Impact of Social Support on Mental Well-being and Demoralization of the Mizo Elderly

Mr. Emmanuel. R. Hmingthantluanga (Regn. No. – MZU/M.Phil./349 of 22.04.2016)

Dissertation submitted for the degree of Master of Philosophy in Psychology

DEPARTMENT OF PSYCHOLOGY
School of Social Sciences
Mizoram University
Tanhril, Aizawl-796004
Mizoram
2016



MIZORAM UNIVERSITY DEPARTMENT OF PSYCHOLOGY MIZORAM: AIZAWL

796004

CERTIFICATE

This is to certify that the present research work entitled, "Impact of Social Support on Mental Well-being and Demoralization of the Mizo Elderly" is the original research work carried out by Emmanuel R.Hmingthantluanga under my supervision. The work done is being submitted for the award of the degree of Master of Philosophy in Psychology of the Mizoram University.

This is to further certify that the research conducted by Emmanuel R.Hmingthantluanga has not been submitted in support of an application to this or any other University or an Institute of Learning.

(Prof. C. LALFAMKIMA VARTE)
Supervisor

DECLARATION

I, Emmanuel R. Hmingthantluanga, declare that the dissertation entitled,

"Impact of Social Support on Mental Well-being and Demoralization of the Mizo

Elderly" hereby submitted to the Mizoram University, for the degree of Master of

Philosophy has not previously been submitted by me for a degree at this or any other

University; that it is, my work in design and execution, and that all materials

contained herein has been duly acknowledged.

This is being submitted to Mizoram University for the degree of

Master of Philosophy in Psychology.

(EMMANUEL R. HMINGTHANTLUANGA)

(Prof. C. LALFAMKIMA VARTE)
Supervisor

(Prof. C. LALFAMKIMA VARTE)
Head,
Department of Psychology

ACKNOWLEDGMENT

It hardly seems possible to fully thank the many people who provided support, encouragement and expertise along the way to completing this dissertation.

My deepest gratitude to my Supervisor Prof. C. Lalfamkima Varte for his never ending patience with me and his diligent and invaluable guidance and supervision and for being so generous as to share his excellent knowledge with me, and always understanding my shortcomings and problems. He has truly been a source of inspiration and the backbone of my research work.

I am beholden to the most gracious almighty God for blessing me with the opportunity and health to carry out this research work and always stood by me throughout the whole period of this dissertation.

To my family, for their unfailing dedication, love and patience on every academic endeavor that I have encountered.

To my close friends Puia Renthlei, Lawma Chhangte and Zautea Zadeng for being there for me the whole time and helping me and always stood by me in my hour of need. I am blessed to have them all.

To all my colleagues for the support, priceless moments and constant encouragement throughout the research work.

And finally, I would like to take this special opportunity to thank all the teaching and non-teaching staffs of the Department of Psychology, Mizoram University, whose endless support and guidance brought research to this stage of my life.

(EMMANUEL R. HMINGTHANTLUANGA)

Department of Psychology Mizoram University

Table of Contents

		Page No
List of Tables		i-ii
List of Figures	•••••	iii-iv
List of Appendices	•••••	v
Chapter – I		
Introduction		1 - 21
Chapter – II		
Statement of the Prob	lem	22 - 26
Chapter – III		
Methods and Procedu	re	27 - 32
Chapter – IV		
Results	••••••	33 - 47
Chapter – V		
Discussions		48 - 52
Chapter – VI		
Summary and Conclu	sion	53 - 56

References	•••••	57 - 66
Appendices		67–73

LIST OF TABLES

- Table-1: The Sample characteristics table of the 2 'Sex' x 3 'Age-group' for the N=240 participants of the study.
- Table-2: Descriptive statistics (Mean, Standard Deviation, Skewness and Kurtosis) and the Cronbach's Aphas of the scales/sub-scales of the behavioral measures.
- Table-3: The bivariate correlation coefficients of the socio-economic status and the scales/sub-scales of the behavioral measures
- Table-4a: The Levene's test of homogeneity of variance in the analysis of covariance for the effect of 'sex' x 'Age-group' on the scales/subscales of the behavioral measures with the socio-economic status as the covariate.
- Table-4b: The outcomes of the analysis of covariance for the effect of 'Sex' x 'Age-group' on the scales/sub-scales of the behavioral measures with the socio-economic status (SES) as the covariate.
- Table-4c: The scheffe test for the significant independent effect of 'Age-group' on Receiving Emotional Support
- Table-4d: The scheffe test for the significant independent effect of 'Age-group' on Giving Emotional Support.
- Table-4e: The scheffe test for the significant independent effect of 'Age-group' on Giving Instrumental Support.
- Table-4f: The scheffe test for the significant independent effect of 'Age-group' on Warwick-Edinburgh Mental Well-being Scale.
- Table-4g: The scheffe test for the significant independent effect of 'Age-group' on Demoralization Scale.

Table-4h: The scheffe test for the significant interaction effect of 'Sex' x 'Agegroup' on Demoralization Scale.

Table-5: The *beta-values*, adjusted R-square, F-change, Model-F, Durbin-Watson statistics, Tolerance and variance inflation factor (VIF) in the prediction of Mental Well-being (*criterion*) from sex, age, socioeconomic status, Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (*predictors*).

Table-6: The *beta-values*, adjusted R-square, F-change, Model-F, Durbin-Watson statistics, Tolerance and variance inflation factor (VIF) in the prediction of demoralization (*criterion*) from sex, age, socio-economic status, Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (*predictors*).

LIST OF FIGURES

- Figure-1: The plot of means for the significant independent effect of 'Age-group' on Receiving Emotional Support.
- Figure-2: The plot of means for the significant independent effect of 'Age-group' on giving emotional support.
- Figure-3: The plot of means for the significant independent effect of 'Age-group' on giving instrumental support.
- Figure-4: The plot of means for the significant independent effect of 'Age-group' on Warwick-Edinburgh Mental Well-being Scale.
- Figure-5: The plot of means for the significant independent effect of 'Age-group' on Demoralization Scale.
- Figure-6: The plot of means for the significant interaction effect of 'Sex' x 'Agegroup' on Demoralization Scale.
- Figure-7: Histogram portraying the distribution of the regression standardized residual in the prediction of Mental Well-being (*criterion*) from sex, age, socio-economic status, Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (*predictors*).
- Figure-8: Normal P-P plot of the regression standardized residual in the prediction of Mental Well-being (*criterion*) from sex, age, socioeconomic status, Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (*predictors*).
- Figure-9: Histogram portraying the distribution of the regression standardized residual in the prediction of demoralization (*criterion*) from sex, age, socio-economic status, receiving emotional support, giving emotional

support, receiving instrumental support and giving instrumental support (*predictors*).

Figure-10: Normal P-P plot of the regression standardized residual in the prediction of demoralization (*criterion*) from sex, age, socio-economic status, receiving emotional support, giving emotional support, receiving instrumental support and giving instrumental support (*predictors*).

LIST OF APPENDICES

Appendix – I : Mini Mental Status Examination (MMSE: Kurlowicz &

Wallace, 1999)

Appendix – II : Demographic Sheet.

Appendix – III (a) : 2-Way Social Support Scale (Shakespeare-Finch &

Obst, 2011)

Appendix – III (b) : 2-Way Social Support Scale (Shakespeare-Finch &

Obst, 2011)(Mizo translation)

Appendix – IV (a) : Short Warwick-Edinburgh Mental Well-being Scale

(Stewart-Brown et al., 2009)

Appendix – IV (b) : Short Warwick-Edinburgh Mental Well-being Scale

(Stewart-Brown et al., 2009)(Mizo translation)

Appendix – V (a) : Demoralization Scale (Kissane et al., 2004)

Appendix – V (b) : Demoralization Scale (Kissane et al., 2004)(Mizo

translation)

Chapter – I Introduction

Living to old age was considered a gift from the gods, and elders were revered for their wisdom and often consulted in times of need (Janssen & Janssen, 1996). Galen (131–201 CE), a physician, believed that as we age the fuel of the body begins to dry up and the body becomes more and more cold. Thus, logically, all faculties would tend to decline. Augustine (354–430 CE) attributed aging to original sin and felt it was god's will and not to be tampered with. Accordingly, any decline in abilities as a function of age would be assumed to be predestined (Surprenant et al., 2007).

Harman (1956) postulates that ageing is the result of the progressive accumulation of changes in the body which occur with the passing of time and which cause the increase in the probability of disease and death of the individual. It can also be defined as the wearing of the structures and functions that reach a peak or plateau during development and maturations of the individuals of a given species (Vina, Borras & Maquel, 2007).

Rose (1991) defined Ageing as a persistent decline in the age-specific fitness components of an organism due to internal physiological deterioration. This definition has since been used by others a number of times. The increases in mortality with age due to chronic infections such as HIV/AIDS were excluded by the definition (Rose et al., 2012).

Finally, Aging can also be defined as a progressive functional decline, or a gradual deterioration of physiological function with age, including a decrease in fecundity (Partridge & Mangel, 1999; Lopez-Otin et al., 2013), or the intrinsic,

inevitable, and irreversible age-related process of loss of viability and increase in vulnerability (Comfort, 1964).

Ageing presents both challenges and opportunities. It will strain pension and social security systems, increase demand for acute and primary health care, require a larger and better trained health workforce, increase the need for long term care and for environments to be made more age-friendly. However, the opportunities are just as large. Older people are a wonderful resource for their families, communities and in the formal or informal workforce. They are a repository of knowledge. They can help us avoid making the same mistakes again (WHO, 2014).

Conventionally, "elderly" has been defined as a chronological age of 65 years old or older, while those from 65 through 74 years old are referred to as "early elderly" and those over 75 years old as "late elderly." However, the evidence on which this definition is based is unknown. It is said that it originally dates back to more than a century ago in Germany, when Prince Bismarck, the Chancellor of the German Empire, selected 65 as the age at which citizens would be able to participate in the national pension plan, for he might have expected that most people would die before reaching this age (Sachan & Kaur, 2014).

Although there are commonly used definitions of old age, there is no general agreement on the age at which a person becomes old. The common use of a calendar age to mark the threshold of old age assumes equivalence with biological age, yet at the same time, it is generally accepted that these two are not necessarily synonymous (WHO, 2014). Neugarten (1975) suggested that older adults are best thought of in terms of two groupings. Why only two groupings? We can think of the young-old

(55-64), middle-old (65-74), and the old-old (75 and over). Each of these groups is different. The more numerous and differentiated the groupings, the more we can learn about aging and the individual (Botwinick, 1984).

The classification of age varied between countries and over time, reflecting in many instances the social class differences or functional ability related to the workforce, but more often than not was a reflection of the current political and economic situation. Many times the definition is linked to the retirement age, which in some instances, was lower for women than men. This transition in livelihood became the basis for the definition of old age which occurred between the ages of 45 and 55 years for women and between the ages of 55 and 75 years for men. (Thane, 1978).

The present study, therefore considered 55 years of age as the general onset for individual to be labelled as an elderly person. This is done so the accumulated evidence and resulting information will be able to more accurately determine the relationships between the psychological measures for elderly in the target population.

Koukouli and colleagues (2002) also suggested that social support appears to play a significant role in explaining differences in subjective functioning; people living alone or only with a spouse, particularly the elderly, seem to be at greater risk for disability problems and should receive particular attention from preventive programs in the community. McNicholas (2002) asserted that social support, self-esteem, and optimism were all positively related to positive health practices; and social support was positively related to self-esteem and optimism. In addition, social support affects quality of life, as evidenced by a study by OHara (1998).

Social support is one of the most important functions of social relationships. Social support is always intended by the sender to be helpful, thus distinguishing it from intentional negative interactions (such as angry criticism, hassling, undermining). There are four common functions of social support: emotional support, instrumental support, informational support and companionship support (Hassan, Toland & Tate, 2015).

A number of studies support the refinement of various types of social support into two primary dimensions: emotional support and instrumental support. There is increasing recognition of benefits aligned with giving as well as receiving social support. Importantly, this approach provides a measurement tool that will enable the comparison of social support research outcomes across studies and populations (Shakespeare-Finch & Obst, 2011).

Emotional support is communication that meets an individual's emotional or affective needs. These are expressions of care and concern, such as telling someone, "I feel bad for you" or "I just want you to know how much you mean to me." This type of support is what we most often think of when we hear the term social support. Expressions of emotional support do not try to directly solve a problem but serves to elevate an individual's mood. Emotional support to older patients with health limitations is considered to be a factor to experience subjective health (Wang & Stumbo, 2009). Besides increasing the feeling of subjective health, it has been shown that emotional support can reduce the risk of depression (Shyu et al., 2009).

Some believe that emotional support must come from a family member or a person with whom the older patient has a relationship (de Jong, van Groenou,

Hoogerndoorn, & Smit, 2009). Lee (2010) maintains that older patients considered emotional support from professionals in connection with disease to be important, since it makes it easier for them to adapt to the situation caused by disease and aging. Chao (2012) also concludes that older patients are able to experience a higher level of life satisfaction when they receive emotional support from professionals.

Instrumental support often is interpreted as helpful because of its emotional meaning (signaling caring, understanding, esteem). Irrespective of this high degree of diversity, two overarching categories of support have been consistently identified as the most salient and encompassing: emotional support and instrumental support (Declercq et al., 2007). Other types of social support can be circumscribed by these two categories and these two categories can be applied to both the receiving and giving of social support. Semmer and colleagues (2008) postulated that supportive people will either pay attention to the emotions of others or will provide tangible assistance, thereby rendering all other types of support redundant.

Cohen and Wills (1985) proposed that social support is related to well-being because it offers positive emotions, a sense of self-worth, and predictability in life; it also functions as a stress buffer by reinforcing self-esteem, self-efficacy, and problem solving behaviors. They stated that though most of the studies on social support are correlational and therefore do not imply causal relationships, the evidence from studies using animal research, social-psychological analogue experiments, and prospective surveys suggest that social support has positive effects on well-being. However, in studying the relationship between social support and well-being, researchers and practitioners have faced a legitimate problem: the diverse definitions,

measurements, and outcome variables utilized across studies (Barrera, 1986 & Smith et al., 1994).

Mental well-being is a dynamic state in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others and contribute to their community. It is enhanced when an individual is able to fulfil their personal and social goals and achieve a sense of purpose in society (Jenkins et al., 2008).

Improved mental well-being is a key national population outcome and a fundamental part of being a healthy and resilient individual. It is also a key outcome for and determinant of physical health, for example: effectively managing long term conditions, reducing obesity, heart disease and other illness, making healthy life choices, recovery from illness. Mental well-being is about having control and influence, a sense of meaning, belonging and connection and the capability to manage problems and changes. It is therefore central to parenting, educational attainment, employment & work productivity, community participation and cohesion, crime and safety. The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) was developed to meet demand for instruments to measure mental well-being (Stewart-Brown et al., 2009).

The immune system is programmed to decline over time, which leads to an increased vulnerability to infectious disease and thus aging and death. It is well documented that the effectiveness of the immune system peaks at puberty and gradually declines thereafter with advance in age. For example, as one grows older, antibodies lose their effectiveness, and fewer new diseases can be combated

effectively by the body, which causes cellular stress and eventual death. Indeed, dysregulated immune response has been linked to cardiovascular disease, inflammation, Alzheimer's disease (AD), and cancer. Although direct causal relationships have not been established for all these detrimental outcomes, the immune system have been at least indirectly implicated (Kunlin Jin, 2010).

Demoralization is experienced as a persistent inability to cope, together with associated feelings of helplessness, hopelessness, meaninglessness, subjective incompetence and diminished self-esteem. It is arguably the main reason people seek psychiatric treatment, while it is a concept largely ignored in psychiatry. Typically the demoralized patient will be heard to state, "I can't see the point anymore; there's no reason to go on." There is no continuing purpose or meaning to life for the demoralized, the demoralized become trapped in their conviction about the futility of life. Such a person may desire death - not with the acceptance of a life replete with satisfaction and fulfillment, as commonly seen in the elderly who patiently await their death - but rather with impatience because of the subtle distress that lies not far beneath the surface. This life is perceived as meaningless and better ended. Suicidal thoughts develop in the demoralized person who can see no other way out. Yet such patients may not be depressed and thus may be perceived by clinicians to rationally choose suicide as a merciful conclusion to their life (Sahoo, 2001).

Kissane (2004) developed the Demoralization Scale (DS) to assess emotional distress, conceived as demoralization. The DS measures loss of meaning and purpose, dysphoria, disheartenment, helplessness and sense of failure. The DS emerged to be convergent with measures for existential distress, hopelessness, depression and a

desire to die; and it was found to be capable of differentiating a subset of patients who are demoralized and yet not clinically depressed (Kissane, 2004).

Change in morale spans a spectrum of mental attitudes from disheartenment (mild loss of confidence) through despondency (starting to give up) and despair (losing hope) to demoralization (having given up). While the mild end of this spectrum is a comprehensible response to adversity, the severe form is pathological because it is maladaptive; a source of considerable personal distress and it has the potential to generate greater harm through further deterioration and suicide (Sahoo, 2001).

The impact of age itself on cognition—not dementia, and not mild cognitive impairment, nor the other specific cognitive decline syndromes—is such a large, immediate problem for current science, and so ignored by current scientists, that Brayne (2007) called it, 'the elephant in the room'. With an increasing aged population, cognitive impairment is a major health and social issue. Cognitive decline is among the most feared aspects of growing old. It is also the most costly, in terms of the financial, personal and societal burdens. It is important, because cognitive decline heralds dementia, illness and death. In the UK, cognitive failure is the cause for 40% of admissions to institutional care. It is widely agreed that more research is needed to understand the mechanisms of cognitive ageing and the factors that contribute to its individual differences (Brayne, 2007). The latter stated that, 'identifying the demographic, biological, and psychosocial factors that can help people maintain or enhance their cognitive and emotional health as they grow older becomes a major public health goal for this country'.

Cognitive impairment is detected when a person has trouble remembering, learning new things, concentrating, or making decisions that affect their everyday life. Cognitive impairment ranges from mild to severe. With mild impairment, people may begin to notice changes in cognitive functions, but still be able to do their everyday activities. Severe levels of impairment can lead to losing the ability to understand the meaning or importance of something and the ability to talk or write, resulting in the inability to live independently. The Mini Mental Status Examination (MMSE; Kurlowicz & Wallace, 1999) is an effective screening instrument to separate patients with cognitive impairment from those without it. In addition, when used repeatedly the instrument is able to measure changes in cognitive status that may benefit from intervention. However, the tool is not able to diagnose the case for changes in cognitive function and should not replace a complete clinical assessment of mental status. In addition, the instrument relies heavily on verbal response and reading and writing (Kurlowicz & Wallace, 1999).

Research on gender and race differences in the linkages between socio-economic status and health is scarce and inconclusive (Gilman et al., 2002; Nystrom Peck, 1994; Veijola et al., 1998). Some studies show that women and non-Whites report poorer physical health and women also report poorer mental well-being, largely due to their disadvantaged socio-economic status (Bebbington, 1998; Johnson & Wolinsky, 1994). The question remains of whether women and non-Whites receive the same health benefits from socio-economic status as do men and Whites. Given the societal discrimination that devalues socio-economic status attainment among women and non-Whites, it was expected that women and non-Whites receive fewer health

benefits from socio-economic status, especially socio-economic status attainment in adult life, than men and Whites.

The stress explanation, proposed by environmentally oriented theorists, holds that rates of some types of psychiatric disorder are higher in lower socio-economic status groups because of greater environmental adversity (Faris & Dunham 1939; Hollingshead & Redlich 1958; Leighton et al. 1963; Srole et al. 1962). The selection explanation, proposed by genetically oriented theorists mainly with reference to schizophrenia, argues that rates are higher in lower socio-economic status groups because persons with the disorders or other personal characteristics predisposing to the disorders, probably genetic in origin, drift down into or fail to rise out of lower socio-economic status groups (Jarvis 1971; Stromgren 1950; Hfifner 1988).

The socio-economic status being a comprehensive score was derived from the background information of educational qualification, marital status, number of children and grand-children, family size and monthly income based on the work of Hollingshead (1975) and Kuppuswamy (1981).

Social support is known to modify the impact of life events on the elderly population. Many elderly people are suffering from loneliness even though they are living with their families; this context is also true in the case of elderly people who have lost their loved ones. Such conditions may force a person to feel invisible and demoralized. Even a slight amount of support received can boost a person's sense of well-being. The present study was conducted to examine how social support really have an impact on mental well-being and demoralization of the Mizo elderly. The covariation of social support with mental well-being and demoralization was of

central interest. Additionally, indicators of mental well-being and demoralization were examined as outcome variables predicted by sex, age, socio-economic status and social support.

REVIEW OF LITERATURE

Although there are commonly used definitions of old age, there is no general agreement on the age at which a person becomes old. The common use of a calendar age to mark the threshold of old age assumes equivalence with biological age, yet at the same time, it is generally accepted that these two are not necessarily synonymous.

Age classification varied between countries and over time, reflecting in many instances the social class differences or functional ability related to the workforce, but more often than not was a reflection of the current political and economic situation. Many times the definition is linked to the retirement age, which in some instances, was lower for women than men. This transition in livelihood became the basis for the definition of old age which occurred between the ages of 45 and 55 years for women and between the ages of 55 and 75 years for men. (Thane, 1978).

For the present study, 55 years of age and older were used as the general definition of an elderly person. This is done so the accumulated evidence and resulting information will be able to accurately determine the health status of the elderly population.

Demographers study ageing using a number of indicators. Three of the most widely used are the proportion of the population ages 65 and older, the old-age

dependency ratio, and the median age of the population. Counting people as old depending on the number of years people in their age group have yet to live is a simple population-based measure, and it has the advantage of being possible to calculate for all the countries for which the UN produces data. We have computed the new old age thresholds using UN estimates going back to 1955 and UN forecasts through 2045. This allows us to retell the histories of aging in each country in a richer way and to look at the future of aging from a new perspective (Sanderson & Scherbov, 2008).

Studies of the elderly worldwide have reported that a self-rating of "poor" compared with "excellent/good" health increases the relative risk of dying. The researchers tested the strength by performing age-stratified Cox regression analyses on a 5-year longitudinal study of a representative sample of non-institutionalized elderly aged 65 years and older (n = 3,094) in a district of Shanghai and China. The results showed that among those aged 65-74 years, "poor" perceived health increases the adjusted relative risk of death by 1.93 (95% confidence interval 1.20 - 3.11) compared with "excellent/good" health (Elena et al., 1998).

Two socio-demographic characteristics—gender and age—and their association with social support variables were of special interest in this study. Although there is a large body of research examining the relationship of gender to social support, relatively few studies have investigated differences in social support related to age, particularly in young to middle aged adults in the context of macrosocial change. It is likely that men and women do not experience macro-social changes in the same way. Throughout the life-cycle, women generally have more close friends than men. Commencing in childhood, girls tend to develop more

intimate interpersonal relationships than boys, although boys tend to gang together in larger groups. Adult women still have a greater number of close relationships and also seemingly more extensive social networks than men. Additionally, women provide more emotional support to both men and women, and they get more help in return. Explanations for such discrepancies typically focus on gender differences in emotionality and emotional expressiveness. Women emphasize intimacy and self-disclosure in their friendships, and are generally more empathetic, expressive, and disclosing than men. In short, women seem to invest more of themselves in the lives of their family members and friends than do men (Knoll & Schwarzer, 2002).

Women have larger social networks and receive more support than men across the life course. However, a number of investigators have noted that support is often provided with the expectation that others will reciprocate in the future should the need arise (Wortman & Dunkel-Schetter, 1987). As Lee (1985) and others suggest, this norm of reciprocity takes on special importance in later life as older adults strive to avoid becoming overly dependent upon others.

For some time, mental health professionals have been aware that individuals who provide support to others often benefit themselves from the help-giving role (Reissman, 1965). In fact, this "helper principle" has formed the basis of many self-help groups, such as Alcoholics Anonymous. There are at least three reasons why providing support to others is beneficial. First, giving to others bolsters the self-esteem of the help providers because they feel as though they are doing something for someone in need. Moreover, by helping others, the attention of the support provider may be diverted from his/her own problems or concerns. Finally, and most important for the purposes of this study, giving help to others and observing that this assistance

can improve the situation of a needy significant other may lead the help provider to see that his or her own problems may be influenced similarly, thereby increasing their feelings of control.

The amount of social support is the key to determine life satisfaction among the older adults. As expected, older adults who opted not to do any working during their retirement experience a lower level of life satisfaction. Their body function would deteriorate more quickly compared to other older adults who keep themselves busy (Aquino et al., 1996). The initial level of social support essentially predicts the outcome of older adults' general health in the following years. Inadequate initial social support at the beginning of retirement would predict that older adults will develop depressive symptoms over time. Older adults would be able to ignore the negative effects in their lives with help and reinforcement from others. This is considered a psychological effect. Not enough social support would likely make the individuals notice their daily hassles and life stressors much more clearly. This step could accelerate the deteriorating effect of their physical and mental health. Unfortunately, there is no relationship found between social support and major life events (Russell & Cutrona, 1991). Initial mental health is a very important predictor for all older adults at the time they enter their retirement ages. Good mental health would predict a healthy social support and fairly good physical health for the years to come (Cutrona et al., 1986).

Measures of social support have been shown to be associated with socioeconomic status (SES), in the sense that individuals in higher socio-economic groups are more likely to be married, have more friends, and report higher levels of social support. This has led researchers to consider the different availability of social support between socio-economic groups as one of the mechanisms through which socio-economic circumstances "get under the skin" to influence health (Stringhini et al., 2012).

Among elderly patients hospitalized with clinical heart failure, the absence of emotional support, measured before admission, is a strong, independent predictor of the occurrence of fatal and nonfatal cardiovascular events in the year after admission. In this cohort, the association is restricted to women (Krumholz et al., 1998).

Bolger, Zuckerman, and Kessler (2000) suggested a possible explanation for why research based on actual daily support transactions between intimate others does not show the beneficial effects of support. Using couples as participants and obtaining independent reports from each partner, the researchers were able to separate the benefits and costs of support by distinguishing between support provision and support receipt. They found that during a period of acute stress, a partner's report of provision of emotional support was associated with decreased levels of depressed mood in the recipient on the next day.

The relationship between emotional support and instrumental support connects to a broader discussion about the nature of prosociality. On the one hand, a large body of work demonstrates that empathy drives support provision suggesting that emotional support and instrumental support should track each other. On the other hand, support provision can also reflect a host of ulterior motives, such as enhancing one's reputation or staving off guilt (Harbaugh, 1998; Penner et al, 2005). This leaves open the possibility that emotional support and instrumental support might dissociate in some cases (Morelli et al., 2015).

Research concluded that at an older age when the need for assistance is most likely to accelerate, older individuals may become increasingly reluctant to request or accept instrumental support from their children, preferring to remain autonomous for as long as possible (Blieszner & Mancini, 1987). The relationship between receiving instrumental help and decline in mental health is derived from the loss of autonomy, as well as a sense of competence that older individuals experience when they receive instrumental support (Krause, 1997). Recent research confirms that depressive mood is associated with receiving instrumental support (Grundy, 2010; Zunzunegui et al., 2001). Parents tend to minimize the amount of instrumental support they receive from their children in order to preserve a self-concept of functional competence and avoid the stigma of being a "burden" (Bengtson & Black, 1973).

Numerous studies that have examined the relationship between social support and health have generally concluded that social support has a positive effect on both mental and physical well-being. People with more extensive social support tend to be in better health and are less likely to die in a given period (House et al., brown1988; Seeman & Crimmins, 2001).

According to the study of Thomas (2010), total support received has a significant, positive association with well-being; total support given is significantly related to higher well-being. Notably, inclusion of total support given renders the relationship between total support received and well-being non-significant. Total support given is the strongest predictor of well-being in this research.

A large body of research attests to the importance of the relationship between social support, health and well-being (Albrecht & Goldsmith, 2003; Brown et al.,

2003; Liang et al., 2001; Lindsey & Yates, 2004). A number of studies support the refinement of various types of social support into two primary dimensions: emotional support and instrumental support (Semmer et al., 2008), and there is increasing recognition of the benefits specifically aligned with giving as well as receiving social support (Brown et al., 2003; Vaananen et al., 2005).

Providing a greater number of types of support were significantly associated with higher well-being, but providing support to a greater number of alters was negatively associated with well-being. Total support given remained significantly related to higher well-being. The association of well-being and support to and from specific types of alters (i.e., spouse, children, siblings, other family members, and friends) was also examined. Receiving support from one's spouse and siblings is significantly related to higher well-being. Receiving more support from children, however, was significantly related to lower well-being. Giving more support to children and friends was significantly associated with higher well-being and had the strongest effects (Thomas, 2010).

The observation of preserved well-being so flies in the face of stereotypes about ageing—as well as ample evidence for age-related losses—that it is often met with disbelief in both the general population and the research community. Despite empirical evidence to the contrary, old age is persistently viewed as a time of sadness and loss by younger people. Older people share pessimistic views about the "typical" older person (Hummert et al., 1994; Nosek et al., 2002) even though the majority of them describe themselves as quite satisfied (Myers & Diener, 1995).

In terms of predicting well-being, studies provided some interesting results and permitted an examination of the impact of giving support on various well-being measures, beyond the variance accounted for by receiving support. The giving support subscales were added to the prediction of stress, life satisfaction and general health (Kessler & Mroczek, 1992).

Research has shown that women improved their self-esteem significantly more than men from the age of 15 to 23. Women were more satisfied with their life than men at the age of 23. Men had a better body image, less anxiety, less depression and fewer somatic complaints than women, independent of age. Across gender, anxiety declined and somatic complaints became fewer. In conclusion, these findings suggest that gender differences in mental well-being factors, favoring men, found in adolescents, are not as long-lasting as previously thought. Women improve their mental well-being from adolescence to young adulthood while men's mental well-being does not change (Gestsdottir et al., 2015).

The role of gender in mental health has attracted much attention in recent years (Afifi, 2007; Brugha et al., 2013; Kling et al., 1999; Vogt, 2014). Examination of gender differences in mental well-being refers to efforts to distinguish how different factors, and their interactions, affect the mental well-being of men and women, as well as exploring how gender inequality impacts health. Studies have revealed mixed results regarding gender differences in self-esteem during adolescence and young adulthood (Kling et al., 1999).

Several life-span theories point to possible explanations for improved wellbeing with age. By definition, development is a process of adaptation and successful development demands that people learn from experience, understand contingencies in their environments, approach rewarding situations, and avoid punishing ones. As a consequence, knowledge (or expertise) informs future actions, which are increasingly effective within relevant environments. One prominent model of adult development, selective optimization with compensation (Baltes & Baltes, 1990; Baltes, Lindenberger, & Staudinger, 2006), maintains that successful aging entails selective investment in goals and environments and drawing on accumulated expertise to optimize performance in selected domains to compensate for inevitable limitations.

Researchers (Dhara & Jogsan, 2013) concluded that elderly people need better physical health care and psychological care to nourish their well-being. Due to frail health condition, lack of adequate care and acorn by the family members, negligence by care givers, busy life schedule due to urbanization, elderly people are getting neglected. As a result, they become more vulnerable to physical and mental ailments

Gender differences in demoralization were examined in a first-ever true prevalence study conducted in a kibbutz. The unusual organizational arrangements of this commune, where women have achieved higher levels of equality than in most other societies, offered a laboratory-like opportunity to test the psychosocial factors imputed as a partial explanation for the higher rates of demoralization in women. The results showed that women had higher mean scores and rates even after these variables were controlled. The male: female demoralization ratio was well within the range of results obtained (Levav et al., 1991).

In an attempt to confirm the lack of research examining age and demoralization beyond a formal literature search and review, Latronica (2013)

contacted two major theorists of demoralization. The researcher first contacted Julia Frank, daughter and co-author with Jerome Frank, to see if she was aware of the research examining demoralization and age. She stated, "I regret to say that I don't, though it is a question worth asking" (J. Frank, personal communication, February 21, 2012). To further ensure that literature on the topic of demoralization and age was non-existent, Yossef Ben-Porath, one of the creators of Restructured Clinical Scales, was contacted. He also confirmed that he does not believe there is any literature surrounding this area stating "I'm not aware of any studies that have looked at this directly" (Ben-Porath personal communication, May 02, 2012).

Studies examining predictors of demoralization have found negative associations with social support (LeMay& Wilson, 2008; Grassi et al., 2005; Mehnert et al., 2011). Results regarding age and gender are inconsistent. However, positive (Grassi et al., 2005), negative (LeMay& Wilson, 2008; Vehling, 2012; Grassi, 2004), or no associations with age (Clarke, 2005; Cockram, 2009)were found.

Most studies found no gender differences (LeMay& Wilson, 2008; Clarke, 2005; Grassi et al., 2005 & Cockram, 2009), except for one study (Vehling, 2012). In addition, while it is widely accepted that the existential burden among patients with advanced cancer is linked to existential distress, palliative vs. curative treatment phase or advanced vs. early disease stage were not associated with higher demoralization (Clarke, 2005; Grassi et al., 2005 & Cockram, 2009). These studies did mostly not control for confounding variables and none of them considered interaction effects. More complex underlying associations may however account for absent effects of cancer-related variables (Scheier, 2006). Hence, combined with the pattern of

previous results, a two-way interaction of age and gender may contribute to inconsistent associations between these factors and demoralization.

Demoralization and normative grief may respond more positively to psychosocial support and psychotherapeutic interventions, without the need for psychotropic medications (Strada, 2013). Older adults, especially those facing more urgent end-of-life issues, face a range of existential concerns, particularly demoralization. Research from patients receiving palliative care and those near the end of life, found that 14 percent report they are "demoralized" (Holland et al., 2009).

As the target population of the study consist of the elderly and also that cognitive impairment is commonly linked with ageing and other factors like birth defect, brain trauma in case of accidents, and also among people having mental illness. The Mini Mental Status Examination (MMSE; Kurlowicz & Wallace, 1999) was employed for screening to enable exclusion of participants with symptoms of cognitive impairment.

Chapter – II Statement of the Problem

According to 2011 census, India has a population of 1.21 billion people. The number of "elder" people in India (60+ years) has increased by 54.77% in the last 15 years. As of March 1, 2012, the old age dependency ratio, which measures the number of elderly people as a portion of those of working age, stands at 0.132. By 2050, India's old age dependency ratio is projected to cross over 0.20 (Mahajan & Ray, 2013).

Here are some lists of Schemes/Provisions made by the Government to improve the condition of the aged persons:

- Integrated Programme for Older Person (IPOP) with the objective of improving the quality of life of senior citizens by providing basic amenities like shelter, food, medical care and entertainment opportunities and by encouraging productive and active ageing.
- 2. Old age pension is provided under the Indira Gandhi Old Age Pension Scheme (IGNOAPS) which is a component of National Social Assistance Programme (NSAP), implemented by Ministry of Rural Development.
- 3. National Programme for Health Care of the Elderly (NPHCE) aims to provide dedicated health care facilities to the elderly people through State Public health delivery system at primary, secondary and tertiary levels, including outreach services.
- 4. A number of incentives have been provided under the Income Tax Act, 1961, to a senior citizen (i.e., an individual, resident in India, who is of the age of 60 years or more at any time during the relevant previous year).
- 5. The Ministry of Home Affairs has issued two detailed advisories dated 27-3-2008 and 30-8-2013 to all States Governments/UT's advising them to take

immediate measures to ensure safety and security and for elimination of all forms of neglect, abuse and violence against old persons.

The Mizoram Senior Citizens' Association (MUP: Mizoram Upa Pawl) was formed way back in the 1961 in Mizoram, no serious academics discussion on the problem of ageing have been conducted in Mizoram. The said Association was affiliated to the Federation of Association of Senior Citizens of India (FASC). In spite of the numerous activities taken up by MUP, the general awareness of the people about ageing and its associated problems did not get much headway. Therefore, it can be said that the need of the hour as in Mizoram is to educate the people about ageing and the related problems faced by different countries in the world in general, and India in particular. The State Government, recognizing the importance of the older persons and their contribution to the society as a whole, has taken various steps for their welfare. Besides the provision of old age pension and old age home, the State Government also assists and aids the *Mizoram Upa Pawl* and other NGOs working for the older persons by running Day care Centres for Older Person (Lianzela & Vanlalchhawna, 2007).

Population of elderly people is rising and due to frail health condition, lack of adequate care and acorn by the family members, negligence by care givers, busy life schedule due to urbanization, elderly people are getting neglected. As a result, they become more vulnerable to physical and mental ailments. Many elderly people are suffering from loneliness even though they are living with their families. This context is also very true in the case of elderly people who have lost their loved ones. Such conditions may force a person to develop psychological problems.

Mild cognitive impairment and mild cognitive disorders in elderly above 60 years occur at least 10% of the population as diagnosis is less stable. However, cognitive impairment can also occur due to various reasons like birth defect, brain trauma in case of accidents, and also among people having mental illness.

Government and Community Support received by the elderly are also very limited, some support are received through the congregation and some through Government schemes/programmes. Activities for the elderly are also very limited in Mizoram, only very few activities like gathering of elderly person on their own locality office twice a week or so, giving of blankets and other concessions on Christmas and special place for elderly people to sit on some church and society events. Even small activities and support would increase their level of mental well-being. Lack of support could also lead to demoralization which could cause such person to live miserably even at the late stage of life.

Looking at Old Age Home, there are only two known Old Age Home in Mizoram. The department of Social Welfare is currently running one Old Age Home at Aizawl which consists of 10 beds and 9 staffs. An elderly person who wants to get admission have to write an application to the Social Welfare Department. Besides, there is another Old Age Home at Serchhip under the care of the Salvation Army; a denomination of the church. The elderly of Mizoram needs more institution where they can rejuvenate their dormant mind and spirit. They need proper care which includes keeping the old people at home with proper care and good environment.

Hollingshead (1975) and Kuppuswamy (1981) provided empirical ground work for a comprehensive score of socio-economic status from the background

information of educational qualification, marital status, number of children and grand-children, family size and monthly income based on the work of Hollingshead (1975) and Kuppuswamy (1981) that can be envisioned to show impact on support given and received, Mental Well-being and Demoralization.

In view of the foregoing, the study attempted to highlight the relationship between Social Support (Emotional Support and Instrumental Support), Mental Wellbeing and Demoralization of the Elderly in Aizawl, the capital city of Mizoram. The study was designed for the comparison of 'Sex' (male and female) and 'age-group' of elderly (young-old, middle-old and old-old) on Social Support, Mental Well-being and Demoralization. To ensure the control for cognitive impairment as confound in view of the target population of the study, the Mini Mental Status Examination (Kurlowicz & Wallace, 1999) shall be employed. The giving and receiving social support, mental well-being and demoralization shall be treated as the dependent variables. In addition, the comprehensive score on socio-economic status shall be treated as indicator of Social Support, Mental Well-being and Demoralization.

Objectives of the Study:

The present study was designed with the following objectives:

- To determine the impact of 'sex' (male and female) on social support, mental well-being and demoralization.
- 2. To determine the impact of 'age group' of the elderly on social support, mental well-being and demoralization.

- 3. To determine the impact of 'age x sex' interaction on the psychological variables of social support, mental well-being and demoralization.
- 4. To elucidate the role of socio-economic status in the predictive relationships between 'sex' and 'age'with the measures of social support, mental well-being and demoralization.
- 5. To determine the predictability of mental well-being and demoralization from 'sex', 'age', socio-economic status and social support.

Hypothesis:

- It was expected that male participants will show higher level of mental wellbeing while female participants will show higher level of social support and demoralization.
- 2. It was expected that young-old will show the highest scores on social support followed by middle-old; middle-old will show the highest scores on mental well-being; and the old-old will show the highest scores on demoralization.
- 3. It was expected that female young-old will show higher level of social support and mental well-being as compared to male young-old, while high level of demoralization was expected for both male old-old and female old-old.
- 4. It was expected that sex, age and socio-economic status will show significant impact on the dependent measures.
- **5.** It was expected that there will be predictability of well-being and demoralization from sex, age and socio-economic status and social support.

Chapter – III Methods and Procedure

Sample:

The 240 male and female participants of 55 years and above were selected from Aizawl, the capital city of Mizoram, by following multistage random sampling procedures, with equal representation based on the 'sex' and 'age-group' of the participants. The sample frame included elderly people of 55 years and above as the transition in livelihood became the basis for the definition of old age which occurred between the ages of 55 and 75 years (Thane, 1978). The age of the participants was recorded for further classification based on the three 'age-group'; Young-old (55-64), Middle-old (65-74) and Old-old (75 and over) as proposed by Botwinick (1984). The demographic information of educational qualification, marital status, number of children and grand-children, family size and monthly incomeare also carefully recorded as indicators of socio-economic status. In addition, the Mini Mental Status Examination (Kurlowicz & Wallace, 1999) was employed to control for the impact of cognitive impairment, in view of the target participants under study.

Design of the Study:

The study employed 2x3 factorial design (2 'sex' x 3 'age-group') imposed on Social Support, Mental Well-being and Demoralization. The participants were selected based upon 'Sex' (Male and female) as well as 'age-group' – Young-old (55-64), Middle-old (65-74) and Old-old (75 and over). Each participant from Aizawl, the capital city of Mizoram was screened using the Mini Mental Status Examination (Kurlowicz & Wallace, 1999) to ensure minimum variation due to cognitive

impairments. The study portray 120 males and 120 females with three 'age-group' comprised of 80 participants under each group.

Thus, there are 40 participants under each cell of the 2 'sex' x 3 'age-group'. The main design of the study (Table-1) to be imposed on social support on mental well-being and demoralization. The socio-economic status as indicated by the demographic information of educational qualification, marital status, number of children and grand-children, family size and monthly income were also included as ancillary variable in the study.

	Young-old	Middle-old	Old-old	Total
Male	40	40	40	120
Female	40	40	40	120
Total	80	80	80	240

Table-1: The Sample characteristics table of the 2 'Sex' x 3 'Age-group' for the N=240 participants of the study.

Psychological tools:

Mini Mental State Examination (MMSE; Kurlowicz & Wallace, 1999): The MMSE is a tool that can be used to systematically and thoroughly assess mental status. It is an 11 question measure that tests five areas of cognitive function; orientation, registration, attention and calculation, recall and language. The maximum score is 30. The total score of 23 or lower is indicative of cognitive impairment. A specimen copy of MMSE is presented in Appendix – I.

2-Way Social Support Scale (Shakespeare-Finch & Obst, 2011): It measures four dimensions of social support, namely, Emotional Support Received (ESR; items 1 to 7), Emotional Support Given (ESG; items 8 to 12), Instrumental Support Received (ISR; items 13 to 16), and Instrumental Support Given (ISG; items 17 to 21). The 21-items are scored on a 6-point Likert scale ranging from 0 (not at all) to 5 (always). Total scores can range from 0 to 100 with lower scores denoting less social support. A specimen copy of 2-Way Social Support Scale is presented in Appendix – III (a & b).

Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS; Stewart-Brown et al., 2009): The SWEMWBS is a validated measure of mental well-being that has been used nationally, regionally and locally and seen as an effective tool. It is a 7-item questionnaire that produces a single score. It is self-completed (for people aged 13+) to record 'statements about their thoughts and feelings over the past two weeks'. Individuals rate their feelings over the previous two weeks from 1 (none of the time) to 5 (all of the time) on all the seven questions. High sum of scores indicated better mental well-being. A specimen copy of 2-Way Social Support Scale is presented in Appendix – IV(a &b).

Demoralization Scale (DS; Kissane et al., 2004): The DS was developed to assess emotional distress. It consists of 24-item, with a 5-point, self-rating scale that captures the dimensions of: dysphoria; disheartenment; loss of meaning; helplessness; and sense of failure. Individuals have to indicate how strongly the statements has applied to them over the last two weeks by circling the corresponding numbers (1 – Never; 2 – Seldom; 3 – Sometimes; 4 – Often and

5 – All the time). The DS is able to differentiate a subset of patients who are demoralized and yet not clinically depressed. A specimen copy of 2-Way Social Support Scale is presented in Appendix – V(a &b).

In addition, the study also employed an index of demographic information to obtain the comprehensive score of socio-economic status. The demographic information includes educational qualification, marital status, number of children and grand-children, family size and monthly income and the comprehensive scores to indicate socio-economic status follows the works of Hollingshead (1975) and Kuppuswamy (1981).

Procedures:

The 240 male and female participants of 55 years and above were identified following the multistage random sampling method from Aizawl, the capital city of Mizoram. Rapport was formed with each of the participants at the individual level and the consent for participation obtained with initial briefing and the explanation of requirements for the psychological task. The importance of the instructions relating to the psychological measures was clearly highlighted along with the conditional time frame permitted for the completion of the psychological tasks. The first phase of interaction was followed byscreening of each participant using the Mini Mental Status Examination (Kurlowicz & Wallace, 1999) to ensure that each participantshow no symptom of cognitive impairment. The sex, age and demographic information of

each participant are carefully recorded. The first phase of interaction was followed by data collection and the latter followed by introspective report and de-briefing.

Data Collection:

After screening of the participants for cognitive impairment using The Mini Mental Status Examination (Kurlowicz & Wallace, 1999), only participants scoring 24 or more received a booklet containing the demographic information (sex, age, educational qualification, marital status, number of children and grand-children, family size and monthly income), 2-Way Social Support Scale (Shakespeare-finch & Obst, 2011) and The Short Warwick-Edinburgh Mental Well-being Scale (Stewart-Brown et al., 2009) and Demoralization Scale (Kissane et al, 2004) to be completed in the presence of the researcher. The data obtained are carefully recorded, coded, cleaned and processed for further analyses.

Statistical Analyses:

In the description of the data, 'Sex' was treated as categorical variables and was Dummy coded as Female=1 and Male=0; the Chronological Age of the participants was treated as continuous variables; the socio-economic status being a comprehensive score derived from the background information of educational qualification, marital status, number of children and grand-children, family size and monthly income based on the works of Hollingshead (1975) and Kuppuswamy (1981), was treated as a continuous data. Similarly, the scores on the scales/subscales of the behavioral measures are treated as continuous data. Therefore, the Point-bi-

serial correlation coefficient was employed for the variable of 'Sex' with all the continuous data of the demographic information and the scales/subscales of the behavioral measures, whereas, Pearson Product Moment Correlation Coefficient was employed for all the continuous data.

The analysis of covariance (ANCOVA) was employed for the effect of 'Sex' and 'Age-group' on the scales/sub-scales of the behavioral measures with the socio-economic status as the covariate. Scheffe Test, which is a parametric Post-hoc multi-comparision was employed to elucidate the patterns of groups/means differences for the significant independent and interaction effect of 'Sex' and 'Age-group' on the behavioral measures.

Finally, to address the target objectives of the study, Multiple Regression was separately employed for the prediction of mental well-being (criterion) and demoralization (criterion) from sex, age, socio-economic status (which are entered as the predictors in Model-1) and Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (which are entered as the predictors in Model-2).

Chapter – IV Results

Table-2: Descriptive statistics (Mean, Standard Deviation, Skewness and Kurtosis) and the Cronbach's Aphas of the scales/sub-scales of the behavioral measures.

	3.4	Standard	Ske	wness	Ku	rtosis	
	Mean	Deviation	Statistic	Std. Error	Statistic	Std. Error	α
Age	69.24	8.32	.09	.16	-1.13	.31	-
Socio-economic Status	22.01	3.28	22	.16	43	.31	-
Receiving Emotional Support	32.75	4.82	-1.11	.16	2.80	.31	.86
Giving Emotional Support	21.98	4.06	68	.16	.07	.31	.84
Receiving Instrumental Support	19.17	2.91	-1.21	.16	3.04	.31	.77
Giving Instrumental Support	22.50	3.28	93	.16	3.06	.31	.74
Warwick-Edinburgh Mental Well-being Scale	27.11	3.03	.40	.16	16	.31	.76
Demoralization Scale	29.21	9.89	.94	.16	2.14	.31	.89

The results (Table-2) describes the Mean, Standard Deviation, Skewness and Kurtosis of the demographic variables (Age and Socio-economic status) as well as the scales/subscales of the behavioral measures of 2-Way Social Support Scale (Shakespeare-Finch & Obst, 2011; Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support, Giving Instrumental Support), Demoralization Scale (DS; Kissane et al., 2004) and the Warwick-Edinburgh Mental Well-being Scale (Stewart-Brown et al., 2009).

The reliability coefficients (Cronbach's Alphas) of specific scales/subscales of the behavioral measures of 2-Way Social Support Scale (Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support, and Giving Instrumental Support), Demoralization Scale and the Warwick-Edinburgh Mental Well-being Scale are presented in Table-2. The Cronbach's Alphas of the scales/subscales of the behavioral measures emerged to be greater than .70indicating that all scales/subscales of the behavioral measures have high internal consistency which warrants their applicability for measurement in the target population.

Relationship of the Behavioral Measures

In the analyses for the relationships of the variables under study, 'Sex' was treated as categorical variable and is dummy coded as Female = 1 and Male = 0; the Chronological Age of the participants is treated as continuous variable; the socioeconomic status, a comprehensive score derived from the background information of educational qualification, marital status, number of children and grand-children, family size and monthly income based on the works of Hollingshead (1975) and Kuppuswamy (1981) was treated as continuous data; and the scores on the scale/subscales of the behavioral measures are treated as continuous data. Therefore, point-by-serial correlation coefficient was employed for the variable of 'Sex' with all the continuous data of the socio-economic status and the scales/subscales of the behavioral measures, whereas, Pearson Product Moment Correlation Coefficient was employed for all the continuous data.

The correlation coefficients for socio-economic status with the scales/subscales of behavioral measures emerged to be smaller than .60. Therefore, the bivariate correlation matrix warranted inclusion of SES as covariate in the analysis of covariance for the effect of 'Sex' and 'Age-group' on the scales/subscales of the behavioral measures.

Table-3: The bivariate correlation coefficients of the Sex, age and socioeconomic status and the scales/sub-scales of the behavioral measures

	1	2	3	4	5	6	7	8	9
1. Sex	-								
2. Age	06	-							
3. Socio-economic Status	13*	31**	-						
4. Receiving Emotional Support	02	34**	.14*	-					
5. Giving Emotional Support	.02	48**	.16*	.72**	-				
6. Receiving Instrumental Support	.04	.05	03	.56**	.43**	-			
7. Giving Instrumental Support	.05	21**	.06	.59**	.61**	.63**	-		
8. Warwick-Edinburgh Mental Well-being Scale	.07	31**	.07	.38**	.46**	.27**	.46**	-	
9. Demoralization Scale	.00	24**	23**	18**	05	27**	16*	11	-

** Significant at 0.01 level. * Significant at 0.05 level

The result (Table-3) shows the bivariate correlation coefficients of the sex, age and socio-economic status and the scales/sub-scales of the behavioral measures. The bivariate correlation coefficients (Table-3) revealed 'Sex' to show negative relationship with socio-economic status; 'Age' shows negative relationship with socio-economic status, Receiving Emotional Support, Giving Emotional Support, Giving Instrumental Support, Demoralization Scale and Warwick-Edinburgh Mental Well-being Scale; socio-economic status to show positive relationship with Receiving Emotional Support, Giving Emotional Support and negative relationship with Demoralization Scale; Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support, Giving Instrumental Support and Warwick-Edinburgh Mental Well-being Scale emerged to be positively related in all possible combinations; and Receiving Emotional Support, Giving Instrumental Support and Warwick-Edinburgh Mental Well-being Scale show significantly negative relationship with Demoralization Scale.

Table-4a: The Levene's test of homogeneity of variance in the analysis of covariance for the effect of 'sex' and 'Age-group' on the scales/subscales of the behavioral measures with the socio-economic status as the covariate.

	F	df1	df2	Sig.
Receiving Emotional Support	1.12	5	234	.35
Giving Emotional Support	1.78	5	234	.12
Receiving Instrumental Support	.24	5	234	.95
Giving Instrumental Support	.94	5	234	.46
Warwick-Edinburgh Mental Well-being Scale	2.17	5	234	.06
Demoralization Scale	1.13	5	234	.34

The results (Table-4a) highlighted the Levene's test of homogeneity of variance in the analysis of covariance for the effect of 'Sex' and 'Age-group' on the scales/sub-scales of the behavioral measures with the socio-economic status as the covariate. The result (Table-4a) shows no significant instances for any of the behavioral measures which indicated there is homogeneity of variance warranting the interpretability of the analysis of covariance.

The results (Table-4b) highlighted the outcomes of the analysis of covariance for the effect of 'Sex' and 'Age-group' on the scales/sub-scales of the behavioral measures with the socio-economic status as the covariate. The results (Table-4b) revealed: socio-economic status to explain variation on Demoralization and socio-economic status. Review of results (Table-3) revealed that higher socio-economic status indicated lower demoralization; 'Age-group' to explain variations on Receiving Emotional Support, Giving Emotional Support, Giving Instrumental Support, Mental Well-being and Demoralization; and the interaction of the outcome of 'Sex x Age-group' to explain variation on Demoralization.

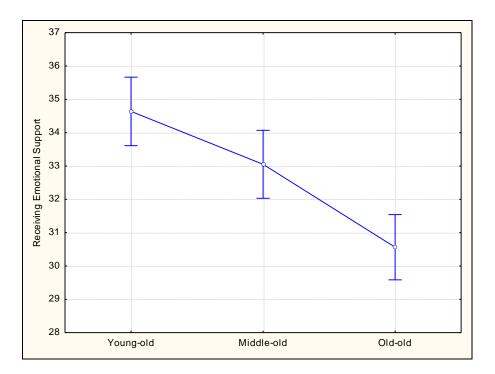
Table-4b: The outcomes of the analysis of covariance for the effect of 'Sex' x 'Age-group' on the scales/sub-scales of the behavioral measures with the socio-economic status (SES) as the covariate.

		Sum of Squares	df	Mean Square	F	Sig.	η^2	Observed Power
	SES	13.17	1	13.17	.63	.43	.00	.12
t al	Sex	1.57	1	1.57	.08	.78	.00	.06
ivir Jon Por	Age-group	561.95	2	280.97	13.50	.00	.10	1.00
Receiving Emotional Support	Sex*Age-group	7.05	2	3.53	.17	.84	.00	.08
	Error	4849.53	233	20.81				
	Total	5545.00	239					
	SES	5.88	1	5.88	.46	.50	.00	.10
. a	Sex	2.08	1	2.08	.16	.69	.00	.07
ring Eion Por	Age-group	798.59	2	399.29	31.12	.00	.21	1.00
Giving Emotional Support	Sex*Age-group	37.42	2	18.71	1.46	.23	.01	.31
E	Error	2989.14	233	12.83				
	Total	3948.90	239					
	SES	.36	1	.36	.04	.84	.00	.05
ig ital t	Sex	3.58	1	3.58	.42	.52	.00	.10
iviin mer por	Age-group	19.25	2	9.63	1.12	.33	.01	.25
Receiving Instrumental Support	Sex*Age-group	9.08	2	4.54	.53	.59	.00	.14
H Ins	Error	1996.67	233	8.57				
	Total	2030.00	239					
	SES	.62	1	.62	.06	.81	.00	.06
ital t	Sex	6.14	1	6.14	.59	.44	.00	.12
/ing mei por	Age-group	112.69	2	56.34	5.45	.00	.04	.84
Giving Instrumental Support	Sex*Age-group	17.57	2	8.79	.85	.43	.01	.20
Ins	Error	2409.15	233	10.34				
	Total	2564.00	239					
	SES	1.45	1	1.45	.18	.67	.00	.07
Mental Well-being Scale	Sex	8.71	1	8.71	1.07	.30	.00	.18
nta bei ale	Age-group	261.83	2	130.91	16.11	.00	.12	1.00
Ment/ell-b Scal	Sex*Age-group	10.05	2	5.03	.62	.54	.01	.15
=	Error	1893.57	233	8.13				
	Total	2189.96	239					
g	SES	2008.07	1	2008.07	24.72	.00	.10	1.00
atio	Sex	37.80	1	37.80	.47	.50	.00	.10
oraliza Scale	Age-group	2412.61	2	1206.30	14.85	.00	.11	1.00
nors	Sex*Age-group	663.26	2	331.63	4.08	.02	.03	.72
Demoralization Scale	Error	18926.90	233	81.23				
	Total	23360.16	239					

Table-4c: The scheffe test for the significant independent effect of 'Age-group' on Receiving Emotional Support.

Groups/Means	34.64	33.05	30.56
Young-old	X		
Middle-old	1.59	X	
Old-old	4.08^{**}	2.49**	X

Figure-1: The plot of means for the significant independent effect of 'Age-group' on Receiving Emotional Support.

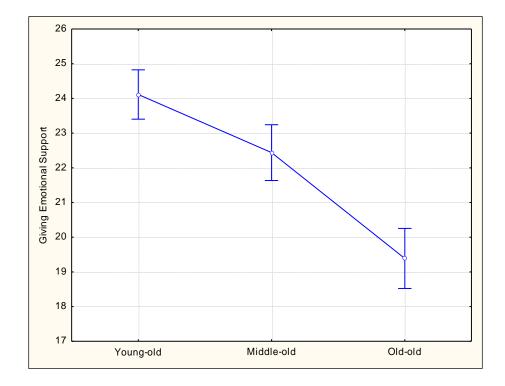


The outcome of the scheffe test was employed to elucidate the pattern of Group/Mean differences for the significant independent effect of 'Age-group' on Receiving Emotional Support that revealed the Old-old group to show significantly lower scores on Receiving Emotional Support as compared to the Young-old and the Middle-old (Table-4c & Figure-1).

Table-4d: The scheffe test for the significant independent effect of 'Age-group' on Giving Emotional Support.

Groups/Means	24.11	22.44	19.39
Young-old	X		
Middle-old	1.67*	X	
Old-old	4.72**	3.05**	X

Figure-2: The plot of means for the significant independent effect of 'Age-group' on giving emotional support.

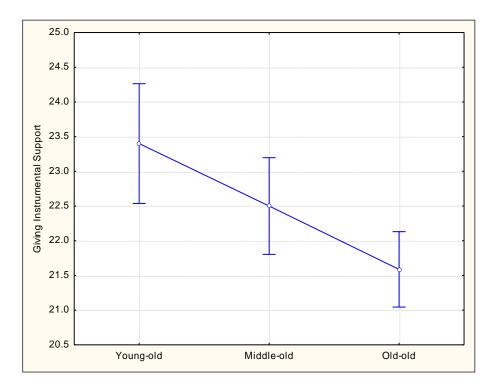


The outcome of the scheffe test for the significant independent effect of 'Agegroup' on Giving Emotional Support revealed the Old-old group and the Middle-old group to show significantly lower scores on Giving Emotional Support as compared to the Young-old (Table-4d& Figure-2).

Table-4e: The scheffe test for the significant independent effect of 'Age-group' on Giving Instrumental Support.

Groups/Means	23.40	22.50	21.59
Young-old	X		
Middle-old	0.90	X	
Old-old	1.81**	0.91	X

Figure-3: The plot of means for the significant independent effect of 'Age-group' on giving instrumental support.

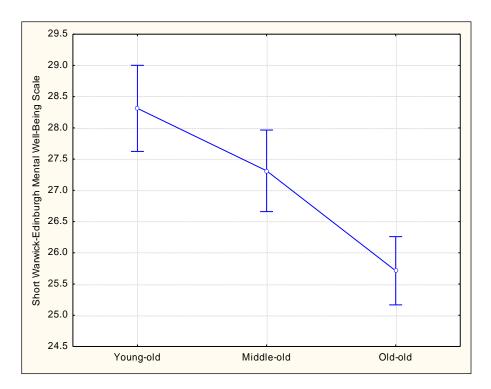


The outcome of the scheffe test for the significant independent effect of 'Agegroup' on Giving Instrumental Support revealed the Old-old group to show significantly lower scores on Giving Instrumental Support as compared to the Young-old and the Middle-old (Table-4e& Figure-3).

Table-4f: The scheffe test for the significant independent effect of 'Age-group' on Warwick-Edinburgh Mental Well-being Scale.

Groups/Means	28.31	27.31	25.71
Young-old	X		
Middle-old	1.00	X	
Old-old	2.60**	1.60**	X

Figure-4: The plot of means for the significant independent effect of 'Age-group' on Warwick-Edinburgh Mental Well-being Scale.

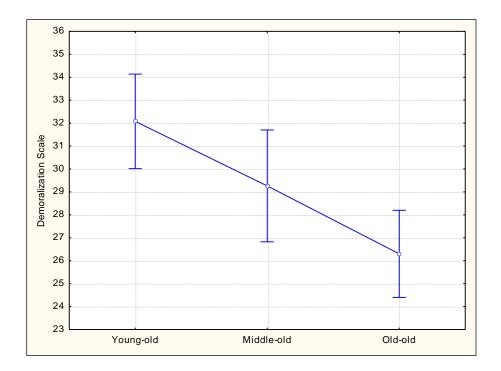


The outcome of the scheffe test for the significant independent effect of 'Agegroup' on Warwick-Edinburgh Mental Well-being that revealed the Old-old group to show significantly lower scores on Warwick-Edinburgh Mental Well-being as compared to the Young-old and the Middle-old(Table-4f& Figure-4).

Table-4g: The scheffe test for the significant independent effect of 'Age-group' on Demoralization Scale.

Groups/Means	32.08	29.26	26.30
Young-old	X		
Middle-old	2.82	X	
Old-old	5.78**	2.96	X

Figure-5: The plot of means for the significant independent effect of 'Age-group' on Demoralization Scale.

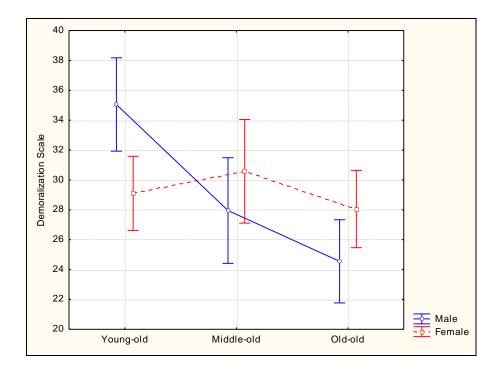


The outcome of the scheffe test for the significant independent effect of 'Agegroup' on Demoralization that revealed the Old-old group to show significantly lower scores on Demoralization as compared to the Young-old and the Middle-old(Table-4g& Figure-5).

Table-4h: The scheffe test for the significant interaction effect of 'Sex' x 'Agegroup' on Demoralization Scale.

Groups/Means	35.05	27.95	24.55	29.10	30.58	28.05
Male/Young-old	X					
Male/Middle-old	7.10^{*}	X				
Male/Old-old	10.50**	3.40	X			
Female/Young-old	5.95	-1.15	-4.55	X		
Female/Middle-old	4.47	-2.63	-6.03	-1.48	X	
Female/Old-old	7.00^*	-0.10	-3.50	1.05	2.53	X

Figure-6: The plot of means for the significant interaction effect of 'Sex' x 'Agegroup' on Demoralization Scale.



The result (Table-4h) shows outcome of the scheffe test for the significant interaction effect of 'Sex x Age-group' on Demoralization Scale. The overall results (Table-4h and Figure-6) revealed that the males of Young-old showed significantly greater scores on Demoralization as compared to the males of the Middle-old and the Old-old and the Females of the Old-old.

Table-5: The *beta-values*, adjusted R-square, F-change, Model-F, Durbin-Watson statistics, Tolerance and variance inflation factor (VIF) in the prediction of Mental Well-being (*criterion*) from sex, age, socio-economic status, Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (*predictors*).

	Model-1	Model-2	Tolerance	VIF
Sex	05	04	.96	1.04
Age	31**	15*	.63	1.58
Socio-economic Status	02	02	.88	1.14
Receiving Emotional Support		.03	.39	2.54
Giving Emotional Support		.18*	.37	2.67
Receiving Instrumental Support		01	.48	2.08
Giving Instrumental Support		.31**	.46	2.18
ΔR^2	.09**	.26**	Durbin-Watson Statistics	
F-Change	8.60**	14.89**		
Model-F	8.60**	13.07**	1.73	

The results (Table-5) shows the *beta-values*, adjusted R-square, F-change, Model-F, Durbin-Watson statistics, Tolerance and variance inflation factor (VIF) in the prediction of Mental Well-being (criterion) from sex, age and socio-economic status (entered as predictors in Model-1); and Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (entered as predictors in Model-2). The Durbin-Watson statistics, Collinearity Statistics (Tolerance and Variance Inflation Factor), normality and linearity of the regression slope (Figure-7&8) warranted the interpretability of the multiple regression. The increase in age significantly predicted the decrease in Mental Wellbeing, whereas, increase in Giving Emotional Support and Giving Instrumental Support indicated increasing scores on Mental Well-being. Giving Instrumental Support emerged as the single largest predictor of Mental Well-being.

Figure-7: Histogram portraying the distribution of the regression standardized residual in the prediction of Mental Well-being (*criterion*) from sex, age, socio-economic status, Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (*predictors*).

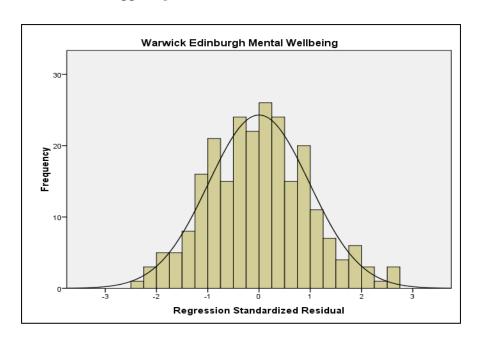


Figure-8: Normal P-P plot of the regression standardized residual in the prediction of Mental Well-being (*criterion*) from sex, age, socioeconomic status, Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (*predictors*).

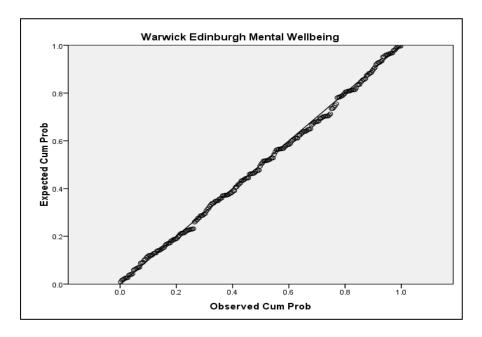


Table-6: The *beta-values*, adjusted R-square, F-change, Model-F, Durbin-Watson statistics, Tolerance and variance inflation factor (VIF) in the prediction of demoralization (criterion) from sex, age, socio-economic status, Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (predictors).

	Model-1	Model-2	Tolerance	VIF
Sex	.07	.07	.96	1.05
Age	35**	45**	.63	1.60
Socio-economic Status	37**	35**	.88	1.14
Receiving Emotional Support		33**	.38	2.62
Giving Emotional Support		04	.37	2.68
Receiving Instrumental Support		15	.49	2.04
Giving Instrumental Support		.12	.44	2.28
ΔR^2	.17**	.30**	Durbin-Watson Statistics	
F-Change	16.61**	12.00**		
Model-F	16.61**	15.32**	1.55	

The results (Table-6) shows the *beta-values*, adjusted R-square, F-change, Model-F, Durbin-Watson statistics, Tolerance and variance inflation factor (VIF) in the prediction of demoralization (criterion) from sex, age and socio-economic status (entered as predictors in Model-1); and Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (entered as predictors in Model-2). The Durbin-Watson statistics, Collinearity Statistics (Tolerance and Variance Inflation Factor), normality and linearity of the regression slope (Figure-9&10) warranted the interpretability of the multiple regression. The increase in age, socio-economic status and Receiving Emotional Support significantly predicted lower scores on Demoralization; where Receiving Emotional Support emerged as the sole predictor of Demoralization for the sub-scales of Social Support.

Figure-9: Histogram portraying the distribution of the regression standardized residual in the prediction of demoralization (criterion) from sex, age, socio-economic status, receiving emotional support, giving emotional support, receiving instrumental support and giving instrumental support (predictors).

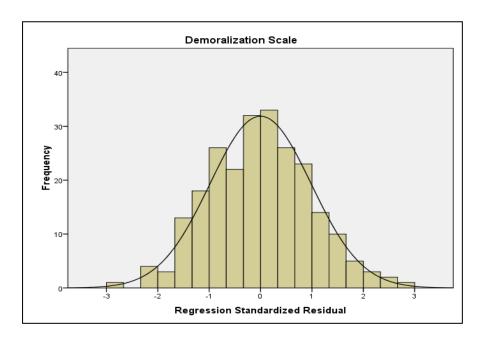
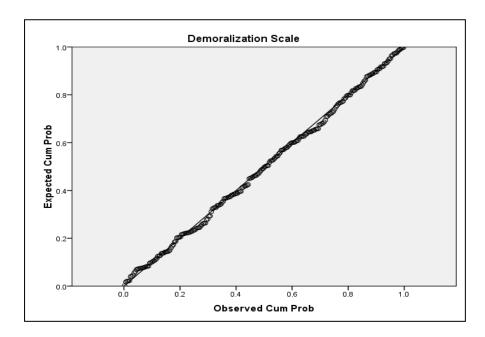


Figure-10: Normal P-P plot of the regression standardized residual in the prediction of demoralization (criterion) from sex, age, socio-economic status, receiving emotional support, giving emotional support, receiving instrumental support and giving instrumental support (predictors).



Chapter – V Discussion

The descriptive statistics and the Cronbach's Alphas revealed all the scales/subscales of the behavioral measures to be applicable for the measurement in the target population. The impact of 'Sex' emerge solely on the socio-economic status throughout the analysis of the present study, wherein, being female indicated lower level of socio-economic status. Researches on gender differences in the linkages between socio-economic status is scarce and inconclusive (Gilman et al., 2002; Nystrom Peck, 1994; Veijola et al., 1998). However, in support of the finding of the study, some studies showed that women reported poorer physical health and poorer mental well-being, largely due to their disadvantaged socio-economic status (Bebbington, 1998; Johnson & Wolinsky, 1994).

Retirement have an onset on the Young-old, whereas, adjustment process have gone a long way for the Old-old. Retirement is being experienced as providing freedom from the time demands and daily structure of work life to pursue other interests and activities such as travel at a relaxed pace (Kelly & Westcott, 1991; Nelson, 1980). As a result, positive changes in well-being occur during the first year of retirement which reflected the retiree's release from the daily pressures of work. However, Palmore (1986) reported that there may be a general decline in the mental health of older adults over a longer time retirement period (10 years). Retirement is also believed to signify to the individual as well as to others that the retiree is old, useless, and no longer a contributing and vital member of the community. The result frequently is the loss of social status and positive role supports from others and, as a result, there is feeling of demoralization and a decline in self-respect and self-concept (Blau, 1956; Phillips, 1957).

The outcome of the present study revealed that increase in age predicted lower level of Mental Well-being. In support of the finding, Snowden, Dhingra, Keyes and Anderson (2010), reported that older adults (65-74 years) experienced a slight decline in mental well-being that is not seen among younger participants which was not explained by demographic variables, physical ailments, mental illnesses, or chronic conditions. The outcome of the present study revealed the increase in age indicated lower level of demoralization as well as the interaction effect of 'Sex' and 'Agegroup' on demoralization. Research examining relations of age and demoralization is scarce and inconclusive as reported in the literature (Latronica, 2013). Studies examining predictors of demoralization have found that results regarding age and gender are inconsistent, however, positive (Grassi et al., 2005), negative (LeMay & Wilson, 2008; Vehling, 2012; Grassi, 2004), or no associations with age (Clarke, 2005; Cockram, 2009)were reported.

The results finding of the present study, that the increase in socio-economic status indicated increase in receiving and giving emotional support finds support from the measures of social support to have been shown to be associated with socio-economic status, in the sense that individuals in higher socio-economic groups are more likely to be married, have more friends, and report higher levels of social support (Stringhini et al., 2012). This has led researchers to consider the different availability of social support between socio-economic groups as one of the mechanisms through which socio-economic circumstances "get under the skin" to influence health.

The support for the finding on the relationship between higher socio-economic status and lower level of demoralization emerged in contradictory findings. The

environmentally oriented theorists, holds that rates of some types of psychiatric disorder are higher in lower SES groups because of greater environmental adversity (Faris & Dunham 1939; Hollingshead & Redlich 1958; Leighton et al. 1963; Srole et al. 1962).

Giving emotional support and instrumental support can independently relate to providers' well-being. These constructs might interact to predict well-being emerged as a major finding in the present study. For instance, providing emotional support may amplify the benefits of providing instrumental support. Under such a state of affairs, emotionally engaged providers might benefit from each episode where they provide instrumental support to recipients, whereas unengaged providers might find instrumental support increasingly stressful and burdensome (Fredrickson & Joiner, 2002; Grunfeld et al., 2004).

Most researches on providing support find positive effects of giving support on well-being. Providing informal instrumental support is associated with higher levels of well-being among elderly adults (Krause et al., 1992). Those scoring higher on the "Tendency to Give Social Support Scale" reported less stress and depression as well as lower blood pressure and mean arterial pressure (Piferi & Lawler, 2006).

In sum, total support given remained significantly related to higher well-being. The association of well-being and support to and from specific types of alters (i.e., spouse, children, siblings, other family members, and friends) was also examined. Giving more support to children and friends was significantly associated with higher well-being and had the strongest effects (Thomas, 2010).

Increase in receiving emotional support predicted lower level of demoralization, another major finding of the present study where studies examining predictors of demoralization have found negative associations with receiving social support (LeMay& Wilson, 2008; Grassi et al., 2005; Mehnert et al., 2011). Researches (Clark, 2005) concluded that high levels of received social support was somewhat controversial in that, some studies have actually demonstrated a relationship between receiving social support and negative outcome among the elderly. Researches also revealed that high levels of received social support can lead to feelings of helplessness and dependency, which in turn leads to demoralization and negative mood (Clark, 2005). Receiving Social support without having the opportunity to reciprocate, which is common in caregiver-patient relationships, often leads individual to feel overbenefited, and this can lead to feelings of inadequacy, helplessness and demoralization (Bakas, Lewis & Parsons, 2001).

Older adults, especially those facing more urgent end-of-life issues, face a range of existential concerns, particularly demoralization. Research from patients receiving palliative care and those near the end of life, found that 14 percent report they are "demoralized" (Holland et al., 2009). Receiving support gives meaning to individuals' lives by virtue of motivating them to give in return, to feel obligated, and to be attached to their ties (Rook, 1990).

The overall outcome of the present study revealed: female as compared to male reported lower level of socio-economic status (Bebbington, 1998); the increase in age predicted lower level of mental well-being and decrease in the level of demoralization (Snowden et al., 2010 & Grassi, 2004); higher socio-economic status indicated increase in receiving and giving emotional support and lower level of

demoralization (Stringhini et al., 2012 & Srole et al., 1962); giving support to improve the mental well-being (Grunfeld et al., 2004); and receiving support to alleviate demoralization (Bakas, Lewis & Parsons, 2001) of the elderly emerged as the major findings on the participants of the present study.

Chapter – VI Summary and Conclusion

The classification of age varies between countries and over time, reflecting in many instances the social class differences or functional ability related to the workforce, but more often than not was a reflection of the current political and economic situation. Many times the definition is linked to the retirement age, which in some instances, was lower for women than men. This transition in livelihood became the basis for the definition of old age which occurred between the ages of 45 and 55 years for women and between the ages of 55 and 75 years for men (Thane, 1978). Therefore, 55 years of age and older were used as the general definition of an elderly person. This is done so the accumulated evidence and resulting information will be able to more accurately determine the health status of the elderly population.

The present study explore the impact of social support on mental well-being and demoralization among 240 Mizo elderly with equal presentation of sex. The age of the participants ranges from 55 years and above that was classified into Young-old (55-64), Middle-old (65-74) and Old-old (75 and over) as proposed by Botwinick (1984). The demographic information of educational qualification, marital status and grand-children and monthly income are also carefully recorded as indicators of socioeconomic status based on the works of Hollingshead (1975) and Kuppuswamy (1981).

The first phase of the interaction was followed by screening of the participants using The Mini Mental Status Examination (Kurlowicz & Wallace, 1999) to ensure minimum variation due to cognitive impairments. Only participants who scored 24 and above were used for collection of data; the latter was followed by report and analyses. During the course of the data collection, around 260 booklets were distributed.

For the present study, Mini Mental State Examination (Kurlowicz & Wallace, 1999), 2-Way Social Support Scale (Shakespeare-Finch & Obst, 2011), the Warwick-Edinburgh Mental Well-being Scale (Stewart-Brown et al., 2009) and the Demoralization Scale (Kissane et al., 2004) were employed.

The responses of the participants after careful screening and cleaning was Dummy coded as Female=1 and Male=0; the Chronological Age of the participants was treated as continuous variables; the socio-economic status being a comprehensive score derived from the background information of educational qualification, marital status, number of children and grand-children, family size and monthly income based on the works of Hollingshead (1975) and Kuppuswamy (1981), was treated as a continuous data. Similarly, the scores on the scales/subscales of the behavioral measures are treated as continuous data. Therefore, the Point-bi-serial correlation coefficient was employed for the variable of 'Sex' with all the continuous data of the demographic information and the scales/subscales of the behavioral measures, whereas, Pearson Product Moment Correlation Coefficient was employed for all the continuous data.

Firstly, the analysis of covariance (ANCOVA) was employed for the effect of 'Sex' x 'Age-group' on the scales/sub-scales of the behavioral measures with the socio-economic status as the covariate. Secondly, Scheffe Test which is a parametric Post-hoc multi-comparision was employed to elucidate the pattern of groups/means differences under the cell of 3 'Age-group' (Young-old, Middle-old and Old-old) with Receiving Emotional Support, Giving Emotional Support, Giving Instrumental Support, Warwick-Edinburgh Mental Well-being Scale and Demoralization Scale;

and the significant independent effect of 'Sex' x 'Age-group' on Demoralization Scale.

Finally, series of Multiple Regression in the prediction of mental well-being and demoralization from sex, age, socio-economic status (entered as the predictors in Model-1); and Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (entered as the predictors in Model-2).

The limitations of the study comprises of the target population itself, where collection of data was very difficult on some cases, mainly due to short attention span. Elderly population above the age of 75 was also very difficult to find at the time of the study; and the present study was done only within Aizawl, the capital city of Mizoram. It would be worthwhile to test the present finding generalizing to different districts of Mizoram, different culture of the same population and further extended studies by incorporating larger sample size and more representative and extensive measures of the psychological variables are desirable to be replicated in support of the findings.

The overall finding of the present study that finds corroborative evidence from the extant literature maybe summarized as under. Firstly, females as compared to males have been reported to be lower on socio-economic status (Gilman et al., 2002; Nystrom Peck, 1994). Secondly, the increase in age indicated positive Wellbeing that can be attributable to the adjustment requirements having its onset for the Young-old, whereas, adaptation can be a significant factors for the Old-old amongst the participant of the present study (Kelly & Westcott, 1991; Nelson, 1980).

Similarly, the increase in age indicating decrease in demoralization can be explained in terms of the adjustment-adaptation paradigms for the elderly (Blau, 1956; Phillips, 1957). The participants with higher socio-economic status reported less demoralization that can be explained considering lower environmental adversity (Faris & Dunham 1939; Hollingshead & Redlich, 1958). Finally, the contrasting role of Giving Support that improves the Well-being (Fredrickson & Joiner, 2002; Grunfeld et al., 2004) and Receiving support that alleviates demoralization of the elderly (Bakas, Lewis & Parsons, 2001) emerged as the major findings.

In sum, the study supports the evidence that the types of social support given or received to have a major impact on the mental well-being and demoralization of the Mizo elderly. The outcome of the study evinced the need for further research in the field of gerontology within the Mizo population.

References

- Afifi, M. (2007). Gender differences in mental health. *Singapore Medical Journal*, 48(5), 385-391.
- Albrecht, T. L., & Goldsmith, D. J. (2003). Social support, social networks and health. In T. L. Thompson, A. M. Dorsey, K. I. Miller, & R. Parrott (Eds.), *Handbook of health communication* (pp. 263-284). London, UK: Erlbaum.
- Aquino, J. A., Russell, D. W., Cutrona, C. E., & Altmaier, E. M. (1996). Employment status, social support, and life satisfaction among the elderly. *Journal of Counseling Psychology*, 43, 480-489.
- Bakas, T., Lewis, R. R., & Parsons, J. E. (2001). <u>Caregiving tasks among family caregivers of patients with lung cancer</u>. *Oncology Nursing Forum*, 28(5), 847-854.
- Baltes, P. B., & Baltes, M. M. (1990). Psychological perspectives on successful aging: The model of selective optimization with compensation. In: Baltes, P. B., Baltes, M. M., editors. *Successful aging: Perspectives from the behavioral sciences*. (pp. 1–34). Cambridge University Press.
- Baltes, P. B., Lindenberger, U., & Staudinger, U. M. (2006). Life span theory in developmental psychology. In: Lerner, R. M. (Eds). *Handbook of child psychology: Vol. 1. Theoretical models of human development.* 6. Hoboken, N. J: Wiley. Pp. 569–664.
- Barrera, M., Jr. (1986). Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology*, 14, 413-445.
- Bebbington, P. E. (1998). Sex and depression. *Psychological Medicine*, 28, 1–8.
- Bengtson, V. L., & Black, K. D. (1973). Intergenerational relations and continuities in socialization. *Life-Span Development Psychology: Personality and Socialization*, 207-234.
- Ben-Porath, Y. F. (2012). *Interpreting the MMPI-2 RF*. Minneapolis, MN: University of Minnesota Press.
- Berkman, L. E, & Syme, S. L. (1979). Social networks, host resistance, and mortality: A nine-year follow-up study of Alameda County residents. *American Journal of Epidemiology*, 109, 186-204.
- Blau, Z. S. (1956). Changes in status and age identification. *American Sociological Review*, 21, 198-203.
- Blieszner, R., & Mancini, J. A. (1987). Enduring ties: Older adults' parental role and responsibilities. *Family Relations*, *36*, 176-180.
- Bolger, N., Zuckerman, A., & Kessler, R. C. (2000). Invisible support and adjustment to stress. *Journal of Personality and Social Psychology*, 79(6), 953-961.

- Botwinick, J., (1984). *Aging and Behaviour*. A Comprehensive Integration of Research Findings. pp. 166-184. Publisher: Springer Berlin Heidelberg. Springer Science + Business Media; New York.
- Brayne, C. (2007). The elephant in the room: healthy brains in later life, epidemiology and public health. *Nature Reviews Neuroscience*, 8, 233–239.
- Brown, S. L., Nesse, R. M., Vinokur, A. D., & Smith, D. M. (2003). Providing social support may be more beneficial than receiving it: Results from a prospective study of mortality. *Journal of Psychological Science*, *14*, 320-327.
- Brugha, T. S., Matthews, R., Alonso, J., Vilagut, G., Fouweather, T., Bruffaerts, R., & Jagger, C. (2013). Gender differences in mental health expectancies in early- and midlife in six European countries. *British Journal of Psychiatry*, 202, 294-300.
- Chao, S. F. (2012). Functional disability and psychological well-being in later life. Does source of support matter? Aging & Mental Health, 2, 236-244.
- Clark, A. V. (2005). *Mood State and Health*. Nova Biomedical Books. Hauppauge, New York.
- Clarke, D. M., Kissane, D. W., Trauer, T., & Smith, G. C. (2005). Demoralization, anhedonia and grief in patients with severe physical illness. *World Psychiatry*, 4 (2), 96–105.
- Cockram, C. A., Doros, G., & Figueiredo, J. M. (2009). Diagnosis and measurement of subjective incompetence: the clinical hallmark of demoralization. *Article in Psychotherapy and Psychosomatic*, 78 (6), 342–345.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357.
- Comfort, A. (1964). *Ageing: The Biology of Senescence*. Published by Routledge & Kegan Paul, London.
- Cutrona, C., Russell, D., & Rose, J. (1986). Social support and adaptation to stress by the elderly. *Journal of Psychology and Aging, 1,* 47-54.
- de Jong Gierveld, J., van Groneou, M., Hoogendoorn, A., & Smit, J. (2009). Quality of marriages in later life and emotional and social loneliness. *Journal of Gerontology: Social Sciences*, *64*, 497-506.
- Declercq, F. D. R., Vanheule, S., Markey, S., & Willemsen, J. (2007). Posttraumatic distress in security guards and the various effects of social support. *Journal of Clinical Psychology*, 63, 1239-1246.
- Dhara, R. D., Jogsan, Y. A. (2013). Depression and Psychological Well-being in Old Age. *Journal of Psychology and Psychotherapy*, *3*, 117.

- Elena, S. H., Yin, M., Donald, J., William, T., Mingyuam, Z., & Robert, K. (1998). Self-perceived Health and 5-Year Mortality Risks among the Elderly in Shanghai, China. *American Journal of Epidemiology*, *147*, 880-890.
- Faris, R. E. L., & Dunham, H. W. (1939). *Mental disorders in urban areas: An ecological study of schizophrenia and other psychoses*. Chicago University Press, Chicago Ill
- Frank, J. D. & Frank, J. B. (1991). *Persuasion and Healing: A comparative study*, 3rd edition. NY: Oxford University Press.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, *13*, 172–175.
- Gestsdottir, S., Arnarsson, A., Magnusson, K., Arngrimsson, S. A., Sveinsson, T., & Johannsson, E. (2015). Gender differences in development of mental well-being from adolescence to young adulthood: an eight-year follow-up study. *Scandinavian Journal of Public Health*; 43(3), 269-75.
- Gilman, S. E., Kawachi, I., Fitzmaurice, G. M., & Buka, S. L. (2002). Socioeconomic status in childhood and the lifetime risk of major depression. *International Journal of Epidemiology*, 31, 359-367.
- Grassi, L., Rossi, E., Sabato, S., Cruciani, G., & Zambelli, M. (2004). Diagnostic criteria for psychosomatic research and psychosocial variables in breast cancer patients. *Article in Psychosomatics*, 45 (6), 483–491.
- Grassi, L., Sabato, S., Rossi, E., Biancosino, B., & Marmai, L. (2005). Use of the diagnostic criteria for psychosomatic research in oncology. *Article in Psychotherapy and Psychosomatic*, 74 (2), 100–107.
- Grundy, E. (2010). Ageing in advanced industrial states. In S. Tuljapurkar, N. Ogawa, & A. H. Gauthier (Eds.), *Family support for older people: Determinants and consequences*. (Vol. 8, pp. 197-222) Amsterdam, Netherlands: Springer.
- Grunfeld, E., Coyle, D., Whelan, T., Clinch, J., Reyno, L., Earle, C. C., & Glossop, R. (2004). Family caregiver burden: Results of a longitudinal study of breast cancer patients and their principal caregivers. *Canadian Medical Association Journal*, 170, 1795–1801.
- Harbaugh, W. T. (1998). The prestige motive for making charitable transfers. *The American Economic Review*, 88, 277-282.
- Harman, D. (1956). Aging: a theory based on free radical and radiation chemistry. *Journal of Gerontology*, 11, 298 300.
- Hassan, S., Toland, J., & Tate, M. (2015). Customers' participation in Social Commerce Activities. Australasian Conference on Information Systems.

- Hfifner, H. (1988). What is schizophrenia? *The European Archives of Psychiatric and Neurological Sciences*, 238, 63-72
- Holland, J., Poppito, S., Nelson, C., Weiss, T., Greenstein, M., Martin, A., Thirakul, P., & Roth, A. (2009). *Reappraisal in the eighth life cycle stage:* A theoretical psychoeducational intervention in elderly patients with cancer. Palliative care and Support. Doi: 10.1017/S1478951509990198.
- Hollingshead, A. B. (1975). Four-factor index of social status. Unpublished manuscript, *Yale University, New Haven*: CT.
- Hollingshead, A. B., & Redlich, F. C. (1958). Social class and mental illness: A community study. Hoboken, NJ: John Wiley and Sons, New York
- House, J. S., Umberson, D., & Landis, K. R. (1988). Structures and processes of social support. *Annual Review of Sociology*, *14*, 293-318.
 - http://www.who.int/ageing/about/fighting stereotypes/en/index.html
- Hummert, M. L., Garstka, T. A., Shaner, J. L., & Strahm, S. (1994). Stereotypes of the elderly held by young, middle-aged, and elderly adults. *Journals of Gerontology*, 49, 240–249.
- Janssen, R. M., & Janssen, J. J. (1996). *Getting old in ancient Egypt*. London: Rubicon Press.
- Jarvis, E. (1971). *Insanity and idiocy in Massachusetts: Report of the commission of Lunacy*, 1855. Cambridge, MA: Harvard University Press.
- Jenkins, R., Meltzer, H., Jones, P.B., Brugha, T., Bebbington, P., Farrell, M., Crepaz-Keay, D. & Knapp, M. (2008). Foresight Mental Capital and Wellbeing Project. Mental health: Future challenges. *The Government Office for Science, London, UK*.
- Johnson, R., & Wolinsky, F. (1994). Gender, race, and health: The structure of health status among older adults. *The Gerontologist*, *34*, 24–35.
- Kelly, J. R., & Westcott, G. (1991). Ordinary retirement: Commonalities and continuity. *International Journal of Aging and Human Development*, 32, 81-89.
- Kessler, R., & Mroczek, D. (1992). An update of the development of mental health screening scales for the US National Health Interview Study. Unpublished manuscript, University of Michigan, Ann Arbor, MI.
- Kissane, D. W., Wein, S., Love, A., Lee, X. Q., Kee, P. L., Clarke, D. M. (2004). The Demoralization Scale: a report of its development and preliminary validation. *Journal of Palliative Care*. 20 (4), 269-276. PMID:15690829.
- Kling, K. C., Hyde, J. S., Showers, C. J., & Buswell, B. N. (1999). Gender differences in self-esteem: A meta-analysis. *Psychological Bulletin*, *125*, 470-500.

- Knoll, N., & Schwarzer, R. (2002). Gender and age differences in social support: A study on East German refugees. In G. Weidner, M. Kopp, & M. Kristenson (Eds.), Heart disease: Environment, stress, and gender. NATO Science Series, Series I: Life and Behavioural Sciences, Vol. 327(pp. 198-210). Amsterdam: IOS Press.
- Koukouli, S., Vlachonikolis, I. G., & Philalithis, A. (2002). Socio-demographic factors and self-reported functional status: the significant of social support. BMC Health Service Residence 2:20. [Cited 2004 Sep 21]. Available from: URL: http://www.biomedcentral.com.
- Kovess-Masfety, V., Boyd, A., van de Velde, S., de Graaf, R., Vilagut, G., Haro, J. M., Investigators, E. W. (2014). Are there gender differences in service use for mental disorders across countries in the European Union? Results from the EU-World Mental Health survey. *Journal of Epidemiology and Community Health*, 68, 649-656.
- Krause, N. (1997). Social support and feelings of personal control in later life. In G. R. Pierce, B. Lakey, I. G. Sarason, & B. R. Sarason (Eds.), *Sourcebook of social support* (pp. 335-368). New York: Plenum Press.
- Krause, N., Herzog, A. R., & Baker, E. (1992). Providing support to others and well-being in later life. *Journal of Gerontology: Social Sciences*, 47, 300 311.
- Krumholz, H. M., Butler, J., Miller, J., Vaccarino, V., Williams, C. S., De Leon. C. F. M., Seeman, T. E., Kasl, S. V., & Berkman, L. F. (1998). Prognostic Importance of Emotional Support for Elderly Patients Hospitalized With Heart Failure. *Circulation*, *97*, 958-964.
- Kunlin Jin. (2010). Modern Biological Theories of Aging. Aging Disorder, 1(2), 72-74.
- Kuppuswamy, B. (1981). Manual of Socioeconomic Status (urban). Manasayan: Delhi.
- Kurlowicz, L., & Wallace, M. (1999). The Mini-Mental State Examination (MMSE). *Journal of Gerontology Nursing*, 25(5), 8-9. PMID: 10578759.
- Latronica, B. (2013). *The MMPI-2's restructured clinical demoralizatyion scale*: Exploring correlates of demoralization in a psychiatric inpatient sample and the implications for aging. Wichita State University.
- Lee, G. (1985). Kinship and social support of the elderly: The case of the United States. *Aging and Society*, 5, 19-38.
- Lee, G. E. (2010). Predictors of adjustment to nursing home life of elderly residents: A cross-sectional survey. *International Journal of Nursing Studies*, 47, 957-964.
- Leighton, D. C., Harding, J. S., Macklin, D. B., Macmillan, A. M., & Leighton, A. H. (1963). The character of danger: *The Stirling County Study of psychiatric disorder and sociocultural environment, vol 3.* Basic Books, New York

- LeMay, K., & Wilson, K. G. (2008). Treatment of existential distress in life threatening illness: A review of manualized interventions. *The Clinical Psychology Review*, 28 (3), 472–493.
- Levav, I., Gilboa, S., & Ruiz, F. (1991). Demoralization and gender differences in a kibbutz. *Psychological Medicine*, 21(4), 1019-1028. PMID:1780395.
- Liang, J., Krause, N. M., & Bennett, J. M. (2001). Social exchange and well-being: Is giving better than receiving? *Psychology and Aging*, *16*, 511-523.
- Lianzela & Vanlalchhawna. (2007). Ageing in North East India; Magnitude of the Problems of Elderly Persons in Mizoram. Akansha Publishing House, New Delhi. ISBN 10: 8183701027 ISBN 13: 9788183701020.
- Lindsey, A. M., & Yates, B. C. (2004). Social support: Conceptualization and measurement instruments. In M. Frank-Stromborg & S. J. Olsen (Eds.), *Instruments for clinical health-care research* (pp. 164–199). Sudbury, MA: Jones & Bartlett.
- Lopez-Otin, C., Blasco, M. A., Partridge, L., Serrano, M., and Kroemer, G. (2013). The hallmarks of aging. *Cell*, 153(6), 1194-1217.
- Mahajan, A., & Ray, A. (2013). The Indian elder: factors affecting geriatric care in India. *Global Journal of Medicine and Public Health*, 2(4), 1-5.
- McNicholas, S. L. (2002). Social support and positive health practices. *Western Journal of Nursing Research*, *5*, 772-787.
- Mehnert, A., Vehling, S., Hoecker, A., Lehmann, C., & Koch, U. (2011). Demoralization and depression in patients with advanced cancer: validation of the German version of the demoralization scale. *Journal of Pain and Symptom Management*, 42 (5), 768–776.
- Morelli, S. A., Lee, I. A., Arnn, M. E., & Zaki, J., (2015). Emotional and Institutional Support Provision Interact to Predict Well-being. *Emotion*, 15(4), 484-493.
- Myers, D. G., & Diener, E. (1995). Who is happy? Psychological Science, 6, 10–19.
- Nelson, T. M. (1980). Fatigue in the aged. Canadian Counsellor, 14, 72-82.
- Neugarten, B. L. (1975). The future of the young-old. *Gerontologist*, 15(1/2), 4-9. New York: Guilford Press. doi: http://dx.doi.org/10.1093.
- Nosek, B. A., Banaji, M., & Greenwald, A. G. (2002). Harvesting implicit group attitudes and beliefs from a demonstration web site. Group Dynamics: *Theory, Research, and Practice, 6,* 101–115.
- Nystrom Peck, M. (1994). The importance of childhood socio-economic group for adult health. *Social Science & Medicine*, *39*, 553–562.

- OHara, L. (1998). The influence of optimum and social support on quality of life of community dwelling elderly people. (pp. 239). London, ONT: The University of Western
- Palmore, E. P. (1986). Trends in the health of the aged. *The Gerontologist*, 26, 298-302.
- Partridge, L., and Mangel, M. (1999). Messages from mortality: the evolution of death rates in the old. *Trends in Ecology and Evolution* 14(11), 438-442.
- Penner, L. A., Dovidio, J. F., Piliavin, J. A., & Schroeder, D. A. (2005). Pro-social behavior: Multilevel perspectives. *Annual Review of Psychology*, *56*, 365-392.
- Phillips, B. S. (1957). A role theory approach to adjustment in old age. *American Sociological Review*, 22, 212-217.
- Piferi, R. L., & Lawler, K. A. (2006). Social support and ambulatory blood pressure: An examination of both receiving and giving. *International Journal of Psychophysiology*, 62, 328 336.
- Reissman, F. (1965). The helper principle. Social Work, 10, 27-32.
- Rook, K. S. (1990). Social relationships as a source of companionship: Implications for older adult's psychological well-being. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 221-250). New York: Wiley.
- Rose, M. R. (1991). Evolutionary Biology of Aging. New York: Oxford University Press.
- Rose, M. R., Flatt, T., Graves, J. L., Greer, L. F., Martinez, D. E., Matos, M., Mueller, L. D., Reis, R. J. S., & Shahrestani, P. (2012). What is Ageing? *Frontiers in Genetics*, *3*(134), 1-3.
- Russell, D. W., & Cutrona, C. E. (1991). Social support, stress, and depressive symptoms among the elderly: Test of a process model. *Psychology and Aging*, *6*, 190-201.
- Sachan, S., & Kaur, S. (2014). Elderly abuse and Neglect in India. *Asian Journal of Home Science*, 9(1), 276-279.
- Sahoo, F. M. (2001). *Loneliness in the elderly*. A project report: Centre of advanced study in psychology, Utkal University, Bhubaneswar, Orissa.
- Sanderson, W., & Scherbov, S. (2008). Rethinking Age and Ageing. *Population Bulletin* 63(4), 1-18.
- Scheier, M. F. (2006). Really, disease doesn't matter? A commentary on correlates of depressive symptoms in women treated for early-stage breast cancer. *Journal of Clinical Oncology*, 24(16), 2407–2408.

- Schwarzer, R., & Leppin, A. (1991). Social support and health: A theoretical and empirical overview. *Journal of Social and Personal Relationships*, 8, 99-127.
- Seeman, T. E., & Crimmins, E. (2001). Social environment effects on health and aging: Integrating epidemiology and demographic approaches and perspectives. In M. Weinstein, A. I. Hermalin, & M. A. Stoto (Eds.), *Population health and aging: Strengthening the dialogue between epidemiology and demography* (pp. 88-117). New York Academy of Sciences.
- Seeman, T. E., Berkman, L. F., Blazer, D., & Rowe, J. W. (1994). Social ties and support and neuroendocrine function: The MacArthur studies of successful aging. *Annals of Behavioral Medicine*, 16, 95-106.
- Semmer, N., Elfering, A., Jacobshagen, N., Beehr, T., & Boos, N. (2008). The emotional meaning of social support. *International Journal of Stress Management*, 15, 235-251.
- Shakespeare-Finch, J., & Obst, P. L. (2011). The Development of the 2-Way Social Support Scale: A Measure of Giving and Receiving Emotional and Instrumental Support, *Journal of Personality Assessment*, 93(5), 483-490. DOI: 10.1080/00223891.2011.594124.
- Shyu, Y. I., Cheng, H. S., Teng, H. C., Chen, M. C., Wu, C. C., & Tsai, W. C. (2009). Older people with hip fracture: Depression in the postoperative first year. *Journal of Advanced Nursing*, 65, 2514-2522.
- Smith, C., Fernengel, K., Holcroft, C., Gerald, K., & Marien, L. (1994). Meta-analysis of the associations between social support and health outcomes. *Annals of Behavioral Medicine*, 16, 352–362.
- Snowden, M., Dhingra, S. S., Keyes, C. L., & Anderson, L. A. (2010). <u>Changes in mental well-being in the transition to late life: findings from Midlife in the United States (MIDUS) I and II. *American Journal of Public Health*, 100(12), 2385.</u>
- Srole, L., Langner, T. S., Michael, S. T., Opler, M. K., & Rennie, T. A. C. (1962). Mental health in the Metropolis: *The Midtown Study, vol 10*. McGraw-Hill, New York
- Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., & Weich, S. (2009). *Internal construct validity of the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS):* A Rasch analysis using data from the Scottish Health Education Population Survey. *Health and Quality of Life Outcomes*, 7(1), 15-22.
- Strada, E. A. (2013). *Grief and Bereavement in the Adult Palliative Care Setting*. Oxford American Palliative Care Library. ISBN: 9780199768929.
- Stringhini, S., Berkman, L., Dugravot, A., Ferrie, J. E., Marmot, M., Kivimaki, M., & Singh-Manoux, A. (2012). Socio-economic Status, Structural and Functional Measures of Social Support, and Mortality: The British Whitehall II Cohort Study, 1985–2009. *American Journal of Epidemiology 175 (12)*, 1275-1283.

- Stromgren, E. (1950). Statistical and genetic population studies within psychiatry: Methods and principal results. In: Actualites scientifiques et industrielles. Congress International de Psychiatrie, 6, Psychiatrie Sociale. Herman, Paris, pp 155-188
- Surprenant, A. M., Bireta, T. J., & Farley, L. A. (2007). A brief history of memory and aging. In J. S. Nairne (Ed.), *The foundations of remembering: Essays in honor of Henry L. Roediger, III* (pp. 107-123). Hove, UK: Psychology Press.
- Thane, P. (1978). The muddled history of retiring at 60 and 65. New Society, 45, 826, 234-236.
- Thomas, P.A. (2010). Is it better to give or to receive? Social support and the well-being of older adults. *Journal of Gerontology: Social Sciences*, 65B, (3), 351-357.
- Vaananen, A., Buunk, B. P., Kivimaki, M., Pentti, J., & Vahtera, J. (2005). When it is better to give than to receive: Long-term health effects of perceived reciprocity in support exchange. *Journal of Personality and Social Psychology*, 89, 176-193.
- Vehling, S., Lehmann, C., Oechsle, K., Bokemeyer, C., & Krüll, A. (2012). *Is advanced cancer associated with demoralization and lower global meaning?* The role of tumor stage and physical problems in explaining existential distress in cancer patients. Psychooncology, 21 (1), 54–63.
- Veijola, J., Puukka, P., Lehtinen, V., Moring, J., Lindholm, T., & Vaisanen, E. (1998). Sex differences in the association between childhood experiences and adult depression. *Psychological Medicine*, 28, 21–27.
- Vina, J., Borras, C., & Maquel, J. (2007). Theories of Ageing. Life, 59(4-5), 249-254.
- Vogt, D. (2014). Research on gender differences in deployment stress and post-deployment mental health: Addressing conceptual and methodological challenges and expanding our research agenda. *Journal of Womens Health*, 23, 485-487.
- Wallston, B. S., Alagna, S. W., DeVellis, B. M., & DeVellis, R. F. (1983). Social support and physical health. *HealthPsychology*. *4*, 367-391.
- Wang, Y., & Stumbo, N. J. (2009). Factors affecting quality of life for community-dwelling older adults with a disability: Implications for therapeutic recreation practice and research. *Annual in Therapeutic Recreation Journal*, 17, 18-30.
- WHO (2014). *Health statistics and information systems*. Available from: http://www.who.int-/healthinfo/survey/ageingdefnolder/en. Retrieved on 15th July, 2014.
- Wortman, C., & Dunkel-Schetter, C. (1987). Conceptual and methodological issues in the study of social support. In A. Baum & J. E. Singer (Eds.), *Handbook of psychology and health, Volume 5: Stress.* Hillsdale, N J: Lawrence Erlbaum, 1987.

Zunzunegui, M. V., Beland, F., & Otero, A. (2001). Support from children, living arrangements, self-rated health and depressive symptoms of older people in Spain. *International Journal of Epidemiology*, *30*, 1090-1099.

Appendices

The Mini-Mental State Exam (MMSE; Kurlowicz & Wallace, 1999)

Patient Examiner		Date_
Exammet		Date
Maximum	Score	
_		Orientation
5	()	What is the (year) (season) (date) (day) (month)?
5	()	Where are we (state) (country) (town) (hospital) (floor)?
		Registration
3	()	Name 3 objects: 1 second to say each. Then ask the patient all 3 after you have said them. Give 1 point for each correct answer. Then repeat them until he/she learns all 3. Count trials and record. Trials
		Attention and Calculation
5	()	Serial 7's. 1 point for each correct answer. Stop after 5 answers. Alternatively spell "world" backward.
		Recall
3 correct	()	Ask for the 3 objects repeated above. Give 1 point for each answer.
		Language
2	()	Name a pencil and watch.
1	()	Repeat the following "No ifs, ands, or buts"
3	()	Follow a 3-stage command: "Take a paper in your hand, fold it in half, and put it on the floor."
1	()	Read and obey the following: CLOSE YOUR EYES
1	()	Write a sentence.
1	()	Copy the design shown.
	Score rel of con	sciousness along a continuum
		Alert Drowsy Stupor Coma

Appendix - II

Code:

DEMOGRAPHIC PROFILE

	DEWOORAT ITE I ROTTLE
1.	☐ Mipa ☐ Hmeichhia
2.	Kum:
3.	Lehkha zirsan ber:
	☐ Lehkha zir lo
	☐ Primary School
	☐ Middle School
	☐ Matric/High School (HSLC)
	☐ Intermediate/Higher Secondary (HSSLC)
	☐ Graduate (BA/BSc/BCom etc.)
	☐ Postgraduate (MA/MSc/MCom etc.)
	☐ MPhil/PhD etc.
4.	☐ Kawppui sun tawh ☐ Inthen
	☐ Nupui/Pasal neilo ☐ Nupui/Pasal nei nei
5.	Thiantha tun thleng a rinawm i nei em?: ☐ Neilo ☐ Nei
6.	Chhungkaw cheng ho zat:
7.	Fa neihzat: a) An vai in b) Chenpui
8.	Tu leh fa neihzat: a) An vai in b) Chenpui
9.	Chenna in:
10.	Thlakhat a chhungkaw sum lak luh zawng zawng: Rs
11.	. Chhungkua a hlawh nei zawng zawng zat:

KAIHHRUAINA

A hnung lam a zawhna chi hrang hrangte hi a chhanna "Dik" leh "Diklo" a awm hranpa lova, a chhangtu ngaihdan lakna tur a ni e. Nangmah in dik ber ni a i hriat ang in i chhang dawn nia.

Zawhna chi hrang hrangte i chhan dawn in a hnuai a kaihhruaina pali te hi i vawng reng dawn nia:-

- 1. I rilru a chhanna lo lang hmasa ber ang in i chhang dawn nia. I chhanna tur ngaihtuah nan a hun rei tak hmang lovin i chhang dawn nia.
- 2. Ngaihdan chiang tak leh nghet tak i nei tih lantir turin, a loh theih loh a nih loh chuan, zawhna tin a "*chhanna laihawl*" i thlang lo hram dawn nia.
- 3. I chhan kim vek theih nan, i chhan tawh leh i chhan leh turte ngaihtuah buai lovin, a in dawt in i chhang dawn nia.
- 4. Mitam zawkin an pawm tur "chhanna" thlang mai lovin, i pawm dan/nangmah a chhanna dik ber ni a i hriat ang in i chhang dawn nia.

Appendix – III (a)

2-Way Social Support Scale (Shakespeare-Finch & Obst, 2011)

indi app	each statement below, you are asked to cate how strongly the statement has lied to you by circling the corresponding ober.	Not at all					Always
1	There is someone I can talk to about the pressures in my life.	1	2	3	4	5	6
2	There is at least one person that I can share most things with.	1	2	3	4	5	6
3	When I am feeling down there is someone I can lean on.	1	2	3	4	5	6
4	There is someone in my life I can get emotional support from.	1	2	3	4	5	6
5	There is at least one person that I feel I can trust.	1	2	3	4	5	6
6	There is someone in my life that makes me feel worthwhile.	1	2	3	4	5	6
7	I feel that I have a circle of people who value me.	1	2	3	4	5	6
8	I am there to listen to other's problems.	1	2	3	4	5	6
9	I look for ways to cheer people up when they are feeling down.	1	2	3	4	5	6
10	People close to me tell me their fears and worries.	1	2	3	4	5	6
11	I give others a sense of comfort in times of need.	1	2	3	4	5	6
12	People confide in me when they have problems.	1	2	3	4	5	6
13	If stranded somewhere there is someone who would get me.	1	2	3	4	5	6
14	I have someone to help me if I am physically unwell.	1	2	3	4	5	6
15	There is someone who would give me financial assistance.	1	2	3	4	5	6
16	There is someone who can help me fulfil my responsibilities when I am unable.	1	2	3	4	5	6
17	I help others when they are too busy to get everything done.	1	2	3	4	5	6
18	I have helped someone with their responsibilities when they were unable to fulfill them.	1	2	3	4	5	6
19	When someone I lived with was sick I helped them.	1	2	3	4	5	6
20	I am a person others turned to for help with tasks.	1	2	3	4	5	6
21	I give financial assistance to people in my life.	1	2	3	4	5	6

2-Way Social Support Scale (Shakespeare-Finch & Obst, 2011) (Mizo Translation)

ngha	uaia thu hi uluk takin chhiar la, nangmaha wng a neih a zirin a dinglam a chhanna aat hi i thai bial dawn nia.	Ngai Miahlo					Engtik lai pawhin
1	Harsatna ka tawh chang in sawipui theih tur ka nei.	1	2	3	4	5	6
2	Engkim ka sawi theihna tur mi pakhat tal ka nei.	1	2	3	4	5	6
3	Ka nun chauh chang in tu emaw han rinchhan tur ka nei.	1	2	3	4	5	6
4	Ka rilru a nawm loh chang in hnem tu tur ka nei.	1	2	3	4	5	6
5	Mi pakhat tal rin ngam neiin ka inhria.	1	2	3	4	5	6
6	Ka nunah hian ka hlutna min hriattirtu tu emaw an awm.	1	2	3	4	5	6
7	Thenrual tha min ngai hlutu ka nei in ka hria.	1	2	3	4	5	6
8	Midang harsatna ngaihthlak sak turin ka awm thin.	1	2	3	4	5	6
9	Midangte an ngui chang hian tih hlim dan tur ka ngaihtuah thin.	1	2	3	4	5	6
10	Thenrual that e hian an manganna leh an hlauh te min hrilh thin.	1	2	3	4	5	6
11	Harsatna tawk te ka thlamuan thin.	1	2	3	4	5	6
12	Midang ten harsatna an tawh in ka hnenah an thlen thin.	1	2	3	4	5	6
13	Khawi hmunah pawh tang ila, min rawn lam tu tur ka nei.	1	2	3	4	5	6
14	Damloh nikhua a min enkawl tu tur ka nei.	1	2	3	4	5	6
15	Sum leh pai a min tanpuitu tur ka nei.	1	2	3	4	5	6
16	Ka tihtur ka hlenchhuah theihloh chang a min tih hlawhtlin sak tu tur ka nei.	1	2	3	4	5	6
17	Midang ten indaihloh vang a an tihtur an tih zawh theihloh chang in ka tanpui thin.	1	2	3	4	5	6
18	A tih tur ti hlawhtling theilo ka tanpui tawh.	1	2	3	4	5	6
19	Ka chenpui te an damloh in ka tanpui thin.	1	2	3	4	5	6
20	Midang ten tih tur an neihin min pun thin.	1	2	3	4	5	6
21	Thenrual that e sum leh paiin ka tanpui fo tawh.	1	2	3	4	5	6

Appendix – IV (a)

The Short Warwick-Edinburgh mental Well-being Scale (Stewart-Brown et al., 2009)

Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each over the last 2 weeks		None of the time	Rarely	Some of the time	Often	All of the time
1	I've been feeling optimistic about the future	1	2	3	4	5
2	I've been feeling useful	1	2	3	4	5
3	I've been feeling relaxed	1	2	3	4	5
4	I've been dealing with problems well	1	2	3	4	5
5	I've been thinking clearly	1	2	3	4	5
6	I've been feeling close to other people	1	2	3	4	5
7	I've been able to make up my own mind about things	1	2	3	4	5

Appendix – IV (b)

The Short Warwick-Edinburgh mental Well-being Scale (Stewart-Brown et al., 2009) (Mizo Translation)

ha	hnuaia thu te hi rilru leh ngaihtuahna lam wi a ni a. Karhnih kal ta nen a inrem ber hanna hi i thlang dawn nia.	Ngailo	Ngai meuh lo	A chang in	Fo thin	Ziah thin
1	Ka hmalam hun a eng zawngin ka thlir.	1	2	3	4	5
2	Tangkai viau in ka inhria.	1	2	3	4	5
3	Hahdam viau in ka inhria.	1	2	3	4	5
4	Ka harsatna te tha deuhin ka hmachhawn thei.	1	2	3	4	5
5	Ngaihtuahna fim takin ka hmang thei.	1	2	3	4	5
6	Midang te nen kan inlaichinna a tha.	1	2	3	4	5
7	Thutlukna fel tak ka siam thei.	1	2	3	4	5

Appendix – V (a)

Demoralization Scale (Kissane et al., 2004)

how the num	each statement below, you are asked to indicate strongly the statement has applied to you over last two weeks by circling the corresponding ober. Er the past two weeks, how often have you felt	Never	Seldom	Some- times	Often	All the time
1	There is a lot of value in what I can offer others	0	1	2	3	4
2	My life seems to be pointless	0	1	2	3	4
3	There is no purpose to the activities in my life	0	1	2	3	4
4	My role in life has been lost	0	1	2	3	4
5	I no longer feel emotionally in control	0	1	2	3	4
6	I am in good spirits	0	1	2	3	4
7	No one can help me	0	1	2	3	4
8	I feel that I cannot help myself	0	1	2	3	4
9	I feel hopeless	0	1	2	3	4
10	I feel guilty	0	1	2	3	4
11	I feel irritable	0	1	2	3	4
12	I cope fairly well with life	0	1	2	3	4
13	I have a lot of regret about my life	0	1	2	3	4
14	Life is no longer worth living	0	1	2	3	4
15	I tend to feel hurt easily	0	1	2	3	4
16	I am angry about a lot of things	0	1	2	3	4
17	I am proud of my accomplishments	0	1	2	3	4
18	I feel distressed about what is happening to me	0	1	2	3	4
19	I am a worthwhile person	0	1	2	3	4
20	I would rather not be alive	0	1	2	3	4
21	I would feel sad and miserable	0	1	2	3	4
22	I feel discouraged about life	0	1	2	3	4
23	I feel quite isolated and alone	0	1	2	3	4
24	I feel trapped by what is happening to me	0	1	2	3	4

Appendix - V(b)

Demoralization Scale (Kissane et al., 2004) (Mizo Translation)

a, i a Kar	nuaia dinhmun tarlanah hian, tun karhnih liam ta awmdan mil ber ni a i hriat zawnah thai bial rawh. hnih liamta ah khan engtianga zingin nge i ahtuah	Ngailo	Ngai manglo	A changin	Fo mai	Engtik lai pawhin
1	Midangte tan hlutna tam tak ka nei a ni	0	1	2	3	4
2	Ka nun hian awmzia mumal a nei lo	0	1	2	3	4
3	Ka thiltihte hian awmze mumal a nei lo	0	1	2	3	4
4	Ka damchhan ber pawh a bo zo tawh	0	1	2	3	4
5	Ka lawmna, lungngaihna, hlauhna emaw thinrimna hi thunun zo tawh lovin ka inhria	0	1	2	3	4
6	Ka tha tho khawp mai	0	1	2	3	4
7	Tuman min tanpui theilo	0	1	2	3	4
8	Keimah pawh ka intanpui thei lovin ka inhria	0	1	2	3	4
9	Beiseina reng ka nei lo	0	1	2	3	4
10	Ka inthiam lo	0	1	2	3	4
11	Ka thinur hma hle in ka hria	0	1	2	3	4
12	Ka nun tha takin ka hmang	0	1	2	3	4
13	Ka nunah hian inchhirna tam tak ka nei	0	1	2	3	4
14	Nun hian awmzia a nei lo	0	1	2	3	4
15	Ka rilru a na hma hle	0	1	2	3	4
16	Thil tam takah ka thinrim	0	1	2	3	4
17	Ka hlawhtlin nate hi ka chhuang hle	0	1	2	3	4
18	Ka chunga thil lo thlengte hian ka awm a ti nuam lo	0	1	2	3	4
19	Mi tangkai tak ka ni	0	1	2	3	4
20	Thih ka thlang zawk	0	1	2	3	4
21	Ka lungngai in ka ngui hle	0	1	2	3	4
22	Nun hi a beidawnthlak ka ti	0	1	2	3	4
23	Mal riau a inhriatna ka nei	0	1	2	3	4
24	Ka chunga thil thleng te avang hian, thangawk ang mai niin ka inhria	0	1	2	3	4



MIZORAM UNIVERSITY DEPARTMENT OF PSYCHOLOGY MIZORAM: AIZAWL

796004

PARTICULARS OF THE CANDIDATE

NAME OF CANDIDATE : Emmanuel R. Hmingthantluanga

DEGREE : Master of Philosophy

DEPARTMENT : PSYCHOLOGY

TITLE OF DISSERTATION : Impact of Social Support on

Mental Well-being and Demoralization of the Mizo

Elderly.

DATE OF ADMISSION : 27.07.2015

APPROVAL OF RESEARCH PROPOSAL

BOARD OF STUDY : 19.04.2016
 SCHOOL BOARD : 22.04.2016

3. REGISTRATION No. & DATE : MZU/M.Phil./349 of 22.04.2016

4. ACADEMIC COUNCIL : 28.04.2016

5. DATE OF COMPLETION

OF M.Phil COURSE WORK : 17.02.2016

Extension (If any) : NIL

(Prof. C. LALFAMKIMA VARTE) Head,

Department of Psychology

(ABSTRACT)

Impact of Social Support on Mental Well-being and Demoralization of the Mizo Elderly

Mr. Emmanuel. R. Hmingthantluanga

(Regn. No. – MZU/M.Phil./349 of 22.04.2016)

Dissertation submitted for the degree of Master of Philosophy in Psychology

DEPARTMENT OF PSYCHOLOGY

School of Social Sciences Mizoram University Tanhril, Aizawl-796004 Mizoram 2016 The study attempted to explore the impact of social support on mental well-being and demoralization among 240 Mizo elderly with equal presentation of sex. The participants were identified following the multistage random sampling method from Aizawl, the capital city of Mizoram. The age of the participants ranges from 55 years and above that was classified into Young-old (55-64), Middle-old (65-74) and Old-old (75 and over) as proposed by Botwinick (1984). The demographic information of educational qualification, marital status and grand-children and monthly income are also carefully recorded as indicators of socio-economic status based on the works of Hollingshead (1975) and Kuppuswamy (1981).

The first phase of the interaction was followed by screening of the participants using The Mini Mental Status Examination (Kurlowicz & Wallace, 1999) to ensure that each participant show no symptoms of cognitive impairment. Only participants scoring 24 or more were used for collection of data; the latter was followed by report and analyses. During the course of the data collection, around 260 booklets were distributed.

The application of The Mini Mental State Examination (Kurlowicz & Wallace, 1999), 2-Way Social Support Scale (Shakespeare-Finch & Obst, 2011), the Warwick-Edinburgh Mental Well-being Scale (Stewart-Brown et al., 2009) and the Demoralization Scale (Kissane et al., 2004) were ascertained for measurement purposes in the population under study.

The responses of the participants after careful screening and cleaning was Dummy coded as Female=1 and Male=0; the Chronological Age of the participants was treated as continuous variables; the socio-economic status being a comprehensive

score derived from the background information of educational qualification, marital status, number of children and grand-children, family size and monthly income based on the works of Hollingshead (1975) and Kuppuswamy (1981), was treated as a continuous data. Similarly, the scores on the scales/subscales of the behavioral measures are treated as continuous data. Therefore, the Point-bi-serial correlation coefficient was employed for the variable of 'Sex' with all the continuous data of the demographic information and the scales/subscales of the behavioral measures, whereas, Pearson Product Moment Correlation Coefficient was employed for all the continuous data.

The analysis of covariance (ANCOVA) was employed for the effect of 'Sex' and 'Age-group' on the scales/sub-scales of the behavioral measures with the socio-economic status as the covariate. Scheffe Test, which is a parametric Post-hoc multi-comparision was employed to elucidate the patterns of groups/means differences for the significant independent and interaction effect of 'Sex' and 'Age-group' on the behavioral measures.

Finally, to address the target objectives of the study, Multiple Regression was separately employed for the prediction of mental well-being (criterion) and demoralization (criterion) from sex, age, socio-economic status (which are entered as the predictors in Model-1) and Receiving Emotional Support, Giving Emotional Support, Receiving Instrumental Support and Giving Instrumental Support (which are entered as the predictors in Model-2).

The descriptive statistics and the Cronbach's Alphas revealed all the scales/subscales of the behavioral measures to be applicable for the measurement in

the target population. The impact of 'Sex' emerge solely on the socio-economic status throughout the analysis of the present study, wherein, being female indicated lower level of socio-economic status. Researches on gender differences in the linkages between socio-economic status is scarce and inconclusive (Gilman et al., 2002; Nystrom Peck, 1994; Veijola et al., 1998). However, in support of the finding of the study, some studies showed that women reported poorer physical health and poorer mental well-being, largely due to their disadvantaged socio-economic status (Bebbington, 1998; Johnson & Wolinsky, 1994).

The outcome of the present study revealed that increase in age predicted lower level of Mental Well-being. In support of the finding, Snowden, Dhingra, Keyes and Anderson (2010), reported that older adults (65-74 years) experienced a slight decline in mental well-being that is not seen among younger participants which was not explained by demographic variables, physical ailments, mental illnesses, or chronic conditions. The outcome of the present study also revealed that increase in age indicated lower level of demoralization as well as the interaction effect of 'Sex' and 'Age-group' on demoralization. Research examining relations of age and demoralization is scarce and inconclusive as reported in the literature (Latronica, 2013). Studies examining predictors of demoralization have found that results regarding age and gender are inconsistent, however, positive (Grassi et al., 2005), negative (LeMay & Wilson, 2008; Vehling, 2012; Grassi, 2004), or no associations with age (Clarke, 2005; Cockram, 2009) were reported.

Retirement have an onset on the Young-old, whereas, adjustment process have gone a long way for the Old-old. Retirement is being experienced as providing freedom from the time demands and daily structure of work life to pursue other

interests and activities such as travel at a relaxed pace (Kelly & Westcott, 1991; Nelson, 1980). As a result, positive changes in well-being occur during the first year of retirement which reflected the retiree's release from the daily pressures of work. However, Palmore (1986) reported that there may be a general decline in the mental health of older adults over a longer time retirement period (10 years). Retirement is also believed to signify to the individual as well as to others that the retiree is old, useless, and no longer a contributing and vital member of the community. The result frequently is the loss of social status and positive role supports from others and, as a result, there is feeling of demoralization and a decline in self-respect and self-concept (Blau, 1956 & Phillips, 1957).

The results finding of the present study, that the increase in socio-economic status indicated increase in receiving and giving emotional support finds support from the measures of social support to have been shown to be associated with socio-economic status, in the sense that individuals in higher socio-economic groups are more likely to be married, have more friends, and report higher levels of social support (Stringhini et al., 2012).

The support for the finding on the relationship between higher socio-economic status and lower level of demoralization emerged in contradictory findings. The environmentally oriented theorists, holds that rates of some types of psychiatric disorder are higher in lower SES groups because of greater environmental adversity (Faris & Dunham 1939; Hollingshead & Redlich 1958; Leighton et al. 1963; Srole et al. 1962).

Giving emotional support and instrumental support can independently relate to providers' well-being. These constructs might interact to predict well-being emerged as a major finding in the present study. (Fredrickson & Joiner, 2002; Grunfeld et al., 2004). Most researches on providing support find positive effects of giving support on well-being. Providing informal instrumental support is associated with higher levels of well-being among elderly adults (Krause et al., 1992).

Increase in receiving emotional support predicted lower level of demoralization, another major finding of the present study where studies examining predictors of demoralization have revealed that high levels of received social support can lead to feelings of helplessness and dependency, which in turn leads to demoralization and negative mood (Clark, 2005).

The overall finding of the present study that finds corroborative evidence from the extant literature maybe summarized as under. Firstly, females as compared to males have been reported to be lower on socio-economic status (Gilman et al., 2002; Nystrom Peck, 1994). Secondly, the increase in age indicated positive Wellbeing that can be attributable to the adjustment requirements having its onset for the Young-old, whereas, adaptation can be a significant factors for the Old-old amongst the participant of the present study (Kelly & Westcott, 1991; Nelson, 1980). Similarly, the increase in age indicating decrease in demoralization can be explained in terms of the adjustment-adaptation paradigms for the elderly (Blau, 1956; Phillips, 1957). The participants with higher socio-economic status reported less demoralization that can be explained considering lower environmental adversity (Faris & Dunham 1939; Hollingshead & Redlich, 1958). Finally, the contrasting role of Giving Support that improves the Well-being (Fredrickson & Joiner, 2002;

Grunfeld et al., 2004) and Receiving support that alleviates demoralization of the elderly (Bakas, Lewis & Parsons, 2001) emerged as the major findings on the participants of the study..

REFERENCES

- Bakas, T., Lewis, R. R., & Parsons, J. E. (2001). Caregiving tasks among family caregivers of patients with lung cancer. *Oncology Nursing Forum*, 28(5), 847-854.
- Bebbington, P. E. (1998). Sex and depression. *Psychological Medicine*, 28, 1–8.
- Blau, Z. S. (1956). Changes in status and age identification. *American Sociological Review*, 21, 198-203.
- Botwinick, J., (1984). *Aging and Behaviour*. A Comprehensive Integration of Research Findings. pp. 166-184. Publisher: Springer Berlin Heidelberg. Springer Science + Business Media; New York.
- Clark, A. V. (2005). Mood State and Health. Nova Biomedical Books. Hauppauge, New York.
- Clarke, D. M., Kissane, D. W., Trauer, T., & Smith, G. C. (2005). Demoralization, anhedonia and grief in patients with severe physical illness. *World Psychiatry*, 4 (2), 96–105.
- Cockram, C. A., Doros, G., & Figueiredo, J. M. (2009). Diagnosis and measurement of subjective incompetence: the clinical hallmark of demoralization. *Article in Psychotherapy and Psychosomatic*, 78 (6), 342–345.
- Faris, R. E. L., & Dunham, H. W. (1939). *Mental disorders in urban areas: An ecological study of schizophrenia and other psychoses*. Chicago University Press, Chicago III
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, *13*, 172–175.
- Gilman, S. E., Kawachi, I., Fitzmaurice, G. M., &Buka, S. L. (2002). Socioeconomic status in childhood and the lifetime risk of major depression. *International Journal of Epidemiology*, 31, 359-367.
- Grassi, L., Rossi, E., Sabato, S., Cruciani, G., &Zambelli, M. (2004). Diagnostic criteria for psychosomatic research and psychosocial variables in breast cancer patients. *Article in Psychosomatics*, 45 (6), 483–491.
- Grassi, L., Sabato, S., Rossi, E., Biancosino, B., &Marmai, L. (2005). Use of the diagnostic criteria for psychosomatic research in oncology. *Article in Psychotherapy and Psychosomatic*, 74 (2), 100–107.
- Grunfeld, E., Coyle, D., Whelan, T., Clinch, J., Reyno, L., Earle, C. C., &Glossop, R. (2004). Family caregiver burden: Results of a longitudinal study of breast cancer

- patients and their principal caregivers. Canadian Medical Association Journal, 170, 1795–1801.
- Hollingshead, A. B. (1975). Four-factor index of social status. Unpublished manuscript, *Yale University, New Haven*: CT.
- Hollingshead, A. B., &Redlich, F. C. (1958). *Social class and mental illness: A community study*. Hoboken, NJ: John Wiley and Sons, New York.
- Johnson, R., &Wolinsky, F. (1994). Gender, race, and health: The structure of health status among older adults. *The Gerontologist*, *34*, 24–35.
- Kelly, J. R., & Westcott, G. (1991). Ordinary retirement: Commonalities and continuity. *International Journal of Aging and Human Development*, 32, 81-89.
- Kissane, D. W., Wein, S., Love, A., Lee, X. Q., Kee, P. L., Clarke, D. M. (2004). The Demoralization Scale: a report of its development and preliminary validation. *Journal of Palliative Care*. 20 (4), 269-276. PMID:15690829.
- Krause, N., Herzog, A. R., & Baker, E. (1992). Providing support to others and well-being in later life. *Journal of Gerontology: Social Sciences*, 4, 300 311.
- Kuppuswamy, B. (1981). Manual of Socioeconomic Status (urban). Manasayan: Delhi.
- Kurlowicz, L., & Wallace, M. (1999). The Mini-Mental State Examination (MMSE). *Journal of Gerontology Nursing*, 25(5), 8-9. PMID: 10578759.
- Latronica, B. (2013). *The MMPI-2's restructured clinical demoralizatyion scale*: Exploring correlates of demoralization in a psychiatric inpatient sample and the implications for aging. Wichita State University.
- Leighton, D. C., Harding, J. S., Macklin, D. B., Macmillan, A. M., & Leighton, A. H. (1963). The character of danger: *The Stirling County Study of psychiatric disorder and sociocultural environment, vol 3.* Basic Books, New York
- LeMay, K., & Wilson, K. G. (2008). Treatment of existential distress in life threatening illness: A review of manualized interventions. *The Clinical Psychology Review*, 28 (3), 472–493.
- Nelson, T. M. (1980). Fatigue in the aged. Canadian Counsellor, 14, 72-82.
- Nystrom Peck, M. (1994). The importance of childhood socio-economic group for adult health. *Social Science & Medicine*, *39*, 553–562.
- Phillips, B. S. (1957). A role theory approach to adjustment in old age. *American Sociological Review*, 22, 212-217.
- Shakespeare-Finch, J., & Obst, P. L. (2011). The Development of the 2-Way Social Support Scale: A Measure of Giving and Receiving Emotional and Instrumental Support, *Journal of Personality Assessment*, *93*(5), 483-490. DOI: 10.1080/00223891.2011.594124.

- Snowden, M., Dhingra, S. S., Keyes, C. L., & Anderson, L. A. (2010). Changes in mental well-being in the transition to late life: findings from Midlife in the United States (MIDUS) I and II. *American Journal of Public Health*, 100(12), 2385.
- Srole, L., Langner, T. S., Michael, S. T., Opler, M. K., &Rennie, T. A. C. (1962). Mental health in the Metropolis: *The Midtown Study, vol 10*. McGraw-Hill, New York
- Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., &Weich, S. (2009). *Internal construct validity of the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS):* A Rasch analysis using data from the Scottish Health Education Population Survey. *Health and Quality of Life Outcomes*, 7(1), 15-22.
- Stringhini, S., Berkman, L., Dugravot, A., Ferrie, J. E., Marmot, M., Kivimaki, M., & Singh-Manoux, A. (2012). Socio-economic Status, Structural and Functional Measures of Social Support, and Mortality: The British Whitehall II Cohort Study, 1985–2009. *American Journal of Epidemiology 175 (12)*, 1275-1283.
- Vehling, S., Lehmann, C., Oechsle, K., Bokemeyer, C., &Krüll, A. (2012). *Is advanced cancer associated with demoralization and lower global meaning?* The role of tumor stage and physical problems in explaining existential distress in cancer patients. Psychooncology, 21 (1), 54–63.
- Veijola, J., Puukka, P., Lehtinen, V., Moring, J., Lindholm, T., & Vaisanen, E. (1998). Sex differences in the association between childhood experiences and adult depression. *Psychological Medicine*, 28, 21–27