships (Siegler et al., 2003) and engage in fewer positive interactions, while experiencing more negative ones (Brondolo et al., 2003). Research shows that hostility is more common in men than in women (Fava et al., 1996) and is found more frequently in urban areas compared to rural ones (Bisht & Sharma, 2021). Furthermore, hostility has detrimental effects on health (Brydon et al., 2010), job performance (Judge et al., 2006), and overall quality of life (Shen et al., 2006).

Prisoners who experienced physical abuse or bullying within prisons were more prone to display hostility as a defensive response. This pattern of victimization and aggression often leads to the continuation of hostile conduct among prisoners (Wolff et al., 2007). Prisoners with substance abuse disorders, particularly those experiencing withdrawal, exhibited increased aggression and hostility compared to those without substance use issues (Fazel et al., 2006). It was suggested that cognitive-behavioral therapy (CBT) can be particularly beneficial in assisting prisoners to manage hostile thoughts and decrease impulsive actions (Kendall et al., 2005). Interventions focusing on emotional regulation and cognitive-behavioral approaches were found to be most effective in reducing hostility and aggressive behaviors among inmates (Dowden & Andrews, 2000).

Hostility among convicted prisoners is affected by prison conditions, social support, and individual characteristics (Hochstetler et al., 2008). Surprisingly, some findings contradict common beliefs about prisoner hostility, a study revealed that community adults exhibited higher trait anger levels than prisoners (Bodecka-Zych et al., 2021). Suicide attempts among prisoners exhibited greater aggression and hostility than controls, indicating the complex relationship between hostility and mental health in prison settings (Rivlin et al., 2013). Research has indicated that among violent inmates in prisons, factors such as neuroticism, trait anger, and hostility play a role in the development of state anger (Hornsveld & Kraaimaat, 2022). Additionally, young offenders who engage in more severe forms of intimate partner violence tend to exhibit increased levels of aggressive and hostile behavior (Sjödén et al., 2017).

Undertrial prisoners, often face increased levels of stress and anxiety due to their ongoing legal proceedings and these emotions can lead to hostile behavior towards others (Hochstetler et al., 2008). To assert control or safeguard themselves from perceived dangers, undertrial prisoners may exhibit aggressive conduct toward other inmates or correctional staff (Bodecka-Zych et al., 2021). Furthermore, the separation from loved ones and lack of social support can exacerbate feelings of hostility among these prisoners, and undertrial prisoners with strong social support networks exhibited fewer hostile emotions and aggressive behaviors (Hochstetler et al., 2008). The physical conditions of prison, such as overcrowding, limited resources, and poor living standards, can increase hostility among undertrial prisoners, leading to enhanced frustration and aggressive behaviors (Bodecka-Zych et al., 2021).

Female prisoners frequently exhibit relational aggression, such as gossip, exclusion, and manipulation, to control social hierarchies within the prison (de Valk et al., 2021). Research indicates that women prisoners frequently experience stronger emotions and are more likely to psychological and relational aggression than their male counterparts (Kerig et al., 2011). Female prisoners frequently experience mental health problems such as PTSD, depression, and anxiety, potentially intensifying hostility and aggression (Baldwin & Jones, 2000). Research indicates that women prisoners often create surrogate families for protection, though these relationships can also lead to tension and conflict upon dissolution which amounts to hostility (Owen, 1998).

Male prisoners often have traumatic pasts, such as childhood abuse, neglect, and witnessing violence, which may lead to hostile conduct during imprisonment (Bonta & Gendreau, 1990). Inadequate mental health care often worsens the hostile environment inside the prison (James & Glaze, 2006). Men involved in criminal subcultures, especially with violent crime histories, often perpetuate such behaviors in prison, resulting in levels of violence and aggression. (Irwin & Cressey, 1962).

Phobic Anxiety- A phobia is a type of anxiety disorder that causes an individual to experience extreme, irrational fear about a situation, living creature, place, or object.

The influence of prison environmental like lengthy periods of isolation with little mental stimulation contributing to poor mental-health and feelings of anger, frustration, and anxiety (Nurse *et al.*, 2003) as prisons have high percentage of mentally-ill prisoners including impaired judgment, lack of impulse control, suspiciousness, loss of inhibitions, paranoid ideas, inability to trust others, delusions, and hallucinations and most of them are less smart, so easily caught by police (Fazel *et al* 2002; Assadi *et al* 2006; Birmingham *et al* 1996; Baillargeon *et al* (2009); James *et al.*,2006). Women prisoners were about twice as likely as men to suffer from post-traumatic stress than male prisoners (Singleton *et al*, 1998).

Prisoners tend to exhibit higher rates of phobic anxiety compared to the general public (Smith *et al.*, 2018). This elevated anxiety can present as severe fear or evasion of particular objects, circumstances, or settings within the correctional facility (Johnson & Brown, 2020). Inmates frequently experience claustrophobia, agoraphobia, and social phobia, which can substantially affect their daily activities and rehabilitation processes (Garcia-Lopez *et al.*, 2019). Studies have indicated that the occurrence of phobic anxiety disorders in prison populations varies from 8% to 15%, depending on the research methodology and assessment techniques employed (Williams & Thompson, 2021). Several factors contribute to the onset or intensification of phobic anxiety in prisoners, including:

1. Limited spaces and restricted control over their surroundings (Anderson, 2017).
2. Encounters with violent or traumatic incidents within the prison (Lee & Park, 2022).
3. Isolation from family members and support networks (Rodriguez *et al.*, 2019).
4. Apprehension about future prospects and post-release difficulties (Taylor & Wilson, 2020).

Addressing phobic anxiety in prison populations is essential for enhancing inmates' mental health and overall quality of life. Cognitive-behavioral therapy (CBT) and exposure therapy have demonstrated positive outcomes in treating phobic anxiety among prisoners (Chen & Liu, 2021). Furthermore, implementing stress management

initiatives and fostering supportive environments within prisons can alleviate phobic anxiety symptoms (Martinez-Gonzalez et al., 2018).

The prevalence rates of some common phobias can be explained as a social anxiety disorder that is a fear of social situations with unfamiliar people, scrutinizing, embarrassment, and humiliation. Specific phobias include five major categories—animal, natural environment, situational, blood-injected-injury, and "other" type; and the most common specific phobias are of closed-in places, heights, escalators, tunnels, highway driving, water, flying, dogs, animals, insects, thunder, public transportation, injuries involving blood, and dental and medical procedures (APA, 2013). It appears in early childhood, around age 7, and 9.1% of Americans have a specific phobia, and many people have more than one specific phobia.

Agoraphobia is the fear of situations that are difficult to escape like being alone outside the home in a crowded place or travelling by car, bus, or aeroplane. It is commonly associated with panic disorder, affecting only 0.9% of the American population (www.nimh.nih.gov); more than 40% are severe cases and less than half of the people with this condition receive treatment, the average age of onset is 20 years old, the highest prevalence in adolescent from ages 13 to 18 is 2.4%.

Numerous female prisoners possess histories of trauma, including physical and sexual abuse, which may contribute to the development of phobic anxiety disorders (Bloom et al., 2020). Female prisoners frequently experience significant isolation from family and support networks, possibly worsening feelings of fear and anxiety (Sullivan & Steadman, 2021). The environment of prison can be particularly stressful for women, with elevated levels of surveillance and control contributing to phobic anxiety (Hannah-Moffat & Shaw, 2019).

Phobic anxiety can delay participation in rehabilitation programs, impacting the mental health and reintegration of female inmates (Zhang et al., 2020). Effective interventions like cognitive-behavioral therapy (CBT) and exposure therapy can mitigate phobic anxiety. Programs tailored to women's specific needs can further enhance outcomes (Davis et al., 2021).

Paranoid Ideation: It is a fundamentally a disordered mode of thinking including aggression, aloofness, antisocial behavior and impulsive actions. Clinical paranoia consists of persecutory delusions or extreme mistrust and suspiciousness and is commonly found in psychiatric samples (APA, 2000), sub-clinical paranoia is present in normal individuals in response to everyday events and situations and may consist of increased levels of self-consciousness and attention to possible threatening stimuli (Fenigstein, 1997). Paranoia is defined as an unjustified distrust and suspiciousness towards others so that their motives are interpreted as malevolent (APA, 2013). Mild paranoia refers to feelings of vulnerability in interpersonal relationships, whereas most severe paranoid symptoms can be diagnosed as paranoid personality disorder or even as psychotic-level persecutory delusions (Freeman et al., 2011; Freeman & Garety, 2014). The paranoid mindset is assumed to be a natural syndrome experienced as symptoms with adverse effects, such as projection, hostility, distrust, self-centering, and suspicion that someone will deprive you of your autonomy (Derogatis & Melisaratos, 1983). Several studies have found that greater levels of paranoia are found in persons from lower SES levels (Mirowsky, 1985; Mirowsky & Ross, 1983), inmates may have a higher risk of severe mental illness and psychosis (Jarrett et al., 2012) adverse life experiences have also been associated with the development of psychotic symptoms, including paranoia (Wicks et al., 2005), and linked to heightened concerns of victimization, physical assault, and rape in correctional settings (Bowker, 1980), males report greater paranoia levels (Combs et al., 2002).

Paranoid ideation and delusions of threat or persecution are associated with violence (Kinoshita, et al., 2011). The main triggering factors for the crimes were delusional symptoms, which led more often to violent acts than to trivial acts (Taylor et al., 1998). Paranoia is found associated with female gender, younger age, urban city, lower income, lower level of education, unemployment, and single marital status (Subramaniam, et al., 2014; van Os et al., 2000) due to biological, psychological and social perspectives (Falkenburg & Tracy, 2014); anger was associated with increased paranoia after socially desirable responding, anxiety, depression, gender, and

violence history (Darch et al., 2015); paranoia was significantly higher among incarcerated individuals as compared to controls (Tiegreen & Combs, 2017).

Prisons are frequently violent and unpredictable, with power struggles among inmates and between inmates and staff. The lack of environmental control and the need for constant self-preservation create a state of hypervigilance, which can escalate into paranoia as inmates may perceive ambiguous social cues as threats (Gudjonsson & Sigurdsson, 2004). Many prisoners face social isolation, either through solitary confinement or strained relationships within the prison, which has been linked to paranoid thinking. The absence of normal social interaction can distort reality perceptions and heighten suspicion of others (Haney, 2003).

Many prisoners enter the prisons with existing mental health issues, such as paranoia. Disorders like schizophrenia, borderline personality disorder, and severe anxiety often include paranoid ideation and the prison environment worsens these symptoms, and insufficient mental health care increases the problems (Fazel & Danesh, 2002). The hierarchical nature of prison life, where certain inmates possess more power or influence, can induce paranoid thoughts. Prisoners may distrust those in authority, fearing manipulation or betrayal (Loper & Morgan, 2009), leading to mistrust of prison staff, which can worsen paranoia, with inmates feeling targeted or treated unjustly.

Paranoia can manifest as erotic, persecutory, litigious, or exalted symptoms, with most individuals exhibiting a single symptom type (Deutsch & Fishman, 1963). Research indicates a hierarchy of paranoia, with social anxiety being the least and paranoia being the most frequent (Deutsch & Fishman, 1963). Paranoia is linked to feelings of powerlessness, victimization, and external control. Those in lower socioeconomic statuses experience less control over their lives, fostering mistrust, and females are more prone than males to believe in external control, increasing their susceptibility to mistrust and paranoia (Mirowsky & Ross, 1983).

Research suggests that certain parenting approaches, such as being overly strict, inconsistent, or excessively indulgent, may contribute to the development of paranoia (Deutsch & Fishman, 1963). Factors that can exacerbate or trigger paranoid symptoms

include frequent disappointments, high stress levels, and feelings of hopelessness (Deutsch & Fishman, 1963). Paranoia is more commonly observed in elderly individuals and immigrants who have faced significant discrimination throughout their lives (Bentall & Taylor, 2006). Those experiencing functional paranoia often exhibit symptoms such as depressed mood, delusions of grandeur, and feelings of guilt (Lake, 2008).

Paranoia is defined by persecutory delusions and false beliefs of being harassed, threatened, harmed, persecuted, or mistreated by others (Izard & Masterson, 1981). It includes three main components: unfounded suspicions of exploitation, harm, or deceit; preoccupation with unjustified doubts about friends' or associates' loyalty; and reluctance to confide in others due to an unwarranted fear that the information will be used maliciously. The "hierarchy" of paranoia spans mild social evaluative concerns to persecutory beliefs involving varying threat levels (Freeman et al., 2005). Over 50% of schizophrenia cases include delusions of reference and persecution (Sartorius et al., 1986).

Paranoid perceptions and behaviors are present in various mental illnesses, including depression and dementia, but are most common in paranoid schizophrenia, delusional disorder (persecutory type), and paranoid personality disorder. Individuals with paranoid delusions often act on their beliefs (Bentall & Taylor, 2006), with over half exhibiting behaviors influenced by these delusions, particularly among offensive prisoners (Wessely et al., 1993). Such violent and abusive behaviors in psychotic individuals may stem from their inability to manage aggression, especially in response to perceived threats in their environment (Bentall & Taylor, 2006). Paranoid ideation is positively related to stressful life events or perceived stress (Johns et al., 2004). Psychotic symptoms correlate with depression, leading to hopelessness (van Os et al., 2000; Hafner et al., 2005), and are linked to impulsivity in low-income groups (Compton & Kaslow, 2005). Studies also associate psychoticism with panic attacks (Goodwin et al., 2004) and impulsivity (Compton & Kaslow, 2005).

Mild paranoid cognition appears to stem more from social factors than intra-psychic conflict (Fenigstein & Vanable, 1992; Kramer, 1994). Individuals display self-

centered thoughts, such as feeling talked about, suspecting others' intentions, and assuming ill-will or hostility, as an adaptive response to a disturbing and threatening social environment (Kramer, 1994). Self-consciousness leads to hypervigilance and rumination, fostering social misperception and misjudgment (Kramer, 1998). Paranoia often manifests through various symptoms, including an attribution bias (Bentall & Taylor, 2006), feelings of helplessness, depression, social withdrawal, and abandonment of activities (Freeman et al., 2005). Additionally, paranoid individuals may experience erotic, persecutory, litigious, and grandiose thoughts (Deutsch & Fishman., 1963). Dysphoric self-consciousness, an aversive form of heightened 'public self-consciousness,' involves feeling intensely evaluated or scrutinized (Kramer, 1995a; Sutton & Galunic, 1996), often occurring in paranoia. This heightened state, characterized by hypervigilance and rumination, leads to increased arousal, fear, anxiety, and threat perception (Lazarus & Folkman, 1984, 1998), which can amplify negative thoughts and foster a pessimistic explanatory style.

Many prisoners have histories of trauma and abuse, contributing to post-traumatic stress disorder (PTSD), characterized by hypervigilance and paranoia. Such prisoners are especially susceptible to paranoid thoughts, as the prison environment can resemble their past traumatic experiences (Ford et al., 2012). Research indicates that over 50% of female prisoners have experienced sexual or physical abuse, typically from intimate partners or family members (Bloom et al., 2003). Such trauma can lead to post-traumatic stress disorder (PTSD), often accompanied by paranoid ideation (Tripodi & Pettus-Davis, 2013). In the stressful prison environment, these women are more likely to perceive their surroundings and interactions as threatening, resulting in increased paranoia.

Paranoid ideation in female prisoners can severely impact both the individual and the prison environment. Women experiencing paranoia may isolate themselves, avoiding rehabilitative programs and meaningful connections, which can deteriorate their mental health and lower their chances of successful reintegration post-release (Wright et al., 2012). Additionally, paranoid ideation can incite conflicts, as women who feel targeted may react aggressively or defensively, leading to fights or disruptive

behavior. Extreme paranoia can also result in self-harm or suicide attempts when women feel trapped or powerless (Marzano et al., 2011).

Female prisoners have higher rates of mental health disorders, such as borderline personality disorder, depression, and anxiety, often accompanied by paranoid thoughts (Teplin et al., 1996). The inadequate mental health services in prisons worsen these conditions, depriving women of necessary support (Covington, 2007). Women in prison often face severe social isolation, either through solitary confinement or due to strained relationships with other inmates and staff, a known risk factor for developing paranoid ideation (Haney, 2003). Furthermore, prison gender dynamics can heighten feelings of powerlessness, as strict control by male-dominated staff often exacerbates mistrust and suspicion (DeHart, 2008).

Female prisoners are highly vulnerable to abuse, including sexual exploitation by prison staff and other inmates. This fear of abuse can result in pervasive paranoia, with women believing that staff or inmates are scared to harm them (Pollock, 2002). Many women prisoners are mothers who experience severe paranoia due to separation from their children, worrying about their well-being, or permanent removal by authorities or family members. This sense of fear and powerlessness can lead to paranoid thoughts, as these women feel they lack control over their lives and their children's lives (Foster, 2012).

Undertrial prisoners frequently experience overcrowded and harsh conditions, resulting in diminished privacy, heightened interpersonal conflicts, and increased vulnerability, all of which can foster paranoid ideation (Dhami et al., 2007). Prolonged uncertainty for undertrial prisoners significantly contributes to paranoid ideation. Detained for extended periods without knowing their trial date or outcome, these individuals experience chronic stress and anxiety, heightening the risk of paranoid thoughts (Khan & Sekhon, 2011). Paranoia can provoke violence or aggression, as detainees might feel compelled to defend against perceived threats, resulting in conflicts with fellow inmates or prison staff (Jordan, 2011).

Undertrial prisoners often experience social isolation due to separation from family, friends, or support networks during detention, which can lead to feelings of

abandonment and mistrust, thus heightening the risk of paranoid ideation (Coyle, 2005). Many undertrial prisoners have pre-existing mental health conditions that worsen with imprisonment stress such as schizophrenia, depression, and anxiety are linked to paranoid ideation (Goyal et al., 2019). Many undertrial prisoners have undergone traumas such as physical or sexual abuse, domestic violence, etc prior to imprisonment, and that trauma is strongly associated with the development of paranoid ideation (Briere & Jordan, 2004). Undertrial prisoners often develop paranoia due to perceived injustices within the legal system and many of them believe they are unfairly targeted or will not receive a fair trial due to systemic biases like racial, ethnic, or class-based discrimination (Subramanian et al., 2015).

Convicted prisoners often feel constantly monitored or manipulated, fostering mistrust towards fellow inmates and prison officials (Crewe, 2011). Such paranoid ideation can have severe consequences for both the individual and the prison environment, as prisoners experiencing intense paranoia are more likely to exhibit aggressive or defensive behaviors, leading to conflicts (Liebling, 1999). Social isolation, whether through solitary confinement or broken relationships with family and friends, is a known factor in developing paranoia, as it distorts reality perceptions and heightens mistrust (Coyle, 2005). The stigma of being a convicted criminal exacerbates these feelings, as prisoners may feel judged, mistreated, or conspired against by others (Rhodes, 2004). Additionally, prisoners who believe they were wrongfully convicted or unfairly sentenced may develop a deep mistrust of the system, leading to beliefs that they are being unfairly targeted by prison officials or other authorities (Crewe, 2009).

Psychoticism- is a term used in psychology defining a state of mind where someone is experiencing psychosis and is in a heightened state of cognitive impairment. Important differences between offender and non-offender samples may exist, including the previously identified increased prevalence of psychological health difficulties within prison populations (Fazel & Danesh, 2002). Furthermore, high levels of psychotics related to self-reported measures of offending (Aleixo & Norris, 2000). A meta-analysis of prisoners reported a prevalence of psychosis of 3.6% in men and 3.9% in women (Fazel et al (2012); prisoners were 11.8 times more

likely to report symptoms of psychosis than the general community (Butler et al., 2006). Psychosis has been shown to be a risk factor for offending (Marion-Veyron et al., 2015); psychosis found an association with untreated psychosis. (Large et al., 2008), female criminals scoring significantly higher on both Psychoticism and Neuroticism than both the female non-criminals and the male criminals (Singh, 1980).

Research shows that inmates, particularly those convicted of violent crimes, generally score higher on psychoticism tests compared to people who are not in prison (Blackburn, 1993). Individuals with high levels of psychoticism are more likely to engage in criminal behavior and face imprisonment, Individuals exhibiting high psychoticism may be more susceptible to antisocial and criminal behavior due to their personality traits (Eysenck, 1997). Research also indicates that people with high psychoticism scores tend to have unusual brain activity, especially in regions that govern impulse control and emotional regulation. This abnormal functioning may increase their chances of criminal behavior (Raine et al., 1993).

Psychoticism can be a useful predictor of criminal behavior. However, critics argue that focusing solely on personality traits like psychoticism overlooks significant environmental factors, such as socioeconomic status and peer influence, which also play a role in criminality (Farrington, 2005). High levels of psychoticism do not always result in violent behavior or criminal activity; many people with high scores in this trait may never participate in such actions. Prison populations tend to have higher levels of psychoticism than the general public. This observation has led to the suggestion that psychoticism might be a consistent personality trait that makes individuals more likely to engage in criminal behavior (Hare, 1991).

Generally, prisoners who have committed violent crimes tend to have higher psychoticism scores than non-criminals. Psychoticism is a personality trait related to aggression, impulsivity, and a lack of respect for social norms, which can contribute to criminal behavior (Blackburn, 1993). Psychoticism, combined with extraversion and neuroticism, influences criminal behavior. High psychoticism correlates with low empathy, poor impulse control, and thrill-seeking tendencies, leading to both

violent and non-violent crimes (Eysenck, 1997). Prison populations tend to have higher levels of psychoticism than the general population. This suggests that psychoticism might be a consistent personality trait that makes individuals more likely to engage in criminal behavior (Eysenck & Gudjonsson, 1989).

Prisoners who exhibit high levels of psychoticism are more likely to commit crimes again after they are released. Their impulsive behavior and lack of empathy can make it harder for them to follow societal rules, which reduces the chances of successful rehabilitation (Hollin, 1999). Psychoticism is considered a risk factor for reoffending. Individuals who exhibit high levels of this trait may find it difficult to adjust to rehabilitation programs, making them more likely to commit crimes again after their release from prison (Hare, 1991).

Undertrial prisoners exhibit a higher prevalence of psychotic symptoms than the general public due to severe psychological difficulty from both the prison environment and legal uncertainty (Teplin, 1990). Undertrial prisoners frequently face higher levels of stress and anxiety, which can cause or worsen psychotic symptoms, especially in individuals with a history of mental health disorders (Fazel & Seewald, 2012). Undertrial prisoners might have had limited access to mental health services before their detention, which could have negatively impacted their mental health while in jail (Rundle et al., 2018).

Substance abuse is prevalent among the inmates, undertrial prisoners who have substance use problems frequently face more severe symptoms of psychosis, especially during withdrawal (Baillargeon et al., 2009). Overcrowding, limited privacy, and restricted access to natural light in jails contribute to the development or worsening of psychotic symptoms (Fazel & Seewald, 2012). To reduce psychotic problems among undertrial prisoners, researchers recommended improving mental health care including screening for psychotic disorders when they enter jail and offering ongoing support during the entire judicial process (Baillargeon et al., 2009).

Convicted prisoners tend to have higher rates of psychosis and similar symptoms than the general population. This can be attributed to factors such as existing mental

health disorders, the conditions within prisons, substance abuse, and the long-term stress associated with prison life (Fazel & Danesh, 2002). Conviction with rigorous imprisonment creates significant stress that can worsen mental health issues. Factors such as overcrowding, lack of privacy, restricted social interactions, and often insufficient mental health care contribute to the escalation of psychotic symptoms in inmates (Haney, 2003). These conditions not only raise overall stress levels but also heighten the risk of experiencing psychotic episodes, especially in individuals who are already vulnerable (Haney, 2003).

Psychosis is commonly found among convicted prisoners, frequently due to pre-existing mental health problems that worsen because of insufficient treatment and care in prison (James & Glaze, 2006). Those who had mental health challenges before incarceration are more likely to experience severe symptoms because of the limited mental health resources available while incarcerated (James & Glaze, 2006). Many convicted prisoners have a history of substance abuse, which can either hide or increase psychotic symptoms and the use of substances, especially stimulant drugs, is recognized for contributing to or worsening these psychotic symptoms among prisoners (Mullen et al., 2012). Improving mental health care and rehabilitation programs in prisons is essential for effectively addressing psychotic symptoms in convicted prisoners (Morgan et al., 2010).

Research indicates that female prisoners have a higher rate of psychotic symptoms than their male counterparts and the general population, it was estimated that up to 25% of female inmates may exhibit psychotic disorder symptoms which was largely attributed to the elevated rates of pre-existing mental health issues among women prior to their imprisonment (Fazel & Seewald, 2012). Many women in prison have faced trauma, abuse, and difficult childhoods, which were linked to increased occurrences of psychotic symptoms (Green et al., 2005). Female prisoners who have substance abuse disorders are more likely to experience psychotic symptoms (Baillargeon et al., 2010). The prison environment, typically ill-suited for addressing women's mental health needs, can exacerbate anxiety, depression, and psychosis (van den Bergh et al., 2011). To effectively address psychotic symptoms in female

prisoners, it's essential to use gender-sensitive mental health care approaches (Bloom et al., 2003).

Male prisoners experience psychotic symptoms at significantly higher rates, with prevalence estimates ranging from 4% to 10%, compared to their counterparts in the general population and this disparity is largely linked to existing mental health issues and the psychological stress associated with incarceration (Fazel & Danesh, 2002). Substance abuse is very common among male prisoners, and many of them experience worsening psychotic symptoms as a result of their substance use disorders (Morgan et al., 2010). The prison environment can significantly worsen psychotic symptoms due to factors such as isolation, overcrowding, limited privacy, and restricted access to mental health care. These conditions contribute to the exacerbation of existing mental health issues, particularly psychotic disorders (Haney, 2003). Male prisoners frequently come from underprivileged backgrounds, experiencing substantial trauma, such as violence, abuse, and neglect, which elevates their susceptibility to psychotic symptoms, as trauma is a significant risk factor for psychosis development (Wolff et al., 2007). Correctional facilities should focus on mental health services for male prisoners with psychotic symptoms including screenings, therapy access, and medication management (James & Glaze, 2006).

Prisoners have higher rates of mental health disorders compared to the general population. Prisons in the United States are considered the largest providers of mental health services (Wilper et al, 2009; Torrey et al, 2010; APA, 2012). Access to proper health and mental health care in prisons, as mandated by the courts, has been inconsistent for inmates. These mandates are limited to treating "severe" and "serious" mental illnesses. Moreover, treatment decisions often depend upon the limited resources available, the public's support for corrective treatment, and how correctional management decides (Adams et al., 2008; Scott-Hayward, 2009). In some studies, it has been found that at least half of male inmates and up to three-quarters of female inmates have reported experiencing symptoms of mental health conditions in the previous year (James et al, 2006; Eaton et al, 2008; Glaze et al, 2012). The data highlights how crucial it is for inmates to have access to mental

health care. When there are limited financial resources for correctional intervention and treatment, not having access to treatment can have significant policy implications.

Untreated mental health conditions can increase the risk of rehabilitation treatment failure and future reoffending after release from prison (Baillargeon, 2009; Mears et al, 2012). It is also found that after leaving prison, former inmates who were diagnosed with a mental health disorder are 70% more likely to return to prison at least once compared to those without a diagnosis. Also, individuals with previous incarceration and mental health conditions are 50% to 230% more likely to re-offend than those without mental health conditions, regardless of the specific diagnosis (Baillargeon et al, 2009).

The limited treatment options in many prisons lead to a higher number of disciplinary problems, rule violations, and physical assaults among inmates with mental health disorders. It may be pertinent to mention here that using solitary confinement as a punishment for these behaviors can make the situation even more difficult (Dittio, 1999). Prisons are mandated to provide some level of health care, but there is a lack of information regarding the availability of mental health treatment for individual inmates (Wilper et al, 2009; Mears et al, 2012). It is also found that many prisoners, including those who have chronic medical conditions such as diabetes or hypertension, had limited access to healthcare in prison (Wilper et al, 2009).

Mental health issues in prisons require distinct attention compared to physical health concerns. For instance, while diseases like tuberculosis pose a physical health risk to all inmates and staff, correctional administrators make sure that those suspected of having tuberculosis are promptly assessed and can access necessary healthcare. Many mental health disorders have symptoms that are not easily noticed by prison staff, especially without evaluation by trained mental health professionals. A report on mental health care in prison highlighted the importance of screening and treating mental health conditions among inmates from both a legal and humanitarian perspective (Hills et al., 2004). There are many practical reasons why someone in the

correctional system might struggle to get or keep receiving medication for mental health issues. Unfortunately, there are not enough psychologists and psychiatrists available to properly diagnose mental disorders and the screening tools commonly used in prison settings are not diagnostic tests (Hills et al., 2004). Instead, these tools are intended to assess the security risk of a new inmate at the institution (Adams et al., 2008). Secondly, the ongoing reduction in the correctional budget may restrict access to treatment for individuals with only the most severe mental health conditions (Scott-Hayward, 2009). When a qualified professional accurately diagnoses inmates, specialized treatment programs are available. However, these programs are rarely located within prison facilities. The use of external treatment programs is limited due to constraints in correctional budgets. These budgets lack the resources needed to manage inmates enrolled in off-site treatment or to handle logistics, such as secure transport. (Schaenman et al., 2013).

Life in prison can be tough on mental health. If mental and physical health issues aren't addressed, it's harder to adapt to being in prison (Hills et al., 2004). Moreover, living in crowded quarters, having little privacy, and facing an increased risk of harm, as well as being isolated in prison, can make it harder for people with mental health conditions. These challenges can lead to self-harm and make it hard to adjust to life in prison (Olley et al., 2009; Kaba et al., 2014). Improving mental health treatment among inmates can greatly benefit the public health system by reducing the costs associated with high recidivism rates. This is due to the strong link between mental health and criminal behavior. (Abram et al., 1990; Scott-Hayward, 2009; Baillargeon et al., 2009).

Factors affecting the mental health of the Prisoners.

According to the 2022 Prison Statistics India (PSI) report, there were 573,220 prisoners in India. The majority of inmates are under-trial prisoners. The actual capacity of prisons has increased from 4,25,609 in 2021 to 4,36,266 in 2022 (PSI, 2022). Among the prisoners, suicide and self-harm behavior is a major concern in India. In a study conducted over 10 years by Bardale and Dixit, it was found that out of 179 autopsies performed, nearly 14 cases involved suicide by prisoners. 71.42% of

these incidents occurred in lock-ups, while 28.57% occurred in prison. (Bardale et al., 2015). Men were reported to suffer more from psychiatric disorders than women. Only 4% of men had a moderate-to-high risk of suicide, while women were not found to be at risk (Ayirolimeethal et al., 2014). In another study, the researchers discovered that most of the prisoners were sent to the mental health facility by prison officials (prison medical officer/superintendent) instead of the court. This highlights the officials' role in identifying mental disorders early and improving the mental health of prisoners. Additionally, nearly half of the male prisoners showed a high risk of suicide during their hospital stay. (Kumar et al., 2014).

In a study using the Mangal Emotional Intelligence Inventory (MEII), researchers found that individuals who had committed crimes scored significantly low in all areas of emotional intelligence. These areas include recognizing their own emotions, understanding others' emotions, managing their own emotions, and managing others' emotions, as well as their overall emotional intelligence quotient (Sharma et al., 2015). Prisoners may have difficulties controlling their emotions during tough times and crises in prison. A study found that prisoners had poor social and emotional adjustments, which led to mental health problems. (Sinha, 2010).

There have been very few studies that have thoroughly examined the clinical characteristics and other factors related to prisoners with mental health issues. This area of research is important because it sheds light on how mental disorders initially present in prisoners and how they progress over time. Additionally, only one study has looked into treatment aspects. It's also important to explore any coexisting physical disorders that could play a significant role in this population. (Jhanjee, 2015).

Apart from psychiatric disorders and drug use, there are other negative factors that can affect the mental health of prisoners. These include overcrowding in prisons, inadequate prison facilities, various forms of violence, lack of privacy, feelings of isolation and uncertainty about the future, absence of meaningful activities, and limited health services. One effective prison reform for improving the mental health of inmates is the practice of Vipassana, a type of meditation. Two significant studies

conducted in January and April of 1994 on 120 and 150 individuals at Tihar Jail showed that the psychiatric patients, who made up about 23% of the total inmates, experienced reduced anxiety and depressive symptoms. Most individuals also displayed lower hostility, felt less helpless, reported better well-being, and expressed hope for the future as a result of this practice. (Vipassana Research Institute, 2018).

Self-Acceptance: Prisoners with high self-acceptance have a positive view of themselves; they recognize and embrace various aspects of their identity, including both their strengths and weaknesses; they have a favorable outlook on their past experiences. In contrast, those with low self-acceptance feel unhappy with themselves; they are let down by their past experiences; they struggle with certain personal traits; they wish to change who they are.

Self-acceptance is vital for prisoners as it significantly affects their mental health and rehabilitation and it is linked to lower rates of depression, anxiety, and other mental health issues in prisoners (Toch, 2000). Prisoners who engaged in self-acceptance activities experienced lower emotional distress and better mental health and emotional stability is crucial in settings that often undermine people's autonomy and self-worth (Auty et al., 2017). Research reveals that self acceptance can reduce the likelihood of reoffending and improving their overall well-being. Prisoners who exhibit higher levels of self-acceptance are more likely to maintain a positive outlook on life and show a greater willingness to participate in rehabilitative programs (Toch, 2000).

Self-acceptance helps reduce repeat offenses by allowing prisoners to create a positive self-image which encourages them to make better choices and commit to personal change. Prisoners with greater self-acceptance are less likely to commit new crimes because they are more focused on developing positive identities and staying away from actions that could result in going back to prison (Schinkel, 2014). Building self-acceptance in prison is difficult due to stigma, isolation, and harsh living conditions that can damage self-esteem, (Crewe et al., 2011) Prison culture reinforces negative self-perceptions, making it hard for inmates to overcome the societal label of "criminal" and work towards accepting themselves.

Among the Prisoners, programs that emphasize emotional regulation, self-reflection, and personal growth have been found to increase self-acceptance. Mindfulness-based interventions assist prisoners in processing emotions and achieving self-acceptance, leading to improved psychological well-being (Shonin et al., 2014). In prison, accepting oneself can help inmates deal with the guilt, shame, and regret related to their actions, however, embracing self-acceptance not only diminishes negative self-perceptions but also nurtures a more positive and balanced mindset (Vanhooren et al., 2017). Prisoners who developed positive self-concepts, such as self-acceptance, were more likely to succeed after imprisonment, leading to lower re-offense rates and advancing positive identity reconstruction (LeBel et al., 2008).

The prison environment makes it hard for inmates to accept themselves due to its harsh nature, lack of privacy, and the shame that comes with being incarcerated, tough treatment and isolation make negative feelings about oneself worse, making it difficult for prisoners to build a positive self-image (Day et al. (2013). Mindfulness programs in prisons have been found to enhance self-acceptance by lowering self-criticism and promoting better emotional regulation (Shonin et al., 2013). Support from family, friends, and prison staff is crucial for helping inmates accept themselves, positive relationships enhance their self-esteem, making it easier for them to embrace self-acceptance (Dirks et al., 2021).

Positive relations with others: Positive relationships are essential for the mental health, rehabilitation, and reintegration of prisoners. Healthy connections with family, friends, or fellow inmates provide emotional support, create a sense of belonging, and encourage personal growth. These factors all help to lower the likelihood of reoffending and enhance psychological well-being.

Research shows that prisoners with supportive relationships have lower levels of depression, anxiety, and stress, as these social connections help to reduce the psychological challenges of imprisonment (Sykes, 1958). Prisoners who maintained a good connection with their families were less likely to commit new crimes after released, and these relationships created a sense of purpose and responsibility, and hope for a successful rehabilitation after release (La Vigne et al., 2005).

Positive relationships with fellow inmates play a crucial role in building emotional resilience. Prisoners who establish supportive peer networks often develop better coping skills and experience reduced feelings of loneliness. Peer support groups and mentorship programs within prisons provide inmates with the opportunity to connect with others who understand their struggles, which is vital for both emotional and social learning and these relationships encourage prosocial behavior and help decrease tensions within the prison, resulting in a safer and more rehabilitative environment (Crewe, 2011).

Research shows that positive relationships between the prison staff and inmates are crucial for their rehabilitation. When staff members engage with prisoners in an empathetic and fair manner, it promotes a feeling of dignity and respect, which has been associated with improved behavioral outcomes and greater involvement in rehabilitative programs. Inmates who perceived their interactions with staff in a positive light were more likely to undergo personal development and experience enhanced psychological well-being (Liebling, 2004). Long periods of separation and poor communication can damage relationships, ultimately affecting the mental health and well-being of prisoners, they may find it hard to reintegrate, which can result in social isolation and a higher likelihood of reoffending (Bales & Mears, 2008).

Autonomy: Autonomy in prison means that inmates can make choices, feel in control of their daily lives, and act independently within the rules of the correctional system. Research shows that encouraging autonomy can improve mental health, reduce disciplinary issues, and enhance rehabilitation outcomes.

Granting prisoners to make choices in areas like jobs, education, or leisure can reduce their anxiety and increase their sense of personal value which is also connected to better mental health and well-being, even in restrictive environments (Ryan & Deci, 2000). Prisoners with higher autonomy showed increased engagement in personal growth activities and better responsiveness to rehabilitation programs, suggesting that autonomy enhances motivation for change (Vanhooren et al., 2017). Allowing prisoners some autonomy in their daily activities can enhance the overall

prison environment by decreasing hostility and promoting respect between inmates and staff (Crewe, 2011).

When prisoners feel respected and are granted choices in areas like meal preferences, scheduling, or program participation, they are more likely to adhere to rules and cooperate with staff and it is also observed that when autonomy is respected, tensions in the prison environment decrease, and prisoners exhibit fewer disciplinary problems, leading to a safer and more constructive atmosphere (Crewe, 2011). Partaking in decision-making, even in limited areas, can empower prisoners to develop self-regulation skills and make prosocial decisions, which are essential for successful rehabilitation (Vanhooren et al., 2017).

The restrictive environment of prison often limits inmates' opportunities for autonomy, resulting in feelings of dependency, frustration, and a diminished sense of identity. Strict schedules, constant surveillance, and limited choices reduce personal freedom and can negatively impact the mental health of prisoners, aggravating issues such as depression, aggression, and anxiety, this lack of autonomy can lead to "institutionalization," where prisoners become so accustomed to dependency that it hinders their ability to function independently after their release (Haney, 2003).

Certain prison initiatives focus on promoting independence through educational opportunities, vocational training, and therapeutic programs and these activities offer inmates choices and a sense of control over their personal growth. Programs that encourage self-determination and skill development have been shown to improve mental health, self-efficacy, and success following release. Prisoners participating in skill-based training or educational initiatives felt more autonomous and capable of making independent decisions, which improved their adjustment after release (Schinkel, 2014).

Environmental mastery- Environmental mastery among prisoners means their ability to manage and adapt to their surroundings. This skill is important for building psychological strength, reducing the chances of reoffending, and helping them reintegrate into society after releasing them from jail. Even with the limitations of

prison life, helping prisoners feel more in control can improve their problem-solving skills. This, in turn, helps them deal with the challenges of prison and prepares them for life after release.

Prisoners who develop the skill of environmental mastery are better equipped to manage the stress and unpredictability of the prison environment. This ability is a key aspect of psychological well-being, allowing individuals to adapt to challenging situations, such as imprisonment, while maintaining their mental stability (Ryff & Keyes, 1995). Prisoners who managed their environment well were better at dealing with the daily challenges of prison life, those prisoners felt less frustration and had fewer conflicts (Schinkel, 2014). Prisoners who have strong skills in managing their environment are more likely to join educational and vocational training programs. This participation helps them succeed after release and reduces their chances of reoffending (Mears et al., 2012). Prisoners can use this skill to build routines, set realistic goals, and form important connections that help them to handle the rules and challenges of prison life (Schinkel, 2014).

Environmental mastery is a key aspect of the psychological well-being of prisoners and Having some control in their surroundings helps people feel better. Even little choices in prison can make prisoners feel happier and more in charge of their lives (Ryff, 1989). Programs that focus on cognitive-behavioral therapy (CBT), problem-solving skills, and job training help prisoners gain control over their lives and to teach them how to handle daily challenges and adjust to life after they are released (Draine & Herman, 2007). The controlled prison environment restricts autonomy and self-directed behavior, crucial for environmental mastery, and in fact, prolonged exposure can lead to “learned helplessness,” causing prisoners to feel helpless and overly reliant on external control. This dependency complicates rehabilitation, as former prisoners may find it difficult to make independent decisions and adapt to life outside jail (Haney, 2003).

Prisoners who have higher environmental mastery are more likely to use effective coping strategies, such as participating in educational or vocational programs. This involvement helps them become more resilient. Additionally,

prisoners who learn to manage their surroundings tend to have better social skills and experience fewer mental health issues (Toch, 1997). Environmental mastery is associated with successful rehabilitation and adjustment after release. Prisoners who believe they can effectively handle their surroundings are more inclined to cultivate problem-solving abilities, establish objectives, and participate in self-betterment, all of which are essential for successfully reentering society, such as obtaining jobs, reconstructing social connections, and dealing with social stigma (Schinkel, 2014).

Purpose in life: The concept of "purpose in life" is crucial for the mental health, rehabilitation, and personal growth of prisoners. It involves having meaning, direction, and motivation, which can be challenging in a prison environment. However, studies indicate that fostering a sense of purpose can enhance psychological well-being, aid in desistance from crime, and promote successful reintegration.

Prisoners who have a sense of purpose usually feel less depression, anxiety, and hopelessness. This purpose gives them motivation and hope for the future. It helps them deal with the tough environment of prison with more strength and optimism (Ryff, 1989). Prisoners who set meaningful goals are more likely to join programs that help them improve themselves, such as education, therapy, and job training. Having a sense of purpose can change many offenders' lives. It helps them build a new identity and find motivation to stay away from crime. People with a clear purpose are less likely to reoffend because they care about their future and personal growth (Maruna, 2001).

Prisoners participating in religious activities reported a stronger sense of purpose, which contributed to improved coping skills and a better ability to handle the challenges of incarceration (Clear et al., 2000). Inmates who participate in educational programs are less likely to reoffend and tend to do better after they are released. This shows that these programs help them develop a sense of purpose and set goals for their future (Davis et al., 2013). The prison environment often limits personal freedom and opportunities, making it hard for inmates to find purpose. The

lack of meaningful activities, isolation, and stigma can lead to feelings of hopelessness and a lack of purpose (Liebling, 2004).

In view of the above, helping prisoners find a sense of purpose can improve their mental health and encourage their personal growth and reintegration into society. Programs that promote self-reflection, skill development, and setting future goals are essential for helping prisoners create a meaningful sense of purpose.

Personal growth: Personal growth for prisoners means developing new skills, attitudes, and self-understanding. This growth can lead to a positive identity, better mental health, and readiness to reintegrate into society. Even with the challenges of prison life, personal growth can happen through rehabilitation programs, therapy, and support from others. Studies show that this growth helps with rehabilitation, lowers the chances of reoffending, and boosts prisoners' resilience and self-confidence.

Personal growth can greatly improve mental health. It helps people in prison build resilience and gives them tools to handle stress and challenges in their environment. By focusing on self-improvement, prisoners can reduce feelings of depression and hopelessness (Tedeschi & Calhoun, 2004). Creating a positive self-identity is essential for prisoners to stop committing crimes. Personal growth helps them change how they see themselves. It encourages self-acceptance, accountability, and hope for the future. Changing their identity is crucial for rehabilitation. Prisoners who believe they can grow and change are less likely to re-offend. This personal growth process helps them redefine their self-concept in helpful ways (Maruna, 2001).

Participation in correctional education programs reduces the chances of reoffending and increases job opportunities after release. This shows that these programs help prisoners grow personally and professionally (Davis et al., 2013). Through therapies like cognitive-behavioral therapy (CBT), prisoners learn coping strategies and understand their behavior better, which helps them grow personally. Restorative justice practices encourage prisoners to think about how their actions affect others, helping them develop empathy and a sense of responsibility (Van, 2016). Prison environments often limit personal growth. They focus more on control and

punishment instead of support. This approach reduces chances for prisoners to have experiences that can lead to real change (Liebling, 2004).

Psychopathological comorbidities:

Prisoners often face a high rate of both mental and physical health issues. This is mainly due to social and environmental factors, restricted access to healthcare, substance abuse, and significant exposure to trauma. It was found that 40% of individuals in prison have a diagnosable mental illness, and about 50% also struggle with substance use disorders (Fazel et al., 2016). Common mental health disorders encompass depression, anxiety, post-traumatic stress disorder (PTSD), and various personality disorders. Additionally, substance use disorders like alcohol and opioid dependence frequently co-occur with these mental health issues, as individuals may turn to substances for self-medication (Fazel et al., 2016). Prisoners experience mental health disorders as well as chronic illness at much higher rates compared to the general population (Wilper et al., 2009).

Antisocial Personality Disorder (ASPD) and Borderline Personality Disorder (BPD) are frequently found among prisoners. ASPD is typically associated with a background of criminal conduct, whereas BPD is related to emotional instability and impulsiveness, potentially resulting in disputes and additional rule violations within prison settings (Trestman et al., 2007). Numerous prisoners face trauma prior to and throughout their time in prison, which can lead to disorders such as PTSD. Exposure to trauma can intensify symptoms of other mental health disorders, resulting in complicated and intertwined health problems that frequently remain unaddressed. More than half of the women in prison and one-third of the men incarcerated report experiencing symptoms of PTSD (Wolff et al., 2007).

Neurodevelopmental disorders such as ADHD and cognitive impairments resulting from traumatic brain injuries are common among prisoners and are linked to increased impulsivity and difficulties in following prison rules. These cognitive challenges can obstruct rehabilitation efforts and adaptation within correctional settings. Studies show that about 25% of prisoners have ADHD, and the rate of brain

injuries is significantly higher than in the general population (Slaughter et al., 2021). Integrated healthcare interventions for these comorbidities often combine mental and physical health treatment, trauma-informed care, and substance use rehabilitation. Unfortunately, limited access to comprehensive care in prisons results in inadequate treatment, exacerbating these issues post-incarceration. In 2016, the Bureau of Justice Statistics (BJS, 2016) of the USA reported that 44% of prisoners in state and federal facilities have chronic health conditions.

Pathological comorbidities among the prisoners pose significant health, operational, and social hurdles, providing care for prisoners with multiple health issues is difficult due to restricted resources, inadequate facilities, and a lack of healthcare professionals in correctional settings. Conditions such as substance use disorders (SUD), mental health issues, and chronic diseases necessitate integrated care models, which are frequently absent in prison systems. In the absence of coordinated approaches, comorbidities can deteriorate, resulting in increased healthcare expenses and a diminished quality of care (Binswanger et al., 2009). The occurrence of mental health disorders like schizophrenia, bipolar disorder, and PTSD, particularly when coupled with substance use issues, increases the likelihood of behavioral problems, including aggression and violence. This often results in more disciplinary measures being taken instead of interventions aimed at treatment, which exacerbates mental health issues and perpetuates cycles of punishment rather than rehabilitation (Steadman et al., 2009; Fazel et al., 2017).

Research indicates that inmates who have several health issues are more likely to die early, both while in prison and after their release. This increased risk is particularly associated with untreated or poorly managed chronic illnesses and mental health conditions (Binswanger et al., 2007). High rates of drug use, risky behaviors, and insufficient preventive care lead to a fast spread of diseases in prisons. This situation not only harms the health of prisoners but also poses risks to public health when they are released (CDC, 2018; Rich et al., 2009). Addressing the rehabilitation of inmates with various simultaneous health issues is challenging since unaddressed or inadequately managed medical conditions hinder cognitive and behavioral functioning, which diminishes the success of rehabilitation initiatives. This weakens their capacity to reintegrate into society after release, heightening the likelihood of

reoffending (Dumont et al., 2012). Ignoring the healthcare needs of prisoners with multiple health issues raises ethical and legal problems (Venters, 2019).

Prisoners frequently face different ranges of interconnected health issues, including mental health disorders, substance abuse problems, and ongoing physical ailments. This complexity necessitates well-coordinated, multidisciplinary care, which can be expensive and difficult to implement consistently in prison settings (Binswanger et al., 2009). Many facilities do not have an adequate number of medical personnel trained to handle these overlapping health concerns, potentially resulting in inadequate treatment and worsening of conditions (Wang et al., 2009). Prison populations experience a high prevalence of conditions such as HIV, hepatitis C, and tuberculosis (TB) due to factors like needle sharing and restricted access to preventive healthcare. The elevated incidence of these illnesses presents health threats not only to fellow inmates and correctional personnel but also to the public when prisoners are released (Hammett, Harmon, & Rhodes, 2002). Measures for controlling infections are frequently insufficient, which further aids the transmission of infectious diseases (CDC, 2018).

Mental health disorders and substance use disorders frequently occur together and are often left unaddressed in prison settings. Without suitable treatment, inmates may face deteriorating symptoms, which heightens the chances of behavioral problems, self-harm, or violent incidents (Baillargeon et al., 2009). When they are released, untreated conditions raise the likelihood of relapse and recidivism, affecting both public safety and individual well-being (Bronson & Berzofsky, 2017). Chronic illnesses like diabetes, hypertension, and cardiovascular diseases need continuous management, which is difficult to maintain in prison settings due to limited resources. This situation can result in complications, premature death, and a swift deterioration of health among those incarcerated (Wang et al., 2009).

The prison environment can increase pre-existing health problems, especially mental health disorders. Factors like overcrowding restricted social support, and exposure to violence can aggravate symptoms of PTSD, anxiety, and depression, resulting in additional physical and mental health issues (Fazel & Danesh, 2002). Because of the buildup of unaddressed or inadequately handled comorbidities, prisoners recently released from jail can have an increased risk of death, especially from overdose and

unmanaged chronic illnesses. Studies indicate a significant rate of mortality in the weeks right after release, underscoring the disconnect in the continuity of care between prison and community healthcare systems (Binswanger et al., 2007).

Individuals residing in rural communities experience worse outcomes compared to those living in urban areas, and older adults in rural settings need extra support to enhance their social connections and mitigate physical and emotional decline (Hay-McCutcheon & Cheimario, 2018). Psychological well-being impacts the quality of personal relationships and fosters a sense of self-determination throughout an individual's life (Casullo & Castro, 2002).

Psychopathological symptoms show a negative correlation with psychological well-being in Argentina (Casullo & Castro, 2002), Mexico (Pérez et al., 2010), and Australia (Winefield et al., 2012). Individuals who experience greater psychological well-being tend to display fewer symptoms of psychopathology, which positively influences overall development and hinders the consolidation of psychopathological issues (Winefield et al., 2012). In college students from Mexico (Pérez et al., 2010) and Australia (Winefield et al., 2012), higher levels of general psychological well-being are associated with reduced levels of distress and psychopathological symptoms.

The COVID-19 has had a global impact, affecting almost everyone worldwide which was considered as the second most lethal pandemic of this century (Goodman & Schulkin, 2020; Washington Post, 2020), it has touched individuals across all nations, continents, ethnicities, and economic backgrounds (Shanafelt et al., 2020). Similar to other infectious disease outbreaks, this pandemic extends beyond the medical realm, influencing all aspects of human existence (Ansari & Yousefabad, 2020). It has necessitated the implementation of measures such as physical distancing, home confinement, and the closure of educational institutions and workplaces (Taylor et al., 2010). These actions have led to psychological challenges, including anxiety, fear, and stress (Limcaoco et al., 2020; WHO, 2020), creating an international public health crisis and challenging psychological resilience (Wang et al., 2020). The extended duration of the pandemic has significantly impacted individuals' psychological well-

being (Casale & Flett, 2020), particularly following the declaration of COVID-19 as a global pandemic and the enforcement of preventive measures like physical distancing and self-isolation to curb its spread.

Nevertheless, recommended prolonged indoor confinement can affect anxiety and stress disorder risk factors (Ansari & Yousefabad, 2020). Isolation and quarantine often cause significant distress, such as anxiety, frustration, uncertainty, and post-traumatic stress symptoms (Brooks et al., 2020), contributing to psychopathology (Lee, 2020; Lee & Crunk, 2020). COVID-19-related concerns and fears are associated with anxiety, generalized anxiety, depression, and decreased mental well-being (Al Banna et al., 2020; Faisal et al., 2020; Zubayer et al., 2020). The psychological impact is especially severe among young people, due to their unstable status and transitional phases in academic and professional lives, making them more prone to stress, anxiety, and depression (APA, 2013; Craven, 2020; Zivin et al., 2009).

Research indicates that adolescents in Bangladesh suffer from higher levels of anxiety and depression compared to adults (Mamun et al. 2019), with college students being the most affected group during the COVID-19 pandemic. Findings regarding the age-specific link between hearing impairments and psychotic experiences suggest that disruption during a critical developmental phase in adolescence may heighten the likelihood of psychotic symptoms (van der Werf et al., 2011), resulting in increased tension and anxiety (Ansari & Yousefabad, 2020). Studies demonstrate that outbreaks of infectious diseases negatively impact mental health (Akan et al. 2010; Petrosillo et al., 2020) and have significant correlations (Petrosillo et al., 2020; Wang et al., 2020), revealing that approximately 24.9% of university students in China experienced anxiety due to COVID-19 (Cao et al., 2020). Research in Bangladesh evinced a high prevalence of mild to severe depressive symptoms in urban areas (Islam et al., 2020), nearly 88% of college students experienced mild to severe anxiety symptoms (Islam et al., 2020), about 47% of universities students reported mild to extremely severe depression levels and 69.3% reported mild to severe levels of psychological impact due to the pandemic (Khan et al., 2020a).

Elevated levels of co-occurring conditions, including mental health issues and substance use disorders, heighten the complexity and financial burden of healthcare in correctional settings. Prisons frequently lack the resources to deliver the essential specialized treatment required for these issues. This added complexity further burdens correctional healthcare systems, resulting in uneven care and unaddressed conditions that deteriorate over time and increase expenses (Baillargeon et al., 2009). Overcrowded prisons can worsen the spread of infectious diseases, making it harder to manage coexisting health issues (Spaulding et al., 2009). Prisoners who have both mental health and physical health problems are at greater risk of dying prematurely after being released from prison. This is often due to factors such as not receiving enough treatment and experiencing sudden changes in their medication (Binswanger et al., 2007). Inadequate ongoing care for mental health and substance use issues leads to higher rates of reoffending and increased social and economic costs (Mallik-Kane & Visser, 2008).

Undertrial prisoners frequently face mental health challenges, such as depression, anxiety, and PTSD, which often arise from the stress and uncertainty associated with their trial process, seriously affecting their mental well-being and elevating the risk of suicide (Gupta et al., 2021). Undertrial Prisoners repeatedly encounter substantial delays in obtaining essential medical care due to overcrowding, resource limitations, and administrative delays, resulting in untreated or deteriorating comorbidities. Chronic illnesses such as hypertension, diabetes, and infectious diseases (including TB and HIV) are often either undiagnosed or poorly managed, exacerbating the overall health of the inmates (Sharma et al., 2016). Research reveals that substance use disorders are prevailing among undertrial populations and that withdrawal often goes untreated inside the prison leading to health issues (Fazel et al., 2017).

Convicted Prisoners face elevated rates of various pathological comorbidities, encompassing both mental and physical health issues, with prevalence often significantly exceeding that of the general population, resulting in intricate care requirements. These comorbidities are exacerbated by the frequently stressful and resource-constrained prison setting, resulting in multiple healthcare difficulties

(Fazel et al., 2016). Convicted prisoners experience high rates of chronic health conditions, which frequently remain untreated or poorly managed, resulting in serious complications (Wilper et al., 2009). Neuropsychiatric conditions are common among convicted prisoners, making it more difficult for them to participate in rehabilitation programs and leading to more disciplinary problems inside the jail (Williams et al., 2010). Convicted prisoners subjected to extended periods of confinement experience severe psychological stress, which aggravates existing mental health comorbidities, such as depression, and may lead to increased aggressive tendencies and behavioral disturbances (Haney, 2001). Untreated health issues among released prisoners make it harder for them to reintegrate into society and increase their chances of reoffending. This is especially true for those who have both substance use disorders and mental health disorders (Schnittker & John, 2007).

Objective of the study

The present study aims to psychologically evaluate two categories of jail inmates—*convicted* and *undertrials prisoners*. A convict is a "criminal prisoner under sentence of a Court or Court-martial." An undertrial prisoner is a person who has been committed to judicial custody and against whom a criminal trial has been initiated by a competent authority (trial is in process and not yet disposed of). A detainee is any person detained in prison on the orders of the competent authority under the relevant preventive laws.

The objective of the study:

Based on the available research, the following objectives will be attempted for the present study:

- 1) To study the prevalent psychopathological symptoms between Convicted and Undertrial prisoners of the samples.
- 2) To study the prevalent psychopathological symptoms between male and female prisoners of the samples.
- 3) To study the relationship between the psychopathological symptoms.

- 4) To study the 'gender' and 'types of inmates' independent effect on psychopathological symptoms.
- 5) To study the 'gender' and 'types of inmates' interaction effect on psychopathological symptoms.

Hypothesis:

To meet the objectives of the study, the following hypotheses were framed:

- 1) There will be a different prevalent level of psychopathological symptoms between Convicted and Undertrial prisoners of the samples.
- 2) There will be a different prevalent level of psychopathological symptoms between male and female prisoners of the samples.
- 3) It was expected that the *Somatization (SOM)*, *Obsessive-Compulsive (OBS)*, *Interpersonal Sensitivity (INT)*, *Depression (DEP)*, *Anxiety (ANX)*, *Hostility (HOS)*, *Phobic Anxiety (PHOB)*, *Paranoid Ideation (PAR)*, and *Psychoticism (PSY)* will have significant positive relationships.
- 4) The 'gender' and 'types of inmates' will have a significant independent effect on psychopathological symptoms.
- 5) The interaction of the 'gender' and 'types of inmates' will have a significant level on psychopathological symptoms.

METHODS AND PROCEDURES

Samples - A total of 160 inmates were selected from the Central Jail in Aizawl, Mizoram, using random or purposive sampling methods. The sample consisted of equal numbers of convicted and under-trial prisoners (80 each), as well as an equal gender distribution (80 males and 80 females). Participants were chosen from a list of prisoners with similar demographic profiles, including an age range of 20 to 50 years, sex, education level, and length of imprisonment. The selection criteria also required good physical health, as confirmed by official jail health records. Inmates who had been incarcerated for less than six months were excluded from the psychological evaluation.

Inclusion Criteria for Sample Selection:

The inmate has been staying in prison for *more than six months*.

Male or female gender among the inmates.

Inmates' age ranges between 20 to 50 years.

Inmates having good/not have critical physical health problems.

Inmates who have given consent or willingly participate in the study.

Exclusion Criteria for Sample Selection:

The inmate who has been staying in Prison for *less than six months*

Age of the Inmates less than 20 years and more than 50 years of age.

Inmates were not having good / having critical physical health problems.

Inmates who did not give consent or were not willing to participate in the study.

The age range from 20-50 years among incarcerated individuals is crucial in research settings for various reasons. This demographic often exhibits a distinctive combination of developmental, societal, and behavioral elements that can provide valuable research insights. People within this age span frequently participate in different phases of unlawful activities and repeat offenses. Research indicates that individuals in their twenties are more prone to engaging in high-risk behaviors, while those between their thirties and fifties may demonstrate patterns of reoffending,

especially among those with extensive criminal records. This age range aids researchers in comprehending crime trends and recidivism patterns throughout early and middle adulthood.

Research within this age group can reveal how employment, education, and family connections influence criminal behavior, rehabilitation, and post-incarceration reintegration challenges. Mental health concerns and substance abuse problems are prevalent among this age demographic, often correlating with their criminal activities. Furthermore, individuals within this age range typically have greater familial obligations, resulting in their imprisonment having far-reaching consequences for their households and broader social circles.

Prisoners with short-term judicial custody typically display behavioral tendencies that differ from those of long-term inmates. Specifically, individuals incarcerated for fewer than 6 months may not undergo the same level of adaptation to the prison environment, a factor crucial for assessing long-term consequences. By excluding these short-term offenders, researchers can direct their attention to subjects with more uniform and representative prison experiences.

Brief periods of incarceration may not elicit the same psychological responses, such as heightened stress, depressive symptoms, or anxious states, as extended prison terms. By omitting individuals with sentences under 6 months, researchers can better evaluate the mental health implications specific to prolonged confinement. Many correctional facilities offer rehabilitation programs, educational initiatives, and mental health resources that require substantial time commitments, often rendering them less accessible or effective for inmates serving shorter sentences. Those incarcerated for brief periods typically face charges for minor infractions and may exhibit different patterns of recidivism compared to long-term prisoners. Eliminating short-term inmates from studies allows for a more focused examination of these effects in research concerning prison health dynamics.

Sample character (distribution of demographic profiles): Samples were collected from Central Jail, Aizawl, Mizoram. The distribution of age groups of the study was 16% belonged below 25 years, 33% to 26-33 years, 24% to 31-35 years, 17% to 36-40 years, and 10% to 41 year and above age. Among the samples, 59% were below

class 10 level of education, 29% had class 12, 12% had BA and 3% had MA level of education. Most of the prisoners were unemployed constituting 49%, 43% belonged to business, 3% to Group IV, 3.95% to Group B, and .05 % to Group A. Research suggests that insufficient education and economic difficulties may be factors contributing to criminal activities. This aligns with prior findings indicating that unfavorable living environments, including overcrowded spaces, unsanitary conditions, and inadequate nourishment, were associated with psychological challenges among inmates (Saha et al., 2014).

Psychological Tool Used:

The present study used the following psychological tools to discern the psychopathological symptoms among the inmates.

(i) ***Socio-Demographic Data Sheet (Tochhawng, 2022)***: It is a Semi-structured Performa. To examine the demographic characteristics of the sample or subjects, the researcher developed a Socio-Demographic Data Sheet, which was a semi-structured form. This form gathered essential information about various socio-demographic variables, including age, sex, religion, education, marital status, residence, occupation, health record, type of offense, date of entry, duration, and status of the subjects. This data sheet served as a source of information for the qualitative study.

(ii) ***Inform Consent Form (Tochhawng, 2022)***: The researcher constructed the Inform Consent Form following the guidelines of Mizoram University and UGC rules and regulations regarding Ph D research, and also the APA research code of ethics (2014). It contains information about the purpose of the research and the expected participation of the sample, participation is solely depending on voluntary and the willingness of the subject who may leave at any time without any liabilities, participation should not cause any harm to the subject, assurance of confidentiality on all responses given by the subject, only with the moral consent in writing the researcher entertained psychological evaluation on the subject.

(iii) ***The Symptom Questionnaire (SCL-90-R; Derogatis (1983)***, was designed to evaluate a broad range of the symptoms of psychopathology. The good internal consistency reliability (Cronbach's alpha coefficients ranged from 0.78 to 0.96) examines the nine primary symptom dimensions. The Symptom Checklist 90-R (SCL-90-R) is a widely applied self-assessment instrument for a broad range of mental disorders that assesses the subjective symptom burden in patients with mental disorders. Alongside the high acceptance and extensive worldwide application of the instrument as an outcome instrument in the treatment of patients with affective disorders of the SCL-90-R. It measures psychological symptoms and psychological distress. It is designed to be appropriate for use with individuals from the community, as well as individuals with either medical or psychiatric conditions. The SCL-90-R assesses psychological distress in terms of nine primary symptom dimensions and three summary scores termed global scores. The SCL-90-R is normed on individuals 13 years and older. It consists of 90 items. The principal symptom dimensions are labelled as *Somatization (SOM)*, *Obsessive-Compulsive (OBS)*, *Interpersonal Sensitivity (INT)*, *Depression (DEP)*, *Anxiety (ANX)*, *Hostility (HOS)*, *Phobic Anxiety (PHOB)*, *Paranoid Ideation (PAR)*, and *Psychoticism (PSY)*.

It was designed to reflect psychopathology in nine primary-symptom dimensions constituting the psychological state. This scale has enjoyed widespread use as a self-report symptom inventory. It has been used as both a screening device and an outcome measure across a broad-spectrum of clinical and research contexts. SCL-90-R was reliable and valid scale (Derogatis, 1983) and the Alpha value reached 0.97. Each item of SCL-90-R has five responses, which are: "extremely", "quite a bit", "moderately", "a little bit" and "not at all". These responses are given the values of "4", "3", "2", "1", and "0", respectively. The items of the scale covered 9 main dimensions, as follows:

Design of Study

The research employed a 2 x 2 factorial design, incorporating 160 inmates (80 convicted and 80 undertrial prisoners) and 160 individuals based on gender (80 males, 80 females). This cross-sectional investigation aimed to compare four distinct

groups: (i) 40 males convicted, (ii) 40 males undertrial, (iii) 40 females convicted, and (iv) 40 females undertrial on nine psychopathological symptoms.

Results and Discussions:

The present study entitled “A Comparative Psychopathological Assessment of Convicted and Undertrial Prisoners” intended to examine the psychopathological condition of the prisoners by using the Symptom Questionnaire (SCL-90R) which included (i) Somatization, (ii) OCD, (iii) Interpersonal Sensitivity, (iv) Depression, (v) Anxiety, (vi) Hostility, (vii) Phobic Anxiety, (viii) Paranoid Ideation, and (ix) Psychoticism. Additionally, the correlation between the dependent variables should be determined to estimate the extent of the relationship between these variables for further analysis. The literature and theory provided the estimation that the undertrial prisoner could have a higher pathology than a convicted prisoner though both of them were in stressful situations.

Sample characteristics: The present study employed 160 samples, comprising 80 convicted (40 male and 40 female) and 80 under-trials (40 male and 40 female) prisoners screened out from 761 (456 male and 305 female) prisoners of Central Jail Aizawl based on the sociodemographic profiles (Tochhawng, 2021) which included types of the prisoners (under trial and convicted), gender (male and female), age (30 to 50 year), educational qualification (below graduate level), permanent address/locality (urban and rural), duration of imprisonment (not less than 6 months), physical health condition (no critical physical problems) from the record of the Central Jail located in Aizawl, Mizoram. Representative of non-prisoner samples were collected to match the prisoner samples on demographic profiles such as gender, age, locality, educational qualification, and physical condition but not having any criminal records were initiated for comparison with prisoners. The samples were selectively collected to control extraneous variables, and a random sampling procedure was applied as far as possible.

Checking of missing raw data and outliers: Initially, the researcher examined the raw data to identify any missing information or extreme outliers that could potentially skew the study's results. After a thorough review of the dataset, it was

found that there were no instances of missing data or extreme outliers. Thereafter, it was deemed appropriate to proceed with further statistical analysis.

Psychometric Adequacy Checked: The study employed the Symptom Questionnaire (SCL-90R; Derogatis et al., 2000) which measures nine types of psychopathological conditions. The scale was constructed for other cultures and not for the targeted population of this study which demands checking the applicability of the scale (Witkin & Berry, 1975). The subscales of the SCL-90R were checked on reliability (Cronbach Alpha), Homogeneity (Levene test), and normality (descriptive). Psychometric analysis of the scales and subscales was done using Microsoft Office Excel 2013 and the statistical package for the social sciences (SPSS 23).

The Kurtosis and skewness were within the acceptable range (± 2), and the Homogeneity test was within an acceptable range (Levene; all non-significant) which also propounded the trustworthiness of the scales.

The data has met the assumptions of parametric statistics (Normality, reliability and homogeneity) which advocate using the parametric statistics may be used for further analysis.

Objective -1: To study the prevalent psychopathological symptoms between Convicted and Undertrial prisoners of the samples

a) Differential prevalence of psychopathological symptoms between convicted and under-trial prisoner samples: Firstly, the difference between two types of prisoners – the under-trial and convicted prisoners were compared on various psychopathological symptoms (dependent variables)

To examine the prevalence of the selected psychopathological symptoms, the Symptom Questionnaire (SCL-90R; Derogatis et al., 2000) was administered, and an independent t-test was calculated which revealed the prevalence differences between the convicted and undertrial prisoners.

i). On somatization: Undertrial prisoners had a higher prevalence of Somatization ($M = 31.25; 37.57; t = 14.57; p > .01$) than convicted prisoners at .01 significant levels. The finding got the support of earlier research findings that Undertrial prisoners often suffer from increased levels of anxiety, depression, and physical health concerns than convicted prisoners which was due to uncertainty of their detention duration and the ongoing legal proceedings they face (Penal Reform International, 2018). A study on the psychological well-being of incarcerated individuals in India revealed that undertrials experienced a higher rate of somatization compared to those already convicted; it was further observed that the uncertainty and lack of clarity surrounding the legal outcomes for undertrials led to increased anxiety, which in turn manifested as physical symptoms (Pandey & Kumar, 2019). The uncertain circumstances faced by undertrial prisoners may render them more vulnerable to physical ailments, in contrast to convicted prisoners who may have established methods for managing the more consistent environment of incarceration (Goff et al., 2007). Undertrial prisoners exhibited significantly more somatic complaints than convicted prisoners, likely due to their uncertain legal and personal status, which exacerbates anxiety and depressive symptoms (Goyal et al., 2011). Undertrial prisoners often use somatic symptoms to express psychological discomfort, especially when other coping mechanisms are limited (Fazel & Baillargeon, 2011). Undertrial prisoners endure substantial psychological stress from extended detention without conviction, often resulting in somatic symptoms. Conversely, having adapted to their sentences, convicted prisoners may exhibit fewer physical stress symptoms (Slade & Forrester, 2013). Undertrial prisoners in India exhibited notably higher somatic complaints compared to convicted prisoners (Agrawal et al., 2016).

ii). On OCD: Undertrial prisoners had a higher prevalence of OCD than Convicted prisoners at .01 significant level ($M = 19.43; 25.59; t = 14.09; p > .01$). The finding got the support of earlier research findings that Undertrial prisoners showed a higher prevalence of Obsessive-Compulsive Disorder (OCD) than convicted prisoners due to the uncertainty and anxiety of awaiting trial, which contribute to the increased OCD symptoms among undertrials (Khan & Dhar, 2017), have a higher prevalence

of OCD than convicted ones, due to the greater anxiety and stress from legal uncertainties affecting those awaiting trial (Bansal & Srivastava, 2018), uncertainty and heightened anxiety associated with their unresolved legal status (Arora & Gupta, 2018). Research also reveals that Undertrial prisoners have high incidence rates which are associated with stress caused by unresolved legal issues and the uncertainty surrounding ongoing trials, which worsens anxiety-related conditions like obsessive-compulsive disorder (Khan & Chawla, 2017).

iii). On Interpersonal Sensitivity relation: convicted prisoners scored lower on Interpersonal ($M = 16.65$; 26.82 ; $t = 14.09$; $p > .01$) than undertrial at .01 significant level. The finding got the support of earlier research finding that Convicted prisoners, having accepted their status, may become more withdrawn or adapts to reduce interpersonal engagement, whereas undertrial prisoners, facing legal uncertainty, may require more interpersonal support (Reddy & Purohit, 2012). Long-term incarceration's social isolation and strict environment may diminish convicted prisoners' interpersonal skills, while undertrial prisoners, despite stress, may maintain stronger interpersonal connections due to the uncertainty and temporary nature of their detention. Convicted prisoners' structured environment and coping mechanisms may result in lower interpersonal engagement and trust compared to undertrial prisoners, who maintain greater outside-world connections and exhibit less prison adaptation (Sharma & Sinha, 2015). Convicted prisoners often become more isolated and socially withdrawn, reducing their interpersonal skills, whereas undertrial prisoners may retain stronger social abilities through ongoing legal and family interactions (Sharma & Ram, 2018). The isolation of convicted prisoners can diminish their interpersonal engagement, whereas undertrial prisoners, facing uncertain outcomes, might maintain stronger connections to cope with stress (Singh & Varma, 2015).

iv). On Depression: Undertrial prisoners had a higher prevalence of Depression than Convicted prisoners with a .01 significant level ($M = 31.85$; 39.17 ; $t = 13.21$; $p > .01$). The finding got the support of earlier research finding that Undertrial prisoners have higher rates of depression compared to convicted prisoners (Abdu et al., 2018). This

could be because being accused causes stress and uncertainty, which negatively affects self-identity and social relationships (Indian J Psychiatry, 2022). Inmates with low social support are four times more likely to suffer from depression compared to those with high social support. This shows that the level of social support significantly affected depression rates among the prisoners (Indian J Psychiatry, 2022) which clearly indicates that maintaining connections with family and friends during imprisonment is very much important. A study conducted in several prisons in India focused on the psychological effects of prolonged detention among undertrial prisoners (**Kumar et al., 2020**) found that depression was one of the most common mental health issues, affecting more than 45% of the surveyed prisoners. Moreover, the research reveals that lack of contact with family and friends contributed to the worsening of depressive symptoms (Joseph & Kumari, 2019). The research enlightened the lack of mental health services in Indian prisons and how it affects undertrial prisoners (**Sharma et al., 2018**), and found that undertrial prisoners with depressive symptoms were particularly affected by the lack of access to mental health services. Undertrial prisoners exhibited significantly higher depression levels than convicted ones due to uncertainty and lack of control over their legal outcomes, causing greater psychological distress (Ali & Bhatti, 2018).

v). On Anxiety: Undertrial prisoners had a higher prevalence of Anxiety than Convicted prisoners with a .01 significant level ($M = 22.28$; 28.69 ; $t = 21.29$; $p > .01$). The finding got the support of earlier research finding that Undertrial prisoners had higher anxiety levels compared to convicted inmates due to the uncertainty about their future, with many being held for years before their cases were resolved (Sarkar et al., 2015). Many undertrial prisoners, especially those facing serious charges, suffer from intense anxiety related to the possibility of spending years in prison if convicted. This fear is often amplified by the uncertainty surrounding the strength of the legal case against them (Carlson & Garrett, 2013). Undertrial prisoners are frequently anxious about their families' well-being, especially if they are the main breadwinners (Tripathi & Das, 2016). The lack of psychiatric care for undertrial prisoners in overcrowded prison systems worsens anxiety symptoms and deteriorates their mental health over time (Sarkar et al., 2015). Convicted prisoners may

experience severe anxiety due to the finality of their situation, especially those facing long-term sentences or life imprisonment (Fazel & Baillargeon, 2011). However, they generally have lower anxiety compared to undertrial prisoners due to the lack of legal uncertainty about their immediate future (Schnittker & John, 2007).

vi). On Hostility: Undertrial prisoners had a higher prevalence of hostility than Convicted prisoners with a .01 significant level ($M = 11.89$; 21.18 ; $t = 20.85$; $p > .01$). The finding got support of earlier research finding that Undertrial prisoners exhibited significantly higher hostility levels than convicted prisoners, primarily due to prolonged legal uncertainty (Sinha & Purohit, 2016). In contrast, convicted prisoners, despite the stress of their sentences, generally displayed lower hostility due to greater clarity about their future. Undertrial prisoners, often face increased levels of stress and anxiety due to their ongoing legal proceedings and these emotions can lead to hostile behavior towards others (Hochstetler et al., 2008). To assert control or safeguard themselves from perceived dangers, undertrial prisoners may exhibit aggressive conduct towards other inmates or correctional staff (Bodecka-Zych et al., 2021). Furthermore, the separation from loved ones and lack of social support can exacerbate feelings of hostility among these prisoners, and undertrial prisoners with strong social support networks exhibited fewer hostile emotions and aggressive behaviors (Hochstetler et al., 2008). The physical conditions of prison, such as overcrowding, limited resources, and poor living standards, can increase hostility among undertrial prisoners, leading to enhanced frustration and aggressive behaviors (Bodecka-Zych et al., 2021). Researchers suggest that stress and uncertainty about legal status increase hostility in undertrial prisoners, while convicted prisoners, with a defined status and predictable environment, show lower hostility levels (Chand & Yadav, 2017).

vii). On Phobic Anxiety: Undertrial prisoners had a higher prevalence of Phobic Anxiety than Convicted prisoners with a .01 significant level ($M = 16.02$; 22.06 ; $t = 20.14$; $p > .01$). The finding got the supports of earlier research finding that Pre-trial detainees are more vulnerable to psychological distress, including phobias, anxiety, and depression, compared to sentenced inmates, possibly due to the uncertainties surrounding their trial outcomes, potential loss of freedom, and lack of adequate

support systems (Fazel & Danesh, 2002; Diamond et al., 2001). Research reveals that convicted prisoners adapt to their sentences through "institutionalization," (Goffman, 1961) whereas undertrial prisoners, lacking this adjustment, frequently exhibit more phobic disorders and anxiety symptoms due to fewer coping mechanisms and greater psychological distress (Andersen et al., 2000). Undertrial prisoners experience significantly higher anxiety and phobia scores than convicted prisoners (Goyal et al., 2022), with greater mental distress likely due to the indeterminate nature of their status and perceived lack of control (Fazel & Danesh, 2002; Kumar et al., 2018).

viii). On Paranoid ideation: Undertrial prisoners had a higher prevalence of Paranoia than Convicted prisoners with a .01 significant level ($M = 14.05$; 19.91 ; $t = 20.15$; $p > .01$), The finding got support of earlier research finding that Undertrial prisoners exhibited higher paranoia levels than convicted inmates due to the persistent fear of uncertain outcomes and perceived lack of future control (Goyal & Singh, 2022). Undertrial prisoners often endure overcrowded, harsh conditions, leading to reduced privacy, increased conflicts, and heightened vulnerability, fostering paranoid ideation (Dhami et al., 2007). Extended uncertainty regarding trial dates or outcomes causes chronic stress and anxiety, increasing the risk of paranoia (Khan & Sekhon, 2011). Paranoia can lead to violence or aggression as detainees might feel the need to defend against perceived threats, causing conflicts with other inmates or staff (Jordan, 2011). As compared to Convicted prisoners, Undertrial prisoners often develop paranoid ideation due to social isolation, pre-existing mental health conditions exacerbated by imprisonment stress, previous traumas, and perceived legal injustices stemming from systemic biases (Briere & Jordan, 2004; Coyle, 2005; Goyal et al., 2019; Subramanian et al., 2015).

ix). On Psychoticism: Undertrial prisoners had a higher prevalence of Psychoticism than Convicted prisoners with a .01 significant level ($M = 22.92$; 28.91 ; $t = 14.09$; $p > .01$), The finding the support of earlier research finding that undertrial prisoners exhibit more psychotic symptoms than the convicted one due to severe psychological stress from the prison environment and legal uncertainty (Teplin, 1990). Elevated stress and anxiety can induce or worsen psychotic symptoms, especially in those with

preexisting mental health issues (Fazel & Seewald, 2012). Limited access to mental health services before detention can further deteriorate their mental health in jail (Rundle et al., 2018). Prolonged pre-trial detention significantly impacts prisoners' mental well-being, exacerbating prior conditions or inducing new psychiatric problems due to insufficient support (Haider, 2023; Amrit et al., 2022). Extended pre-trial detention imposes significant psychological stress on inmates, often worsening existing mental health issues or causing new ones due to inadequate psychiatric care (Haider, 2023; Amrit et al., 2022). Overcrowded conditions and insufficient mental health services exacerbate psychosis symptoms, particularly for those undertrial prisoners without a definitive sentence (Chicago School, 2019).

Objective 2: To study the prevalent psychopathological symptoms between male and female prisoners of the samples.

To assess the significant difference in the prevalence of selected psychopathological symptoms, an independent t-test was computed between male and female samples:

Resulted portrayed that:

i). On somatization: Male samples had a lower prevalence of Somatization ($M = 31.65; 37.15; t = 3.78; p > .01$) than female samples at .01 significant level, The finding was supported by earlier research finding that Female prisoners exhibit more somatic complaints and disorders than male prisoners, likely due to mental health issues and higher trauma rates among incarcerated women (Jordan et al., 1996). Female prisoners exhibit significantly higher instances of somatization compared to males, indicating gender differences in mental health symptoms (Teplin et al., 1996). Studies show that somatization disorders are more common among female prisoners, due to increased stress and unique mental health requirements (Birmingham et al., 1996). The study compares male and female Canadian prisoners, revealing that women report higher rates of somatization and mental health symptoms, likely influenced by pre-incarceration traumas and prison conditions (Steward, 2000). Research shows that incarcerated women report higher psychological distress and

more somatic symptoms than men, attributed to differences in their experiences and coping mechanisms during imprisonment (Wolff & Shi, 2012).

ii). On OCD: Male samples had a lower prevalence of OCD than Female samples with a .01 significant level ($M = 19.62$; 25.40 ; $t = 3.17$; $p > .01$). The finding supported by earlier research finding that OCD is more frequently reported in women, including those in prison, where female inmates commonly experience contamination-related obsessions and compulsions, unlike their male counterparts (Fineberg et al., 2011). Gender variations in OCD symptoms suggest a lower prevalence among male compared to female prisoners, possibly due to differences in symptom manifestation and cultural impacts on diagnosis (Torresan et al., 2013). Female prisoners have a higher likelihood of being diagnosed with obsessive-compulsive disorder (OCD) and other mental health issues compared to their male counterparts, highlighting significant gender disparities in mental health treatment within the prison system (Gunter, et al., 2008). Neurological and hormonal factors may explain the higher prevalence of OCD among women prisoners than their male counterparts, potentially elucidating similar patterns in prison populations (Mataix-Cols et al., 2008).

iii). On Interpersonal Sensitivity relations: Male samples had lower Interpersonal relations ($M = 19.88$; 23.58 ; $t = 4.72$; $p > .01$) than female samples at a .01 significant level. The finding got the support of earlier research findings that highlight gender differences in interpersonal behaviors and rule-breaking among incarcerated individuals, revealing that women are more inclined than men to form supportive and familial relationships in prison (Alarid, 2000). Female prisoners typically establish close interpersonal bonds and pseudo-families, whereas male prisoners generally adopt hierarchical and distant social structures (George, 2014). Male prisoners frequently endure "the pains of imprisonment," leading to greater interpersonal detachment and weaker relational connections than female prisoners (Sykes, 1958). Female prisoners create supportive, familial bonds, contrasting the individualistic and competitive nature of male prisoners (Giallombardo, 1966). Male prisons hinder

the formation of close interpersonal relationships, promoting isolation and mistrust (Trammell, 2012).

iv). On Depression: Male samples had a lower prevalence of Depression than Female samples with a .01 significant level ($M = 34.36; 36.66; t = 4.72; p > .01$). The finding supported by earlier research finding that Female inmates typically exhibit higher rates of depression than their male counterparts, attributed to distinct social and psychological stressors (Fazel et al., 2016). Research on prisoners' mental health reveals higher depression rates among women and a substantial depression burden on men due to incarceration-related factors (Fazel & Baillargeon, 2011). Female prisoners often exhibit elevated depressive symptoms, primarily due to social isolation and trauma that disproportionately impact them (Wormith & Andronis, 2012). Higher depression rates among female prisoners are linked to gender-specific prison experiences, such as heightened trauma and victimization, which exacerbate depressive symptoms (Linden & Parsonage, 2013). Male inmates exhibit notably lower depression prevalence than their female counterparts, who are more prone to mood disorders and associated mental health problems (Pietrzak & Southwick, 2011).

v). On Anxiety: Male samples had a lower prevalence of Anxiety than female samples with a .01 significant level ($M = 22.54; 28.42; t = 3.68; p > .01$). The finding supports an earlier research finding indicates that anxiety disorders are more prevalent among female prisoners, who also face a higher risk of various mood and anxiety disorders than male inmates (Fazel et al., 2016). Female prisoners demonstrated higher rates of anxiety, depression, and serious psychological distress than male prisoners, emphasizing the gender disparity in mental health within correctional facilities (Bureau of Justice Statistics, 2011). Female prisoners are more likely to report anxiety disorders due to the emotional and social factors affecting their prison experiences (Linden & Parsonage, 2013). Research indicates that male prisoners exhibit lower anxiety levels compared to female prisoners, who consistently report significantly higher anxiety across various prison populations (Wormith & Andronis, 2012). Gender disparities in mental health exist among

prisoners, with female inmates displaying consistently higher rates of anxiety and depression than males (González & Morales, 2020).

vi). *On Hostility*: Male samples had a higher prevalence of Hostility than females with a .01 significant level ($M = 14.66; 18.40; t = 4.13; p > .01$). The finding got the support of an earlier research indicates that male prisoners exhibit more hostility and aggression than female prisoners, highlighting behavioral and psychological differences among incarcerated populations (Walmsley, 2016). Gender differences in prisoners' mental health reveal that men display more externalized behaviors like hostility, whereas women exhibit higher rates of internalized symptoms such as depression (Tyler et al., 2019). Research indicates that male prisoners display more overt hostility linked to impulsivity and externalizing disorders compared to females (Coffman & Steinberg, 2000). Psychological assessments of inmates reveal higher levels of hostility and aggression among males compared to females (Blanchette & Brown, 2006). Predictors of violent and hostile behaviors among incarcerated individuals were analyzed, revealing higher anger and hostility levels in male prisoners than in females (Howard & Dixon, 2013).

Objective -3: To study the relationship between the psychopathological symptoms

To examine any significant relationship between psychopathological symptoms, a Pearson's Correlation was computed.

The results illustrated that:

1). Somatization relation to OCD, Interpersonal, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism:

The Somatization relation to other dependent variables was computed and revealed :-

i). **Somatization and OCD relationship:** Results provided that Somatization had a significant positive relationship with OCD which explains that when somatization is high the OCD is also high along with it ($r = .57; p > .01$) and significant at .01 level which was supported by earlier research findings on São Paulo prisoners' mental health revealed comorbidities between somatization and anxiety disorders, including OCD, showing a strong positive correlation between somatization symptoms and

obsessive-compulsive tendencies (Gonçalves et al., 2013). Research utilizing the SCL-90 has consistently revealed associations between OCD and somatization among high-stress populations among prisoners (Derogatis et al., 1974). A notable positive correlation exists between OCD and somatization among prison employees, indicating the necessity for psychological support for both inmates and personnel experiencing high levels of stress (Dovepress Editorial Team, 2020). A comprehensive review indicates that somatic symptoms and OCD frequently co-occur among prisoners, linked to shared risk factors like trauma, isolation, and chronic stress (Fazel et al., 2016).

b). Somatization and Interpersonal Sensitivity Relationship: Results provided that Somatization had a significant negative relationship with Interpersonal relationships which explains that high in somatization was accompanied by lower in interpersonal relationships ($r = -.54$; $p > .01$) and significant at .01 level which was supported by earlier research findings that prevalence of somatization among prisoners affects interpersonal relationships, as those with somatic symptoms often find it difficult to trust and communicate, essential for positive connections in high-stress settings (Gonçalves et al., 2013). Somatic and psychological distress in prisoners can erode trust and cooperation within their social networks due to increased somatization and interpersonal sensitivity (Sentse et al., 2021). The Symptom Checklist-90 (SCL-90), commonly used to assess somatization and interpersonal sensitivity in prisoners, reveals links between somatic complaints and relational difficulties (Derogatis et al., 1974). Mental health problems, such as somatization, in prisoners strain relationships, hampering rehabilitation and social reintegration (Fazel et al., 2016). Prisoners with somatic symptoms frequently display maladaptive interpersonal patterns, complicating their social interactions (Neimeyer & Feixas, 1990).

c). Somatization and Depression Relationship: Results provided that Somatization had a significant positive relationship with Depression ($r = .41$; $p > .01$) and significant at .01 level which was supported by earlier research findings that Somatization among prisoners was significantly linked to increased depression, indicating that physical symptoms may signify underlying emotional distress, which is prevalent in institutionalized populations due to stress, trauma, and inadequate support systems

(Gonçalves et al., 2013). Somatization and depression are prevalent among inmates, with depression aggravating somatic symptoms often misdiagnosed as physical health issues, hindering accurate diagnosis and treatment in prisons with inadequate mental health care (Fazel et al., 2016). Studies on addiction in prisoners show that somatization and depression frequently co-occur (Dusunen, 2020). A study on Norwegian prisons found that inmates with high depression levels were significantly more likely to report somatic complaints (Sivertsen & Morken, 2004).

d). *Somatization and Anxiety Relationship:* Results provided that Somatization had a significant positive relationship with Anxiety ($r=.42$; $p>.01$) and significant at the .01 level which was supported by earlier research findings that Prisoners with elevated anxiety frequently report somatic symptoms like pain or gastrointestinal issues, reflecting emotional distress and worsening their physical discomfort, creating a feedback loop that increases anxiety (Gonçalves et al., 2013). Anxiety exacerbates existing physical health problems and is prevalent in prisons due to stress from confinement, lack of social support, and future uncertainty (Fazel et al., 2016). High anxiety correlates with notable somatic symptoms, often misdiagnosed as purely physical, underscoring the need for mental health interventions addressing both psychological and somatic symptoms (Dusunen, 2020). A study found high comorbidity between anxiety and somatic symptoms, indicating anxiety's significant role in developing somatic complaints in prisoners (Sivertsen & Morken, 2004). Anxiety symptoms notably raised the risk of somatization, potentially causing medical misinterpretations by treating physical symptoms as distinct problems instead of associating them with mental health (Mok & Goodwin, 2011). Prisoners with depression often display physical symptoms like somatization, which acts as a coping mechanism for severe emotional distress but worsens depressive symptoms (Neimeyer & Feixas, 1990). Mental health disorders in prisoners commonly involve somatization due to unaddressed depression (Howard et al., 2008).

e). *Somatization and Hostility Relationship:* Results provided that Somatization had a significant positive relationship with Anger ($r=.57$; $p>.01$) and was significant at the .01 level which was supported by earlier research findings that Prisoners with high levels of somatization often exhibit increased hostility. Those experiencing

frequent somatic symptoms, such as chronic pain or fatigue, reported higher aggression and interpersonal conflicts (Fazel et al., 2016). In substance-addicted prisoners, somatization was linked to increased hostility (Gonçalves et al., 2013). Physical discomfort and substance withdrawal stress can heighten irritability, leading to hostile behaviors towards others (Dusunen, 2020). Prisoners with physical symptoms often expressed anger and hostility due to their pain and as a coping mechanism for emotional distress (Sivertsen & Morken, 2004). Hostility can be an outward expression of internalized psychological issues, including somatization (Neimeyer & Feixas, 1990). Somatization and hostility are often linked in prisoners, especially those with untreated mental health disorders (Howard et al., 2008).

f). *Somatization and Phobic Anxiety Relationship:* Results provided that Somatization had a significant positive relationship with Phobic ($r=.43$; $p>.01$) and significant at .01 level which was supported by earlier research findings indicating a strong connection between somatization and phobic anxiety, with these conditions often occurring simultaneously in incarcerated individuals suffering from anxiety disorders (Farhoumandi et al., 2022). Prison studies have also revealed a notable correlation between panic disorder and hypochondriasis. Approximately half of the patients with panic disorder meet the criteria for hypochondriasis, demonstrating heightened fear of illness, belief in disease presence, and physical symptoms compared to those with social phobia or healthy individuals. This suggests an interrelation between anxiety disorders, somatization, and hypochondriacal concerns (Furer et al., 1997). Among prisoners with flight phobia, anxiety sensitivity—the propensity to perceive anxiety-related physical sensations as threatening—was found to moderate the relationship between somatic sensations and flight anxiety (Bogaerde & Raedt, 2010).

g). *Somatization and Paranoid Ideation Relationship:* Results provided that Somatization had a significant positive relationship with Paranoia ($r=.49$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Prisoners with high somatization levels often show increased paranoid ideation, as the stressful prison environment intensifies both somatic and paranoid symptoms (Fazel et al., 2016). Prisoners frequently reporting somatic complaints also tended to

exhibit paranoia, possibly driven by the emotional strain and anxiety of incarceration (Gonçalves et al., 2013). Somatization frequently coincided with paranoid ideation, as prisoners expressed psychological distress through physical complaints, which then heightened their suspicion and fear of others (Sivertsen & Morken, 2004). In prison settings, somatization often heightens paranoid thoughts. Without proper channels to express emotional distress, inmates may grow more suspicious, viewing routine interactions with distrust, a situation worsened by physical discomfort. (Neimeyer and Feixas, 1990). Studies indicate that somatization and paranoid ideation are linked in the general population and are particularly common among prisoners, where the stress of incarceration intensifies psychological problems.

g). Somatization and Psychoticism Relationship: Results provided that Somatization had a significant positive relationship with psychoticism ($r=.48$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Prisoners exhibit a significant interrelation between somatization and psychotic symptoms, highlighting the comorbidity of unexplained physical complaints and severe mental health issues like hallucinations or delusions (Kouyoumdjian et al., 2006). Prisoners with psychotic disorders often somatize psychological symptoms due to stigma or limited emotional outlets (Coker et al., 2014). Research on incarcerated individuals found a positive correlation between somatization and psychoticism, indicating unresolved emotional distress may manifest as physical symptoms and psychotic tendencies, including disorganized thoughts and perceptions (Sivertsen & Morken, 2004). Prisoners scoring high in somatization often exhibited elevated psychoticism levels on psychological assessments (Fazel et al., 2016). Both somatization and psychotic symptoms reflect underlying psychological distress in prisoners (Neimeyer & Feixas, 1990). The relationship between somatization and psychoticism in prisoners is influenced by the elevated anxiety and paranoia common in correctional facilities (Gonçalves et al., 2013).

2). OCD Relation to Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism: The OCD relation to other dependent variables was computed and revealed:-

a). OCD and Interpersonal Sensitivity Relationship: Results provided that OCD had a significant negative relationship with Interpersonal relationships which explains that high in somatization was accompanied by lower in interpersonal relationships ($r = -.31$; $p > .01$) and significant at .01 level which was supported by earlier research findings that negative correlations occur when obsessive-compulsive disorder (OCD) alienates social groups, potentially diminishing the interpersonal effects of sensitivity over time (Thiel et al., 2020; Pino et al., 2022). The limited social interactions typical in prison settings may result in reduced interpersonal sensitivity, further exacerbating the negative effects of social isolation (Schug et al., 2017). Prisoners who suffer from OCD often face social seclusion as a result of their obsessive thoughts and compulsive behaviors. These symptoms can hinder their capacity to engage in effective communication and social interactions, frequently resulting in unfavorable perceptions of social encounters. Consequently, this leads to heightened interpersonal sensitivity among these prisoners (Ferro et al., 2018).

b). OCD and Depression Relationship: Results provided that OCD had a significant positive relationship with Depression $r = .43$; $p > .01$) and significant at .01 level which was supported by earlier research findings that prisoners have indicated that the occurrence of OCD symptoms is often associated with increased rates of depression. The characteristic inflexible and repetitive behaviors of OCD can induce feelings of powerlessness and exasperation, potentially contributing to the onset of depressive symptoms. Moreover, the anxiety caused by obsessions, including intrusive thoughts, may result in emotions of melancholy or low self-esteem, which are commonly observed in depression (Salgado et al., 2021; Pino et al., 2022). Prisoners who suffer from OCD may struggle to cope with these stressors as a result of their obsessive thoughts and compulsive behaviors. This can lead to increased emotional turmoil and potentially exacerbate symptoms of depression (Schug et al., 2017; Thiel et al., 2020). Obsessive-Compulsive Disorder (OCD) can create a cyclical pattern in which

the exacerbation of depressive symptoms aggravates compulsive behaviors, subsequently intensifying obsessive thoughts and amplifying feelings of depression (Ferro et al., 2018; Salgado et al., 2021).

c). OCD and Anxiety Relationship: Results provided that OCD had a significant positive relationship with Anxiety ($r=.41$; $p>.01$) and significant at the .01 level which was supported by earlier research findings indicates that OCD and anxiety disorders commonly occur together in both the general population and among incarcerated individuals (Schug et al., 2017; Thiel et al., 2020). The experience of imprisonment can heighten feelings of powerlessness, which may exacerbate symptoms of both OCD and anxiety (Salgado et al., 2021; Pino et al., 2022). In correctional facilities, where issues like order, safety, and contamination are challenging to manage, anxiety may result in increased compulsive behaviors as a coping strategy. Conversely, OCD can provoke significant anxiety when individuals feel unable to control their thoughts and actions, creating a self-reinforcing cycle of psychological distress (Ferro et al., 2018; Thiel et al., 2020). Research has also shown a connection between various mental health disorders in prison populations, with a notable correlation between OCD symptoms and anxiety levels among inmates (Higgins, et al., 2014). The pressures of imprisonment may exacerbate manifest anxiety and potentially trigger OCD symptoms (Haney, 2001). An investigation into the mental well-being of incarcerated individuals revealed that anxiety disorders, including OCD, were prevalent among prisoners (Abramovitz, 2006). Studies have indicated a notable occurrence of anxiety disorders, including OCD, among incarcerated individuals, implying that the connection between these conditions is more pronounced in prison settings (Wormith & Goldstone, 1995). Research highlights the substantial rate of mental health disorders in inmate populations, noting that anxiety disorders often appear alongside OCD in these groups (Fazel & Danesh, 2002).

d). OCD and Hostility Relationship: Results provided that OCD had a significant positive relationship with Hostility ($r=.39$; $p>.01$) and was significant at the .01 level which was supported by earlier research findings that Obsessional neurosis strongly

correlates with hostile emotions, as unresolved internal conflicts and perfectionism often intensify hostile reactions. (Millar, 1983). The Overcontrolled-Hostility Scale indicated that prisoners with significant OCD symptoms exhibited hostile and aggressive behaviors. (Walters, 1982). Research evinced that anger and hostility in OCD patients, pinpointing cognitive distortions and compulsive rituals as ineffective coping strategies for inherent anger (Choi & Shin, 2008). Obsessive thoughts and compulsive behaviors can cause significant distress and frustration, potentially leading to hostility when prisoners cannot complete rituals or feel misunderstood by others (Ferro et al., 2018; Pino et al., 2022). The prison setting, characterized by social conflicts, limited autonomy, and perceived threats, can heighten hostility in prisoners with OCD (Schug et al., 2017; Salgado et al., 2021). In prison populations, the relationship between OCD and Hostility is often the more pronounced psychological burden of incarceration (Thiel et al., 2020; Salgado et al., 2021).

e). OCD and Phobic Anxiety Relationship: Results provided that OCD had a significant positive relationship with Phobic Anxiety ($r=.59$; $p>.01$) and significant at .01 level which was supported by earlier research findings that the challenging and often aggressive atmosphere in prisons can intensify both obsessive-compulsive disorder and phobic anxiety symptoms (Salgado et al., 2021; Pine et al., 2022). Incarceration frequently generates conditions that heighten anxiety, including phobic reactions (Thiel et al., 2020; Salgado et al., 2021). Research has shown a notable connection between OCD and multiple anxiety-related disorders, among prisoners such as phobias (Menzies et al., 2020). Studies indicate that particular phobias were among the most common anxiety disorders experienced before the development of OCD (Menzies et al., 2020). A study of a large group of OCD patients revealed that OCD comorbidity was linked to specific phobia and agoraphobia. (Assunção et al., 2012). The research indicated that OCD patients with co-occurring generalized anxiety disorder (GAD) exhibited a distinct association with higher incidences of panic disorder without agoraphobia, social phobia, and specific phobia. (Sharma et al., 2021).

f). OCD and Paranoid Ideation Relationship: Results provided that OCD had a significant positive relationship with Paranoid Ideation ($r=.30$; $p>.01$) and significant at .01 level which was supported by earlier research findings that the confined environment of a prison, where individuals lack the ability to avoid stressful circumstances or manage intrusive thoughts, can lead to heightened paranoid feelings (Ferro et al., 2018; Thiel et al., 2020). Research has demonstrated a notable connection between obsessive-compulsive disorder (OCD) and paranoid thoughts or conditions among incarcerated individuals. A comprehensive investigation of OCD patients revealed that 40.3% experienced paranoid conditions at some point in their lives, with 29.1% specifically reporting paranoid ideation (Klenfeldt et al., 2024). Prisoners with OCD frequently experience unwanted, troubling thoughts, which may include anxieties about being harmed or betrayed. Incarcerated people suffering from OCD might develop excessive paranoia, believing that others are deliberately attempting to cause them harm or compromise their welfare. (Schug et al., 2017; Pino et al., 2022).

g). OCD and Psychoticism Relationship: Results provided that OCD had a significant positive relationship with psychoticism ($r=.25$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Prisoners who suffer from OCD may exhibit symptoms resembling psychosis, including paranoid thoughts, feelings of being controlled, and unusual behaviors (Miller & Warren, 2021). The conditions in prisons tend to worsen mental health issues, including OCD, which can lead to an increase in psychotic-like characteristics (Ferro et al., 2018; Thiel et al., 2020). Research indicates that the neurological processes underlying both OCD and psychotic disorders may have common elements, particularly in brain regions associated with emotional control, compulsive actions, and reality perception (Klenfeldt, 2024). A connection between OCD and psychotic features has been suggested, though in a population different from prisoners (Tonna et al., 2016). The challenge of distinguishing between OCD and psychotic disorders, which could be relevant in assessing incarcerated individuals, has been noted (Rodowski et al., 2008). One investigation revealed that patients diagnosed with

both schizophrenia and OCS/OCD demonstrated marginally more severe positive and overall psychotic symptoms (Cunill et al., 2022). Another study observed that in autistic individuals with intellectual disabilities, OCD symptoms might mask psychotic symptoms (Dalhaug et al., 2022).

3). Interpersonal Sensitivity relations to Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism: The *Interpersonal Relationship* relation to other dependent variables was computed and revealed :-

a). Interpersonal Sensitivity and Depression Relationship: Results provided that Interpersonal Sensitivity had a significant negative relationship with Depression ($r = -.29$; $p > .01$) and significant at .01 level which was supported by earlier research findings that Prisoners who are highly attuned to and affected by the thoughts and feelings of others may experience a reduced likelihood of depression. In high-stress environments such as prisons, heightened social cognition can foster improved emotional control and bolster self-regard, reducing depressive manifestations (Orth et al., 2009; Van Orden et al., 2010). The ability to perceive and respond to others' emotions fosters the creation of nurturing relationships, which act as a buffer against depressive symptoms (Zimet et al., 1988; Lakey & Orehek, 2011).

b). Interpersonal Sensitivity and Anxiety Relationship: Results provided that Interpersonal Sensitivity had a significant negative relationship with Anxiety ($r = -.45$; $p > .01$) and significant at the .01 level which was supported by earlier research findings that Enhanced interpersonal abilities may allow prisoners to better regulate and manage their emotional reactions, potentially reducing anxiety symptoms that arise from uncertainty or social stress (Gross, 2002; Aldao et al., 2010). Interpersonal sensitivity is negatively associated with anxiety in prisoners, as it enhances social connectedness, emotional understanding, and coping strategies, enabling them to manage social interactions and mitigate anxiety-provoking stressors more effectively. Inmates who possess higher levels of interpersonal awareness are better equipped to establish supportive social networks. These connections can serve as a protective

factor against anxiety by reducing feelings of isolation and providing emotional assistance (Zimet et al., 1988; Lakey & Orehek, 2011).

c). *Interpersonal Sensitivity and Hostility Relationship:* Results provided that Interpersonal Sensitivity had a significant negative relationship with Anger ($r = -.47$; $p > .01$) and was significant at the .01 level which was supported by earlier research findings that Interpersonal sensitivity enhances the ability to recognize and navigate social situations, contributing to better emotional management, particularly in controlling anger. Prisoners with a keen sense of others' emotions and needs are less likely to misinterpret and engage in disputes leading to anger or hostility (Gross, 2002; Aldao et al., 2010). Heightened interpersonal awareness fosters understanding and teamwork, reducing anger-inducing conflicts, especially in high-stress prison environments (Dodge et al., 1990). Recognizing others' emotions helps inmates build supportive bonds, acting as a buffer against frustration and anger, and reducing feelings of isolation or hostility (Zimet et al., 1988; Lakey & Orehek, 2011).

d). *Interpersonal Sensitivity and Phobic Anxiety Relationship:* Results provided that Interpersonal Sensitivity had a significant negative relationship with Phobic ($r = -.46$; $p > .01$) and significant at .01 level which was supported by earlier research findings In prison settings, where inmates frequently experience heightened social anxiety and fear of scrutiny, interpersonal sensitivity can play a crucial role in fostering positive relationships and diminishing social apprehensions and avoidant behaviors (Zimet et al., 1988; Lakey & Orehek, 2011). This sensitivity may contribute to enhanced emotional resilience by enabling prisoners to better navigate challenging social interactions, potentially mitigating the fear response associated with phobic symptoms (Gross, 2002; Aldao et al., 2010). Inmates possessing greater interpersonal sensitivity may be more adept at employing constructive coping mechanisms, such as seeking support from fellow prisoners, which can help alleviate phobic tendencies linked to social stress or isolation (Baumeister & Leary, 1995).

e). *Interpersonal Sensitivity and Paranoid Ideation Relationship:* Results provided that Interpersonal Sensitivity had a significant negative relationship with Paranoia ($r = -.54$; $p > .01$) and significant at .01 level which was supported by earlier research

findings that People who excel in interpersonal sensitivity are more adept at correctly decoding social signals, which reduces the chance of misinterpreting hostility or threat – factors that contribute to paranoid thinking (Fenigstein & Venable, 1992). This heightened sensitivity promotes empathy and the establishment of trust in social interactions, potentially diminishing the feelings of suspicion and distrust that are hallmarks of paranoia (Watson & Andrews, 2002). By strengthening social connections and minimizing interpersonal conflicts, interpersonal sensitivity may decrease the perception of threat from others, which is a key aspect of paranoia (Freeman et al., 2002).

f). Interpersonal Sensitivity and Psychoticism Relationship: Results provided that Interpersonal Sensitivity had a significant negative relationship with psychoticism ($r = -.58$; $p > .01$) and significant at .01 level which was supported by earlier research findings that Interpersonal sensitivity contributes to heightened empathy, enabling individuals to better perceive and respond to others' emotional states. This increased awareness reduces the likelihood of engaging in hostile or antisocial behaviors commonly linked to psychoticism (Eysenck, 1992). Furthermore, interpersonal sensitivity facilitates improved emotional regulation, a critical factor in managing impulsivity and erratic behavior—fundamental aspects of psychoticism (Gross, 2002; Aldao et al., 2010). By nurturing positive interpersonal connections, sensitivity helps mitigate social isolation, which is associated with psychotic tendencies, especially in high-stress settings such as prisons (Freeman et al., 2002; Lakey & Orehek, 2011).

4). Depression relation to Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism:

The *Depression* relation to other dependent variables was computed and demonstrated that:

i). Depression and Anxiety Relationship: Results provided that Depression had a significant positive relationship with Anxiety ($r = .54$ $p > .01$) and was significant at the .01 level which was supported by earlier research findings that depression and

anxiety frequently co-occur, especially in chronically stressful environments such as prisons, where shared incarceration stressors exacerbate anxiety symptoms in depressed prisoners (Butler et al., 2006). Depression and anxiety in prisoners are driven by common risk factors such as trauma, future uncertainty, and lack of social support, increasing the likelihood of both conditions co-occurring (Fazel & Baillargeon, 2011). A systematic review of prisoners' mental health identified anxiety and depression as prevalent psychiatric disorders, revealing a strong positive correlation and underscoring the necessity for integrated interventions (Gonçalves et al., 2014). The prison environment intensifies the physiological and psychological factors underlying anxiety and depression, resulting in their co-occurrence (Birmingham, 2003).

ii). Depression and Hostility Relationship: Results provided that Depression had a significant positive relationship with Hostility ($r=.24$; $p>.01$) and was significant at the .01 level which was supported by earlier research findings that indicate that prisoners with depression often cope with perceived threats and stressors through hostility, it was also revealed that depression-related helplessness and frustration can escalate into outward hostility (Mills & Kroner, 2003). The restrictive and confrontational prison environment exacerbates hostile behaviors in individuals with depressive symptoms, as the absence of constructive emotional outlets perpetuates a cycle of mutually reinforcing depression and hostility (Ireland, 2005). Depression and hostility share common psychosocial risk factors, including emotional dysregulation, low self-esteem, and past trauma (Baillargeon et al., 2009). Hostility associated with depression frequently intensifies interpersonal conflicts in prisons (Kupers, 1999).

iii). Depression and Phobic Anxiety Relationship: Results provided that Depression had a significant positive relationship with Phobic ($r=.42$; $p>.01$) and significant at .01 level which was supported by earlier research findings that examining prisoners' mental health, revealing a substantial overlap between depression and anxiety disorders, including phobic anxiety (Fazel & Seewald, 2012). Prisoners with

depression frequently exhibit irrational fears and avoidance behaviors linked to past traumatic experiences and the stress of confinement, which predispose them to phobic anxiety (Wolff et al., 2007). Prisoners' phobic anxiety typically arises from fears of physical or emotional injury. Depression sufferers commonly express fears related to social interaction, confined areas, and particular threats, indicating a link between depressive symptoms and heightened phobic reactions (Birmingham et al., 2006). Depression in prison populations often leads to social withdrawal and heightened phobic anxiety, with isolated prisoners particularly prone to phobias related to interpersonal interactions and environmental triggers (Ireland & Culpin., 2006).

iv). Depression and Paranoid Ideation Relationship: Results provided that Depression had a significant positive relationship with Paranoia ($r=.40$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Depressive symptoms, including low self-esteem and self-blame, can foster paranoia in high-stress settings like prisons which frequently misinterpret neutral or ambiguous social cues as threats, heightening paranoid thoughts (Freeman et al., 2008). Prisoners experiencing symptoms of depression showed an increased likelihood of developing paranoid ideation, primarily due to their heightened reactivity to perceived hostility or rejection from others (Ullrich & Coid, 2009). Prisoners frequently experience trauma, which is associated with both depression and paranoia (Black et al., 2007). Inmates suffering from depression may isolate themselves, potentially exacerbating their sense of suspicion and paranoid thoughts. (Garety et al., 2001).

v). Depression and Psychoticism Relationship: Results provided that Depression had a significant positive relationship with psychoticism ($r=.39$ $p>.01$) and significant at .01 level which was supported by earlier research findings that prisoners experiencing severe depression frequently show signs of psychoticism, the stressors of the prison environment, alongside pre-existing mental health issues, can lead depressive inmates to develop psychotic features, including delusions or unusual thought patterns (McGuffin et al., 2005). The study examined psychiatric disorders among prisoners, revealing that psychoticism was more prevalent in individuals with

depression (Fazel & Luntamo, 2005). Depression and psychotic disorders often overlap, particularly in environments marked by social instability and deprivation, like prisons (Tsuang et al., 2002). Prisoners with major depressive disorder are more likely to exhibit psychotic features than the general population, indicating a link between these conditions in incarceration (Trestman et al., 2007).

5). Anxiety relationship with Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism:

The **Anxiety** relation to other dependent variables was computed and demonstrated that:

i). Anxiety and Hostility Relationship: Results provided that Anxiety had a significant positive relationship with Hostility ($r=.54$; $p>.01$) and was significant at the .01 level which was supported by earlier research findings that Inmates exhibiting elevated levels of hostility also demonstrated increased anxiety levels (Vitori et al., 2021). Studies suggest that inmates who have difficulty adapting to the prison environment may face psychological challenges in the form of both anxiety and hostility (Rogers et al., 2022). Another study examining social problem-solving capabilities revealed that among adult male inmates, a negative problem orientation (NPO) was the only factor that predicted both anxiety and depression. NPO encompasses feelings of unease and apprehension when confronted with problems (Mcmurran & Christopher, 2009). Research consistently demonstrates a correlation between anxiety levels and hostile behavior among incarcerated individuals (Luo et al., 2013). Studies indicate that within criminal populations, the anxiety component of the Adult Attachment Scale showed a significant positive correlation with hostile attitudes and various aggressive actions (Esteban-Febres et al., 2019). Research also revealed a notable correlation between aggressive behavior and anxiety disorders among highly violent male prisoners (Værøy et al., 2015).

ii). Anxiety and Phobic Anxiety Relationship: Results provided that Anxiety had a significant positive relationship with Phobic Anxiety ($r=.56$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Research

conducted on incarcerated individuals has shown that anxiety and phobic disorders share a wide range of symptoms, making it challenging to distinguish between different subtypes of anxiety disorders (Oei et al., 1989). Studies indicated a strong link between agoraphobia and anxiety disorders (Oei et al., 1989). Studies identified anxiety sensitivity (AS) as a key factor in flight phobia among prisoners, mediating between physical sensations and fear of flying, and indicating a potential link among different anxiety types, including phobic disorders. (Bogaerde & Raedt, 2010). Research investigating the relationship between panic attacks, phobic anxiety, and anticipated anxiety in incarcerated individuals revealed that panic attacks were associated with both phobic and anticipated anxiety. However, no correlation was found between panic attacks and phobic avoidance (Mavissakalian, 1988).

iii). Anxiety and Paranoid Ideation Relationship: Results provided that Anxiety had a significant positive relationship with Paranoid Ideation ($r=.43$; $p>.01$) and was significant at .01 level which was supported by earlier research findings that in prison populations, anxiety strongly correlates with paranoia, as heightened emotional states often lead to increased threat perception, aggression, and mistrust among inmates (Raine et al., 1995). Anxiety significantly fosters paranoid thoughts among incarcerated individuals due to heightened vigilance and diminished trust in prison social interactions (Lester et al., 2021). Prisoners with high anxiety frequently exhibit paranoid ideation, especially in stressful and fear-inducing environments (Fazel et al., 2016). Anxiety and paranoid ideation are positively correlated in prisoners, with anxiety heightening fears of harm and intensifying suspicious thoughts in reaction to perceived hostility (Brooker et al., 2019). Anxiety levels are strongly correlated with paranoid ideation among male Turkish prisoners, highlighting the impact of elevated emotional arousal on cognitive distortions (Gul et al., 2020).

iv). Anxiety and Psychoticism Relationship: Results provided that Anxiety had a significant positive relationship with psychoticism ($r=.39$ $p>.01$) and was significant at .01 level which was supported by earlier research findings that in offender populations, trait anxiety is closely linked to psychoticism, with anxiety

heightening psychotic thoughts and behaviors during stress, as seen in prisoners (Van Boven & Menzel, 2020). Prisoners with severe anxiety exhibit heightened psychotic symptoms, including delusions and disorganized thinking, highlighting the necessity of dual diagnosis in prison healthcare (Lewis & Heaton, 2013). Anxiety disorders commonly co-occur with psychoticism among prisoners, indicating a shared etiology influenced by chronic stress and environmental factors in prison settings (Fazel & Baillargeon, 2011). Prisoners with high anxiety often exhibit increased psychoticism, mediated by emotional dysregulation and heightened threat sensitivity (Smith & Jones, 2019). Anxiety positively correlates with psychoticism among prisoners, indicating that increased anxiety may worsen maladaptive thought patterns associated with psychoticism (Bonta & Gendreau, 1990).

6. *Hostility relationship to Phobic Anxiety, Paranoid Ideation, and Psychoticism:*

The *Hostility* relation to other dependent variables was computed and demonstrated that:

i). *Hostility and Phobic Anxiety Relationship:* Results provided that Hostility had a significant positive relationship with Phobic Anxiety ($r=.59$; $p>.01$) and significant at .01 level which was supported by earlier research findings that Hostility and phobic anxiety often co-occur among prisoners, possibly indicating an interaction between unresolved anger and incarceration-related fears (Fogel, 1993). The link between hostility and phobic anxiety in prisons underscores the influence of environmental stressors and interpersonal conflicts, emphasizing the necessity for interventions addressing emotional and behavioral regulation (Blaauw et al., 2001). Research indicates that prisoners with higher hostility levels also experience increased phobic anxiety, likely due to the stress and interpersonal conflicts common in incarceration settings (Ahmad & Mazlan, 2014). Prison hostility is positively linked to phobic anxiety, particularly with inadequate coping methods and social isolation, underscoring the reciprocal connection between these emotional states in forensic settings (Hurley & Dunne, 1991). Prisoners with higher hostility levels

experience increased phobic anxiety, intensifying their emotional distress and complicating prison adjustment (Senol-Durak & Gencoz, 2010).

ii). Hostility and Paranoia Relationship: Results provided that Hostility had a significant positive relationship with Paranoid Ideation ($r=.52$; $p>.01$) and was significant at .01 level which was supported by earlier research findings that Hostility often accompanies paranoid ideation, showing a reciprocal relationship where heightened suspicion and distrust lead to aggressive thoughts and actions, frequently observed in prisoners with psychiatric conditions (InPACT 2024 Proceedings, 2024). Individuals with persecutory delusions often exhibit increased hostility, driven by their heightened threat perception and mistrust, which in turn intensifies their paranoid thoughts (Combs et al., 2006). Mediation analysis showed that paranoia predicts hostility through self-directed negative emotions, underscoring their tight link in vulnerable groups (InPACT 2024 Proceedings, 2024). Paranoia is closely linked to externalizing blame and hostility, behaviors that are intensified in institutional settings like prisons (Freeman et al., 2005). Paranoid ideation and hostility form a feedback loop in which defensive anger and aggressive impulses reinforce suspicious interpretations of others' actions (InPACT 2024 Proceedings, 2024).

iii). Hostility and Psychoticism Relationship: Results provided that Hostility had a significant positive relationship with psychoticism ($r=.52$ $p>.01$) and was significant at .01 level which was supported by earlier research findings that provides strong evidence supporting a notable positive correlation between hostility and psychoticism in incarcerated individuals (Hornsveld & Nijman, 2005). Research reveals that aggression strongly correlated with aggression measures, including hostility among prisoners (Archer & Haigh, 1997). Research on incarcerated individuals without prior mental health issues suggests that psychoticism plays a significant role in influencing hostility and other psychological traits (Compton et al., 2008). The relationship between hostility and psychoticism, particularly in forensic populations, is examined as a component of broader personality traits and their link

to aggressive conduct and psychological disorders (Hornsveld & Nijman, 2005). Studies expanded the connection between psychoticism and hostility from correctional facilities to the general public, demonstrating positive correlations between the psychoticism factor and measures of anger and aggressive conduct. (Schill et al., 1987).

7. *Phobic Anxiety relation to Paranoid Ideation, and Psychoticism:*

The Anger relation to other dependent variables was computed and demonstrated that:

i). *Phobic Anxiety and Paranoia Relationship:* Results provided that Phobic Anxiety had a significant positive relationship with Paranoid Ideation ($r=.33$; $p>.01$) and was significant at .01 level which was supported by earlier research findings that paranoid thoughts among prisoners, highlighting that "incarcerated individuals exhibited significantly higher scores on all paranoia measures compared to the control group (Tiegreen & Combs, 2017). The conditions within correctional facilities may foster an increase in paranoid ideation, although the text does not explicitly address phobic anxiety (Darch et al., 2015). The connection between anger and paranoia in forensic populations revealed that "heightened levels of anger were linked to increased paranoid thoughts (Darch et al., 2015). The findings suggest that in prison environments, there may be a connection between emotional conditions like phobic anxiety and paranoid thoughts (Lim & Mankiewicz, 2024).

ii). *Phobic Anxiety and Psychoticism Relationship:* Results provided that Phobic Anxiety had a significant positive relationship with psychoticism ($r=.39$ $p>.01$) and was significant at .01 level which was supported by earlier research findings that prisoners found that those with mental health disorders demonstrated significantly higher psychoticism levels when compared to inmates without psychiatric diagnoses (Chahal et al., 2024). Phobic anxiety suggests a link between psychoticism and mental health disorders in incarcerated individuals (Park et al., 2012) indicating that for those with anxiety disorders, the anxiety subscale scores on the SCL-90-R are strongly positively correlated with other subscales, including psychoticism. Research

suggests a simultaneous occurrence of phobic anxiety and psychoticism symptoms, pointing to a possible link between these conditions in diverse populations, including incarcerated individuals (Koc et al., 2013). Studies revealed notable positive associations between marriage duration and levels of both phobic anxiety and psychoticism among women who entered matrimony at a young age. This suggests a potential link between these variables, which may also be applicable to incarcerated individuals (Manav, 2023).

8. *Paranoid ideation relation to Psychoticism:*

The *Paranoid Ideation* relation to other dependent variables was computed and demonstrated that:

i). ***Paranoid Ideation and Psychoticism Relationship:*** Results provided that Paranoid Ideation had a significant positive relationship with psychoticism ($r=.55$ $p>.01$) and was significant at .01 level which was supported by earlier research findings that Paranoid ideation significantly correlates with psychoticism in forensic psychiatric populations, including prisoners, suggesting a heightened tendency for delusional thinking and aggression among inmates (Hornsveld & Nijman, 2005). Paranoid ideation significantly predicts psychoticism in prison populations, as high paranoia correlates with increased psychotic traits, including irrational behavior and aggression (O'Conner & Casey, 2000). The research indicated a strong correlation between increased psychoticism and the development of paranoid thoughts in prisoners, often leading to extreme distrust, suspicion of others, and psychotic episodes (Cohen & Miller, 2010).

vii). ***On Phobic Anxiety:*** Male samples had a lower prevalence of Phobic female samples with a .01 significant level ($M= 16.76; 21.23; t= 3.18; p > .01$). The finding supports an earlier research finding that indicates that female prisoners are more prone to anxiety-related disorders, including phobias, than male prisoners (**Fazel & Baillargeon, 2011**). Female prisoners exhibited a significantly higher prevalence of anxiety disorders, including phobias, than their male counterparts (68.9% vs. 56.1%)

(Goncalves et al., 2013). Numerous female prisoners possess histories of trauma, including physical and sexual abuse, which may contribute to the development of phobic anxiety disorders (Bloom et al., 2020). Female prisoners frequently experience significant isolation from family and support networks, possibly worsening feelings of fear and anxiety (Sullivan & Steadman, 2021). The environment of prison can be particularly stressful for women, with elevated levels of surveillance and control contributing to phobic anxiety (Hannah-Moffat & Shaw, 2019). Increased phobic disorder in incarcerated women compared to men correlates with abuse and trauma histories (Binswanger et al., 2010; Severson & Postmus, 2020).

viii). On Paranoid Ideation: Male samples had a lower prevalence of Paranoia than Female samples with a .01 significant level ($M = 15.61; 18.35; t = 4.21; p > .01$), The finding got support from earlier research finding that female prisoners have higher rates of mental health disorders, such as borderline personality disorder, depression, and anxiety, often accompanied by paranoid thoughts (Teplin et al., 1996). Women in prison frequently face severe social isolation, either through solitary confinement or due to strained relationships with other inmates and staff, a known risk factor for developing paranoid ideation (Haney, 2003). Female prisoners are highly susceptible to abuse, including sexual exploitation by staff and inmates, leading to pervasive paranoia and the belief that others fear harming them. (Pollock, 2002). Incarcerated mothers often suffer from extreme paranoia, worrying about their children's well-being and the possibility of permanent separation due to their powerlessness and lack of control over their own and their children's lives. (Foster, 2012).

ix). On Psychoticism: Male samples had a lower prevalence of Psychoticism than Female samples with a .01 significant level ($M = 24.62; 27.22; t = 4.20; p > .01$), the finding got the support of earlier research finding that indicates that female prisoners have a higher rate of psychotic symptoms than their male counterparts and the general population, it was estimated that up to 25% of female inmates may exhibit psychotic disorder symptoms which was largely attributed to the elevated rates of pre-existing mental health issues among women prior to their imprisonment (Fazel & Seewald, 2012). Many women in prison have faced trauma, abuse, and difficult childhoods, which were linked to increased occurrences of psychotic symptoms

(Green et al.,2005). Female prisoners who have substance abuse disorders are more likely to experience psychotic symptoms (Baillargeon et al., 2010). The prison environment is typically ill-suited for addressing women's mental health needs, can exacerbate anxiety, depression, and psychosis (van den Bergh et al., 2011). To effectively address psychotic symptoms in female prisoners, it's essential to use gender-sensitive mental health care approaches (Bloom et al., 2003).

Objective -4: To study the ‘gender’ and ‘types of inmates’ independent effect on psychopathological symptoms.

To examine the independent effect of ‘Type of prison’ and ‘gender’ on Somatization, OCD, Depression, Anxiety, Anger, Phobic, Paranoia, and Psychoticism, One-way ANOVA was employed.

Independent Effect of the types of prison:

The results provided that the effect of ‘types of prison’ on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism that

(i) **On Somatization:** The ‘Types of prison’ independently affected 21% on Somatization ($F= 308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that high-security prisons impose stricter controls, increased isolation, and limited social interaction, contributing to psychological stress and somatization (Haney, 2006). Harsh conditions and reduced autonomy in these environments correlate with higher levels of somatic complaints like headaches, gastrointestinal issues, and fatigue (Smith, 2006). In contrast, prisoners in low-security facilities often report fewer somatic symptoms due to greater freedom of movement, program access, and social interaction, which reduce psychological distress (World Health Organization, 2014). Research links solitary confinement to higher risks of somatic symptoms, including cardiovascular problems, sleep disturbances, and chronic pain, driven by stress and sensory deprivation (Grassian, 2006). Overcrowding, prevalent in many prisons, worsens somatization due to limited medical care, poor hygiene, and chronic stress (Fazel & Baillargeon, 2011).

(ii) **On OCD:** The ‘Types of prison’ independently affected 21% on OCD ($F=308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that Prison type influences environmental stress, interpersonal conflict, and restrictions, exacerbating OCD symptoms (Haney, 2006). Maximum-security prisons increase anxiety and compulsive behaviors due to strict surveillance, overcrowding, and limited autonomy. Open or lower-security prisons offer a more supportive environment, reducing OCD symptoms. Highly rigid routines and controls in certain prisons may trigger or reinforce OCD behaviors (Baumeister & Leary, 1995). Higher-security prisons often lack adequate mental health care, leaving OCD symptoms untreated, while lower-security settings provide better access to therapy and support. Social interactions and isolation, varying by prison type, affect coping with intrusive thoughts and compulsions. Greater social support in some prisons may lessen OCD severity (Zimet et al., 1988).

(iii) **On Interpersonal Relations:** The ‘Types of prison’ independently affected 21% on Interpersonal relations ($F=308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that Maximum-security prisons enforce rigid routines and isolation, impeding healthy interpersonal relationships and increasing hostility or withdrawal. Lower-security prisons promote interaction and social support, encouraging cooperation and trust among inmates (Haney, 2006). High-security environments emphasize dominance and competition, straining relationships and fostering conflict. Conversely, less restrictive settings support community-building and prosocial behavior (Sykes, 1958). High-stress conditions in stricter prisons heighten interpersonal conflict and hinder positive relationships, while lower-stress environments enhance emotional regulation and conflict resolution, improving interpersonal relations (Fazel et al., 2016). Access to mental health support and group programs in prisons promotes healthier interactions by developing communication and empathy skills (Kupchik & Snyder, 2009).

(iv) **On Depression:** The ‘Types of prison’ independently affected 21% on Depression ($F=308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings

that Maximum-security prisons' isolation, strict routines, and reduced autonomy lead to higher depression rates compared to low-security prisons, which offer humane conditions, socialization, and recreational opportunities (Haney, 2006). High-security prisons' limited social interaction exacerbates loneliness and hopelessness, while low-security prisons promote interpersonal interaction, buffering against depressive symptoms (Fazel et al., 2016). Prisons prioritizing rehabilitation and mental health services reduce depression rates, whereas under-resourced environments see higher rates (Kupchik & Snyder, 2009). High-security prisons' strict regimentation triggers helplessness, a depression trigger, while open prisons' relaxed rules preserve prisoners' agency, reducing depressive symptoms (Sykes, 1958).

(v) **On Anxiety:** The 'Types of prison' independently affected 21% on Anxiety ($F=308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that prisons that encourage healthy social interactions and provide mental health services, like open prisons, can help alleviate anxiety, while high-security facilities that restrict these opportunities tend to worsen symptoms (Kupchik & Snyder, 2009). Maximum-security prisons often heighten inmate stress due to strict surveillance, limited autonomy, and frequent violence, which can increase anxiety (Haney, 2006; Sykes, 1958). In contrast, low-security prisons with relaxed rules, greater freedom, and less conflict can reduce anxiety by minimizing environmental stressors (Liebling & Arnold, 2004). Overcrowding in high-security facilities further fuels feelings of claustrophobia and uncertainty (Fazel et al., 2016). Additionally, limited control over daily routines in high-security prisons is linked to helplessness and increased anxiety, whereas more autonomy in low-security prisons is associated with lower anxiety levels (Haney, 2006).

(vi) **On Hostility:** The 'Types of prison' independently affected 21% on Hostility ($F=308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that prisons lacking adequate mental health resources experience higher hostility, while those focusing on rehabilitation and mental health support better mitigate hostility by addressing its causes (Kupchik & Snyder, 2009). Maximum-security prisons, marked by limited autonomy, intense surveillance, and strict control, often amplify hostility,

increasing frustration, aggression, and conflicts (Haney, 2006; Sykes, 1958). In contrast, open and low-security prisons, which promote social interaction and rehabilitation, report lower hostility levels and encourage prosocial behaviors, reducing stress-related aggression (Liebling & Arnold, 2004). Overcrowding, common in high-security prisons, exacerbates competition for resources, heightening tension and hostility (Fazel et al., 2016). Hostility in these environments is linked to dominance hierarchies and survival mechanisms, with inmates using aggression to establish dominance or self-protection, perpetuating hostility (Kupers, 1999).

(vii) **On Phobic Anxiety:** The ‘Types of prison’ independently affected 21% on Phobic ($F= 308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that Solitary confinement in high-security prisons significantly increases anxiety and fear, while overcrowding leads to social phobias due to lack of privacy (Fazel et al., 2016). Maximum-security prisons, with confined spaces, limited freedom, and constant surveillance, often worsen phobic symptoms such as claustrophobia, agoraphobia, and social anxiety due to stress-inducing conditions (Haney, 2006; Sykes, 1958). Conversely, low-security or open prisons, by allowing more movement and interaction, reduce phobic triggers and alleviate fear-based disorders through less stressful environments (Liebling & Arnold, 2004). Intimidation and violence in maximum-security prisons exacerbate social interaction phobias. Lower-security environments, with fewer threats, help prisoners build trust and reduce such fears (Kupers, 1999). Prisons that neglect mental health and therapeutic interventions contribute to persistent phobic symptoms, whereas those focusing on rehabilitation by providing counseling and support groups mitigate these symptoms (Kupchik & Snyder, 2009).

(viii) **On Paranoid Ideation:** The ‘Types of prison’ independently affected 21% on Paranoia ($F= 308.63$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that social hierarchies and gang dominance further contribute to inmate paranoia, which is exacerbated in maximum-security settings but lessened in safer, open prisons (Kupers, 1999). Solitary confinement in high-security prisons significantly increases paranoia by depriving inmates of social interaction, reinforcing suspicion and

hypervigilance, whereas lower-security environments counteract these effects through counseling and group activities (Kupchik & Snyder, 2009). Maximum-security prisons, characterized by intense surveillance, strict control, and violent dynamics, often heighten paranoia, causing inmates to feel constantly watched or threatened, thereby increasing mistrust and defensive behavior (Haney, 2006; Sykes, 1958). In contrast, lower-security or open prisons offer more social interaction, autonomy, and reduced stress, mitigating paranoid tendencies and fostering trust and cooperation (Liebling & Arnold, 2004). Overcrowding in high-security facilities intensifies competition for resources, escalating suspicion and hostility (Fazel et al., 2016).

(ix) **On Psychoticism:** The 'Types of prison' independently affected 21% on psychoticism ($F = 308.63$; $\eta^2 = .21$; $p > .01$) which was in line with the earlier findings that high-security prisons' competitive and hostile social environment triggers paranoid ideation and worsens psychotic symptoms, while lower-security prisons' less adversarial dynamics reduce these stressors (Sykes, 1958). Maximum-security prisons' strict surveillance, isolation, and regimentation create high-stress environments that exacerbate psychotic symptoms due to lack of autonomy, violence, and hypervigilance (Haney, 2006), with solitary confinement leading to sensory deprivation and cognitive disorganization (Grassian, 2006). In contrast, open and low-security prisons reduce environmental triggers of psychoticism by offering more freedom, social interaction, structured activities, and therapeutic programs (Liebling & Arnold, 2004). Overcrowding increases stress, contributing to paranoia and delusions, with limited mental health care worsening the issue (Fazel et al., 2016). Rehabilitation-focused prisons are more likely to offer mental health interventions, unlike high-security facilities that may lack sufficient resources, leading to untreated or worsening symptoms (Kupers, 1999).

Independent Effect of Gender:

The results provided that the effect of ‘Gender’ on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism that

i) On Somatization: The ‘Gender’ independently affected 16 % on Somatization ($F= 13.70$; $\eta^2=.16$; $p > .01$) which was in line with the earlier findings that somatic symptoms are more prevalent among female prisoners due to social norms that prioritize physical complaints over psychological ones, discouraging emotional vulnerability in men (Barsky et al., 2001). Unresolved trauma from physical and sexual abuse often manifests physically in women, leading to higher somatization rates (Harner & Riley, 2013). Limited access to gender-specific healthcare in women's prisons exacerbates untreated conditions and somatic complaints, while cultural stigmas may cause underreporting in male prisoners (Fazel & Baillargeon, 2011). Gender roles shape the perception and expression of distress: women externalize psychological pain somatically, while men may suppress symptoms (Nolen-Hoeksema, 2012). Incarceration stress affects genders differently, with women prone to anxiety-related somatic symptoms and men experiencing more internalized distress (Gibbs, 1987).

ii). On OCD: The ‘Gender’ independently affected 32 % on OCD ($F= 94.38$; $\eta^2=.32$; $p > .01$) which was in line with the earlier findings that female prisoners are more likely to exhibit OCD symptoms than male prisoners, often influenced by hormonal differences, anxiety susceptibility, and pre-incarceration trauma (American Psychiatric Association, 2013). Gender-specific issues, such as caregiving concerns or guilt, may worsen OCD in women (Mathis et al., 2011). Male prisoners may display OCD through rigid routines or behaviors related to control and safety, but stigma may lead to underreporting (Browning et al., 2021). Women in prison often have histories of abuse, linked to higher anxiety and OCD, while men may develop OCD from prison violence or isolation (Fazel & Baillargeon, 2011). Women tend to internalize stress, leading to obsessive thoughts, whereas men often externalize stress through aggression, potentially masking OCD (Liebling & Maruna, 2013). Gender

disparities in prison mental health care access affect OCD outcomes, with women's prisons typically offering more resources due to higher reported needs, influencing symptom recognition and diagnosis (Harner et al., 2017).

iii). On Interpersonal Sensitivity: The 'Gender' independently affected 20% on Interpersonal relations ($F = 50.12$; $\eta^2 = .20$; $p > .01$) which was in line with the earlier findings that in male prisons, aggressive masculine norms shape interactions, leading to power struggles and strained social bonds (Sykes, 1958). Non-verbal cues and direct communication establish status and resolve conflicts confrontationally. In contrast, female prisoners form supportive, emotionally bonded relationships, though disruptions cause significant distress (Hannah-Moffat, 2001; Richie, 1996). Gender affects coping mechanisms; men resort to violence or withdrawal, while women form emotional bonds to manage stress, influencing relationships (Daly & Cody, 1998). Sexual dynamics also differ; male prisoners may use aggressive sexual behavior for dominance or coping, while female prisoners may experience relational violence or manipulation (Daly, 1992). Gender-responsive programs addressing emotional and psychological needs benefit female prisoners (Bloom et al., 2003). Male prisoners often require anger management or social skills training to improve interpersonal relations.

iv). On Depression: The 'Gender' independently affected 28% on Depression ($F = 77.01$; $\eta^2 = .28$; $p > .01$) which was in line with the earlier findings that female prisoners report higher rates of depression than male prisoners due to greater trauma and victimization, including sexual abuse, both before and during incarceration. Studies show women in prison often have preexisting mental health issues and are more prone to depression (Teplin et al., 2005). Men, while also affected by depression, are less likely to report or seek help due to cultural norms surrounding masculinity (Kupers, 1999). Women in prison endure higher levels of physical and sexual abuse, correlating strongly with depression and PTSD (Bloom, 1997; Jail Women, 2018). Female prisoners often rely on social support within the prison, which can protect against depression, whereas men may experience emotional isolation, contributing to depressive symptoms (Sykes, 1958). The lack of family and

community ties, more common among men, can heighten isolation and hopelessness, contributing to depression (Haney, 2006). Gender-specific needs, such as reproductive health care and trauma-informed care, are under addressed in male-dominated prison systems, exacerbating depression in women. This neglect in female prison populations leads to untreated or poorly managed depression (Gilfus, 1992; Steadman et al., 2009).

v). On Anxiety: The 'Gender' independently affected 22% on Anxiety ($F= 55.29$; $\eta^2=.22$; $p > .01$) which was in line with the earlier findings that female prisoners experience heightened anxiety due to trauma history, disrupted family roles, and stigmatization, reporting higher rates of depression, anxiety, and PTSD than male prisoners (Bloom et al., 2003). In contrast, male prisoners' anxiety is linked to threats of violence, power dynamics, and maintaining masculinity, with less reporting due to social expectations (Kupers, 2008). Female prisoners' anxiety is shaped by increased physical and emotional vulnerability and isolation from families (Tasca et al., 2014), while male prisons focus on institutionalized violence and competition, triggering anxiety through social hierarchies and conflicts (Haney, 2006). Previous victimization and trauma predispose female prisoners to higher anxiety, exacerbated by the lack of trauma-informed care (Tasca et al., 2014). Despite high trauma levels, male prisoners are less likely to seek help due to mental health stigma, resulting in untreated anxiety (Kupers, 2008). Gender-specific programs addressing mental health, trauma, motherhood, and reintegration reduce anxiety in female prisoners, while male prisoners have fewer specialized services, particularly for emotional regulation and trauma (Covington, 2007).

vi). On Hostility: The 'Gender' independently affected 21% on Anger ($F= 53.14$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that male prisoners often display overt hostility, including physical aggression, due to social norms emphasizing toughness and dominance (Dutton & Hart, 1992). In high-security prisons, they assert power through aggression in violent, hierarchical environments (Sykes, 1958). Female prisoners, despite high hostility levels, internalize it, showing relational aggression, verbal conflicts, or passive resistance rather than overt violence

(Browne, 2000). Women's prison aggression focuses on interpersonal relationships, with less physical confrontation compared to men (Miller & Najavits, 2006). In female prisons, relationships are emphasized, leading to subtle aggression aimed at maintaining social order within close-knit groups. In male prisons, hostile interactions are more overt, reflecting traditional masculinity's emphasis on toughness (Haney, 2006). Male prisoners, socialized to use aggression as a stress and dominance coping mechanism, exhibit more overt hostility, whereas female prisoners, socialized to value emotional expression and relational maintenance, use different coping mechanisms, resulting in less outward hostility (Tannen, 1990). Gender-specific rehabilitative programs are essential; male prisoners may benefit from anger management and de-escalation interventions, while female prisoners need therapeutic programs focusing on healthy relationships and trauma (Chesney-Lind, 2004).

vii). On Phobic Anxiety: The 'Gender' independently affected 21 % on Phobic ($F=50.23$; $\eta^2=.21$; $p > .01$) which was in line with the earlier findings that female prisoners face gender-specific stressors like safety concerns, sexual abuse, and isolation, exacerbating phobic anxiety (Belknap, 2007). These traumas increase their susceptibility to phobic responses. Conversely, male prisoners may internalize anxiety, leading to agoraphobia or social phobia. Masculinity norms discourage them from seeking mental health support, worsening untreated phobic anxiety (Kupers, 1999). In male prisons, hyper-masculine culture stigmatizes emotional vulnerability, deterring prisoners from expressing anxiety or seeking help (Haney, 2006). In female prisons, despite opportunities for emotional expression, challenges related to relationships, sexual abuse, and caregiving roles increase vulnerability to phobic anxiety (Arditti, 2003). Hormonal fluctuations related to menstruation, pregnancy, or postpartum recovery further intensify anxiety symptoms, increasing vulnerability to anxiety disorders (Kuehner, 2017). Men may exhibit anxiety as anger or aggression, often misinterpreted as other psychological issues rather than phobic anxiety (Schneiderman et al., 2005). Gender disparities in mental health care access play a role. Female prisoners have somewhat better access to trauma and anxiety therapy, though often inadequate (Kupers, 1999). Male prisoners lack gender-responsive

mental health services, with their needs frequently overlooked or misdiagnosed as behavioral issues, leading to untreated phobic anxiety (Kupchik & Snyder, 2009).

viii). On Paranoid Ideation: The 'Gender' independently affected 18 % on Paranoid Ideation ($F= 43.04$; $\eta^2= .18$; $p > .01$) which was in line with the earlier findings that male prisoners are more prone to aggressive or violent paranoia due to the competitive and hierarchical nature of prison environments, leading to fears of victimization (Sykes, 1958; Haney, 2006). In contrast, female prisoners' paranoia is often related to social issues, distrust within close relationships, and vulnerability to interpersonal violence, with concerns about betrayal and manipulation (Kupers, 1999). Overcrowded and high-security male prisons amplify paranoid thoughts about violence and exploitation, driven by survival instincts (Fazel et al., 2016). Female prisons, though less violent, expose women to emotional stressors affecting their social standing and safety, but more supportive environments may alleviate these symptoms (Liebling & Arnold, 2004). Gender differences in coping with paranoia include men internalizing their fears, while women are more expressive about relational issues (Fazel et al., 2016). Additionally, male prisoners are less likely to seek mental health help, whereas women may receive more social or therapeutic interventions (Kupers, 1999). Women with histories of sexual abuse and trauma may experience higher rates of paranoid ideation due to mistrust and hypervigilance (Fazel et al., 2016).

ix). On Psychoticism: The 'Gender' independently affected 23% on psychoticism ($F= 57.48$; $\eta^2=.23$; $p > .01$) which was in line with the earlier findings that male prisoners typically face high violence, social dominance, and competition, worsening psychotic symptoms like paranoia, aggression, and delusions due to the hostile and hierarchical prison environment (Sykes, 1958). Female prisoners encounter less overt violence but suffer from trauma-related mental health issues such as anxiety, depression, and PTSD, often leading to psychotic symptoms. Prior abuse among women exacerbates their mental health problems (Covington, 2008). Men display increased psychoticism due to masculine norms emphasizing strength and dominance, resulting in social isolation and aggression (Kupers, 1999). Conversely,

women experience relational trauma and interpersonal conflict, contributing to mental health issues, including psychotic symptoms (Teplin et al., 2005). Gender significantly influences mental health histories in prisoners. Women are more prone to pre-existing mental health issues like mood and anxiety disorders, which the prison environment exacerbates, increasing psychoticism (Fazel et al., 2016). Although men exhibit more antisocial behaviors, they are more vulnerable to psychosis due to stressors unique to male prisons. Treatment and mental health support availability differ by gender. Women's prisons often lack resources for trauma-related mental health issues, leading to higher untreated condition rates, whereas men's prisons may focus more on behavioral control than therapeutic interventions (Liebling & Arnold, 2004).

Objective-5: To study the ‘gender’ and ‘types of inmates’ *interaction effect* on psychopathological symptoms

Two-way ANOVA was employed to assess the Interaction Effect of the ‘Types of Prisoners and Gender’ on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism among the samples.

Results revealed that:

The results provided that the effect of ‘Types of prisoners and Gender’ on Somatization, OCD, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism that

(i) On Somatization: The interaction between 'Types of Prisoners and Gender' had an impact of 28% on Somatization, ($F= 136.03$; $\eta^2=.28$; $p > .01$) which was in line with the earlier findings that Gender significantly impacts somatization among prisoners, with higher rates in female inmates. Women in prison often face greater psychological distress, including somatization, due to trauma, abuse, and gendered power dynamics (Gendreau et al., 2007). Female prisoners exhibit higher somatic complaints, reflecting different coping mechanisms and incarceration experiences (Fazel et al., 2008). Undertrial prisoners experience higher psychological distress,

leading to somatization (Sarkar et al., 2015), while convicted prisoners face somatization from institutional stress (Kinner et al., 2010). Women, particularly those in pre-trial detention or serving sentences for non-violent offenses, exhibit more somatic complaints due to gender-specific stressors (Sarkar et al., 2015). Overcrowding and limited healthcare in prisons exacerbate somatic complaints in both genders, with harsh prison conditions worsening mental health, including somatization (Fazel et al., 2006).

(ii) On OCD: The interaction effect between 'Types of Prisoners and Gender' was 22 % on OCD ($F= 300.77$; $\eta^2 = .22$; $p > .01$) which was in line with the earlier findings indicates that the nature of the crime committed may be linked to the frequency of OCD symptoms among offenders. Violent criminals, for instance, might exhibit distinct psychological characteristics compared to those who commit non-violent offenses (Dvoskin & Grab, 2006). It is important to note the gender-specific manifestations of mental health disorders, particularly OCD. Evidence suggests that men and women may display varying symptoms, employ different coping mechanisms, and respond differently to treatment. Female inmates may encounter gender-specific stressors that could potentially intensify OCD symptoms (Kelsey & Browne, 2020). A review of existing literature reveals that experiences of gender-based violence and trauma can lead to an increased occurrence of mental health issues, including OCD, among incarcerated women (Wright & Tompkins, 2006).

(iii) On Interpersonal Sensitivity: The interaction between 'Types of Prisoners and Gender' had affected 24% on Interpersonal relations ($F= 343.05$; $\eta^2 = .24$; $p > .01$) which was in line with the earlier findings has demonstrated that the nature of an offense impacts relationships between inmates. For example, those who commit violent crimes may encounter more interpersonal challenges, whereas non-violent offenders tend to develop more collaborative connections (Toch, 1997). The social dynamics within prisons are shaped by factors such as the surrounding environment and established power structures among various prisoner groups, including the influence of gang affiliations and protective associations (Simpson, 2010). The

formation of social networks and support systems in correctional facilities is also affected by gender. Female prisoners typically exhibit distinct patterns of interpersonal relationships compared to their male counterparts (Schenker & McDaniel, 2013). Studies suggest that women often place a higher value on relationships and display greater empathy, creating supportive environments among female inmates (Covington, 2002). It is worth examining how male prisoners may engage in more competitive and aggressive behaviors, influencing their interactions and perceptions of bonds, and how this differs from the dynamics observed among female inmates (Hurst, 2012).

(iv) On Depression: The interaction between 'Types of Prisoners and Gender' had affected 15% on Depression ($F= 190.55$; $\eta^2=.15$; $p > .01$) which was in line with the earlier finding suggests a correlation between specific criminal behaviors and varying levels of depression. Violent offenders, for instance, may experience higher rates of depression due to the psychological consequences of their actions and the stressors associated with incarceration (Fazel & Danesh, 2002). Factors such as isolation, overcrowding, and inadequate treatment in prison environments disproportionately impact different types of inmates, resulting in increased depression rates (Haney, 2006). Women often exhibit higher rates of depression, influenced by factors like trauma, systemic gender-based discrimination, and interpersonal relationships (Tatum, & Thompson, 2009). Evidence indicates that female prisoners have a higher prevalence of diagnosed depression compared to their male counterparts, often attributed to differing life experiences and societal expectations (Kemp, & Razali, 1999). The impact of past trauma, such as abuse or violence, on mental health is more pronounced in female prisoners than in males, contributing to elevated depression rates (Covington, 1998).

(v) On Anxiety: The interaction between 'Types of Prisoners and Gender' had affected 31% on Anxiety ($F= 66.22$; $\eta^2=.31$; $p > .01$) which was in line with the earlier findings indicates that the nature of the crime committed affects anxiety levels in offenders. For example, those convicted of violent offenses may experience increased anxiety due to isolation and perceived threats within the prison

environment (Gonzalez & Sullivan, 2010). Factors such as prison conditions, overcrowding, and insufficient mental health resources contribute to elevated anxiety among inmates, particularly violent offenders (Hannover, 2011). The manifestation of anxiety differs between male and female prisoners. Women may experience anxiety related to past trauma or relationship issues, while men might express anxiety through aggressive behavior and conduct problems (Blitz, & Wolfe, 2009). Research suggests that female inmates tend to have higher anxiety levels compared to their male counterparts, often stemming from traumatic experiences, relationship challenges, and the stress of imprisonment (Tatz, & McCarthy, 2007). The prevalence of trauma histories among female prisoners contributes to their increased anxiety levels. In contrast, male prisoners may grapple with anxiety related to distinct social dynamics and competitive environments (Hannah-Moffat & Shaw, 2000).

(vi) On Hostility: The interaction between 'Types of Prisoners and Gender' had affected 29% on Hostility ($F= 552.31$; $\eta^2=.29$; $p > .01$) which was in line with the earlier findings that the level of hostility exhibited by inmates can vary based on their offense type. For example, those convicted of violent crimes may display more aggressive behavior, influenced by their personal history and the stress of confinement (Siegel, 2016). Additionally, the security level of the correctional facility can impact hostile conduct among various prisoner categories (Hannover & Möller, 2015). Gender also plays a role in how hostility is expressed. Studies indicate that male inmates tend to show more direct aggression, while female inmates might resort to relational aggression or social manipulation to express hostility (Schaefer & Latzman, 2020). In female prisons, unique social dynamics, such as rivalry for resources or status, can foster hostile behavior. In contrast, male inmates are more likely to engage in direct, confrontational hostility (Bloom, 2003). Furthermore, the interplay between offense type and gender contributes to variations in hostile behavior. For instance, female violent offenders may exhibit a distinct form of hostility compared to their male counterparts, influenced by societal expectations and norms (Cohen & Piquero, 2009).

(vii) On Phobic Anxiety: The interaction between 'Types of Prisoners and Gender' had affected 27 % of Phobic anxiety ($F= 427.96$; $\eta^2=.27$; $p > .01$) which was in line with the earlier findings indicates that various categories of inmates, including those convicted of violent and non-violent crimes, may experience differing degrees of phobic anxiety based on their individual histories and circumstances (Mason, 2009). The prison environment itself, characterized by issues such as overcrowding, limited personal space, and restricted movement, can intensify phobic anxiety, particularly among distinct inmate groups (Fazel & Danesh, 2002). Gender also plays a role in how phobic anxiety manifests and its prevalence within correctional facilities. Studies show that incarcerated women tend to report higher rates of anxiety disorders compared to their male counterparts, which may be attributed to varying social factors and trauma-related experiences (Blitz, 2006). Female prisoners often encounter unique social dynamics that can contribute to heightened phobic anxiety, such as concerns about violence or social isolation. These experiences can result in anxiety manifestations specific to their gender-related incarceration experiences (Van Olphen & Gilbert, 2010). The interplay between inmate classification and gender may give rise to distinct forms of phobic anxiety. For instance, male inmates convicted of violent offenses might develop situational phobias related to dominance and aggression, while female non-violent offenders could experience phobias associated with interpersonal dynamics and personal safety (Davis, 2018).

(viii) On Paranoid ideation: The interaction between 'Types of Prisoners and Gender' had affected 25 % of Paranoia ($F= 360.48$; $\eta^2= .25$; $p > .01$) which was in line with the earlier findings that various categories of inmates, including those who have committed violent and non-violent crimes, show differing degrees of paranoia based on their personal histories, encounters, and the specifics of their crimes (Fazel & Danesh, 2002). Conditions within prisons, such as overcrowding, violent incidents, and insufficient mental health support, can intensify paranoid thoughts and actions among prisoners, particularly in certain offender types who might already be susceptible to such feelings (Hannover & Möller, 2015). The manifestation of paranoid symptoms can differ between male and female inmates, with women potentially experiencing paranoia more closely tied to interpersonal

dynamics and past traumatic experiences (Morrissey, 2003). Female prisoners may exhibit higher levels of paranoia due to histories of violence or trauma, which can influence their perception of interactions within the prison setting (Van Olphen, & Gilbert, 2010). The interplay between prisoner classification and gender contributes to paranoia. For example, male inmates convicted of violent offenses may experience paranoia related to issues of dominance and personal safety, while female prisoners might have specific paranoid thoughts concerning interpersonal relationships and potential victimization (Davis, 2018).

(ix) On Psychoticism: The interaction between 'Types of Prisoners and Gender' had affected 30 % of psychoticism ($F= 585.01$; $\eta^2=.30$; $p > .01$) which was in line with the earlier findings that Psychotic symptoms may vary in intensity and nature among diverse inmate populations, such as those convicted of violent crimes versus non-violent offenses (Fazel & Danesh, 2002). The conditions within correctional facilities can intensify psychotic manifestations, especially for inmates predisposed to such disorders based on their criminal history. Environmental factors including overcrowding, solitary confinement, and heightened stress levels can magnify psychotic experiences (Hannover & Möller, 2015). Women in prison often have more extensive histories of trauma, which may be linked to the emergence of psychotic symptoms. The distinct social challenges faced by incarcerated females could further aggravate these symptoms (Bloom & Covington, 2008). It is important to investigate how psychotic symptoms might present differently in male and female prisoners, with variations frequently influenced by social dynamics, past trauma, and emotional expression (Hannah-Moffat, 2001). The interplay between offense type and gender impacts psychotic symptoms. For example, male inmates convicted of violent crimes might experience psychotic symptoms related to dominance and aggression, while female offenders may display symptoms associated with relational trauma and mistreatment (Davis, 2018).

SUMMARY AND CONCLUSION:

First Objectives was to study the prevalent psychopathological symptoms among the samples. The results of the study evinced that undertrial prisoners were higher on all of those psychological symptoms which confirmed hypothesis -1 as expected

Second objective was to examine the prevalence of psychopathological symptoms between male and female, and demonstrated that male and females were higher than male prisoners on all of the psychopathological symptoms and significant at .01 levels which confirmed hypothesis -2 as expected.

Third objectives was to study the relationship between the psychopathological symptoms among the samples, and the results demonstrated that all psychopathological symptoms were positively related but negative relationship with interpersonal sensitivity, and hostility and depression which showed that the high prevalence of one psychopathological symptom can invited occurrence of others among prisoners which accepts the hypothesis -3

Fourth Objective was designed to study the 'gender' and 'types of inmates' independent effect on psychopathological symptoms. The 'gender' and 'types of inmates' independent effect on psychopathological symptoms which demonstrated the significant independent effect of 'gender' and 'types of inmates' on all psychopathological symptoms among the prisoners which accepts the hypothesis – 4.

Fifth Objective was designed to study the 'gender and types of inmates' interaction effect on psychopathological symptoms. The 'gender and types of inmates' interaction effect on psychopathological symptoms were found on all psychopathological symptoms and significant at .01 levels which accepts the hypothesis – 5.

Limitations of the study and suggestions

The very nature of the topic under study brings forth certain limitations, although, it was conducted with utmost care.

Samples were taken from the prison setting; all were living together in a limited space and facilities with strict rules. So, an environment free from destruction was

not affordable inside the jail even due care was tried to maintain. All the psychological measures demands a quiet and isolated environment for conduction. Though special care and effort were made, an ideal environment free from distraction could not be fully maintained. However, the participants could perform and complete the test without much difficulty.

The present study employed standardized psychological test which may not contained some psychopathological symptoms and may not included in the findings.

The samples size of the study was not big enough to represent for making generalization about the prisoners.

The present study did not observed the effect of demographic factors on psychopathology rather control not to influenced the independent and dependent variables.

The study inability to included some psychological variables such as personality, intelligence were not included in the study which would contribute to insightful effect on psychopathology.

Suggestions for future study

Based on the limitation faced in the study, some suggestions were made below for future research: -

Inclusion of a bigger sample would provide more information with and indept understanding about the couses of psychopathology.

Addition of physiological measurement would help to get more information related to an independent and dependent relationship.

Inclusion of demographic factors can enrich information about the factors of psychological functions among inmates.

Inclusion of some more psychological variable as independent or dependent variables would contribute more information.

Inclusion of qualitative study is suggested for future research to extract an in-depth information, which otherwise may not be feasible in quantitative studies.

Employing psychological measures tapping on externalising behavior might show a better picture of prisoner's emotional state.

Significant of the study:

To the best of my knowledge, this study is one of the first in-depth, large-scale studies that investigated psychological problems among the jail inmates who were convicted and under-trial prisoners from Central Jail, Aizawl in Mizoram.

Though some limitations were met in the conduction of the study, still it contributed insightful information about the prevalence of the psychopathological symptoms of prisoners related to Somatization, OCD, Interpersonal, Depression, Anxiety, Anger, Phobic, Paranoia, and Psychoticism, gender difference, types of prisoner differences, the relationship between the nine psychopathological symptoms among the prisoners. Overall results highlighted the prevalence of psychopathological symptoms among the prisoners with more attention to be paid to the under-trial prisoners which may deteriorate their psychological function.

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