SUBSTANCE ABUSE AND SUICIDE RISK BEHAVIOR AMONG YOUTH SEEKING PSYCHIATRIC SERVICES FROM PSYCHIATRY DEPARTMENT, AIZAWL

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DECLARATION

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JUNE, 2014

I, K.Lalmuanpuii, hereby declare that the subject matter of this dissertation is the record of the work done by me, that the contents of this dissertation 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 dissertation has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to Mizoram University for the degree of **Master of Philosophy** in **Social Work.**

Date: 30th June, 2014
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CERIFICATE

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This is to certify that the dissertation "Substance Abuse and Suicide Risk Behavior Among Youth Seeking Psychiatric Services From Psychiatry Department, Aizawl", submitted by Ms K.Lalmuanpuii for the award of Master of Philosophy in Social Work is carried out under my guidance and incorporates the students bonafide research and this has not been submitted for award of any degree in this or any other University or Institute of learning.

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(K.LALMUANPUII)

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LIST OF ABBREVIATIONS

ADCA	-	Assam Drug Control Act
ADHD	-	Attention Deficit Hyperactivity Disorder
AIMSR	-	Adesh Institute of Medical Sciences and Research
CHC	-	Community Health Centre
CYMA	-	Central Young Mizo Association
DAMS	-	Drug Abuse and Monitoring System
DSH	-	Deliberate Self Harm
DSM IV	-	Diagnostic and Statistical Manual of Diseases IV
DUI	-	Driving under Influence (of alcohol/substance)
FGD	-	Focus Group Discussion
GoM	-	Government of Mizoram
HIV/AIDS	-	Human Immune Virus/Acquired Immune Deficiency Syndrome
HMO	-	Health Maintenance Organization
ICD 10	-	International Classification of Disease 10
IDU	-	Injecting Drug Use
IKK	-	Isua Krista Kohhran
IPD	-	In - Patient Department
MD	-	Doctor of Medicine
ME	-	Mizoram Excise
MLTP	-	Mizoram Liquor Prohibition Act
ND&PS	-	Narcotic Drugs And Psychotropic Substances(Act)
NFHS	-	National Family Health Survey
OCD	-	Obsessive-Compulsive Disorder

OPD	-	Out - Patient Department
PHC	-	Primary Health Centre
RCC	-	Reinforced Cement Concrete
RSA	-	Rapid Situation Assessment
RSRA	-	Rapid Situation and Response Assessment
STI	-	Sexually Transmitted Infection
UN	-	United Nation
UNESCO	-	United Nations Educational, Scientific and Cultural Organization
UNODC	-	United Nations Office on Drugs and Crime
UPC	-	United Pentecostal Church
WHO	-	World Health Organization

CHAPTER 1

INTRODUCTION

The study attempts to understand Substance Abuse and Suicide Risk Behavior among youth attending Psychiatric Services at Psychiatry Department, Kulikawn Hospital, Aizawl. The diagnosis of central interest is abuse of and dependence on alcohol and drugs. *Substances* considered in this study will include alcohol, prescription medication such as analgesics, sedatives, tranquilizers and stimulants and illicit drugs like marijuana and hashish, inhalants, hallucinogens, and heroin.

1.1 Youth: *Youth* is defined as a period of transition from the dependence of childhood to the independence of adulthood and awareness of our interdependence as members of a community. Youth is a more fluid category than a fixed age-group (UNESCO). The UN, for statistical consistency across regions, defines 'youth', as those persons between the ages of 15 and 24 years, without prejudice to other definitions by Member States. The definition given by the National Youth Policy 2003 refers to youth as persons between the ages of 13-35 years however the Juvenile Justice (Care and Protection of Children) Act, 2006 refers to children as those below the ages of 18 years. *In this study youth refers to persons between the ages of 15-35 years and will be included as respondents.* Definitions of the specific age range that constitutes youth vary. An individual's actual maturity may not correspond to their chronological age, as immature individuals can exist at all ages. *Youth* is also defined as "the appearance, freshness, vigor, spirit, etc., characteristic of one who is young" (Merriam Webster Dictionary). **Youth** is the time of life when one is young, but often means the time between childhood and adulthood (Macmillan Dictionary). The transition to adolescence leads to needs for independence, identity formation and acceptance by peers. All of these contribute to risk-taking behaviors, suicidal ideation

and suicidal behavior. Adolescence is a challenging period of cognitive, biological, physiological and psychological transition.

1.2 Substance Abuse: Use of alcohol and other drugs is an important health issue; studies find high problem rates across gender, ethnic, and socioeconomic groups. In recent years consumption of licit (tobacco and alcohol) and illicit (heroin, cocaine) substances has increased greatly throughout the world. Particularly disturbing is the fact that the age of initiation into substance **abuse** is progressively falling. Early initiation of alcohol and drug use is usually associated with a poor prognosis and a lifelong pattern of deceit and irresponsible behavior. Adolescents are more likely to be involved in tobacco and alcohol abuse. Some of them progress to regular use of illicit drugs like cannabis and opioids. For many adolescents involvement with substances of abuse may be short lived and may have no psychosocial or medical consequences. In other cases it may lead to dependence and serious disability. Though substance abuse usually starts during adolescence, children and adolescents are rarely referred to psychiatric services for necessary intervention. Whenever treating a child or adolescent for behavioral problems substance abuse should be suspected (Tripathi, Lal, 1999). According to the World Health Organization (WHO) substance abuse is persistent or sporadic drug use inconsistent with or unrelated to acceptable medical practice.

1.2.1 Abuse: Abuse is defined as the persistent (at least one month) or 1) repeated occurrence of either continued use despite knowledge of having social, occupational, psychological, or physical problem caused or exacerbated by use of the substance or 2) recurrent use in situation in which use is physically hazardous.

(Maurizio Pompili, 2002). Substance use disorders are divided into two categories: Substance Abuse and Substance Dependence. Both refer to maladaptive patterns of substance use that lead to significant impairment or distress.

People who abuse substances may:

- Fail to fulfill major role obligations (e.g., poor work performance or repeated absences from work or school, neglect of children or household)
- Use substances in situations that are physically hazardous (e.g., driving an automobile or operating machinery when impaired by substance use).
- Experience substance-related legal problems (e.g., substance-related disorderly conduct, Driving Under Influence of alcohol etc) (DSM IV, 2000).

Continue to use substances despite having persistent or recurrent social or interpersonal problems caused or worsened by the effects of substances (e.g., arguments or physical fights) (American Psychiatric Association, 2000).

A maladaptive pattern of substance use leading to clinically significant impairment or distress is manifested by one or more of the following, occurring within a 12-months period:

- Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g. repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household).
- Recurrent substance use in situations in which it is physically hazardous (e.g. driving an automobile or operating a machine when impaired).
- Recurrent substance-related legal problems (e.g. arrests for substance-related disorderly conduct).

• Continued substance use despite persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g. arguments with spouse about consequences of intoxication, physical fights) (DSM-IV).

1.2.2 Dependence: Is defined as the persistent or repeated occurrence of at least 3 or more of the following symptoms persisting for period of less than 1 month or should have occurred together repeatedly within 12 months period, such as unsuccessful attempts to control use, physiological withdrawal state, persistent use despite clear evidence of harmful consequences (International Classification of Diseases-10, WHO). **People who are dependent upon substances may also:**

- Take substances in a larger amount or over a longer period of time.
- Want to cut down or control substance use, but may be unable to do so.
- Spend a lot of time and effort doing whatever is necessary to obtain the substance or recovering from the negative effects of using the substance.
- Give up or reduce social, occupation, or recreational activities because of substance use.
- Continue to use the substance despite awareness of physical or psychological problems that are either caused or worsened by substance use.

In summary, people who abuse substances likely experience negative consequences associated with substance use. People who are dependent upon a substance likely experience tolerance or withdrawal, and exhibit a pattern of compulsive substance use (American Psychiatric Association, 2000).

A maladaptive pattern of substance use leading to clinically significant impairment or distress is manifested by three or more of the following, occurring at any time in the same 12-months period:

• Tolerance, as defined by either of the following:

• A need for markedly increased amounts of the substance to achieve intoxication or desired effect.

• Markedly diminished effect with continued use of the same amount of the substance.

• Withdrawal, as manifested by either of the following:

• The characteristic withdrawal syndrome for the substance.

• Taking the same (or a closely related) substance to relieve or avoid withdrawal symptoms.

• Taking the substance often in larger amounts or over a longer period than was intended.

• Having a persistent desire or unsuccessful efforts to cut down or control substance use (DSM-IV).

1.2.3 Abuse and Dependence are defined as mutually exclusive so that a respondent who meets criteria for both abuse and dependence as having dependence but not abuse (Guilherme Borges et al., 2000).

1.3 Suicide*: Theoretical framework*

Durkheim's Suicide Theory:

(1) Anomic suicide: This type of suicide is due to certain breakdown of social equilibrium, such as, suicide after bankruptcy or after winning a lottery. In other words, anomic suicide takes place in a situation which has cropped up suddenly.

(2) Egoistic suicide: According to Durkheim, when a person becomes socially isolated or feels that s/he has no place in the society s/he destroys himself. This is the

suicides of self-centred persons who lacks altruistic feelings and are usually cut off from main stream of the society.

(3) Altruistic suicide: This type of suicide occurs when individuals and the group are too close and intimate. This kind of suicide results from the over integration of the individual into the society.

(4) Fatalistic suicide: This type of suicide is due to overregulation in society.

1.3.1 Suicide: Suicide, also known as completed suicide, is the "act of taking one's own life" (Stedman's Medical Dictionary 28th Edition, 2006). Suicide sometimes referred to as 'completed suicide' can be defined as "death arising from an act inflicted upon with the intent to kill oneself" (Pompili 2000). **Suicide** (Latin *suicidium*, from *sui caedere*, "to kill oneself") is the act of intentionally causing one's own death. Suicide is often committed out of despair, the cause of which is frequently attributed to a mental disorder such as depression, bipolar disorder, schizophrenia, borderline personality disorder, alcoholism, or drug abuse (Paris J, June 2002). Stress factors such as financial difficulties or troubles with interpersonal relationships often play a role. Efforts to prevent suicide include limiting access to firearms, treating mental illness and drug misuse, and improving economic development (Hawton K, 2009).

1.3.2 Assisted Suicide: Assisted suicide is when one individual helps another bring about their own death indirectly via providing either advice or the means to the end. This is in contrast to euthanasia, where another person takes a more active role in bringing about a person's death (Gullota, 2002).

1.3.3 Suicidal ideation: Suicidal Ideation is defined as self-reported thoughts of engaging in suicide related behavior. Specifically, suicide-related ideations are *divided into those with suicidal intent, those without suicidal intent, and those with undetermined suicidal intent*; each of those categories is further divided into five types of ideations (casual, transient, persistent, active, and passive) (John A. Spaulding 1951). Suicidal ideation is thoughts of ending one's life but not taking any active efforts to do so (Krug, Etienne, 2002).

1.3.4 Suicide attempt: Attempted suicide or non-fatal suicidal behavior is self-injury with the desire to end one's life that does not result in death (Krug, Etienne, 2002).

1.3.5 Suicide Risk Behavior: Potentially self injurious behavior for where there is evidence, either implicit or explicit, that a person did not intend to kill himself/herself or the person wished to use the appearance of intending to kill him/her in order to attain some other help. The person's intention therefore may or may not be to die but to achieve some other goal (Wagner BM, 2009). In a study by Shafter et al (1996) of 120 adolescent suicides, substance or alcohol abuse was almost invariably associated with either a mood or disruptive disorder, or both.

The cause of a complex outcome such as suicidal behavior actually consists of a constellation of components that act together, which varies from one individual to another. From an epidemiologic perspective, and taking into account the distinctive feature of antecedent occurrence, risk factors can be organized within a framework that differentiates between distal and proximal exposures. Distal risk factors represent the foundation upon which suicidal behavior is built. They represent a threshold that

increases individual risk for later vulnerability to proximal risk factors. Distal risk factors are not limited to suicide, but can produce multiple adverse physical and mental health outcomes. Their relationship to suicide is fundamental but indirect; they are considered necessary, but not sufficient, for suicide to occur (Moscicki 1997).

1.3.6 Deliberate Self-Harm (DSH): Both fatal and non-fatal, is a challenging public health issue. Although various terms like ‘attempted suicide’, ‘deliberate self-injury’ and ‘parasuicide’ are used, the most accepted term in the recent times to describe such behavior is ‘Deliberate Self-Harm’ (DSH), which is defined as ‘self-poisoning or injury, irrespective of the purpose of the act’.

Approximately 20% of suicides have had a previous attempt and of those who have attempted suicide 1% complete suicide within a year (Chang, B, 2011).

Substance abuse is the second most common risk factor for suicide after major depression and bipolar disorder (Perrotto, Jerome D, 2001).

Both chronic substance misuse as well as acute intoxication is associated. When combined with personal grief, such as bereavement, the risk is further increased. Additionally substance misuse is associated with mental health disorders (Vijaya Kumar, 2011).

Most people are under the influence of sedative-hypnotic drugs (such as alcohol or benzodiazepines) when they commit suicide (Youssef NA, Rich CL, 2008).

About 2.2–3.4% of those who have been treated for alcoholism at some point in their life die by suicide (Sher, L, 2006).

Between 3% and 35% of deaths among those who use heroin are due to suicide (approximately 14 fold greater than those who do not use) (Darke S, 2002).

The misuse of cocaine and methamphetamines has a high correlation with suicide. In those who use cocaine the risk is greatest during the withdrawal phase (Jr. Frank J, 2000).

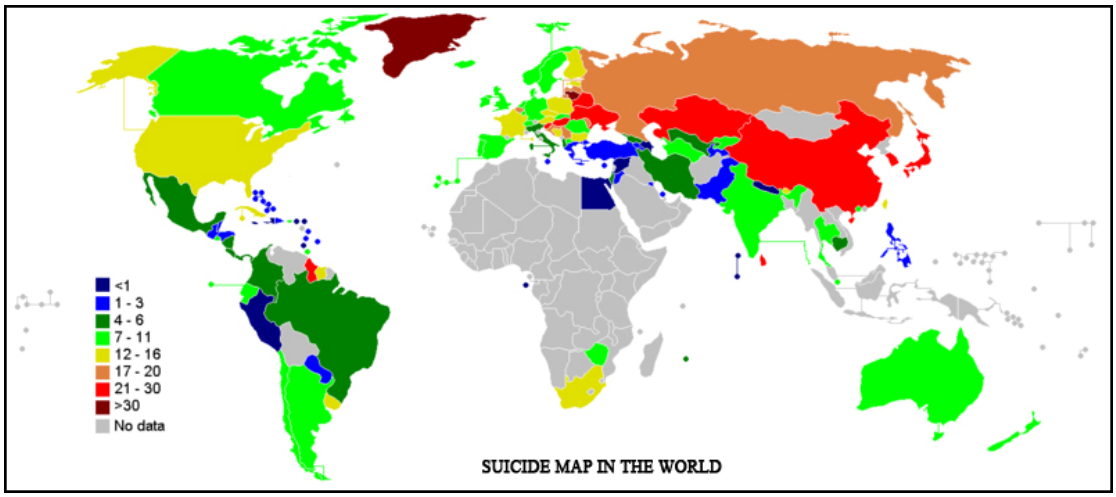
Those who used inhalants are also at significant risk with around 20% attempting suicide at some point and more than 65% considering it (Vijaya Kumar, L, 2011).

Globally, as of 2008/2009, suicide is the tenth leading cause of death (Hawton K, 2009).

1.4 Suicide in the World: Globally as of 2008/2009, suicide is the tenth leading cause of death. (Hawton K, 2009) Rates of suicide have increased by 60% from the 1960s to 2012, with these increases seen primarily in the developing world (WHO *Suicide Prevention* 2012).

Suicide rates differ significantly between countries and over time (Varnik, P 2012). As a percentage of deaths in 2008 it was: Africa 0.5%, South-East Asia 1.9% Americas 1.2% and Europe 1.4%. Rates per 1,00,000 were: Australia 8.6, Canada 11.1, China 12.7, India 23.2, United Kingdom 7.6, United States 11.4 (WHO 2013). It is ranked as the 10^{th} leading cause of death in the United States in 2009 at about 36,000 cases a year, with about 6,50,000 people seen in emergency departments yearly due to attempting suicide. The country's rate among men in their 50's rose by nearly half in the decade 1999–2010. Lithuania, Japan and Hungary have the highest rates. The countries with the greatest absolute numbers of suicides are China and India accounting for over half the total. In China suicide is the 5^{th} leading cause of death.

Fig 1.1: Suicide in the world.

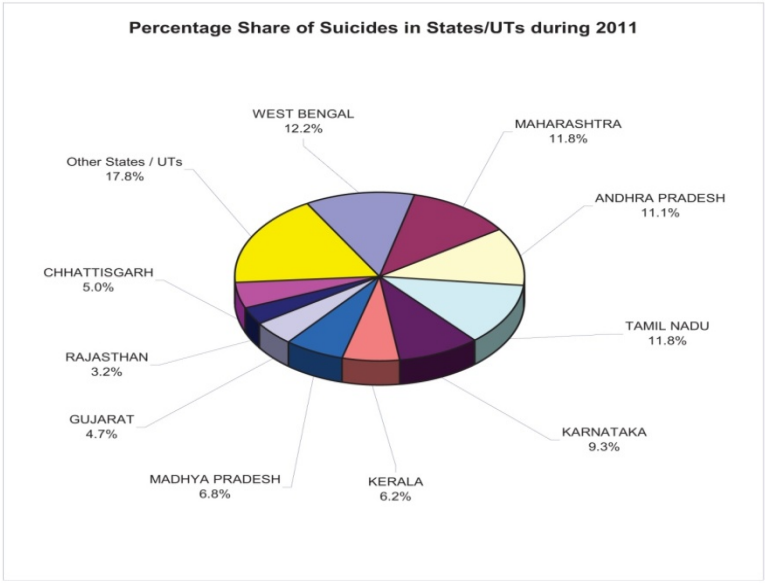


(Source: WHO 2011)

1.4.1 Suicide in India: Tamil Nadu, Maharashtra, West Bengal, Andhra Pradesh and Karnataka are States with higher percentage share of suicide during 2012

In the year 2008, there were 125019 number of suicides, in 2009 there were 17131, in 2010 there were 134599, in 2011 there were 135585 and 135445 suicides in 2012 (The Registrar General of India).

Fig. 1.2: Percentage Share of Suicides in States/UTs during 2011



(Source: Indian Crime Records Bureau, 2012)

1.4.2 Suicide in Mizoram: According to Mizoram Statistical Handbook, the birth rate in Mizoram is 21.45% and the death rate is 6.28%. (April 2012 – March, 2013). Suicide cases are increasing year by year in Mizoram (Police Department, 2011). According to the 24 completed suicide cases studied by the Department of Psychiatry, Health Department, Government of Mizoram the most common co-morbid problem in *suicide completers* is depression, followed by psychoactive substance use and relationship problems with spouse.

As statistics from the Psychiatry Department reveal that in 2011 alone the number of suicide completers had the following profile.

Means of suicide in all 16 cases: Hanging

Table 1.1: Suicide scenario in Aizawl.

1.	**Gender**	
	Male	12
	Female	4
	Total	16
2.	**Marital Status**	
	Single	9
	Married	3
	Divorce	1
	Separate	2
	Widow/Widower	1
3.	**Mention of suicide idea Prior to Suicide completion**	
	Present	8
	Nil	8
4.	**Had history of suicide attempt**	
	Present	6
	Nil	10
5.	**History of substance abuse**	
	Alcohol (only)	5
	Multiple substance abuse (Alcohol and others)	1
	Had history of substance abuse other than alcohol but presently drinking alcohol	1
	Had no history of substance abuse	6
	Others (dendrite)	1
6.	**Intoxicated at the time of suicide**	
	Intoxicated	6
	Not intoxicated	7
	Not known	3

(Source: Psychiatry Department, 2011)

The above study of suicide completers clearly indicates the magnitude of the problem and the seriousness of intoxication during suicide attempt (completion). Since other substance abuse was not studied the present study attempts to understand the pattern of substance abuse and its relationship to suicide risk behavior.

1.5 Suicide and Substance Abuse: Adolescents who abuse substances have higher prevalence of psychosocial problems compared with the general adolescent population. According to the World Health Organization, suicide is the third leading cause of death among those aged 15–24, after car accidents and cancer. Additionally, suicide attempts represent the main reason for referral to child and adolescent psychiatric emergency services despite the fact that suicide mortality in middle-aged and older persons has recently decreased.

1.5.1 Substance Abuse in India: In Uttar Pradesh, Dube and Handa reported that 22.8 per 1000 were dependent on alcohol and drugs while Thacore from Lucknow gave a figure of 18.55 per 1000 (KC & SK, 1971).

The Important finding of these studies is that alcohol was the commonest substance used (60-98%) followed by cannabis use (4-20%). Epidemiological surveys also revealed that 20-40% of subjects above 15 years are current users of alcohol and 10% of them are regular or excessive users. In a rural population of Uttar Pradesh alcohol was found to be the commonest substance abused (82.5%) followed by cannabis (16.1%) (KC et al., 1979). Varma et al found that rates of current use of alcohol in Punjab were 45.9% in Jalandhar and 27.7% in Chandigarh whereas it was 28.1% in rural areas of Punjab. Shukla reported that 38.3% of the rural population in Uttar Pradesh was habitual substance users. In a study conducted in rural community

in Bihar prevalence of alcohol/drug use was found to be 28.8% of the study population (Jena R, Shukla TR, Hemraj P, 1996).

Alcohol is the most common used substance in states like Andhra Pradesh, Assam, Bihar, Goa, Gujarat, Haryana, Jammu and Kashmir, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Meghalaya, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal, Chandigarh, Orissa, Pondicherry and Himachal Pradesh. **Heroin** is the most common substance used in Manipur and Delhi. **Opium** is the most common used substance in Punjab and Rajasthan. **Propoxyphene** is the most common used substance in Mizoram and Nagaland (Drug Abuse Monitoring System, 2000).

1.5.2 Substance Abuse in the Northeast: Chewing betel nuts with the leaves of the betel plant and lime paste, and smoking tobacco constitute the two most common traditional forms of substance use in almost all the Northeastern states of India. Most of these states also witness cannabis smoking, drinking of home-brewed rice beer and a limited use of opium in traditional tribal societies. Sipping nicotine water (known as Tuibur or hidakphu) and eating fried vegetables cakes (locally known as baras) prepared with cannabis leaves as one of the ingredients are two other examples of traditional use of psychotropic substances in this region. Alcohol is the most commonly used substance in all states, except Mizoram. In the Northeast, in Assam, Meghalaya and Tripura, treatment centre attendees seek help mainly for problem alcohol use. Although the sale of alcohol is prohibited in Manipur, Mizoram and Nagaland, alcohol users are the second largest group seeking treatment services in these states, after opioids users. Drug trafficking across the common border of Myanmar and the eastern most three northeastern states of India (Manipur, Mizoram and Nagaland) occurs with ease. Production and drug trafficking in Northeastern India

are the illicit cultivation of opium and cannabis, the smuggling of heroin and amphetamines into Northeast India from Myanmar, trafficking of pharmaceuticals such as dextropropoxyphene and codeine containing cough syrup from other parts of the country and smuggling to neighboring countries and trafficking of ephedrine and pseudo-ephedrine precursors for the manufacturing of amphetamines from India to Myanmar. (National Survey on the Extent Pattern and Trends of Drugs Abuse in India, 2004).

1.5.3 Substance Abuse in Mizoram: The introduction of synthetic drugs and intravenous drug use leading to HIV/AIDS has added a new dimension to the problem, especially in the Northeast states of the country. Drug-related deaths were first detected in Mizoram in 1984 with 17 people losing their lives till 1990–all of them due to abuse of heroin and most of them belonging to affluent families.

The first death due to abuse of Spasmoproxyvon, a prominent pain killer, was detected in 1991 and the number increased year by year touching 1,050 till date since then.

According to the records maintained by the state excise and narcotics department, 1133 people including 115 women have died due to abuse of drugs in the state since 1984 till date.

Till 2004, 100 people died on an average every year since 2000.

Mizoram has witnessed a dramatic fall in the number of deaths due to drug abuse since 2004 when 143 people lost their lives to the deadly addiction; Young Mizo Association carried out a sustained anti-drug campaign and launched the massive crackdown on drug supply in 2005. Up to June 6, 2008, only four people

have died due to drug abuse reported by L.Hmunsanga, Deputy Commissioner of the State Excise and Narcotics Department.

Table 1.2: Type and number of substances seized in 2012

Sl. No.	Type	Number
1.	Heroin (in kilogram)	1.017
2.	Opium (in kilogram)	2.653
3.	Ganja (in kilogram)	88.209
4.	Ganja (Cannabis) Plant (in number)	294
5.	Nitrazepam (in tablet)	6070
6.	Diazepam (in tablet)	645
7.	Alprazolam (in tablet)	787
8.	Clonozepam (in tablet)	30
9.	Cough Syrup (in bottle) (in phial)	97
10.	Spasmoproxyvon (in capsule)	3472
11.	Parvon Spas (in capsule)	928860 & 5 gms
12.	Spasmocip (in capsule)	186
13.	Pseudoephedrine (in tablet)	31183517

(Source: Excise & Narcotics Department, 2013)

1.6 Magnitude of the problem:

Table 1.3: Substance Abuse at the State level (Mizoram):

Name of District	No. of Drug Users	Male	Female
Aizawl	5359	4852	507
Lunglei	1685	1610	75
Champhai	1067	1028	39
Saiha	235	229	6
Kolasib	507	501	6
Mamit	556	535	21
Serchhip	1028	950	78
Lawngtlai	817	712	105
TOTAL	**11254**	**10417**	**837**

(Source: Central Young Mizo Association Survey, 2000)

Drugs of abuse identified by the CYMA survey were heroin, spasmoproxyvon, cough syrups, sedatives, ganja and dendrites.

In a study conducted by Lalnunthara in 1997 on factors influencing Abuse of drugs in Mizoram, 30 respondents out of 200 were initiated into drugs during the ages of 8-12 years.

Magnitude of the problem related to Suicide in Mizoram suggests that it is increasing and that it is a phenomenon that cuts across all age groups. However, the role of substance abuse is not to be undermined.

1.7 Statement of the problem: The period defined as youth is a stage of life that is crucial in respect to determination of choices. It is a period in which most members have embarked on higher education and/or employment and are preoccupied with many challenges that the stage of life brings. Resort to substances and abuse of substances is very common in a state like Mizoram. The use of tobacco, alcohol, spasmoproxyvon and other injectibles including Heroin are very common. Suicides are also increasing year by year particularly in Mizoram. A small study conducted by the department of Psychiatry has observed the role of intoxication as being fairly high at the time of suicide completion. The suicide statistics also reveal a young profile of persons. Literature reveals that there is a close link between substance abuse and suicide risk behavior. There have been only a few studies on a small sample each that have not been able to draw generalizations. Further, the link between two major challenges faced by youth in Mizoram (substance abuse and Suicide risk behavior) is yet to be established. Therefore this study attempts to understand the relationship between substance abuse and suicide risk behavior. The study will make a

contribution by understanding factors related to substance abuse and suicide risk behavior and would be able to offer suggestions for social work Intervention.

1.8 Objectives

The following are the objectives of the present study.

1. To study the pattern of substance abuse among youth who are seeking help from the Psychiatry Department, Aizawl.

2. To study Suicide Risk Behavior among youth attending Psychiatry Department, Aizawl.

3. To explore the relationship among substance abuse, suicide ideation and suicide attempts.

4. To offer Suggestions for Social Work Intervention.

1.9 Research Gaps

From the literature studied, it has been observed that there are few studies that document the relationship between Substance abuse and suicide risk behaviour among youth. Several studies have attempted to understand suicide risk behaviour among adolescents. This study attempts to document the suicide risk behaviour and Substance abuse pattern among youth and to explore the relationship between the two.

CHAPTER II

REVIEW OF LITERATURE

2.1*Youth and Substance Abuse:* Laura Burney Nissen (2006), discusses about adolescent substance abusers and offenders, stressing the importance of juvenile justice and other youth professionals and community members to build the next generation of interventions. These platforms provide important access to youth in need of a public health intervention and will give young people the chance to demonstrate they can be accountable for the harm they caused others.

Ozechowski et al (2008) examined the factors related to referrals of adolescents with substance use disorders to substance abuse and mental health by interviewing 400 adolescents (between the age of 13-18 years) who were diagnosed with substance abuse, and found out that mental health diagnoses played a limited role.

The National Household Survey of Drug Use in the country is the first systematic effort to document the nation-wide prevalence of drug use. Alcohol (21.4%) was the primary substance used (apart from tobacco) followed by cannabis (3.0%) and opioids (0.7%). Seventeen to 26% of alcohol users qualified for ICD 10 diagnosis of dependence, translating to an average prevalence of about 4%. There was a marked variation in alcohol use prevalence in different states of India (current use ranged from a low of 7% in the western state of Gujarat (officially under Prohibition) to 75% in the North-eastern state of Arunachal Pradesh. Tobacco use prevalence was high at 55.8% among males, with maximum use in the age group 41-50 years (Ray R., 2004).

The National Family Health Survey (NFHS) provides some insights into tobacco and alcohol use. The changing trends between NFHS 2 and NFHS 3 reflect an increase in alcohol use among males since the NFHS 2, and an increase in tobacco use among women (National Family Health Survey India-3).

Rapid situation assessments (RSA) are useful to study patterns of substance use. An RSA by the UNODC in 2002 of 4648 drug users showed that cannabis (40%), alcohol (33%) and opioids (15%) were the major substances used. A Rapid Situation and Response Assessment (RSRA) among 5800 male drug users revealed that 76% of the opioids users currently injected buprenorphine, 76% injected heroin, 70% chasing and 64% using propoxyphene. Most drug users concomitantly used alcohol (80%). According to the World Drug Report, of 81,802 treatment seekers in India in 2004-2005, 61.3% reported use of opioids, 15.5% cannabis, 4.1% sedatives, 1.5% cocaine, 0.2% amphetamines and 0.9% solvents (Kumar MS, 2002).

The Global Youth Tobacco Survey in 2006 showed that 3.8% of students smoke and 11.9% currently used smokeless tobacco. Tobacco as a gateway to other drugs of abuse has been the topic of a symposium (Sinha DN et al., 2006).

A study in the Andamans shows that onset of regular use of alcohol in late childhood and early adolescence is associated with the highest rates of consumption in adult life, compared to later onset of drinking (Benegal V., Sathyaprakash M and Nagaraja D., 2008).

Delusional jealousy and fighting behavior of substance abusers/dependents are important determinants of suicidal attempts among their spouses. Parents of narcotic dependent patients, particularly mothers also show significant distress (Ponnudurai R.,et al.,2001).

This study examines the initial effects of the Massachusetts Mental Health and Substance Abuse Program on 24-hour care for children and adolescents. The population for this research is divided into two study samples. One sample consists of all enrolled children and adolescents under 19 years of age who had at least one paid claim for a 24-hour mental health or substance abuse service. The other study sample

was constructed from a managed care comparison group created for Massachusetts Medicaid. This comparison group includes only those enrolled youth who would have been eligible for the managed care carve-out had it existed at that time (n=1,50,995). Simple univariate summary statistics are used to describe the characteristics of the populations. In summary, the findings from this study illustrate a number of important points. Two stand out. First, it is important to disaggregate data in order to illuminate differences that could go unnoticed in an aggregate analysis. Second, managed care interventions may affect mental health and substance abuse treatment services for youth in very different ways.

2.2 Suicide: Views on suicide have been influenced by broad existential themes such as religion, honor, and the meaning of life. The Abrahamic religions traditionally consider suicide an offense towards God due to the belief in the sanctity of life. During the samurai era in Japan, seppuku was respected as a means of atonement for failure or as a form of protest. Sati, a now outlawed East Indian practice, expected the widow to immolate herself on her husband's funeral pyre, either willingly or under pressure from the family and society (Bertolote JM, 2002).

Suicide is a process of ending one's own life and it is not accidental but intentional. Many western cultures as well as mainstream Judaism, Islam, and Christianity tend to view killing oneself as quite negative. One myth about suicide that may be the result of this view is considering suicide to be the result of mental illness. Some societies also treat a suicide attempt as a crime. Suicides are sometimes seen as understandable or even honorable in certain circumstances, such as in protest to persecution.

Suicide is a serious psycho-social problem. It is a complex issue with several factors contributing to this phenomenon.

Suicide and attempted suicide, while previously criminally punishable, is no longer in most Western countries. It remains a criminal offense in many countries. In the 20th and 21st centuries, suicide in the form of self-immolation has been used as a medium of protest, and kamikaze and suicide bombings have been used as a military or terrorist tactic (Aggarwal N, 2009).

Factors that affect the risk of suicide include psychiatric disorders, drug misuse, psychological states, cultural, family and social situations, and genetics (Hawton K, 2012).

Socio-economic problems such as unemployment, poverty, homelessness, and discrimination may trigger suicidal thoughts, according to Qin while studies by Brent suggest that genetics appears to account for between 38% and 55% of suicidal behaviors.

2.2.1 Substance Abuse and suicide: In the study of Maurizio et al (2012), identified in a period 1980-2011, that adolescents with substance abuse disorders who attempt or complete suicide have mood disorders, stressful life events, interpersonal problems, poor social support, lonely lives and feelings of hopelessness.

Peter M. Monti, (2001) discuss the attempts of the United States 'War on drugs, though many projects have failed to reduce the adolescents' use and abuse drugs. 80% of High School seniors had consumed alcohol and 65% had smoked cigarettes despite expensive long-term government anti-drug and smoking programs. He further stressed that instead of adamantly calling for immediate zero tolerance,

which has been found to have very little impact on lasting self-motivated behavioral change, he advocated a human touch, a dose of real life and, more research.

In a retrospective record review of 112 adolescents (13–20 years old), who presented after a suicide attempt at an emergency department, 35% met the criteria for an alcohol use disorder and 27% met criteria for the substance used disorder at the time of the attempt, alcohol abuse increased the risk of a repeat suicide attempt threefold, while a diagnosis of illicit drug abuse increased the risk of a repeat suicide attempt fourfold in the subsequent12 months (Virpi Tuisku et al 2006).

In several European and North American countries, suicides among youths have risen dramatically in recent decades. Abuse of, or dependence on alcohol and others psychoactive substances in adolescent are often associated with suicidal ideation, suicide attempt (Berman and Schwartz, 1996) and completed suicide (Brent et al., 1988; Alleback and Allgulrander, 1990; Schaffer et al., 1996). Longitudinal studies of adolescent psychiatric patients and suicide attempters have found alcohol and drug abuse to be one of the major risk factor for suicide (Ostman, 1991; Hawton et al., 1993).

Mood disorders interacting with stressful life events may lead in adolescents first to suicidal ideation and then to suicide attempts a desire to escape problems or the above-mentioned desire for ‘self-medication’ may be proposed to explain the co-occurrence of suicidal and substance use behaviors. The strategies for suicide prevention for adolescents concentrate on two general themes: strategies to identify subjects at risk so as to direct them to healthcare centers and strategies to increase their social support network and their management of stress. Patients often avoid bringing up their suicidal thoughts and plans, but they are more willing to discuss these if the clinician asks specific questions about any intention to commit suicide.

Suicide among adolescents and young adults, 15 to 24 years of age, is the third leading cause of death, and there are many more suicide attempt per completed suicide. Adolescent suicide attempters, when compared to adolescents who have never attempted suicide, have re-attempt rate that is 8.1 times greater than adolescents without prior attempts. Previous attempts, in turn, increase.

In a meta-analysis by Inski et al in the nineties, the lifetime risk of suicide for alcoholism was estimated at 7%.

According to several authors, mental illness and substance misuse frequently co-exist. Other risk factors include having previously attempted suicide, the ready availability of a means to commit the act, a family history of suicide, or the presence of traumatic brain injury.

There are multiple adverse effects of mood disorders among substance abusers. Co-morbid depression and substance abuse have been associated with treatment dropout rates and poorer prognosis after drug treatment (Rounsaville and Weissman, 1982). It is estimated that about 60% of all depressive episodes in alcoholics might be substance induced (Barbara Schneider, 2009).

In a random sample of 229 suicides in Finland, 14% had co-morbidity of alcohol dependence and personality disorder and a personality disorder was diagnosed in 42% of cases with alcohol dependence (Barbara Schneider, 2009). Heroin users are 14 times more likely than peers to die from suicide. They also attempted suicide more frequently than those in community samples (Darke and Ross, 2002).

Substance abuse is a well known risk factor to suicide. But some authors raise the question of whether it is a proximal or distal risk factor. The acute effect of intoxication may represent a proximal risk factor for suicide attempt (Maurizio Pompili, 2012).

Three main hypotheses postulated to explain the escalation process in substance use and suicide reveal directionality as follows.

1. Substance abuse → breakdown in personal relationships → increased suicide risk;
2. Substance abuse → change in mood → suicidal ideation or depression → suicide attempt
3. Substance abuse → intoxicating effects → impaired judgment increased suicide risk.

(Maurizio Pompili et al 2012).

2.3 Deliberate Self Harm (DSH): Literature was reviewed regarding the Deliberate Self Harm and Psychiatric Co Morbidity in a hospital based study, during the study period of two years. This was a cross sectional study and study universe were patients attending hospital on emergency and regular OPDs with history of DSH. Medically unfit patients and those with organic brain syndrome were excluded. Institutional ethical committee and all Patients who consented to participate were included in the study. All patients after stabilization were interviewed by a Psychiatrist. A semi structured format was used to collect the information from both patient and the relatives subsequently by other members of study team. Diagnostic and Statistical Manual IV edition (DSM-IV) was used to categorize patients in to various groups of Psychiatric disorders. The results were analyzed using SPSS Version 13. Tests of significance like Chi-square and Z (Proportions) test were used. Odds ratio was used to estimate the magnitude of association between psychiatric illness and repeat deliberate self harm.

Socio demographic characteristics of DSH patients revealed the following findings; Total 275 patients with history of DSH were included in the study. Of them

226 (82.17%) belonged to younger age group less than 35 years. Males who were 152 (55.27%) outnumbered females 123 (44.72%). There was rural preponderance with 162 (58.90%) people belonging to this group. Majority (62.90%) were married in the study population. Socioeconomic variables showed 79.27% belonging to the families with income less than 10,000 per month. Education up to secondary (10 grade) level was noted in 174(63%) study subjects. Among women 58.9% were Housewives and among men Unskilled labourers and Farmers were in majority (Patil et.al 2011).

Literature was reviewed concerning psychiatric morbidity and the socio demographic determinants of DSH. The study aim to know the socio demographic and clinical pre institute in North India.

A cross sectional study for a period of one year i.e., January, 2010 – December, 2010 in a medical college and research institute in North India. The subjects were there who got admitted through accidental and emergency services, regular outdoor admission of various specialities at AIMSR, Bathinda. Among the 100 cases studied, the diagnosis of psychiatric disorder was made by the ICD-10 criteria. The study found out that majority of the respondents belongs to the less than 25 years of age group (53%), 60% were married and 83% were from urban area. 69% were from low socio economic background. Poisoning was the most common method poisoning; followed by burning, followed by hanging or jumping. 92% didn't have past history of Deliberate Self Harm. Half of the respondents have psychiatric illness, majority 36% had depression. Alcohol dependence syndrome 2% was also observed in the study sample.

32% of the patients had family conflict and is the major factor for Deliberate Self Harm. Marital disharming, failure in exams, failure in love and financial crisis

were other precipitating factors which were observed in the history (PD Bansal and Rajdip Barman, 2011.)

In a cross sectional study for a period of two years, in a hospital based setting, total 275 DSH were assessed with DSM-IV for co-morbid psychiatric problems.

In this study, 82.17% belong to the younger age group that is below 35 years. Majority 62.9% were unmarried. More than half (55.27%) were men. Majority of the population were married. The study revealed that 49.09% of the respondents are having one or the other major psychiatric disorder. Alcohol and substance abuse 32.6% is the major psychiatric disorder and followed by depression 25% among male respondents.

Literature was reviewed on the study, regarding deliberate self harm in children. The study aim to identify the associated factors. Subjects of 29 children with history of deliberate self harm who were referred to the Child Guidance Clinic to the Department of Pediatrics of a teaching hospital in South India were assessed based on DSM IV diagnostic criteria.

The study found out that a real life model was present in 17% children i.e., a mother or a father had committed suicide a year ago or someone in the locality had attempted suicide or read about suicide in the newspaper. 52% had some psychiatric disorder, where 38% had depressive disorder, 6% had ADHD and there is a feature of OCD. It is very alarming to find that 80% of the respondents reported suicide ideation in the past one month. 90% had experienced either acute or chronic stress and nearly half of them had acute stressful experiences in addition to ongoing stress. The study reveals that the family was the source of stress in the majority of children. 14% of the respondents had lost one or both parents and another 14% experienced parental disharming. In another studies have reported that living with both parents is protective

and deliberate self harm is more common with history of parental demise (Hawton K et al., 2002).

A study by Krishna Kumar in 2011 found out the influence of modeling or from the media on suicidal behavior of children and adolescents. Other studies have noted that academic stress is an important cause of deliberate self harm and that 41% children had school related stress, high parental expectation and resultant parental behavior contribute to school-related stress.

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CHAPTER III

METHODOLOGY

3.1 Profile Of The Study Area

The study is conducted among the respondents who are seeking psychiatric help for their addiction in the Psychiatry Department. Being located in the centre of the City, it is easily accessible. It is a government setting and treatment is cheaper than any other private Hospital and Clinic. This is the main reason why more patients are coming to this Unit. *Psychiatry Department, Aizawl*: It was established in 1987 at the Civil Hospital, Aizawl. The pioneer doctor was Dr John M.Ralte (MD Psychiatry). At first both the Out Patient Department (OPD) and the In Patient Department (IPD) were situated in the Civil Hospital, Aizawl itself. The OPD continues to be located in the Civil Hospital, Aizawl. At present there are four Psychiatrists, two Clinical Psychologists, two Psychiatric Social Workers, and four Psychiatric Nurses. There are 34 beds (20 beds for male and 14 for female patients). They render services for patients with psychiatric illness as well as substance abuse. Apart from pharmacological treatment they offer psycho-education, psychometric tests, group therapy, relaxation therapy, cognitive behavior therapy. Substance abusers receive counseling, relapse prevention treatment, detoxification, family and group therapy with follow-up cases. Services are organized both at the Psychiatry ward and through Out-Patient Department.

3.2 Pilot Study

A pilot study was first conducted among key informants at Psychiatry Hospital, Aizawl, Social Worker and Psychologists to understand the relation of substance abuse and suicide risk behavior among youth.

From the pilot study it was found that there are many cases of substance abuse among the Mizo youth. From the OPD setting in Aizawl Civil Hospital, 8 patients per

day (average) who have substance related problems visit the clinic for psychiatric help. It was found that youth having addiction problems reported suicidal tendency. Substance abuse may cause breakdown in personal relationship which increases suicide risk or substance abuse and may cause changes in mood which lead to suicide ideation or depression leading to suicide attempt or the intoxicating effects leading to impaired judgment.

3.3 Methodology

This study is descriptive in design and cross-sectional in nature. It employs both quantitative and qualitative data. A semi-structured interview schedule was constructed and administered to collect the quantitative data. Informed consent was taken from the respondents to be interviewed. A total number of 65 males and 12 females who came to the Psychiatry Department due to substance related problems between the age of 15-35 years were identified and following informed consent were interviewed. Qualitative data was collected using key informant interviews.

3.3.1 Source of Data

Primary data was collected from the patients themselves through semi-structured interview schedule. Key informant interviews were conducted with 2 psychiatrists and one clinical psychologist. Secondary data was collected from journals, books and Govt. documents.

3.3.2 Sampling

Multi-stage sampling was used. In the first stage using purposive sampling the department of psychiatry, Kulikawn Hospital which registers most of the cases for care, treatment and rehabilitation for substance related problems was selected.

In the second stage, a list of all patients registered in the Out-Patient Department, Civil Hospital, Aizawl were identified.

The third stage, proportionate sampling was used to draw male and female patients with the following inclusion criteria. All youth between the age of 15-35 years attending Psychiatry Out Patient Department and Ward for substance abuse.

3.3.3 Tools of Data Collection

1. Interview Schedule: A semi-structured Interview schedule was administered to collect data from respondents. The schedule included information on socio-demographic details, substance abuse pattern, suicidal ideation and suicide attempt.

2. An interview guide was constructed for Focus Group Discussion conducted among substance abusers to augment data on perceptions related to suicide risk behavior.

3. Interview Guide for data collected from Key Informants which included Psychiatrists, Law Enforcement Officials and Mental Health Professionals to understand the magnitude of the problem related to substance abuse and Suicide Risk Behavior.

3.3.4 Data processing and analysis

Data of all variables was processed through the use of SPSS and data is presented in the form of simple percentages. Data from FGD's and interviews with substance abusers is presented in narrative form.

CHAPTER IV

RESULTS AND DISCUSSION

4.1 Introduction

Results from the study are presented within this chapter and the findings are interpreted in relation to relevant and available literature.

In any study or research, socio-demographic profile is very important to understand the population being studied. It is with this intention that the data was collected in relation to socio-demographic particulars.

Most drug use begins during the second decade of life. The most frequently involved reasons are curiosity, pleasure seeking and personal or family problems. The presence of a parent or other relative with substance abuse in the family is the most influential factor (Tripathi, and Lal, 1999).

Table 4.1: Demographic profile

Sl.No.		Age (in Years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Gender**				
	Female	5 (55.6)	2 (7.4)	5 (12.2)	12 (15.6)
	Male	4 (44.4)	25 (92.6)	36 (87.8)	65 (84.4)
2.	**Marital Status**				
	Never married	9 (100)	18 (66.7)	9 (22.0)	36 (46.8)
	Married	0	4 (14.8)	19 (46.3)	23 (29.9)
	Divorced	0	5 (18.5)	12 (29.3)	17 (22.1)
	Remarried	0	0	1 (2.4)	1 (1.3)
3.	**Educational Qualification**				
	Class I-VII	1 (11.1)	3 (11.1)	7 (17.1)	11 (14.3)
	Class VIII-X	8 (88.9)	11 (40.7)	19 (46.3)	38 (49.4)
	Class XI-XII	0	8 (29.6)	9 (22.0)	17 (22.1)
	Graduate	0	5 (18.5)	6 (14.6)	11 (14.3)

Sl.No.		Age (in Years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
4.	**Religion**				
	Christian	9 (100)	27 (100)	40 (97.6)	76 (98.7)
	Buddhist	0	0	1 (2.4)	1 (1.3)
5.	**Denomination**				
	Presbyterian	3 (33.3)	19 (70.4)	18 (43.9)	40 (51.9)
	Baptist	0	3 (11.1)	6 (14.6)	9 (11.7)
	Salvation Army	2 (22.2)	3 (11.1)	6 (14.6)	11 (14.3)
	Roman Catholic	1 (11.1)	0	1 (2.4)	2 (2.6)
	Seventh Day Adventist	0	1 (3.7)	2 (4.9)	3 (3.9)
	UPC	0	0	1 (2.4)	1 (1.3)
	Others	3 (33.3)	1 (3.7)	7 (17.1)	11 (14.3)

Source: Computed Figures in parenthesis are percentages

Age: *In India nationally, the mean age of drug using subjects was 35.3 years.* The largest numbers of drug abusers were found in the age group 31-40 cohort (36.9%), followed by the 21-30 years age group (33.1%). About 5 percent of users in the sample were aged 20 years or below. A quarter of drug abusers were more than 40 years old (DAMS, 2000).

Age is an important variable in any research. In this study on youth seeking psychiatric services in Mizoram, the age group is classified into three categories – 15-21 years, 22-28 years and 29-35 years. The study comprised the youth i.e., 15-35 years of age. In keeping with study's objectives, only youth (15-35) have been included. From the findings, the respondents between 29-35 years constituted the

highest number among males and the age group between 15-21 years and 29-35 years constituted the highest number among women.

1. **Gender:** According to 2011 census, total population of Mizoram is 10,91,014 where male is 5,52,339, female is 5,38,675 (Census, 2011, GoM). The sex ratio is 975 female per 1000 male. Majority of the subjects were men (97.2%). The study by DAMS reports that there are few female drug abusers and they were more often reported from Andhra Pradesh (10.5%), Manipur (9.8%) and Mizoram (6.9%) (DAMS 2000).

   In this study on youth, substance abusers in Mizoram seeking psychiatric services, *majority (84.4%) are male and the remaining (15.6%) are female.* This may be attributed to the nature of sampling, wherein the youth seeking help from psychiatry ward were the sampling frame.

2. **Marital Status:** According to Drug Abuse Monitoring System 2000 it was found that a majority of users (71.9%) were married, with less than a quarter of the subjects being unmarried (22.8%). Very few were divorced (1.2%). Tamil Nadu (90.0%), Gujarat (89.5%), Haryana (85.4%) and Andhra Pradesh (83.2%) reported higher percentages of married drug abusers. *Interestingly, more unmarried drug abusers tended to be from Mizoram and Nagaland* (DAMS, 2000).

   In the Current study, almost half of the respondents (46.8%) were *un-married*. Nearly one third (29.9%) were *married*, a fifth (21.1%) of the respondents were *divorced* and a few (1.3%) were *remarried*. Among the age between 15-21 years, none of them were *married*. Between the age of 22-28 years, more than half (66.7%) were *never married*, more than a tenth (14.6%) were *married*, nearly a fifth (18.5%) were *divorced*. Between the age of 29-35

years, more than a fifth (22%) were *single*, almost half (46.3%) were *married*, more than a quarter (29.3%) were *divorced* and a few (2.4%) were *remarried*. Marital status is an important indicator for social support as well and therefore these findings are very significant.

3. **Educational Qualification:** To quote the findings of the national survey done by DAMS, 85% of the treatment seekers in their study were educated with only about 15% of the sample being illiterate. About half (42%) had completed higher secondary schooling or above. About twelve percent were graduates. Higher proportions of illiterate subjects were reported from Rajasthan (34.4%), Andhra Pradesh (28.0%) and Uttar Pradesh (25.7%). By contrast, higher levels of education were found in Mizoram, Nagaland, Himachal Pradesh and Assam.

   In this study done in 2014 in Mizoram, the findings corroborate the DAMS study since almost half of the respondents (49.4%) studied High School. More than a fifth (22.1%) of the respondents finish Higher Secondary Level. Those who were graduate and those who studied upto Primary level constitute more than a tenth (14.3).

4. **Religion:** Mizoram is a State where an overwhelming majority of the population was Christian (86.97%). *In this study too, therefore not surprisingly, almost all (98.7%) of the respondents were Christian.* The total number of Buddhist in the state is 7.93% however in the sample we observed only one respondent (1.3%) who is Buddhist.

5. **Denomination:** As Christianity is the major religion in Mizoram, there are several religious denominations in the state. In Mizoram, the Presbyterian Church of India constitutes the highest population (4,63,185). The Baptist

Church is the second (1,43,083). There are many other religious denominations like Salvation Army (54,697), Roman Catholic (19,080), Seventh Day Adventist (27,218), UPC (1,34,260) and many other denominations (Mizoram Statistical Handbook, 2010).

In this study of 2014 more than half (51.9%) of the respondents were of the Presbyterian Church, the Salvation Army had the second highest presence i.e., (14.3%). The Baptist are the third (11.7%) of the total respondents. Roman Catholic contributes 2.6% and UPC (1.3%) and others like IKK and other denominations constitute 14.3% of the population.

Table 4.2: Social characteristics

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Locality of the Patient**				
	Rural	0	11 (40.7)	9 (22.0)	20 (26.0)
	Urban	9 (100)	16 (59.3)	32 (78.0)	57 (74.0)
2.	**House Ownership**				
	Owned	7 (77.8)	21 (77.8)	33 (80.5)	61 (79.2)
	Rented	2 (22.2)	6 (22.2)	8 (19.5)	16 (20.8)
3.	**Type of House**				
	Traditional Hut	0	0	1 (2.4)	1 (1.3)
	Assam Type	7 (77.8)	17 (63.0)	25 (61.0)	49 (63.6)
	RCC	2 (22.2)	10 (37.0)	15 (36.6)	27 (35.1)
4.	**Size of the family of the Patient**				
	Below three members	1 (11.1)	0	3 (7.3)	4 (5.2)

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
	Four-Six members	8 (88.9)	22 (81.5)	33 (80.5)	63 (81.8)
	More than seven members	0	5 (18.5)	5 (12.2)	10 (13.0)
5.	**Form of family**				
	Stable	2 (22.2)	17 (63.0)	29 (70.7)	48 (62.3)
	Broken	5 (55.6)	8 (29.6)	10 (24.4)	23 (29.9)
	Reconstituted	2 (22.2)	2 (7.4)	2 (4.9)	6 (7.8)

Source: Computed Figures in parenthesis are percentages

1. **Locality:** According to DAMS, 2000, alcohol was the most commonly abused drug in both rural and urban areas. Cannabis use was more frequently reported by respondents from rural backgrounds whereas heroin was more frequently used in urban locations. The respondents were almost equally distributed between rural and urban areas with 51.7% being from rural areas and 48.3% from urban areas. The highest percentages of rural drug abusers were in Goa (78.0%) and Punjab (77.5%), whereas higher numbers of urban drug abusers reported for treatment in Mizoram (91.0%) and Meghalaya (90.7%).

   The respondents are taken from the OPD in Civil Hospital and Psychiatry Ward in Kulikawn, Aizawl. According to 2001 census, there are 4,47,567 people living in the rural area, 4,41,006 peoples in the urban area. Majority of the respondents i.e., more than two third (74%) of them are coming from the Urban area and the remaining (26%) the rural area. The reason why more patients are from the rural area may be due to the easy accessibility of the services.

2. **House Ownership:** More than three-quarters (79.2%) of the respondents are staying in their *own house* and a fifth (20.8%) are in a *rented house*. This indicates that the socio-economic status of three-quarters is not very poor.
3. **Type of house:** Less than two-thirds of the respondents (63.6%) live in *Assam Type House* which is fairly poor quality housing which is also vulnerable to disasters like natural disasters. More than a third (35.1%) live in a *cemented pucca RCC type house* and a few (1.3%) only live in a *Di-in* (Traditional Hut made of bamboo and thatch) which is having very basic amenities only.
4. **Size of the family:** Majority of them i.e., 81.8% have *four to six family members*, more than a tenth (13%) belong to families having *more than seven members* in the family and less than a tenth (5.2%) have *less than three members* in the family. Size of family too often reflects social support and hence the results are very important.
5. **Form of family:** Family is one important variable in all social sciences research. Form of family plays a vital role in one's perception and behavior. Less than two-thirds (62.3%) of the respondents belong to *stable family*, more than a quarter (29.9%) of the respondents are coming from a *broken family* and a small number (7.8%) belong to a *reconstituted family*. Socio-environmental circumstance, such as family history of suicidal behavior and poor parent-child communication, are reportedly risk factors for adolescents' suicides (Gould et al, 1996).

Table 4.3: Substance use pattern

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Abusing substances Presently**	9 (100)	27 (100)	41 (100)	77 (100)

Source: Computed Figures in parenthesis are percentages

Substance Use Pattern: From this study, all the respondents are presently substance abusers and no one reports abstinence currently. There were 41 respondents between the age of 29-35 years, 27 respondents between 22-28 years and 9 respondents between the age of 15-21 years.

Table 4.4: Pattern of tobacco use

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Past History of Tobacco Abuse**	9 (100)	27 (100)	41 (100)	77 (100)
2.	**Frequency per week**				
	Twice	3 (33.3)	0	0	3 (3.9)
	Thrice	1 (11.1)	2 (7.4)	2 (4.9)	5 (6.5)
	Everyday	5 (55.6)	25 (92.6)	39 (95.1)	69 (89.6)
3.	**Mode of use**				
	Oral	5 (55.6)	12 (44.4)	22 (53.7)	39 (50.6)
	Smoking	4 (44.4)	15 (55.6)	19 (46.3)	38 (49.4)
4.	**Reasons of initiation**				
	Peer pressure	8 (88.9)	22 (81.5)	32 (78.0)	62 (80.5)
	Curiosity	0	0	3 (7.3)	3 (3.9)
	Don’t know	1 (11.1)	5 (18.5)	6 (14.6)	12 (15.6)

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
5.	**Approximate expenditure per week**				
	One hundred	5 (55.6)	4 (14.8)	10 (24.4)	19 (24.7)
	Two hundred to five hundred	4 (44.4)	19 (70.4)	25 (61)	48 (62.3)
	Six hundred to one thousand	0	4 (14.8)	6 (14.6)	10 (13.0)

Source: Computed Figures in parenthesis are percentages

Tobacco Use Pattern: The gateway-theory states that the natural history of drug use starts with nicotine and alcohol is followed by cannabis and finally moves on to other illegal substances (Chen, Kandel, 1995).

All (100%) of the respondents used tobacco. Almost half of the respondents (49.4%) used in a *smoke form* and half of the respondents (50.6%) in *oral (Chewing/smokeless) form*. An overwhelming majority (89.6%) of the respondents used it every day. *Peer pressure* was cited as the highest (80.5%) for reasons for initiation, More than a tenth (15.6%) *don't know* the reason and the remaining (3.9%) indulged out of *curiosity*. Less than two-thirds (62.3%) spent *two hundred to five hundred* rupees per week to sustain the habit, less than a quarter (24.7%) spent *one hundred* rupees and more than a tenth (13%) spent *six hundred to one thousand* rupees every week to buy tobacco.

Becoming a member of a peer group is one of the primary developmental tasks of adolescence (Bourne, 1978; Coleman and Hendry, 1990; Erikson, 1968).

Peer pressure is often operationalized simply as the extent to which behavior among friends is correlated (Ide, Parkerson, Haertel, and Walberg, 1981; Robin and Johnson, 1991) rather than the degree to which individuals feel pressured to act or

think in certain ways (Brown et al., 1986). In many studies, it is unclear to what extent peer pressure is distinguishable from related constructs such as peer conformity or conformity. As a result, the manner in which peer pressure is related to potential risk factors and psychosocial problems is somewhat unclear.

Peer pressure was defined explicitly as “when people your own age encourage you to do something or to keep from doing something else, no matter if you personally want to or not” (Brown, 1986, p. 522). The key feature of this definition of peer pressure is that individuals in your own age group are actively encouraging or urging you to do something. Clearly, the central feature of most notions of peer pressure is that individuals are motivated to act and think in certain ways because they have been urged, encouraged, or pressured by a peer to do so. However, there are a number of related concepts from which peer pressure should be differentiated. (Brown, B. B., Lohr, M. J., and McClenahan, E.L., 1986).

Table 4.5: Pattern of Dendrite use

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Past History of Dendrite Abuse**				
	Yes	1 (11.1)	6 (22.2)	8 (19.5)	15 (19.5)
	No	8 (88.9)	21 (77.8)	33 (80.5)	62 (80.5)
2.	**Frequency per week**				
	Not using	8 (88.9)	21 (77.8)	33 (80.5)	62 (80.5)
	Once	0	1 (3.7)	1 (2.4)	2 (2.6)
	Everyday	0	3 (11.1)	1 (2.4)	4 (5.2)
	Others	1 (11.1)	2 (7.4)	6 (14.6)	9 (11.7)

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
3.	**Mode of use**				
	Not using	8 (88.9)	21 (77.8)	33 (80.5)	62 (80.5)
	Sniffing	1 (11.1)	6 (22.2)	8 (19.5)	15 (19.5)
4.	**Reasons of initiation**				
	Not using	8 (88.9)	21 (77.8)	33 (80.5)	62 (80.5)
	Peer pressure	0	4 (14.8)	5 (12.2)	9 (11.7)
	Curiosity	0	2 (7.4)	2 (4.9)	4 (5.2)
	Don't know	1 (11.1)	0	1 (2.4)	2 (2.6)
5.	**Approximate expenditure per week**				
	Not using	8 (88.9)	21 (77.8)	33 (80.5)	62 (80.5)
	One hundred	0	3 (11.1)	4 (9.8)	7 (9.1)
	Two hundred to five hundred	1 (11.1)	3 (11.1)	4 (9.8)	8 (10.4)

Source: Computed Figures in parenthesis are percentages

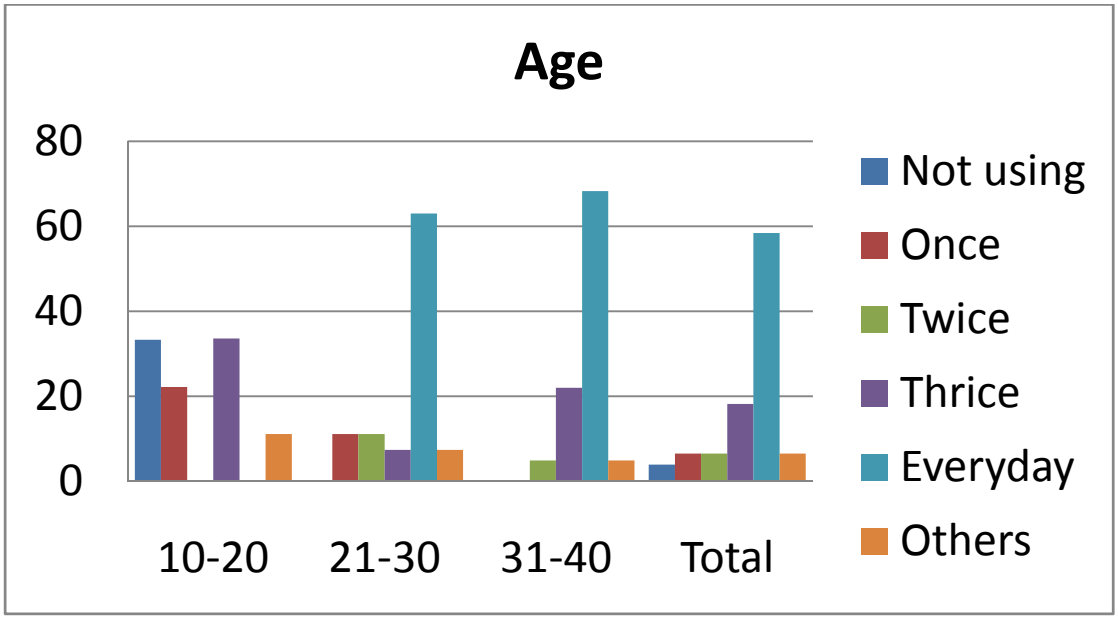
Dendrite Use Pattern: More than half (80.5%) do not have past history of *Dendrite* use and the remaining (19.5%) have past history of dendrite use. Between the age of 15-21 years, more than a tenth (11.1%) had history of dendrite abuse, between the age of 22-28 years, more than a fifth (22.2%) and between the age of 29-35 years, a fifth (19.5%) had history of dendrite abuse. More than a tenth (11.7%) started abusing dendrite due to peer pressure, a small number (5.2%) were out of curiosity and a few (2.6%) don't know the reason.

Table 4.6: Pattern of Alcohol use

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Past History of Alcohol Abuse**				
	Yes	6 (66.7)	27 (100)	41 (100)	74 (96.1)
	No	3 (33.3)	0	0	3 (3.9)
2.	**Mode of use**				
	Not using	3 (33.3)	0	0	3 (3.9)
	Oral	6 (66.7)	27 (100)	41 (100)	74 (96.1)
3.	**Reasons of initiation**				
	Not using	3 (33.3)	0	0	3 (3.9)
	Peer pressure	4 (44.4)	19 (70.4)	18 (43.9)	41 (53.2)
	Curiosity	1 (11.1)	2 (7.4)	14 (34.1)	17 (21.1)
	Revenge and anger	0	0	2 (4.9)	2 (2.6)
	To escape from problems and hurt feelings	1 (11.1)	2 (7.4)	1 (2.4)	4 (5.2)
	Don’t know	0	4 (14.8)	6 (14.6)	10 (13.0)
4.	**Approximate expenditure per week**				
	Not using	3 (33.3)	0	0	3 (3.9)
	Two hundred to five hundred	4 (44.4)	12 (44.4)	22 (53.7)	38 (49.4)
	Six hundred to one thousand	2 (22.2)	15 (55.6)	17 (41.5)	34 (44.2)
	One thousand to three thousand	0	0	2 (4.9)	2 (2.6)

Source: Computed Figures in parenthesis are percentages

Fig 4.1: Frequency of Alcohol use



Alcohol Use Pattern: DAMS 2000 reported that in India, alcohol abusers were reported from all the 23 states, 2 union territories and the National Capital Region. The largest numbers of alcohol abusers in the sample came from Maharashtra (18.8%), followed by Uttar Pradesh (12.8%), Kerala (12.6%), Bihar (6.3%) and Haryana (6.2%) (DAMS, 2000).

In this study in Mizoram, a*lmost all the respondents (96.1%) used Alcohol and the remaining (3.9%) indulged in other substances only*. More than half of the respondents (58.4%) used Alcohol *everyday*, particularly those belonging to the age group of 29-35 years, more than two-thirds (68.3%) used it *everyday*, and less than two-thirds (63%) used it *everyday*.

Peer pressure is the highest as a reason for initiation in more than half the respondents (53.2%), *curiosity* is the 2nd highest with over a fifth (21.1%) while more than a tenth (13%) are unable to attribute any reason and less than a tenth (5.2%) reported that they used Alcohol to *escape from problems and hurt feelings* and very few (2.6%) used alcohol to cope with negative feelings such as *revenge and anger*.

Nearly half of the respondents (49.4%) spent *two hundred to five hundred* rupees while almost another half (44.2%) spent *six hundred to one thousand* rupees per week. Only a few (2.6%) spent *more than one thousand* rupees per week on alcohol consumption indicating a very high expenditure.

Table 4.7: Pattern of Cannabis use

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Past History of Cannabis Abuse**				
	Yes	2 (22.2)	15 (55.6)	9 (22.0)	26 (33.8)
	No	7 (77.8)	12 (44.4)	32 (78.0)	51 (66.2)
2.	**Mode of use**				
	Not using	7 (77.8)	12 (44.4)	32 (78.0)	51 (66.2)
	Oral	0	1 (3.7)	1 (2.4)	2 (2.6)
	Smoking	2 (22.2)	13 (48.1)	6 (14.6)	21 (27.3)
	Sniffing	0	1 (3.7)	2 (4.9)	3 (3.9)
3.	**Approximate expenditure per week**				
	Not using	7 (77.8)	12 (44.4)	32 (78.0)	51 (66.2)
	One hundred	1 (11.1)	10 (37.0)	4 (9.8)	15 (19.5)
	Two hundred to five hundred	1 (11.1)	5 (18.5)	2 (4.9)	8 (10.4)
	Six hundred to one thousand	0	0	3 (7.3)	3 (3.9)

Source: Computed Figures in parenthesis are percentages

Fig 4.2: Frequency of Cannabis use

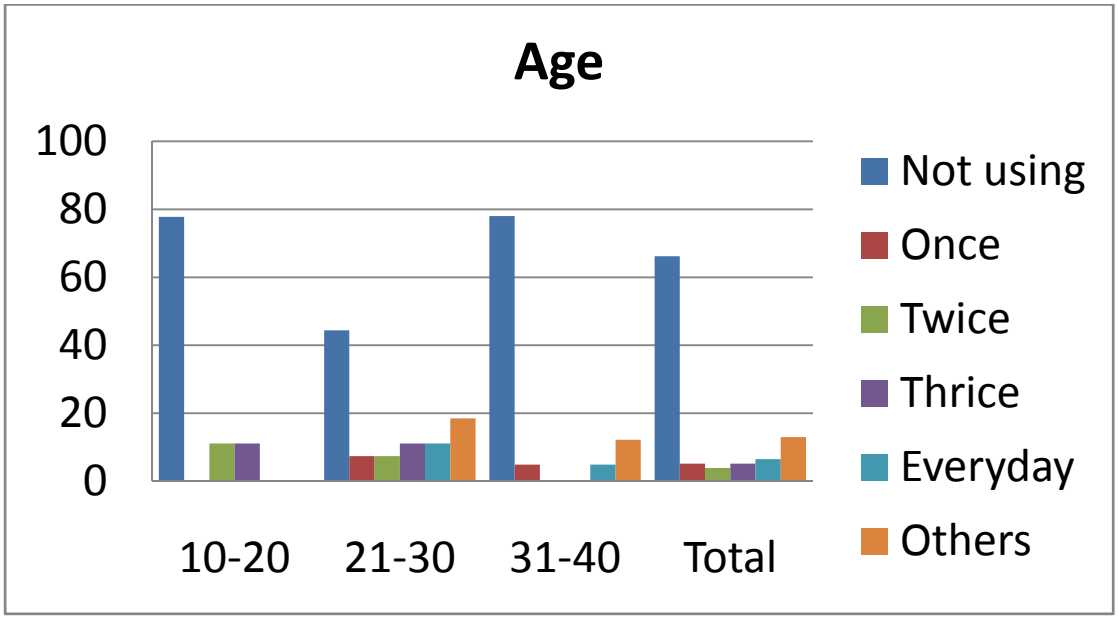
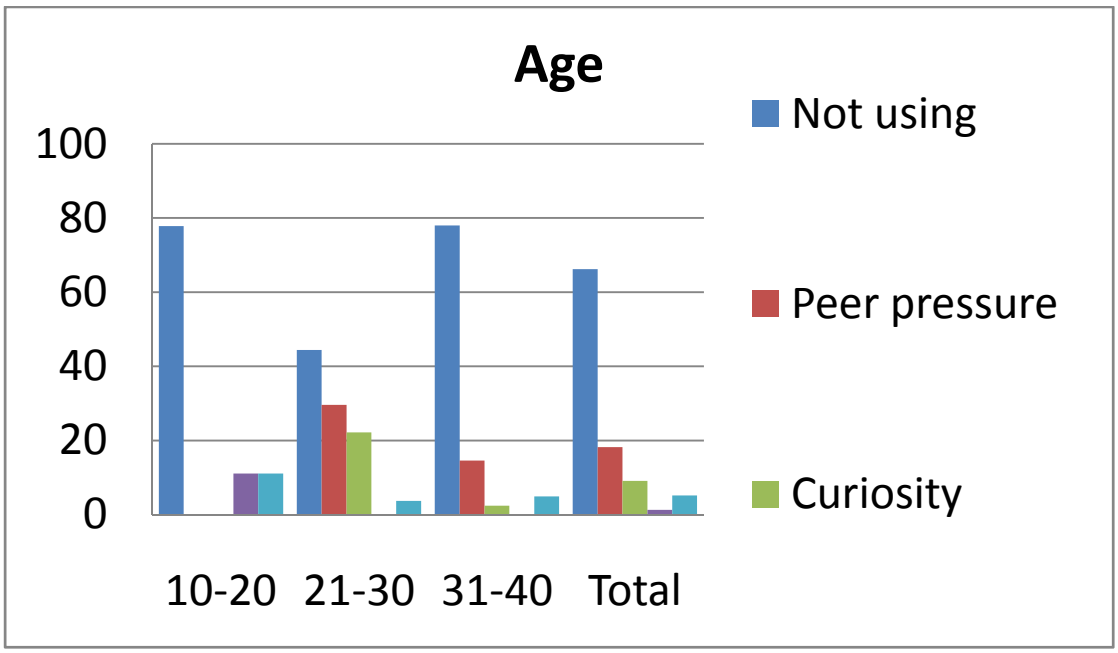


Fig 4.3: Reason of initiation of Cannabis use



Cannabis Use Pattern: Cannabis, heroin, and Indian-produced pharmaceutical drugs are the most frequently abused drugs in India. Cannabis products, often called *charas, bhang, or ganja,* are abused throughout the country because it has attained some amount of religious sanctity because of its association

with some Hindu deities (Nadeem, Rubeena, V.K, Piyush, 2009). Cannabis abuse was reported from all the states except Jammu & Kashmir. The states contributing the largest numbers of cannabis users to the sample were Uttar Pradesh (20.8%), followed by Bihar (18.6%), Kerala (15.8%), West Bengal (7.4%) and Maharashtra (7.0%) (DAMS 2000).

In the current study in Mizoram, of all the respondents, a third (33.8%) used *cannabis*. Respondents by age distribution in the categories 29-35 years, 22-28 years and 15-21 years, accounted for 22.2%, 55.6% and 22.2% cannabis use respectively.

Among the cannabis users less than a fifth (18.2%) reported that they initiated cannabis use due to *peer pressure*, less than a tenth (9.1%) due to *curiosity*, a few (1.3%) to *escape from problems and hurt feelings* and a small number (5.2%) are unable to attribute any reason. Less than a fifth (19.5%) of them spent *one hundred* rupees per week to support the habit, a tenth (10.4%) spent *two hundred to five hundred* rupees and the remaining (3.9%) spent *six hundred to one thousand* rupees per week.

Table 4.8: Pattern of Opioids use

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Past History of Opioids Abuse**				
	Yes	6 (66.7)	12 (44.4)	6 (14.6)	24 (31.2)
	No	3 (33.3)	15 (55.6)	35 (85.4)	53 (68.8)
2.	**Frequency per week**				
	Not using	3 (33.3)	15 (55.6)	35 (85.4)	53 (68.8)
	Once	0	0	2 (4.9)	2 (2.6)
	Twice	1 (11.1)	2 (7.4)	0	3 (3.9)

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
	Thrice	0	1 (3.7)	0	1 (1.3)
	Everyday	5 (55.6)	6 (22.2)	2 (4.9)	13 (16.9)
	Others	0	3 (11.1)	2 (4.9)	5 (6.5)
3.	**Mode of use**				
	Not using	3 (33.3)	15 (55.6)	35 (85.4)	53 (68.8)
	Sniffing	1 (11.1)	2 (7.4)	1 (2.4)	4 (5.2)
	Injecting	5 (55.6)	10 (37.0)	5 (12.2)	20 (26.0)
4.	**Reasons of initiation**				
	Not using	3 (33.3)	15 (55.6)	35 (85.4)	53 (68.8)
	Peer pressure	1 (11.1)	4 (14.8)	3 (7.3)	8 (10.4)
	Curiosity	2 (22.2)	4 (14.8)	2 (4.9)	8 (10.4)
	Revenge and anger	1 (11.1)	1 (3.7)	0	2 (2.6)
	To escape from problems and hurt feelings	2 (22.2)	1 (3.7)	0	3 (3.9)
	Don't know	0	2 (7.4)	1 (2.4)	3 (3.9)
5.	**Approximate expenditure per week**				
	Not using	3 (33.3)	15 (55.6)	35 (85.4)	53 (68.8)
	Two hundred to five hundred	2 (22.2)	2 (7.4)	1 (2.4)	5 (6.5)
	Six hundred to one thousand	3 (33.3)	9 (33.3)	4 (9.8)	16 (20.8)
	One thousand to three thousand	1 (11.1)	1 (3.7)	1 (2.4)	3 (3.9)

Source: Computed Figures in parenthesis are percentages

Opioids Use Pattern: The International Narcotics Control Board in its 2002 report released in Vienna pointed out that in India, persons addicted to opiates are

shifting their drug of choice from *opium to heroin*. The largest numbers of heroin abusers were found in Uttar Pradesh (17.3%), followed by Delhi (16.3%), West Bengal (15.0%), Manipur (10.1%) and Bihar (10.0%) (DAMS 2000).

In this current study in Mizoram, more than two-thirds (68.8%) of the respondents do not use opioids and the remaining less than a third (31.2%) used opioids. Of the category that used opioids, those in the age of 15-21 years, 22-28 years and 29-35 years accounted for 66.7%, 44.4% and 14.6% respectively.

Of those who reported opioids use, a sixth (16.9%) used it *everyday*. More than a quarter (26%) of the respondents used in the form of *injecting* and the remaining (5.2%) used by *sniffing*.

Peer pressure and curiosity are the two highest (10.4% each) reasons cited for initiation followed by reasons such as to *escape from problems and hurt feelings* (3.9%), *revenge and anger* was 2.6% and the remaining (3.9%) are unable to give a reason.

A fifth (20.8%) spent about *six hundred to one thousand rupees per week*, a small minority (6.5%) spent *two hundred to five hundred rupees* and a few (3.9%) had an expenditure of *more than one thousand rupees per week.*

Table 4.9: Pattern of Proxyvon use

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Past History of Proxyvon Abuse**				
	Yes	2 (22.2)	8 (29.6)	8 (19.5)	18 (23.4)
	No	7 (77.8)	19 (70.4)	33 (80.5)	59 (76.6)
2.	**Frequency per week**				
	Not using	7 (77.8)	19 (70.4)	33 (80.5)	59 (76.6)

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
	Once	0	1 (3.7)	0	1 (1.3)
	Twice	0	2 (7.5)	0	2 (2.6)
	Thrice	2 (22.2)	1 (3.7)	1 (2.4)	4 (5.2)
	Everyday	0	2 (7.1)	2 (4.9)	4 (5.2)
	Others	0	2 (7.4)	5 (12.2)	7 (9.8)
3.	**Mode of use**				
	Not using	7 (77.8)	19 (70.4)	33 (80.5)	59 (76.6)
	Oral	1 (11.1)	5 (18.5)	4 (9.8)	10 (13.0)
	Injecting	1 (11.1)	3 (11.1)	4 (9.8)	8 (10.4)
4.	**Reasons of initiation**				
	Not using	7 (77.8)	19 (70.4)	33 (80.5)	59 (76.6)
	Peer pressure	0	4 (14.8)	3 (7.3)	7 (9.1)
	Curiosity	0	3 (11.1)	1 (2.4)	4 (5.2)
	To escape from problems and hurt feelings	2 (22.2)	0	0	2 (2.6)
	Don’t know	0	1 (3.7)	4 (9.8)	5 (6.5)
5.	**Approximate expenditure per week**				
	Not using	7 (77.8)	19 (70.4)	33 (80.5)	59 (76.6)
	One hundred	0	0	3 (7.3)	3 (3.9)
	Two hundred to five hundred	1 (11.1)	7 (25.9)	1 (2.4)	9 (11.7)
	Six hundred to one thousand	1 (11.1)	1 (3.7)	4 (9.8)	6 (7.8)

Source: Computed Figures in parenthesis are percentages

Proxyvon Use Pattern: According to DAMS report 2000, Propoxyphene is the most commonly drug used in Mizoram and Nagaland.

In this study less than a quarter (23.4%) of the respondents had past history of proxyvon abuse and the remaining three quarters (76.6%) had no history of proxyvon abuse. Between the ages of 15-21 years, 22-28 years and 29-35 years, 22.2%, 29.6% and 19.5% reported past history of proxyvon use respectively.

Of all the respondents, the number of respondents who are using proxyvon *thrice a week* and *everyday* is the same (5.2%) each. A few of the respondents (2.6%) are using proxyvon *twice a week*, very few of them (1.3%) are using *once a week* and almost a tenth (9.8%) are using proxyvon *whenever possible*. This last category is difficult to assess as the frequency of use can vary.

Among the abusers, more than half (55.5%) used it *orally* and the remaining (44.4%) are using it in *injecting form*.

Among the abusers, more than one third (38.8%) of the respondents began proxyvon use due to *peer pressure*, less than a quarter (22.2%) due to *curiosity*, more than a tenth (11.1%) initiate it *to escape from problems and hurt feelings* and the remaining more than a quarter (27.7%) cannot attribute any reason for their initiation.

Among the abuser, more than a tenth (11.7%) spent *two hundred to five hundred rupees per week*, more than one third (33.3%) of the respondents spent *six hundred to one thousand rupees* per week and more than a tenth (16.6%) are spending *one hundred rupees per week*.

Table 4.10: History of abstinence

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Had history of substance abuse but presently abstain**				
	Yes	0	6 (22.2)	4 (9.8)	10 (13.0)
	No	9 (100)	21 (77.8)	37 (90.2)	67 (87.0)
2.	**Duration of abstinence**				
	Not using	9 (100)	21 (77.8)	37 (90.2)	67 (87.0)
	Three weeks	0	1 (3.7)	0	1 (1.3)
	Three months	0	1 (3.7)	1 (2.4)	2 (2.6)
	More than six months	0	0	1 (2.4)	1 (1.3)
	More than one year	0	4 (14.8)	2 (4.9)	6 (7.8)

Source: Computed Figures in parenthesis are percentages

Some patients coming to the clinic due to alcohol related problem had history of substances like opioids, proxyvon etc other than alcohol abuse. Their history and patterns of use and abstinence was sought. Among the respondents, more than a tenth (13%) presently abstain from drugs and the remaining majority (87%) presently continues to abuse substances. Less than a tenth (7.8%) abstained from Substances for *more than one year*.

Table 4.11: Suicide Ideation

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Suicide Ideation**				
	Yes	8 (88.9)	11 (40.7)	13 (31.7)	32 (41.5)
	No	1 (11.1)	16 (59.3)	28 (68.3)	45 (58.4)
2.	**Frequency in the last three months**				
	Not present	1 (11.1)	16 (59.3)	28 (68.3)	45 (58.4)
	Twice a week	0	1 (3.7)	0	1 (1.3)
	Twice a month	8 (88.9)	2 (7.4)	2 (4.9)	12 (15.6)
	Once in the last three months	0	8 (29.6)	11 (26.8)	19 (24.7)
3.	**Time of day when suicide ideation occurs**				
	Not present	1 (11.1)	16 (59.3)	28 (68.3)	45 (58.4)
	Early morning	1 (11.1)	1 (3.7)	1 (2.4)	3 (3.9)
	Late morning to noon	0	1 (3.7)	0	1 (1.3)
	Afternoon	6 (66.7)	2 (7.4)	3 (7.3)	11 (14.3)
	Late evening/night	1 (11.1)	7 (25.9)	9 (22.0)	17 (22.1)

Source: Computed Figures in parenthesis are percentages

Suicidal ideation refers to having thoughts about suicidal acts and can encompass a range of degrees of intent and detail in regard to those thoughts. Usually, studies of suicidal ideation rely on self-report in interviews or questionnaires. Based on the 1997 National Survey of Mental Health and Wellbeing, it has been estimated that over 7,85,000 men and over 11,30,000 women experience suicidal ideation at some point in their life.

In this study in Mizoram, among all the respondents coming to the clinic due to drugs related problem, more than a third (41.5%) *had suicide ideation* and the remaining more than half (58.4%) had *no suicide ideation*. Among the respondents who had suicide ideation, less than a quarter (24.7%) had suicide ideation *once in the last three months*, less than a quarter (15.6%) *had twice in a month* and very few (1.3%) had suicidal ideation *twice a week*.

More than a fifth (22.1%) had *suicide ideation in the late evening/night* and less than a quarter (14.3%) expressed that they had this in the *afternoon* and very few (3.9%) had in *early morning* and the remaining (1.3%) had in the *late morning to noon*.

Table 4.12: Reasons of Suicide Ideation

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Romantic breakup**				
	Not present	1 (11.1)	16 (59.3)	28 (68.3)	45 (58.4)
	Yes	2 (22.2)	1 (3.7)	2 (4.9)	5 (6.5)
	No	6 (66.7)	10 (37.0)	11 (26.8)	27 (35.1)
2.	**Strained relationship with spouse**				
	No present	1 (11.1)	16 (59.3)	28 (68.3)	45 (58.4)
	Yes	0	3 (11.1)	5 (12.2)	8 (10.4)
	No	8 (88.9)	8 (29.6)	8 (19.5)	24 (31.2)
3.	**Loss/death of loved one**				
	Not present	1 (11.1)	16 (59.3)	28 (68.3)	45 (58.4)
	Yes	3 (33.3)	1 (3.7)	1 (2.4)	5 (6.5)
	No	5 (55.6)	10 (37.0)	12 (29.3)	27 (35.1)

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
4.	**Failure in studies**				
	Not present	1 (11.1)	16 (59.3)	28 (68.3)	45 (58.4)
	Yes	4 (44.4)	1 (3.7)	0	5 (6.5)
	No	4 (44.4)	10 (37.0)	13 (31.7)	27 (35.1)
5.	**Loss of social status**				
	Not present	1 (11.1)	16 (59.3)	28 (68.3)	45 (58.4)
	Yes	3 (33.3)	4 (14.8)	5 (12.2)	12 (15.6)
	No	5 (55.6)	2 (25.9)	8 (19.5)	20 (26.0)
6.	**Financial problems**				
	Not present	1 (11.1)	16 (59.3)	28 (68.3)	45 (58.4)
	Yes	2 (22.2)	1 (3.7)	1 (2.4)	4 (5.2)
	No	6 (66.7)	10 (47.0)	12 (29.3)	28 (36.4)

Source: Computed Figures in parenthesis are percentages

Suicide and suicidal behaviors usually occur in people with one or more of the following:

- Bipolar disorder
- Borderline personality disorder
- Depression
- Drug or alcohol dependence
- Schizophrenia
- Stressful life issues, such as serious financial or relationship problems

Suicidal behaviors may occur when there is a situation or event that the person finds overwhelming, such as:

- Aging (the elderly have the highest rate of suicide)
- Death of a loved one
- Dependence on drugs or alcohol
- Emotional trauma
- Serious physical illness
- Unemployment or money problems

Risk factors for suicide in teenagers include:

- Access to guns
- Family member who committed suicide
- History of hurting themselves on purpose
- History of being neglected or abused
- Living in communities where there have been recent outbreaks of suicide in young people
- Romantic breakup

(Brendal RW et al., 2008)

In this study conducted in Mizoram in 2014, *Loss of social status* is the highest reason cited by over a third for **suicidal ideation** (37.5%) and *strained relationship* with spouse is the second highest (25%), *romantic breakup*, *loss/death of loved ones* and *failure in studies* are the third reason (15.6% each) and *financial problem* (12.5%) is the least cited reason for suicide ideation. Between the ages of 15-21 years, failure in studies is the reason cited as most common for suicidal ideation (44.4%). Between 22-28 years, loss of social status is the highest (14.8%) reason for suicide ideation and between the ages of 29-35 years, strained relationship with spouse and loss of social status are the common (12.2%) reasons for suicide ideation.

Table 4.13: History of suicide attempt

Sl.No.		Age(in Years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**History of suicide attempt**				
	Yes	4 (44.4)	6 (22.2)	2 (4.9)	12 (15.6)
	No	5 (55.6)	21 (77.8)	39 (95.1)	65 (84.4)
2.	**Frequency of suicide attempt in the past one year**				
	Not present	5 (55.6)	21 (77.8)	39 (95.1)	65 (84.4)
	Once	1 (11.1)	4 (14.8)	2 (4.9)	7 (9.1)
	Twice	3 (33.3)	1 (3.7)	0	4 (5.2)
	Thrice	0	1 (3.7)	0	1 (1.3)

Source: Computed Figures in parenthesis are percentages

Among the respondents, more than a tenth (15.6%) had *history of suicide attempt* and the remaining majority (84.4%) reported *no suicide attempt*. Of the age group of 15-21 years, *almost half (44.4%) had attempted suicide*. A little more than a tenth (11.1%) had attempted at least *once in the past one year*. Less than a third (33.3%) had attempted suicide *twice in the past one year*. Between the ages of 22-28 years, more than a fifth (22.2%) *had attempted suicide* and of these, more than a tenth (14.8%) had attempted suicide on at least *one occasion in the past one year*. Between the age of 29-35 years, 4.9% had history of suicide attempt and 4.9% attempted once in the past one year. Suicide attempt is more common in the younger age group of late adolescence and early adulthood.

Table 4.14: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**History of Tobacco consumption**				
	Yes	9 (100)	27 (100)	41 (100)	77 (100)
	Self				
	Yes	9 (100)	27 (100)	41 (100)	77 (100)
	Friend				
	Yes	9 (100)	27 (100)	41 (100)	77 (100)
	Sibling				
	Yes	0	14 (51.9)	21 (51.2)	35 (45.5)
	No	9 (100)	13 (48.1)	20 (48.8)	42 (54.5)
	Parent				
	Yes	3 (33.3)	12 (44.4)	17 (41.5)	32 (41.6)
	No	6 (66.7)	15 (55.6)	24 (58.5)	45 (58.4)

Source: Computed Figures in parenthesis are percentages

Table 4.15: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Injecting Drug use**				
	Yes	6 (66.7)	17 (63.0)	18 (43.9)	41 (53.2)
	No	3 (33.3)	10 (37.0)	23 (56.1)	36 (46.8)
	Self				
	Yes	6 (66.7)	11 (40.7)	8 (19.5)	25 (32.5)
	No	3 (33.3)	16 (59.3)	33 (80.5)	52 (67.5)
	Friend				
	Yes	6 (66.7)	16 (59.3)	16 (39.0)	38 (49.4)

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
	No	3 (33.3)	11 (40.7)	25 (61.0)	39 (50.6)
	Sibling				
	Yes	0	4 (14.8)	7 (17.7)	11 (14.3)
	No	9 (100)	23 (85.2)	34 (82.9)	66 (85.7)
	Parent				
	No	9 (100)	27 (100)	41 (100)	77 (100)

Source: Computed Figures in parenthesis are percentages

Table 4.16: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Alcohol consumption**				
	Yes	9 (100)	27 (100)	41 (100)	77 (100)
	Self				
	Yes	6 (66.7)	27 (100)	41 (100)	74 (96.1)
	No	3 (33.3)	0	0	3 (3.9)
	Friend				
	Yes	9 (100)	27 (100)	36 (87.8)	72 (93.5)
	No	0	0	5 (12.2)	5 (6.5)
	Sibling				
	Yes	1 (11.1)	9 (33.3)	13 (31.7)	23 (29.9)
	No	8 (88.9)	18 (66.7)	28 (68.3)	54 (70.1)
	Parent				
	Yes	1 (11.1)	6 (22.2)	3 (7.3)	10 (13.0)
	No	8 (88.9)	21 (77.8)	38 (92.7)	67 (87.0)

Source: Computed Figures in parenthesis are percentages

Table 4.17: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Experience of overdose**				
	In Self				
	Yes	0	2 (7.4)	1 (2.4)	3 (3.9)
	No	9 (100)	25 (92.6)	40 (97.6)	74 (96.1)
	In Friend				
	Yes	0	5 (18.5)	5 (12.2)	10 (13.0)
	No	9 (100)	22 (81.5)	36 (87.8)	67 (87.0)
	In Sibling				
	Yes	0	1 (3.7)	1 (2.4)	2 (2.6)
	No	9 (100)	26 (96.3)	40 (97.6)	75 (97.4)

Source: Computed Figures in parenthesis are percentages

Table 4.18: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Driving under influence (DUI) of alcohol/substance**				
	By Self				
	Yes	2 (22.2)	18 (66.7)	21 (51.2)	41 (53.2)
	No	7 (77.8)	9 (33.3)	20 (48.8)	36 (46.8)
	By Friend				
	Yes	1 (11.1)	17 (63.0)	19 (46.3)	37 (48.1)
	No	8 (88.9)	10 (37.0)	22 (53.7)	40 (51.2)
	By Sibling				
	Yes	0	6 (22.2)	9 (22.0)	15 (19.5)

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
	No	9 (100)	21 (77.8)	32 (78.0)	62 (80.5)
	Parent				
	Yes	0	3 (11.1)	1 (2.4)	4 (5.2)
	No	9 (100)	24 (88.9)	40 (97.6)	73 (94.8)

Source: Computed Figures in parenthesis are percentages

Table 4.19: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Attempted suicide**				
	Self				
	Yes	4 (44.4)	6 (22.2)	2 (4.9)	12 (15.6)
	No	5 (55.6)	21 (77.8)	39 (95.1)	65 (84.4)
	Friend				
	Yes	0	5 (18.5)	9 (22.0)	14 (18.2)
	No	9 (100)	22 (81.5)	32 (78.0)	63 (81.8)
	Sibling				
	Yes	0	1 (3.7)	1 (2.4)	2 (2.6)
	No	9 (100)	26 (96.3)	40 (97.6)	75 (97.4)
	Parent				
	No	9 (100)	27 (100)	41 (100)	77 (100)

Source: Computed Figures in parenthesis are percentages

Table 4.20: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Committed suicide**				
	Friend				
	Yes	1 (11.1)	1 (3.7)	4 (9.8)	6 (7.8)

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
	No	8 (88.9)	26 (96.3)	37 (90.2)	71 (92.2)
	Sibling				
	Yes	0	0	2 (4.9)	2 (2.6)
	No	9 (100)	27 (100)	39 (95.1)	75 (97.4)
	Parent				
	No	9 (100)	27 (100)	41 (100)	77 (100)

Source: Computed Figures in parenthesis are percentages

Table 4.21: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Deliberate self harm**				
	Self				
	Yes	3 (33.3)	6 (22.2)	2 (4.96)	11 (14.4)
	No	6 (66.7)	21 (77.8)	39 (95.1)	66 (85.7)
	Friend				
	Yes	0	6 (22.2)	4 (9.8)	10 (13.0)
	No	9 (100)	21 (77.8)	37 (90.2)	67 (87.0)
	Sibling				
	Yes	0	1 (3.7)	1 (2.4)	2 (2.6)
	No	9 (100)	26 (96.3)	40 (97.6)	75 (97.4)

Source: Computed Figures in parenthesis are percentages

Table 4.22: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Unprotected sex**				
	Self				
	Yes	0	11 (40.7)	12 (29.3)	23 (29.9)
	No	9 (100)	16 (59.3)	29 (70.7)	54 (70.1)
	Friend				
	Yes	0	11 (40.7)	11 (26.8)	22 (28.6)
	No	9 (100)	16 (59.3)	30 (73.2)	55 (71.4)
	Sibling				
	Yes	0	2 (7.4)	6 (14.6)	8 (10.4)
	No	9 (100)	25 (92.6)	35 (85.4)	69 (89.6)

Source: Computed Figures in parenthesis are percentages

Table 4.23: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Sexual behavior under influence of alcohol/substance**				
	Self				
	Yes	0	10 (37.0)	9 (22.0)	19 (24.7)
	No	9 (100)	17 (63.0)	32 (78.0)	58 (75.3)
	Friend				
	Yes	0	10 (37.0)	8 (19.5)	18 (23.4)
	No	9 (100)	17 (63.0)	33 (80.5)	59 (76.6)
	Sibling				
	Yes	0	1 (3.7)	1 (2.4)	2 (2.6)
	No	9 (100)	26 (96.3)	40 (97.6)	75 (97.4)

Source: Computed Figures in parenthesis are percentages

Table 4.24: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Had STI**				
	Self				
	No	9 (100)	27 (100)	41 (100)	77 (100)
	Friend				
	Yes	0	0	2 (4.9)	2 (2.6)
	No	9 (100)	27 (100)	39 (95.1)	75 (97.4)
	Sibling				
	No	9 (100)	27 (100)	41 (100)	77 (100)

Source: Computed Figures in parenthesis are percentages

Table 4.25: Suicide Risk Behavior

Sl.No.		Age (in years)			Total n=77
		15-21 n=9	22-28 n=27	29-35 n=41	
1.	**Has HIV/AIDS**				
	Self				
	No	9 (100)	27 (100)	41 (100)	77 (100)
	Friend				
	Yes	0	0	1 (2.4)	1 (1.3)
	No	9 (100)	27 (100)	40 (97.6)	76 (98.7)

Source: Computed Figures in parenthesis are percentages

All the respondents and their friends are indulging in tobacco consumption, less than half (45.5%) of the respondents' siblings and parents (41.6%) consume tobacco.

More than half (53.2%) had *exposure to injecting drug* use through self/friend or siblings. Less than a third (32.5%) of the respondents are *injecting drug users themselves*. All the respondents had exposure to alcohol consumption by themselves

or through their friends, siblings or parents. An overwhelming majority (96.1%) of the respondents are indulging in alcohol, while an almost equal number (93.5%) of the respondents had their friends indulging in alcohol and less than a third (29.9%) and more than a tenth (13%) had their siblings and parent respectively indulging in alcohol.

More than a tenth (15.6%) of the respondents have *had an overdose experience themselves or have witnessed it through their friends,* or siblings. In the case of a very small number (3.9%) of the respondents had an overdose themselves.

Driving under the Influence of alcohol and substances is extremely dangerous to life for self and for others. It is the cause of mortality due to accidents. In this study in Mizoram, more than half (53.2%) of the respondents confess to *having driven under the influence of alcohol/substance*. Less than half (48.1%), Less than a fifth (19.5%) and less than a tenth (5.2%) reported that their friends, siblings and parents respectively are driving under the influence of alcohol/substances.

A sixth (15.6%) of the respondents report *having attempted suicide*. Less than a fifth (18.2%) of the respondents reported that they had friends who had attempted suicide. A few (2.6%) of the respondents had siblings who had attempted suicide. No reports were found of attempt to suicide by the parents.

Alarming results in reference to risk behavior related to suicide was seen among the networks that the respondents were part of. Less than a tenth (7.8%) of the respondents reported that their friends had committed suicide, a small number (2.6%) had siblings who had committed suicide. Deliberate self harm (DSH) is a concept that is very linked to risk behavior. More than a tenth (13%) and 2.6% reported deliberate self harm among friends and siblings respectively.

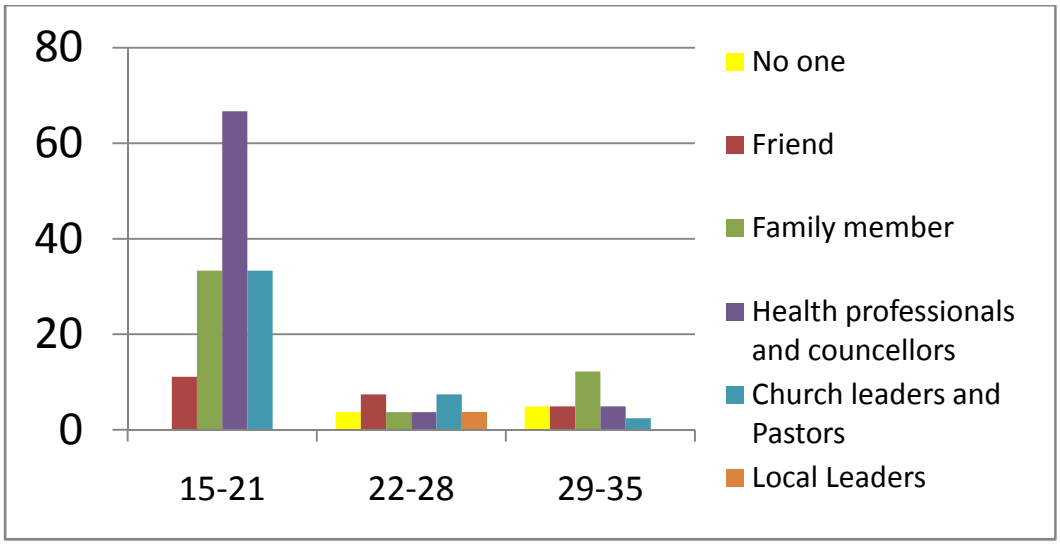
More than a quarter (29.9%) of them reported themselves to have unprotected sex. A further number (28.6%) and a tenth (10.4%) had their friends and siblings who indulged in unprotected sex respectively.

Almost a quarter (24.7%) reported sexual behavior under the influence of alcohol/substances. Almost a quarter (23.4%) reported their friends indulging in the same while only a few (2.6 %) siblings who indulged in this risk behavior.

No reports were found to have an STI among the respondents, their siblings and parents. A small number (2.6%) had friends who have had an STI.

Only one respondent (1.3%) reported that they have friends who have HIV/AIDS.

Fig 4.4: Social support



In Mizoram for tertiary health care support, there are 13 Govt. Hospitals, 14 Non-Govt. Hospitals, 370 Health Sub-Centers, 57 PHC's and 12 CHC's (Economic Survey Mizoram, 2012-2013). In this study in Mizoram, it is evident the respondents seek help from one or more sources. More than a tenth (11.7%) seeks help from family members and health professionals and counselors which features among the

highest sources of help. Church leaders and Pastors offered most help (7.8%), a smaller number (6.5%) seek help from their friends and very few (1.3%) seek help from local leaders.

Correlation

Table 4.26: Relationship of suicide and substance abuse

Sl. No		Suicide Ideation	Frequency of Suicide Ideation In The Last Three Months	Attempted Suicide	Frequency of Attempted Suicide	Deliberate Self Harm
1	Age	-0.30**	-0.22*	-0.01	-0.39**	-0.21
2	Gender	-0.38**	-0.34**	0.06	-0.25*	-0.17
3	Educational Qualification	-0.07	-0.05	0.02	-0.23*	0.00
4	Locality	0.18	0.18	0.10	0.08	0.00
5	Size of The Family	-0.15	-0.14	-0.03	-0.12	0.04
6	Frequency of Tobacco Used	-0.15	-0.11	0.00	-0.26*	-0.02
7	Weekly Expenditure on Tobacco	0.03	0.08	-0.22	-0.10	0.16
8	Frequency of Dendrite Used	0.08	0.13	-0.36**	0.19	0.38**
9	Weekly Expenditure on Dendrite	0.03	0.07	-0.30**	0.12	0.34**
10	Frequency of Alcohol Used	-0.31**	-0.24*	-0.16	-0.13	0.06
11	Weekly Expenditure on Alcohol	-0.18	-0.12	-0.25*	-0.10	0.17
12	Frequency of Cannabis Used	0.10	0.14	-0.36**	0.13	0.39**
13	Weekly Expenditure on Cannabis	0.03	0.05	-0.28*	-0.01	0.19
14	Frequency of Opioids Used	0.38**	0.37**	-0.18	0.41**	0.32**
15	Weekly Expenditure on Opioids	0.32**	0.31**	-0.12	0.35**	0.25*

Sl. No		Suicide Ideation	Frequency of Suicide Ideation In The Last Three Months	Attempted Suicide	Frequency of Attempted Suicide	Deliberate Self Harm
16	Frequency of Proxyvon Used	0.24**	0.29**	-0.42**	0.31**	0.34**
17	Weekly Expenditure on Proxyvon Used	0.17	0.22	-0.34**	0.24**	0.32**
18	Suicide Ideation	1.00	0.98**	-0.33**	0.39**	0.21
19	Frequency of Suicide Ideation	0.98**	1.00	-0.36**	0.40**	0.23*
20	Attempted Suicide	-0.33*	-0.36**	1.00	-0.30**	-0.46**
21	Frequency of Attempted Suicide	0.39**	0.40**	-0.30**	1.00	0.23*
22	Deliberate Self Harm	0.21	0.23*	-0.46**	0.23*	1

Source: Computed ** P <0.01 * P<0.05

Table 4.27: Pattern of Relationship among Substance Use

Sl.No.	Substance Use	Va01	Va02	Va03	Va04	Va05	Va06	Va07	Va08	Va09	Va10	Va11	Va12
Va01	Frequency of Tobacco used	1.00											
Va02	Weekly expenditure on Tobacco	0.42**	1.00										
Va03	Frequency of Dendrite used	0.15	0.53**	1.00									
Va04	Weekly expenditure on Dendrite	0.15	0.56**	0.93**	1.00								
Va05	Frequency of Alcohol used	0.43**	0.36**	0.19	0.19	1.00							
Va06	Weekly expenditure on Alcohol	0.42**	0.50**	0.25**	0.21	0.54**	1.00						
Va07	Frequency of Cannabis used	0.20	0.44**	0.61**	0.55**	0.10	0.15	1.00					
Va08	Weekly expenditure on Cannabis	0.20	0.46**	0.45**	0.53**	0.05	0.12	0.77**	1.00				
Va09	Frequency of Opioids used	-0.23**	0.16	0.25*	0.25	-0.13	0.00	0.28**	0.22*	1.00			
Va10	Weekly expenditure on Opioids	-0.27*	0.05	0.12	0.15	-0.16	-0.03	0.16	0.23*	0.88*	1.00		
Va11	Frequency of Proxyvon used	-0.12	0.24*	0.45**	0.39**	0.13	0.11	0.37*	0.31*	0.52**	0.45	1.00	
Va12	Weekly expenditure on proxyvon used	-0.25*	0.17	0.37**	0.36**	0.00	0.05	0.32**	0.40**	0.57**	0.59**	0.85**	1.00

Source: Computed ** P <0.01 * P<0.05

Table 4.28: Demographic Characteristics and Substance Use

Substance Use	Demographic Characteristic				
	Age	**Gender**	**Educational Qualification**	**Locality**	**Size of the Family**
Frequency of Tobacco Used	0.40**	0.42**	0.19	-0.19	0.06
Weekly Expenditure on Tobacco	0.15	0.21	0.17	-0.51**	0.24*
Frequency of Dendrite Used	0.04	0.10	-0.10	-0.33**	-0.02
Weekly Expenditure on Dendrite	0.01	0.14	-0.05	-0.41**	0.11
Frequency of Alcohol Used	0.45**	0.27*	0.12	-0.13	0.15
Weekly Expenditure on Alcohol	0.30**	0.44**	0.09	-0.23**	0.11
Frequency of Cannabis Used	-0.08	-0.01	0.24**	-0.35*	0.00
Weekly Expenditure on Cannabis	-0.06	0.14	0.30**	-0.41**	0.07
Frequency of Opioids Used	-0.41**	-0.09	0.04	-0.09	-0.02
Weekly Expenditure on Opioids	-0.38**	-0.11	0.10	-0.02	0.01
Frequency of Proxyvon Used	0.02	-0.22	0.01	-0.16	-0.04
Weekly Expenditure on Proxyvon Used	-0.08	-0.07	0.07	-0.18	0.03

Source: Computed ** P <0.01 * P<0.05

Substance Abuse, Suicide Ideation and Risk Behavior

To understand the pattern of relationship between suicide ideation risk behavior on the one hand and the demographic variables, and substance use Pearson's coefficients of correlation were used. The coefficients of correlation between demographic variables such as age, gender, education, locality, and size of family, substance use variables such as frequency of tobacco used, weekly expenditure on tobacco, frequency of dendrite used, weekly expenditure on dendrite, frequency of alcohol used, weekly expenditure on alcohol. Frequency of cannabis used, weekly expenditure on cannabis, frequency of opioids used, weekly expenditure on opioids, frequency of proxyvon used, weekly expenditure on proxyvon used, on the one hand suicide ideation, frequency of suicide ideation, attempted suicide and frequency of suicide, deliberate self harm on the other were computed and presented in the table 4.26. This table also presents the inter correlation matrix of relationship among the suicide ideation and risk behavior.

Demographic Factors and Suicide

Among the demographic variables age, gender, education, locality, and size of family only age and gender have significantly associated with suicide ideation and suicide risk behavior. Age has significant negative relationship with suicide ideation, frequency of suicide ideation as well as frequency of attempted suicide. In other words higher the age lower were suicide ideation and frequency of suicide attempts. The negative effect of gender on suicide ideation and suicide risk behavior implies that men have relatively greater frequency of suicide ideation and frequency of attempted suicide as compared to their women counter parts.

Substance Abuse, Suicide Ideation and Risk Behavior

Suicide ideation is negatively related with frequency of alcohol used only while it has no significant relationship with any of abuse of other substances. It implies that higher the frequency of alcohol use lower was the suicidal ideation. On the other hand it has positive relationship with use of proxyvon, and opioids. Higher use of these substances is associated with the greater frequency of suicide ideation. Further, suicide ideation has no relationship with abuse of substances such as alcohol, tobacco, and cannabis.

Suicide risk behavior is negatively related abuse of substances such as alcohol and cannabis while having positive relationship with the use of opioids and proxyvon. On the other hand, it does not have any significant association with the abuse of tobacco and dendrite

Suicide Ideation and Risk Behavior

Suicide ideation and risk behavior are found to have positive association. In other words higher the frequency of suicide ideation higher was the frequency of attempted suicide and deliberate self harm.

Age is positively related to frequency of tobacco use. Tobacco use is more common among the older age group and they are spending more on it. Likewise, abuse of alcohol is more common among older age group.

Opioids abuse is more common among younger age group.

Tobacco and other substance abuse is more common in urban area.

Large-sized families tend to spend more on tobacco.

Cannabis use is high in higher educational qualification.

Suicide ideation and deliberate self harm is more common among younger group.

Of all the substance abuser, opioids abuser are more likely to attempt suicide, have more suicide ideation and deliberate self harm.

Those who have suicide ideation are more likely to attempt suicide.

Key Informant Interviews

Three key informants interview were conducted.

Interview 1: Date: 8th February, 2014; 12:00 Noon

Duration: 30 minutes

The first key informant interview was with Dr. C.Lalhrekima, a Psychiatrist and the Head of Department, Department of Psychiatry, Kulikawn Hospital. The objective of the interview was to understand the mental health issues regarding the substance abusers coming to the Hospital for psychiatric help. Dr. C.Lalhrekima is a well know psychiatrist who offers services to the psychiatric patients as well as substance abusers.

According to Dr. C.Lalhrekima, there are many young adults coming to the clinic due to substance related problems. Most substance abusers are having a poor

mental health. There are many old cases also which indicate that there are high numbers of relapse cases. “Peer pressure is the highest reason of substance abuse”, he added.

From his observation, there is a high chance of suicide ideation or suicide attempt among substance abuse. This again may be *due to a poor state of mental health*. Substance abusers especially among the youth are easily influenced by peer group. After the detoxification treatment, *psychological counseling* alongside is very much important. *Pharmacotherapy/detoxification only helps to reduce the withdrawal systems*. But during and after the treatment, *motivational enhancement test, individual counseling for relapse prevention and group counseling* should be included. He further states that substance abusers are at risk for attempting suicide at the state of intoxication. “*Ruih lai hian chhia leh ṭha hriatna a buai ṭhin avangin harhfim laia mahni intihlum duhlo pawhin ruih lai chuan an ti mai ṭhin a ni. Mahni inthah duhna rilru nei reng pawh engemaw chhan avangin a intihlum kherlo thei. Zu in mite zingah an ruih lai leh ruih loh lai pawhin rilru/ngaihtuahna buai a awm theih. Zu in mite zingah midang hriatpui si loh a rilru tibuaitu, aw ri hriatte leh ramhuai hmuhte a tam hle a, chung chuan mahni inthat turin a tur/tilui ṭhinin an inhria. Engemaw vang leh a chhan awm siloin hlauhna leh manganna nasa tak an nei ṭhin a, chungte avang chuan mahni an intihlum ṭhin a ni.”* (“During intoxication, there is an impaired judgment which causes them to commit suicide which may not be the intention when they are sober. Suicide ideation may present but one may hold on to that ideation due to many reasons. There are also cases of delusional disorder among alcohol abusers during or after intoxication. Hallucinations, visual or auditory hallucination may disturb the alcoholic person where they heard a voice telling to commit suicide. There

can also be known or unknown fearfulness where one is so frustrated to make him to commit suicide.")

"*Thalaite zingah mahni intihnat leh inthah tumna hi nu leh pa leh kawppuite kar nante, an duh ngen nante leh an ruihhlo chin ṭhin thup nana hmang an awm ṭhin."* (He further stated that there also cases especially among the youth where *Deliberate Self Harm and suicide attempt are used for secondary gain.* Threatening parents and spouse to kill oneself in order to get what they want or to cover up their addiction is not uncommon in his experience.)

Dr. C.Lalhrekima further suggested that any warning signs or signals of suicide should be taken seriously. *Mahni inthah duhna rilru neite hi an chhung leh khatte leh an thenrualten an ngaihsak a an ven ṭhat chuan mahni inthahna tam tak hi a ven/pumpelh theih a ni. (When other family member or friends are sensitive about the warning signals, many suicides can be prevented.)* People often regarded that talking about suicide as a taboo. They believed that talking about suicide will only give the idea about suicide because it gives an idea. But it is not so. With open heart and care, suicide could be prevented. One need not be to be a professional, a counselor or a psychiatrist to prevent suicide. Approaching with care and understanding, one can prevent suicide.

Interview 2: Date: 9th February, 2013

Duration: 2 hrs.

The second interview was with Dr. Robert L.Khawlhring, MD (Psychiatry), a Programme Officer in Mental Health Programme in the Directorate of Health & Medical Education, Govt. of Mizoram. He stated that the Mizo youth as a general are easily influenced by peers in a negative way.

The most common drug use among the youth is *spasmo-proxyvon, Reupen, Lobain, Phensedyl, Cough Syrup, Volatile Solvents like glue, petrol, correcting fluid, speed pills like amphetamine and methamphetamine and Heroin (No. 4), and alcohol.* After Total Prohibition, on liquor was imposed on 20th February, 1997 in Mizoram, the demand on substances other than alcohol became increased. It has led to many youth turning to relatively cheap clinical drugs like proxyvon. *The drug collapses and raptures veins causing subsequent physical disabilities.*

Substance abuse immediately impaired judgment which led to unhealthy and destructive behavior. The long term effects leads to low self esteem, depressive mood and harms the relationship with spouse and other family members, they became less productive to the society. He further stated that substance abuse disorder is often in combination with other mental disorders which is one of the risk factors for suicide. People trying to commit suicide are often trying to get away from a life situation that seems impossible to deal with. Most suicide attempts are not successful. Many of these attempts are done that makes rescue possible. People harm themselves like cutting their wrist and hand with intention to die. These signals should not be neglected. It is a cry for help. Dr. Robert further discuss that talking about suicide if often considered as a taboo. When one seems to be suicidal, the one who knows about it is responsible to save him. *Mahni intihlum chhan tur hian psychiatrist emaw thiamna bik emaw neih angailo. Hriatthiamna leh ngaihsakna hi anmahni puih nan a pawimawh ber. An harsatna ngaihthlaksak ringawt pawh hian awmzia a nei thui hle.* (One need not to be psychiatrist or an expert to save someone from suicide. Understanding and care is more than enough to approach him. *Just listening to his story is quite effective for the suicide prone person*).

Interview 3: Date: 9th February, 2013

Duration: 2 hrs

The third key Informant interview was Mr. VLMS Dawngliana, Superintendent, Excise and Narcotic Department, Government of Mizoram. He stated that Mizoram is using MLTP (Mizoram Liquor Prohibition Act) 1995 and Mizoram Excise Act under which Liquor and any person related with are seized. Proxyvon and Parvon Spas are seized under the act of ADCA (Assam Drug Control Act) 1950, No.4, Pseudoephedrine and ganja are seized under ND&PS Act 1985.

Heroin and No.4 are trafficking from Myanmar through Champhai. Pseudoephedrine from Delhi. Alcohol/Liquor from the neighboring states like Assam and Meghalaya.

Apart from foreign Liquor and spirit, there are locally fermented rice with yeast (Zu Bilh), which is processed in the outskirts of Aizawl like Rangvamual and Phunchawng. He further stated the persons who are seized in selling or possession of alcohol or drugs are mostly between the age of 20 – 50 years of age. And there are persons below 18 years which are involving in selling and possessing such local made liquor.

According to him, there were 266 persons arrested under ND&PS Act 1985, 3199 persons under MLTP/ME Act, 1995 in 2011.

In 2012, the Excise Department seized 94250 bottles of Indian made Foreign Liquor and 99353 litres of local made liquor..

He stated that the pseudoephedrine trafficking from Delhi are channelizing to Myanmar through Mizoram and the processed and readymade product are coming back again to the state, he suggested that pictorial warnings will be helpful in preventing the youth from drugs.

CHAPTER V

CONCLUSION AND SUGGESTIONS

5.1 Conclusion: The study attempts to understand Substance Abuse and Suicide Risk Behavior among youth attending Psychiatric Services at Psychiatry Hospital, Aizawl. *Substances* considered in this study include alcohol, prescription medication such as analgesics, sedatives, tranquilizers and stimulants and illicit drugs like marijuana and hashish, inhalants, hallucinogens, and heroin.

- Youth in this study refers to all persons between the ages of 15-35 years. The psychiatry ward of the civil hospital registers substance abusers on an average 3000 out-patients and 300 inpatients per year. Approximately – are substance abusers who seek services per year. The nature of substance abuse and injecting drug use in particular often leads to concerns on risk behavior .In this study risk behavior has been conceptualized as all behavior on the part of an individual that negatively impacts physical, psychological and social well-being. It is that behavior that specifically increases vulnerability and impacts one's life and one's health. The important findings are listed below.
- In this study on youth seeking psychiatric services in Mizoram, the age group is classified into three categories – 15-21 years, 22-28 years and 29-35 years. The study comprised of the youth i.e., 15-35 years of age. *From the findings, the respondents between 29-35 years constituted the highest number among male and the age group between 15-21 years and 29-35 years constituted the highest number among women.*
- *In the Current study, almost half of the respondents (46.8%) were unmarried*. Nearly one third were married, more than a fifth of the respondents were divorced and a small number were remarried.

- *In reference to education, it was observed that* almost half of the respondents had studied upto High School. More than a fifth of the respondents finished Higher Secondary Level. More than a tenth were graduates and an equal number had studied upto Primary level.
- In this study almost all of the respondents were Christian as Christianity is the dominant religion in the state. There is only one respondent who is Buddhist.
- There are several denominations among the Christians in this state. More than half (51.9%) of the respondents were of the Presbyterian Church, the Salvation Army had the second highest percentage. The Baptist is the third of the total respondents. Roman Catholic contributes and UPC and others like IKK and other denominations constitute of the population.
- In terms of locality (urban/rural), majority of the respondents are coming from the Urban area and the remaining (26%) the rural area.
- Quality of housing is an important indicator of socio-economic status. More than three-quarters of the respondents are staying in their own house and a fifth (Less than two-thirds of the respondents live in Assam Type House are in a rented house. More than a third live in a cemented *pucca* RCC type house and only a few of the respondents live in a *Di-in* (Traditional Hut made of bamboo and thatch) which has basic amenities only.
- Size of family is related to the availability of support. *Majority of them i.e., 81.8% have four to six family members indicating that many of them were likely to have enjoyed social support* .More than a tenth

belong to families having more than seven members in the family and a few have less than three members in the family.

- As Substance abuse is often linked to problems experienced in the family, information was sought on the same. Less than two-thirds of the respondents belong to stable family, *more than a quarter of the respondents are coming from a broken family* and a small number belong to a reconstituted family.
- *All the respondents are presently substance abusers and no one reports abstinence.*
- *All the respondents confess to the use of tobacco in smoke and smokeless form.* An overwhelming majority of the respondents used it every day. As tobacco is a known **gateway** factor to subsequent substance abuse, this finding is very important. Only a fifth have past history of dendrite use, another **gateway substance**. Almost all the respondents however, used Alcohol significantly increasing their risk and vulnerability.
- Of all the respondents, a third used cannabis.
- Less than a third used opioids.
- In this study less than a quarter of the respondents had past history of proxyvon abuse.
- In this study in Mizoram, among all the respondents coming to the clinic due to drugs related problem, *more than a third had suicide ideation*

- All the respondents and their friends are indulging in tobacco consumption, less than half of the respondents' siblings and parents consume tobacco.
- Information was sought on social support of substance abusers. In this study, it is *evident the respondents seek help from one or more sources.* More than a tenth seeks help from *family members and health professionals and counselors which features among the highest sources of help*. Church leaders and Pastors offered most help which is almost a tenth, a smaller number more than half a tenth seek help from their friends and a few of them sought help from local leaders.

5.2 Suggestions: Based on the above findings a few suggestions have been made. The suggestions have implications for Social Work intervention, policy and planning of mental health services and for research in the behavioral sciences.

1. Social Work Practice

i. Suggestions in this regard may be divided into *clinical Practice* functions and Community practice, In reference to clinical practice, the findings of this study clearly indicate the need for counseling of substance abusers. Identification of Risk behavior and promoting safe behavioral strategies during counseling are considered important**.**

ii**.** In reference to *Social work practice in Communities*, mass awareness on consequences of substance abuse and possible risk behaviors associated with substance abuse are essential. Advocacy efforts should also be aimed at increasing

family support besides in helping in the early identification of people prone to suicide and other risk behaviors such as deliberate Self harm.

2. Mental Health Policy and Planning

i. Although there is a school mental health programme recently implemented in the state, there is much that needs to be done in this regard. As suggested by other experts, effective treatment programs could be designed to allow the suicidal adolescent expression of such feelings and facilitate his/her development of a sense of being “non-expendable” that is, a sense of being wanted and valued as an individual.

ii. Similarly, colleges and universities require a sound mental health cell that addresses the needs of the youth, facilitates expression of feelings and allows for ventilation. At present only the university and its constituent college in Mizoram have cells of this kind.

iii. Family therapy could promote more positive family interactions and help parents learn to convey to their children a sense of worth and value. In this study too, the findings indicate that family members are a great source of support. .Psychodynamic therapy could help the adolescent understand the underlying emotional experiences in his or her early childhood through which he or she developed feelings of worthlessness and expandability. By working through these feelings in the context of the therapeutic relationship, the adolescent could begin to develop a greater sense of intrinsic self-worth and esteem.

3. Suggestions for Research

i. As gateway substances have clearly emerged in this study as important, the dynamics of gateway and pathways into substance abuse need to be more clearly studied.

ii. As the findings indicate the role of peers in initiation and maintenance of substance abuse, research on personal networks, social networks and peer-led intervention research may be able to enhance our understanding on the subject.

iii. Socio-economic background of substance abusers is an important area of research.

iv. Health status of substance abusers is an important area of research.

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Interview Schedule (English)

Substance Abuse and Suicidal Risk Behavior Among children seeking help from the Psychiatry Department, Kulikawn Hospital

Research Scholar

K.Lalmuanpuii
M.Phil Scholar
Department of Social Work
Mizoram University

Research Supervisor

Dr. Kalpana Sarathy

Schedule Number:_____ Date:_____

I. Profile of the Respondent

1. Name:

2. Age:

3. Gender: **1** Female, **2** Male

4. Marital Status: **1** Never Married, **2** Married, **3** Divorced, 4 Remarried,

5 Widowed/widower

5. Educational qualification: **1** Illiterate, **2** Literate, **3** Class I-VII, **4** Class VIII-X,

5 Class XI-XII, **6** Graduate, **7** Post Graduate,

8 Others……..Specify

6. Religion: **1** Christian, **2** Muslim, **3** Hindu, **4** Buddhist, **5** Others

7. Denomination: **1** Presbyterian, **2** Baptist, **3** Salvation Army, **4** Roman Catholic,

5 Seventh Day Adventist, **6** UPC, **7** Others……..(Specify)

8. Locality: **1** Rural, **2** Urban

9. House ownership: **1** Owned, **2** Rented

10. Type of family: **1** Traditional Hut, **2** Assam Type, **3** RCC

11. Size of the family: **1** below three members, **2** Four – Six Members,

3 More than Seven members

12. Form of Family: **1** Stable, **2** Broken, **3** Reconstituted, **4** Others (Specify…….)

II. Substance Abuse

1. Presently **abuse** substance: **1** Yes ☐ **0** No ☐

2. What type of substance?

Type of Substance	***Frequency per week**	****Mode of Use**	*****Reasons for initiation**	******Approx Exp/Week**
Tobacco(Specify)				
Dendrite				
Alcohol				
Cannabis				
Opioids				
Proxyvon				

Codes: ***1** once, **2** Twice, **3** Thrice, **4** Everyday, **5** Others:****1** Oral, **2** Smoking, **3** sniffing, **4** Injecting

*** **1** Peer pressure, **2** curiosity, **3** revenge and anger, **4** to escape from problems and hurt feelings, **5** don't know. ****(in rupee) **1** One Hundred, **2** Two Hundred – Five Hundred, **3** Six hundred to One thousand, **4** One thousand to Three Thousand, **5** Four Thousand and above.

3. Had history of substance abuse but presently abstain: **1** Yes ☐ **0** No ☐

4. Duration for abstinence: specify when

1 week	3 weeks	3 months	More than 6 months	More than 1 year

Code **1** Last 1 week, **2** last Three weeks, **3** last Three months, **4** more than six months, **5** more than One year

III. Suicide ideation:

1. Had suicide ideation: **1** Yes ☐ **0** No ☐

2. Frequency in last three months:

Everyday	Twice a week	Twice a month	Once in the last three months

3. Time of Day when suicide ideation often occurs

Early Morning	Late Morning-Noon	Afternoon	Late evening/Night

4. What were the reasons for the suicidal ideation?

Romantic breakup	
Strained relationship with spouse	
Loss/death of loved one	
Failure in studies	
Loss of social status	

Financial problem	

5. Have you ever attempted Suicide? **1** Yes ☐ **0** No ☐

6. How many times have you attempted Suicide in the past one year?

7. Network and Risk Behavior

Risk Behavior	**Self**	**Friend**	**Sibling**	**Parent**
Indulges in Tobacco consumption				
Indulges in Injecting Drug Use				
Indulges in Alcohol consumption				
Has had an Overdose				
Drives under influence of Alcohol/substances				
Attempted Suicide				
Committed Suicide				
Deliberate Self harm				
Unprotected Sex				
Sexual Behavior Under Influence of Sub				
Had STI				
Had HIV/AIDS				

8. Social support

No one	
Friends	
Family Members	
Health Professionals and Counselors	
Church Leaders and Pastors	
Local leaders	

Interview Schedule (Mizo)

Substance Abuse and Suicidal Risk Behavior among children seeking help from the Psychiatry Department, Kulikawn Hospital

Research Scholar

K.Lalmuanpuii
M.Phil Scholar
Department of Social Work
Mizoram University

Research Supervisor

Dr. Kalpana Sarathy

Schedule Number:_____ Date:_____

I.Profile of the Respondent

1. Hming:

2. Kum:

3. Gender: **1** Hmeichhia, **2** Mipa

4. Marital Status: **1** Nei lo, **2** Nei mek, **3** Inthen, **4** Then tawh nei leh,
5 Nupui/Pasal sun

5. Lehkha zir chen: **1** Ziak leh chhiar thiam lo, **2** Ziak leh chhiar thiam, **3** ClassI-VII,
4 Class VIII-X, **5** Class XI- XII, **6** Graduate, **7** Post Graduate,
8 A dang: ……..Specify

6. Sakhua: **1** Kristian, **2** Muslim **3**, Hindu, **4** Buddhist, **5** A dangte

7. Kohhran: **1** Presbyterian, **2** Baptist, **3** Salvation Army, **4** Roman Catholic,
5 Seventh Day Adventist, **6** UPC, **7** A dangte…….. (Specify)

8. Locality: **1** thingtlang, **2** khawpui

9. In leh lo: **1** Mahni ta, **2** Mi in luah

10. In: **1** Di in, **2** Assam Type, **3** RCC

11. Chhungkaw zat: **1** Member 3 aia tlem, **2** Pali– Paruk Member, **3** Pasarih aia tam

12. Chhungkaw dinhmun: **1** Nu leh pa kar, **2** Nu leh pa kar lo, **3** Nu/pa emaw nupui/pasal nei nawn emaw Nuhrawn/pahrawn nei, **4** Others (Specify…….)

II. **Ruitheihthil tih dan:**

1. Tunah ti mek: **1** Aw ☐ **0** Aih ☐

2. Eng chi nge??

Ruihtheih thil tih	***Kar khata tih zat**	****Engtianga tih nge?**	*****Engvanga ti tan nge?**	******Kar khata sum hman zat**
Zuk leh hmuam (Specify)				
Dendrite				
Zu				
Ganja				
No. 4				
Proxyvon				

Codes: ***1** vawi khat, **2** vawi hnih, **3** vawi thum , **4** Nitin, **5** Others:

****1** hmuam/ei/in, **2** zuk, **3** hnim **4** Inchiu

***** **1** thiante tih vang, **2** chak ve hrim hrim, **3** thinrim leh phjuba lak nan, **4** harsatna leh rilru natna atan chhawk nan, **5** hre lo. ****** (in rupee) **1** Cheng za , **2** Za - zanga, **3** Zanga-Sangkhat, **4** Sangkhat - Sangthum , **5** Santhum aia tam.

3. Tunhma ti ve thin mahse nghei tawh: **1** Aw ☐ **0** Aih ☐

4. Nghei hun chhung: (specify when)

Kar 1	**Kar 3 weeks**	**Thla 3 months**	**Thla 6 aia tam**	**Kum 1 aia tam**

Code: **1** kar khat kal ta atang khan, **2** kar thum kalta atang, **3** thla thum kal ta,

4 thla ruk kal ta atangin, **5** kum khat aia tam

III. Intihhlum duhna rilru:

1. Intihhlum duhna rilru ka nei: **1** Aw ☐ **0** Aih ☐

2.Thla thum kalta atang khan:

Nitin	**Kar khatah vawi hnih**	**Thla khatah vawi hnih**	**Thla thumah vawi khat**

Code: **1** Nitin **2** Kar khatah vawi hnih **3** Thla khatah vawi hnih

4 Thla thumah vawi khat

3. Engtik hun leh ni ah nge mahni intihhlum duhna rilru I put thin?

Zingkar	**Zing chaw ei kham-chhun_Noon**	**Chawhnu**	**Tlailam leh zanah**

4.Engvanginnge mahni nunna lak mai duhna rilru I put thin?

Bialpa/Bialnu nena inthen/intihthiam loh vang	
Nupui/Pasal nena intihthiamloh vang	
Kan hmangaihte’n min thihsan vang	

Zirlaia hlawhchham vang	
Hmingthatna/dinhmun tha kan hloh vang	
Sum leh pai harsatna vang	
Natna benvawn neih vang	

5. I duh reng vangin nangmah I in ti na tawh em eg mahni inzai etc??

1Aw ☐ **0** Aih ☐

6. Mahni intihhlum I tum chhin tawh em?? **1** Aw ☐ **0** Aih ☐

7. Vawi engzatnge kum khat chhungin intihhlum I lo tum tawh?

8. Network and Risk Behavior (I chhungte leh nangmah ah hetiana awm hi an awm em?

Risk Behaviour	**Mahni**	**Thiante**	**Unaute**	**Nu leh pa**	**A dangte**
Zuk leh hmuam ti					
Damdawia inchiu					
Indulges in Alcohol consumption					
Damdawi Overdose					
Rui chunga motor khalh					
Intihhlum tum tawh					

Mahni intihlum					
Mahni intihnat ching					
Mipat hmeichhiatna hman kawnga fimkhur lo					
Ruih vanga mipat hmeichhiatna hmang hreh lo					
Inpawlna atanga natna kai					
HIV/AIDS vei					

9. Social Support: Kawi atangin nge tanpuina i zawn thin?

Tumah	
Thiante	
Chhungte	
Damdawi lan thian leh counselor te	
Pastor leh kohhran upate	
Khawtlang hruaitute	

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DEGREE	:	M.Phil
DEPARTMENT	:	Social Work
TITLE OF DISSERTATION	:	Substance Abuse and Suicide Risk Behavior Among Youth Seeking Psychiatric Services From Psychiatry Department, Aizawl
DATE OF PAYMENT OF ADMISSION	:	4th September, 2012
COMMENCEMENT OF SECOND SEM	:	18th February, 2013
1. BOARD OF PROFESSIONAL STUDIES	:	22nd April, 2013
2. SCHOOL BOARD	:	23rd October, 2013
3. REGISTRATION NO. & DATE	:	MZU/M.Phil/147 of 16.04.2013
4. DUE DATE OF SUBMISSION	:	18th July, 2014
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Conference Hall, Directorate of Health Services, Dinthar, Aizawl.

5. Resource person on training for counselors in addiction centres and stakeholders organized by Mizoram Social Defence & Rehabilitation Board (Regional Resource & Training Centre North East-III).
6. Given trainings and awareness among youth in schools, colleges and churches regarding mental health, life skills and reproductive and sexual health.

(K.LALMUANPUII)

ABSTRACT

SUBSTANCE ABUSE AND SUICIDE RISK BEHAVIOR AMONG YOUTH SEEKING PSYCHIATRIC SERVICES FROM PSYCHIATRY DEPARTMENT, AIZAWL

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Submitted in partial fulfillment of the requirement of the Master of Philosophy in Social Work of Mizoram University,Aizawl
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1.1 Introduction

The study attempts to understand Substance Abuse and Suicide Risk Behavior among youth attending Psychiatric Services at Psychiatry Department, Kulikawn Hospital, Aizawl.

The diagnosis of central interest is abuse of and dependence on alcohol and drugs. *Substances* considered in this study will include alcohol, prescription medication such as analgesics, sedatives, tranquilizers and stimulants and illicit drugs like marijuana and hashish, inhalants, hallucinogens, and heroin.

The definition given by the National Youth Policy 2003 refers to youth as persons between the ages of 13-35 years however the Juvenile Justice (Care and Protection of Children) Act, 2006 refers to children as those below the ages of 18 years. *In this study youth refers to persons between the ages of 15-35 years and will be included as respondents.*

Particularly disturbing is the fact that the age of initiation into substance **abuse** is progressively falling. Early initiation of alcohol and drug use is usually associated with a poor prognosis and a lifelong pattern of deceit and irresponsible behavior. Adolescents are more likely to be involved in tobacco and alcohol abuse. (Tripathi, Lal, 1999).

Adolescents who abuse substances have higher prevalence of psychosocial problems compared with the general adolescent population. According to the World Health Organization, suicide is the third leading cause of death among those aged 15–24, after car accidents and cancer.

1.2 Review of Literature

Laura Burney Nissen (2006), discusses about adolescent substance abusers and offenders, stressing the importance of juvenile justice and other youth professionals and community members to build the next generation of interventions. These platforms provide important access to youth in need

of a public health intervention and will give young people the chance to demonstrate they can be accountable for the harm they caused others.

Ozechowski et al (2008) examined the factors related to referrals of adolescents with substance use disorders to substance abuse and mental health by interviewing 400 adolescents (between the age of 13-18 years) who were diagnosed with substance abuse, and found out that mental health diagnoses pla Ozechowski et al (2008) examined the factors related to referrals of adolescents with substance use disorders to substance abuse and mental health by interviewing 400 adolescents (between the age of 13-18 years) who were diagnosed with substance abuse, and found out that mental health diagnoses played a limited role.

The National Household Survey of Drug Use in the country is the first systematic effort to document the nation-wide prevalence of drug use. Alcohol (21.4%) was the primary substance used (apart from tobacco) followed by cannabis (3.0%) and opioids (0.7%). Seventeen to 26% of alcohol users qualified for ICD 10 diagnosis of dependence, translating to an average prevalence of about 4%. There was a marked variation in alcohol use prevalence in different states of India (current use ranged from a low of 7% in the western state of Gujarat (officially under Prohibition) to 75% in the North-eastern state of Arunachal Pradesh. Tobacco use prevalence was high at 55.8% among males, with maximum use in the age group 41-50 years (Ray R., 2004).

Delusional jealousy and fighting behavior of substance abusers/dependents are important determinants of suicidal attempts among their spouses. Parents of narcotic dependent patients, particularly mothers also show significant distress (Ponnudurai R.,et al.,2001).

Factors that affect the risk of suicide include psychiatric disorders, drug misuse, psychological states, cultural, family and social situations, and genetics (Hawton K, 2012).

In the study of Maurizio et al (2012), identified in a period 1980-2011, that adolescents with substance abuse disorders who attempt or complete suicide have mood disorders, stressful life events, interpersonal problems, poor social support, lonely lives and feelings of hopelessness.

In a retrospective record review of 112 adolescents (13–20 years old), who presented after a suicide attempt at an emergency department, 35% met the criteria for an alcohol use disorder and 27% met criteria for the substance used disorder at the time of the attempt, alcohol abuse increased the risk of a repeat suicide attempt threefold, while a diagnosis of illicit drug abuse increased the risk of a repeat suicide attempt fourfold in the subsequent12 months (Virpi Tuisku et al 2006).

Longitudinal studies of adolescent psychiatric patients and suicide attempters have found alcohol and drug abuse to be one of the major risk factor for suicide (Ostman, 1991; Hawton et al., 1993).

There are multiple adverse effects of mood disorders among substance abusers. Co-morbid depression and substance abuse have been associated with treatment dropout rates and poorer prognosis after drug treatment (Rounsaville and Weissman, 1982). It is estimated that about 60% of all depressive episodes in alcoholics might be substance induced (Barbara Schneider, 2009).

In a random sample of 229 suicides in Finland, 14% had co-morbidity of alcohol dependence and personality disorder and a personality disorder was diagnosed in 42% of cases with alcohol dependence (Barbara Schneider, 2009). Heroin users are 14 times more likely than peers to die from suicide. They also attempted suicide more frequently than those in community samples (Darke and Ross, 2002).

Substance abuse is a well known risk factor to suicide. But some authors raise the question of whether it is a proximal or distal risk factor. The acute effect of intoxication may represent a proximal risk factor for suicide attempt (Maurizio Pompili, 2012).

Three main hypotheses postulated to explain the escalation process in substance use and suicide reveal directionality as follows.

1. Substance abuse → breakdown in personal relationships → increased suicide risk;

2. Substance abuse → change in mood → suicidal ideation or depression → suicide attempt

3. Substance abuse → intoxicating effects → impaired judgment increased suicide risk.

(Maurizio Pompili et al 2012).

Literature was reviewed concerning psychiatric morbidity and the socio demographic determinants of DSH. The study aim to know the socio demographic and clinical pre institute in North India.

A cross sectional study for a period of one year i.e., January, 2010 – December, 2010 in a medical college and research institute in North India. The subjects were there who got admitted through accidental and emergency services, regular outdoor admission of various specialities at AIMSR, Bathinda. Among the 100 cases studied, the diagnosis of psychiatric disorder was made by the ICD-10 criteria. The study found out that majority of the respondents belongs to the less than 25 years of age group (53%), 60% were married and 83% were from urban area. 69% were from low socio economic background. Poisoning was the most common method poisoning; followed by burning, followed by hanging or jumping. 92% didn't have past history of Deliberate Self Harm. Half of the respondents have psychiatric illness, majority 36% had depression. Alcohol dependence syndrome 2% was also observed in the study sample.

1.2.2 Mizoram Scenario

According to Mizoram Statistical Handbook, the birth rate in Mizoram is 21.45% and the death rate is 6.28%. (April 2012 – March, 2013). Suicide cases are increasing year by year in Mizoram (Police Department, 2011). According to the 24 completed suicide cases studied by the Department of Psychiatry, Health Department, Government of Mizoram the most common co-morbid problem in *suicide completers* is depression, followed by psychoactive substance use and relationship problems with spouse. The introduction of synthetic drugs and intravenous drug use leading to HIV/AIDS has added a new dimension to the problem, especially in the Northeast states of the country. Drug-related deaths were first detected in Mizoram in 1984 with 17 people losing their lives till 1990–all of them due to abuse of heroin and most of them belonging to affluent families.

The first death due to abuse of Spasmoproxyvon, a prominent pain killer, was detected in 1991 and the number increased year by year touching 1,050 till date since then.

According to the records maintained by the state excise and narcotics department, 1133 people including 115 women have died due to abuse of drugs in the state since 1984 till date.

Till 2004, 100 people died on an average every year since 2000.

Mizoram has witnessed a dramatic fall in the number of deaths due to drug abuse since 2004 when 143 people lost their lives to the deadly addiction; Young Mizo Association carried out a sustained anti-drug campaign and launched the massive crackdown on drug supply in 2005. Up to June 6, 2008, only four people have died due to drug abuse reported by L.Hmunsanga, Deputy Commissioner of the State Excise and Narcotics Department.

1.3 Statement of the Problem

The period defined as youth is a stage of life that is crucial in respect to determination of choices. It is a period in which most members have embarked on higher education and/or employment and are preoccupied with many challenges that the stage of life brings. Resort to substances and abuse of substances is very common in a state like Mizoram. The use of tobacco, alcohol, spasmoproxyvon and other injectibles including Heroin are very common. Suicides are also increasing year by year particularly in Mizoram. A small study conducted by the department of Psychiatry has observed the role of intoxication as being fairly high at the time of suicide completion. The suicide statistics also reveal a young profile of persons. Literature reveals that there is a close link between substance abuse and suicide risk behavior. There have been only a few studies on a small sample each that have not been able to draw generalizations. Further, the link between two major challenges faced by youth in Mizoram (substance abuse and Suicide risk behavior) is yet to be established. Therefore this study attempts to understand the relationship between substance abuse and suicide risk behavior. The study will make a contribution by understanding factors related to substance abuse and suicide risk behavior and would be able to offer suggestions for social work Intervention.

1.4 Objectives

The following are the objectives of the present study.

1. To study the pattern of substance abuse among youth who are seeking help from the Psychiatry Department, Aizawl.

2. To study Suicide Risk Behavior among youth attending Psychiatry Department, Aizawl.

3. To explore the relationship among substance abuse, suicide ideation and suicide attempts.

1.5 Chapterization:

I Introduction
II Review of Literature
III Methodology
IV Results and discussion:
V Conclusion and suggestions
Bibliography

1.6 Methodology

This study is descriptive in design and cross-sectional in nature. It employs both quantitative and qualitative data. A semi-structured interview schedule was constructed and administered to collect the quantitative data. Informed consent was taken from the respondents to be interviewed. A total number of 65 males and 12 females who came to the Psychiatry Department due to substance related problems between the age of 15-35 years were identified and following informed consent were interviewed. Qualitative data was collected using key informant interviews.

1.7.1 Demographic profile of substance abusers in Mizoram:

- *From the findings, the respondents between 29-35 years constituted the highest number among male and the age group between 15-21 years and 29-35 years constituted the highest number among women.*

- *In the Current study, almost half of the respondents (46.8%) were unmarried*. Nearly one third were married, more than a fifth of the respondents were divorced and a small number were remarried.
- *In reference to education, it was observed that* almost half of the respondents had studied upto High School. More than a fifth of the respondents finished Higher Secondary Level. More than a tenth were graduates and an equal number had studied upto Primary level.
- In terms of locality (urban/rural), majority of the respondents are coming from the Urban area and the remaining (26%) the rural area.
- Quality of housing is an important indicator of socio-economic status. More than three-quarters of the respondents are staying in their own house and a fifth (Less than two-thirds of the respondents live in Assam Type House are in a rented house. More than a third live in a cemented *pucca* RCC type house and only a few of the respondents live in a *Di-in* (Traditional Hut made of bamboo and thatch) which has basic amenities only.
- Size of family is related to the availability of support. *Majority of them i.e., 81.8% have four to six family members indicating that many of them were likely to have enjoyed social support* .More than a tenth belong to families having more than seven members in the family and a few have less than three members in the family.
- As Substance abuse is often linked to problems experienced in the family, information was sought on the same. Less than two-thirds of the respondents belong to stable family, *more than a quarter of the respondents are coming from a broken family* and a small number belong to a reconstituted family.

1.7.2 Pattern of Substance abuse

- *All the respondents are presently substance abusers and no one reports abstinence.*
- *All the respondents confess to the use of tobacco in smoke and smokeless form.* An overwhelming majority of the respondents used it every day. As tobacco is a known **gateway** factor to subsequent substance abuse, this finding is very important. Only a fifth have past history of dendrite use, another **gateway substance**.
- All the respondents and their friends are indulging in tobacco consumption, less than half of the respondents' siblings and parents consume tobacco.
- A*lmost all the respondents (96.1%) used Alcohol and the remaining (3.9%) indulged in other substances only*. *Peer pressure* is the highest as a reason for initiation for alcohol abuse in more than half the respondents
- More than half of the respondents (58.4%) used Alcohol *everyday*, particularly those belonging to the age group of 29-35 years, more than two-thirds (68.3%) used it *everyday*, and less than two-thirds (63%) used it *everyday*
- Less than a quarter (23.4%) of the respondents had past history of proxyvon abuse and the remaining three quarters (76.6%) had no history of proxyvon abuse. Between the ages of 15-21 years, 22-28 years and 29-35 years, 22.2%, 29.6% and 19.5% reported past history of proxyvon use respectively.Less than a quarter of the respondents had past history of proxyvon abuse.
- Among the abusers of proxyvon, more than one third of the respondents began proxyvon use due to *peer pressure*, less than a quarter due to *curiosity*, more than a

tenth initiate it *to escape from problems and hurt feelings* and the remaining more than a quarter cannot attribute any reason for their initiation.

-
- Of all the respondents, a third used cannabis.
- Less than a third used opioids. *Peer pressure and curiosity* are the two highest reasons cited for initiation of opioids.

1.7.3 Suicide, suicide ideation and deliberate self harm:

- In this study in Mizoram, among all the respondents coming to the clinic due to drugs related problem*, more than a third had suicide ideation* the remaining more than half had *no suicide ideation*. Among the respondents who had suicide ideation, less than a quarter had suicide ideation *once in the last three months*, less than a quarter *had twice in a month* and very few had suicidal ideation *twice a week*.

- More than a fifth had *suicide ideation in the late evening/night* and less than a quarter expressed that they had this in the *afternoon* and very few had in *early morning* and the remaining had in the *late morning to noon*.

- *Loss of social status* is the highest reason cited by over a third for **suicidal ideation** and *strained relationship* with spouse is the second highest , *romantic breakup*, *loss/death of loved ones* and *failure in studies* are the third reason and *financial problem* is the least cited reason for suicide ideation. Between the ages of 15-21 years, failure in studies is the reason cited as most common for suicidal ideation. Between 22-28 years, loss of social status is the highest

reason for suicide ideation and between the ages of 29-35 years, strained relationship with spouse and loss of social status are the common reasons for suicide ideation.

- Among the respondents, more than a tenth had *history of suicide attempt* and the remaining majority (84.4%) reported *no suicide attempt*. Of the age group of 15-21 years, *almost half had attempted suicide*. A little more than a tenth had attempted at least *once in the past one year*. Less than a third had attempted suicide *twice in the past one year*. Between the ages of 22-28 years, more than a fifth *had attempted suicide* and of these, more than a tenth had attempted suicide on at least *one occasion in the past one year*. Suicide attempt is more common in the younger age group of late adolescence and early adulthood.
- More than half of the respondents confess to *having driven under the influence of alcohol/substance*. Less than half , Less than a fifth and less than a tenth reported that their friends, siblings and parents respectively are driving under the influence of alcohol/substances.
- A sixth of the respondents report *having attempted suicide*. Less than a fifth of the respondents reported that they had friends who had attempted suicide. A few of the respondents had siblings who had attempted suicide. No reports were found of attempt to suicide by the parents.
- More than a quarter reported themselves to have unprotected sex.
- Almost a quarter reported sexual behavior under the influence of alcohol/substances. Almost a quarter reported their friends indulging in the same.
- No reports were found to have an STI among the respondents, their siblings and parents. A small number had friends who have had an STI.
- Only one respondent reported that they have friends who have HIV/AIDS.

1.7.4 Social Support

Information was sought on social support of substance abusers. In this study, it is *evident the respondents seek help from one or more sources.* More than a tenth seeks help from *family members and health professionals and counselors which features among the highest sources of help*. Church leaders and Pastors offered most help which is almost a tenth, a smaller number more than half a tenth seek help from their friends and a few of them sought help from local leaders.

1.7.5 Correlation

- Tobacco use is more common among the older age group and they are spending more on it. Likewise, abuse of alcohol is more common among older age group.
- Opioids abuse is more common among on younger age group.
- Tobacco and other substance abuse is more common in urban area.
- Larger family member are spending more on tobacco.
- Cannabis use is more common among higher educational qualification.
- Suicide ideation and deliberate self harm is more common among younger group.
- Of all the substance abuser, opioids abuser are more likely to attempt suicide, have more suicide ideation and deliberate self harm.
- Those who have suicide ideation are more likely to attempt suicide

1.7.4 Key Informant Interviews:

Two key informants from a psychiatrists and one key informants from Law Enforcement official was conducted:

The first Key Informant suggested that any warning signs or signals of suicide should be taken seriously. *When other family member or friends are sensitive about the warning signals, many suicides can be prevented.* "Peer pressure is the highest reason of substance

abuse", he added.He further suggested that any warning signs or signals of suicide should be taken seriously.

The second Key Informants cited the most common drug use among the youth is *spasmo- proxyvon, Reupen, Lobain, Phensedyl, Cough Syrup, Volatile Solvents like glue, petrol, correcting fluid, speed pills like amphetamine and methamphetamine and Heroin (No. 4), and alcohol.* He further stated that substance abuse disorder is often in combination with other mental disorders which is one of the risk factors for suicide

The third Key Informant stated that Mizoram is using MLTP (Mizoram Liquor Prohibition Act) 1995 and Mizoram Excise Act under which Liquor and any person related with are seized. Proxyvon and Parvon Spas are seized under the act of ADCA (Assam Drug Control Act) 1950, No.4, Pseudoephedrine and ganja are seized under ND&PS Act 1985.

Heroin and No.4 are trafficking from Myanmar through Champhai. Pseudoephedrine from Delhi. Alcohol/Liquor from the neighboring states like Assam and Meghalaya.

Apart from foreign Liquor and spirit, there are locally fermented rice with yeast (Zu Bilh), which is processed in the outskirts of Aizawl like Rangvamual and Phunchawng. He further stated the persons who are seized in selling or possession of alcohol or drugs are mostly between the age of 20 – 50 years of age. And there are persons below 18 years which are involving in selling and possessing such local made liquor.

According to him, there were 266 persons arrested under ND&PS Act 1985, 3199 persons under MLTP/ME Act, 1995 in 2011.

1.8 Suggestions:

The suggestions have implications for Social Work intervention, policy and planning of mental health services and for research in the behavioral sciences.The following suggestions are:

1.8.1 Social Work Practice

i. Suggestions in this regard may be divided into *clinical Practice* functions and Community practice, In reference to clinical practice, the findings of this study clearly indicate the need for counseling of substance abusers. Identification of Risk behavior and promoting safe behavioral strategies during counseling are considered important**.**

ii**.** In reference to *Social work practice in Communities*, mass awareness on consequences of substance abuse and possible risk behaviors associated with substance abuse are essential. Advocacy efforts should also be aimed at increasing family support besides in helping in the early identification of people prone to suicide and other risk behaviors such as deliberate Self harm.

1.8.2. Mental Health Policy and Planning

i. Although there is a school mental health programme recently implemented in the state, there is much that needs to be done in this regard. As suggested by other experts, effective treatment programs could be designed to allow the suicidal adolescent expression of such feelings and facilitate his/her development of a sense of being "non-expendable" that is, a sense of being wanted and valued as an individual.

ii. Similarly, colleges and universities require a sound mental health cell that addresses the needs of the youth, facilitates expression of feelings and allows for ventilation. At present only the university and its constituent college in Mizoram have cells of this kind.

iii. Family therapy could promote more positive family interactions and help parents learn to convey to their children a sense of worth and value. In this study too, the findings indicate that family members are a great source of support. .Psychodynamic therapy could help the adolescent understand the underlying emotional experiences in his or her early childhood through which he or she developed feelings of worthlessness and expandability. By working through these feelings in the context of the therapeutic relationship, the adolescent could begin to develop a greater sense of intrinsic self-worth and esteem.

1.8.3. Suggestions for Research

i. As gateway substances have clearly emerged in this study as important, the dynamics of gateway and pathways into substance abuse need to be more clearly studied.

ii. As the findings indicate the role of peers in initiation and maintenance of substance abuse, research on personal networks, social networks and peer-led intervention research may be able to enhance our understanding on the subject.

iii. Socio-economic background of substance abusers is an important area of research.

iv. Health status of substance abusers is an important area of research.

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