SOCIAL SUPPORT AND MENTAL HEALTH OF WOMEN IN MENOPAUSAL TRANSITION IN AIZAWL, MIZORAM.

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DECLARATION

MIZORAM UNIVERSITY

DECEMBER, 2014

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

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

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CERTIFICATE

This is to certify that the dissertation *Social Support And Mental Health Of Women In Menopausal Transition In Aizawl, Mizoram* submitted by *Christie Lalthazuali Hrahsel*, for the award of Master of Philosophy in Social Work is carried out under my guidance and incorporates the student's bonafide research and this has not been submitted for award of any degree in this or any other university or institute of learning.

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LIST OF ABBREVIATIONS

1. **DASS – Depression Anxiety Stress Scale**
2. **E.I – Emotional Intelligence**
3. **FMP- Final Menstrual period**
4. **HRQoL – Health Related Quality of Life**
5. **H.T – Hormone Therapy**
6. **MRS – Menopause Rating Scale**
7. **PMDD – Premenstrual Dysphoric Disorder**
8. **PMS – Premenstrual Syndrome**
9. **QOL – Quality of Life**
10. **WHO – World Health Organisation**

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CHAPTER I

INTRODUCTION

The study explores the menopausal transition and its related mental health problems (specifically depression, anxiety and stress) among women in Aizawl. Menopausal transition is the natural process affected by endocrine and Lifestyle factors, psychosocial factors and ageing according to Lindh-Astrand, et al. It also explores the level of social support available for them in relation to challenges faced during menopausal transition.

This introductory chapter outlines basic issues related to menopause, mental health and social support. It also highlights the statement of the problem, raises research questions, and defines the objectives of the study.

1. Introduction

Worldwide, women's life expectancy is increasing together with the number of years women live after menopause and the number of women who experience menopause has also increased. Studies reveal that the years around menopause constitute a period of life that is affected by hormonal, physiological as well as psychological and social changes. There are three different ways to look at the *menopausal transition* according to experts. To quote, "One is the biological/medical model looking at the climacteric as a deficiency state, a kind of disease needing life-long substitution treatment. The psychosocial model looks at the menopausal transition as a natural part of development, which should not be treated by medication such as estrogens. This model can lead to personal development with new knowledge and self-esteem, but in women with severe climacteric symptoms this model may lead to a conflict and a feeling of failure and loss of self-esteem. The third model, the holistic perspective, describes the menopausal transition as a multidimensional process, which could vary between women due to a number of factors including her experiences and expectations. This perspective, adapted to the individual woman and her needs, could stimulate self-control and lead to empowerment. For many women, the menopausal transition is a troublesome period of life, often associated with decreased well-being and a number of symptoms. Besides the hormonal changes, many other factors such as psychological, sociological and lifestyle factors affect how women perceive their menopause."(IN Lindh-Åstrand,L., Hoffmann, M., Hammar,M., and Kjellgren, K., 2007)

1.1 Reproductive Health of Women

To study menopausal transition it is important to know the concepts related to reproductive health of women. The reproductive process includes menstrual cycle—a woman's monthly cycle, which includes getting a *period,* conception—when a woman's egg is fertilized by a man's sperm, pregnancy, childbirth. (The Healthy Woman: A Complete Guide for All Ages, n. d).

The female reproductive system is designed to carry out several functions. It produces the female egg cells necessary for reproduction, called the *ova or oocytes*. The system is designed to transport the ova to the site of fertilization. Conception, the fertilization of an egg by a sperm, normally occurs in the fallopian tubes. The next step for the fertilized egg is to implant into the walls of the uterus, beginning the initial stages of pregnancy. If fertilization and/or implantation does not take place, the system is designed to menstruate (the monthly shedding of the uterine lining). In addition, the female reproductive system produces female sex hormones that maintain the reproductive cycle. (web MD : sex and relationship, 2005-2014).

1.2 Menopause

Kale in a review states that the word "menopause" literally means the "end of monthly cycles" from the Greek word *pausis*(cessation) and the root *men* (month), because the word 'menopause' was created to describe this change in human females, where the end of fertility is traditionally indicated by the permanent stopping of monthly menstruation or menses. *Menopause is the other end of menstrual life of women. It is the last menstruation.* Marriage, employment, menopausal changes are factors which maybe playing some role in psychological outcomes during menopause. Menopause is the major turning point in woman's life. Approaching menopause involves process of change and every woman experiences that this transition is unique. (Kale, M.K., n.d).

1.2.1. Stages in Menopausal Transition

Changing hormone levels can trigger any number of symptoms. As these levels fluctuate, women experience weight gain, vaginal dryness, hot flashes and mood swings which are a part of *peri-menopause*. And since women can still get pregnant during peri-menopause, doctors typically suggest the continued use of birth control. *Menopause* occurs when a woman has gone a whole year without a period. Some women may still be producing a little estrogen. However, bleeding or spotting can indicate other problems and should be checked out. *Post menopause f*ollows menopause and continues the rest of one's life. Postmenopausal women are also at an increased risk for several health conditions because of the decreased estrogen levels, including osteoporosis and heart disease. At this stage, good exercise daily, proper nutrition and maintenance of a healthy lifestyle are essential, according to several. For many women, the years after menopause can be a very liberating time in their lives. But others might have mixed emotions. (Osterman, H., 2014).

In other study, four categories of menopausal status were used. Women who checked that they were still menstruating regularly were classed as pre-menopausal. The peri-menopausal group includes women who said their menstrual cycle had become irregular during the previous year or who had menstruated within the last 12, but not within the past 3 months. Post-menopausal women checked that they had not menstruated within the previous 12 months. The fourth category includes all those who reported an artificial termination of menses. (For convenience, the term hysterectomy is used as the label for this fourth category, but it includes women who lost only their ovaries or whose menses ended as a result of radio or chemotherapy (19%). (Kaufert, P.L.,1986).

According to a study in the eighties, women experience a variety of physical and psychological symptoms in addition to vasomotor symptoms brought about by estrogen deficiency. (Upadhyaya,M., Chaturvedi,S.k.,1988).

Natural menopause occurs between the ages of 45 and 55 years with a mean age of incidence around 51 years worldwide. The mean age at menopause among Indian women is 44.3 years. (Syamala, T.S., Sivakami, M.,2005).

1.3 Mental Health

Mental health is one of the concepts being studied in relation to menopause. Therefore, it is important to define mental health. Mental health refers to a broad array of activities directly or indirectly related to the mental well-being component included in the WHO's definition of health: "A state of complete physical, mental and social well-being, and not merely the absence of disease". It is related to the promotion of well-being, the prevention of mental disorders, and the treatment and rehabilitation of people affected by mental disorders. (WHO, 2014).

Mental health refers to our cognitive, and/or emotional wellbeing. According to Medilexicon's medical dictionary, mental health is *"emotional, behavioural, and social maturity or normality; the absence of a mental or behavioural disorder; a state of psychological well-being in which one has achieved a satisfactory integration of one's instinctual drives acceptable to both oneself and one's social milieu; an appropriate balance of love, work, and leisure pursuits"*. It is a well acknowledged clinical and researched fact that menopause brings a series of mental health problems to many women, however, this has also been disputed by later studies. Several studies earlier reported that Depression and Anxiety were commonly associated with women during menopause transition.

1.3.1. Anxiety is an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure. People with anxiety disorders usually have recurring intrusive thoughts or concerns. They may avoid certain situations out of worry. They may also have physical symptoms such as sweating, trembling, dizziness or a rapid heartbeat. Anxiety is an unpleasant state of inner turmoil, often accompanied by nervous behavior, such as pacing back and forth, somatic complaints and rumination. It is the subjectively unpleasant feelings of dread over something unlikely to happen, such as the feeling of imminent death. (American Psychological Association, 2014).

Anxiety is described as a general term for several disorders that cause nervousness, fear, apprehension, and worrying. These disorders affect how we feel and behave, and they can manifest real physical symptoms. Anxiety is considered a problem when

symptoms interfere with a person's ability to sleep or otherwise function. It is considered as anxiety when a reaction is out of proportion with what might be normally expected in a situation. (Medical News Today).

1.3.2 Depression is a state of low mood and aversion to activity that can affect a person's thoughts, behaviour, feelings and sense of well- being. Depressed people feel sad, anxious, empty, hopeless, worried, helpless, worthless, guilty, irritable, hurt, or restless. They may lose interest in activities that once were pleasurable, experience loss of appetite or overeating, have problems concentrating, remembering details, or making decisions, and may contemplate, attempt, or commit suicide .Insomnia, excessive sleeping, fatigue, loss of energy, or aches, pains, or digestive problems may also be present. (WHO, 2012).

Depression can also be defined as a mood disorder that causes a persistent feeling of sadness and loss of interest. Major depressive disorder or clinical depression affects how a person feels, thinks and behaves and can lead to a variety of emotional and physical problems. Most people with depression feel better with medication, psychological counseling or both (Mayoclinic). For women undergoing menopause, depression may be a fairly common symptom.

1.3.3. Stress is defined as an organism's total response to environmental demands or pressures. When stress was studied in the 1950's, the term was used to denote both the causes and the experienced effects of these pressures. More recently, however, the word stressor has been used for the stimulus that provokes a stress response. One recurrent disagreement among researchers' concerns the definition of stress in humans.

Stress in humans results from interactions between persons and their environment that are perceived as straining or exceeding their adaptive capacities and threatening their well- being. The element of perception indicates that human stress responses reflect differences in personality, as well as differences in physical strength or physical health.

Risk factors for stress related illnesses are a mix of personal, interpersonal, and social variables. The causes of stress can include any event or occurrence that a person considers a threat to his or her coping strategies or resources. Menopause is a significant

life event and maybe perceived as one such threat. Researchers generally agree that a certain degree of stress is a normal part of a living organism's response to the inevitable changes in its physical or social environment, and that positive, as well as negative, events can generate stress as well as negative occurrences. Recent research indicates that some vulnerability to stress is genetic. The symptoms of stress can be either physical or psychological.

Complete prevention of stress is neither possible nor desirable, because is an important stimulus of human growth and creativity, as well as an inevitable part of life. In addition, specific strategies for stress prevention vary widely from person to person, depending on the nature and number of the stressors in an individual's life, and the amount of control he or she has over these factors. In general, however, a combination of attitudinal and behavioral changes works well for most patients.(www.medical-dictionary.thefreedictionary.com/stress). *This study therefore will explore the level of stress experienced by Mizo women undergoing menopause*.

1.4 Social Support

Social support is the physical and emotional comfort given by family, friends, co-workers and others. Social support is a way of categorizing the rewards of communication in a particular circumstance. Salovey, P., Rothman, A., Detweiler, J., & Steward, W. 2000 states that an important aspect of support is that a message or communicative experience do not constitute support unless the receiver views it as such. Social support is exceptionally important for maintaining good physical and mental health. Social support is any kind of communication that helps individuals feel more certain about a situation and therefore feel as if they have control over the situation. Social support means having friends and other people, including family, to turn to in times of need or crisis to give you a broader focus and positive self-image. Social support enhances quality of life and provides a buffer against adverse life events. (Salovey, P., Rothman, A., Detweiler, J., & Steward, W. 2000).

Other authors view Social support as various types of support (i.e., assistance/help) that people receive from others and is generally classified into two

(sometimes three) major categories: *emotional, instrumental (and sometimes informational) support*. Emotional support refers to the things that people do that make us feel loved and cared for, that bolster our sense of self-worth (e.g., talking over a problem, providing encouragement/positive feedback); such support frequently takes the form of non-tangible types of assistance. By contrast, Seeman states that instrumental support refers to the various types of tangible help that others may provide (e.g., help with childcare/housekeeping, provision of transportation or money). Informational support, according to the author, represents a third type of social support (one that is sometimes included within the instrumental support category) and refers to the help that others may offer through the provision of information. (Seeman, T, 2008).

Social support, whether from a trusted group or valued individual, has been shown to reduce the psychological and physiological consequences of stress, and may enhance immune function according to some studies. Social networks, whether formal (such as a church or social club) or informal (meeting with friends) provide a sense of belonging, security, and community. People that are supported by close relationships with friends, family, or fellow members of church, work, or other support groups are less vulnerable to ill health and premature death. There is also a strong tie between social support and measures of wellbeing. *Those who have close personal relationships cope better with various stressors, including bereavement, job loss, rape, and illness*. (Salovey, P., Rothman, A., Detweiler, J., & Steward, W. 2000).

1.5 Statement Of The Problem

Women experience menopause or a cessation of the menstrual cycle usually in their fourth decade of life. Research has found that women are most susceptible to depression before their periods, after giving birth, and two to three years before menopause. Hormonal fluctuations at these times in a woman's life are believed to trigger both anxiety and depression. This stage is not very well understood by families and women usually require tremendous social support to tide over the menopausal transition in order to cope with the depression and anxiety they face.

Any woman who has had an episode of depression or has been sensitive to hormonal changes, such as premenstrual syndrome, in the past is at greater risk for developing premenopausal depression.

Experts say understanding menopause and its symptoms are extremely important, Beingeducated about the effects of menopause includes knowing that everyone's experience is different and not all menopausal experiences are terrible. In fact, many of the symptoms that include mood swings, insomnia, chills, pins and needles down the arms, and sudden, unexplained feelings of extreme restlessness or listlessness can be reduced with certain lifestyle changes. At present, it is difficult to find reliable studies and data with regard to menopause and its symptoms with special reference to Mizoram.

This study attempts to understand how women in Mizoram cope with menopausal transition and to assess their mental health as well as understand the social support available to them especially for working women and in the context of the changing roles of women.

1.6 Research Questions

The following research questions guide the study.

1. What are the experiences of women during their menopausal transition?
2. What is the nature of mental health problems faced by the respondents?
3. How does social support help women undergoing menopausal transition?

1.7 Objectives

1. To profile Mizo women undergoing menopause in Aizawl.
2. To study the mental health (depression, anxiety and stress) of Mizo women undergoing menopause.
3. To explore the levels of social support available to them.
4. To understand the relationship of mental health and social support of women in menopause.

1.8 Chapterisation

The present study will be organized into the following chapters:

Chapter I	Introduction
Chapter II	Review of Literature
Chapter III	Methodology
Chapter IV	Results and Discussion
Chapter V	Conclusion and Suggestions

CHAPTER II

REVIEW OF LITERATURE

Review of related literature helps the researcher in understanding the various dimensions and to know the recommendation of previous researcher for further research. What is evidence in this review is that mental health and menopause are arguably related. In some study while there seem to be a relationship, some other studies clearly indicate that there is no relationship between the two. Further, the review has clearly outlined that social support, particularly the size of social support more than the satisfaction with has a bearing on mental health in reference to women in menopausal transition. This chapter reviews the key concepts related to menopause with reference to mental health and social support. It also highlights studies done in India and other countries in order to serve a cross- cultural perspective of a problem experienced by women world- wide.

2.1 Menopause And Mental Health

Neugarten and Kraines in 1965 reported that women complaining of psychological distress around menopause are those who have manifested low self-esteem and low rates of satisfaction throughout their life. Psychological symptoms such as anxiety unsuitability, depression and insomnia are most common just before the onset of menopause Vasomotor symptom with night sweats often lead to chronic fatigue, sleep deprivation and hence indirectly to psychological symptom like depression. (IN Kale, M.K., n.d).

In the longitudinal Ohio Middle age Women's Study, it was found that menopausal status did not significantly predict depression in middle age. Loss of resources and low level of education – both classical determinants of depression – were, however, strongly predictive of depression in this cohort. Anxiety was also predicted by loss of resources but the effectiveness of women's coping strategies and education were important too.(Glazer et al., 2002).

A study on Mental Health and Aging focus on Women with Depression and examined the prevalence of depression and other mental health disorders by assessing the records of psychiatric units of all the major private and public hospitals and private practitioners in six major cities of Gujarat. They also assessed the nutritional,

psychosocial and cultural aspects of the population. A 24 hour dietary recall method was used to assess nutritional intake, and anthropometric measurements were used to assess nutritional status. Women above 40 years of age, who had a moderate degree of depression, were interviewed. The number of men who availed mental health services was higher than that of women, both retrospectively (56% men; 44% women) and prospectively (54.5% men; 44% women), except for the prospective data in Jamnagar, where the number of women was slightly higher than that of men. The most prevalent disorders were depression (50%), schizophrenia (60%), bipolar disorder and anxiety disorders (0.8%). Depression was highest in the age group 61-75 years (33.4%), followed by the age group 41-60 years (31%). *Menopausal and associated changes explain the higher prevalence of depression in women in the age group of 41-60 years.* The most commonly reported psychological symptoms reported by 60-80 percent of the depressed women were feeling tired, irritation and depression, loss of interest in most things, isolation, and nervousness, which were reported by half the women. The study concluded that depression is not a disease but a serious illness with biological, psychological and social aspects relevant to its cause, symptoms and treatment. The study recommended that research is needed in the use of herbal medicines for the treatment of depression that could show pronounced benefit in improving the health status. (IN Kudachi, S.A., 2012).

Smith, L.N. (1996) studied Causality, menopause, and depression. The main objective of this study is to assess whether causal criteria can be used to find out whether there is support in published research for maintaining that menopause causes depression.On the basis of the foregoing arguments the researcher concluded that there was insufficient evidence to discard the null hypothesis (i.e, menopause does not cause depression). At the time of this study there was no substantial evidence that either a natural menopause with its accompanying changes in hormone concentrations or psychosocial factors exclusive to middle age put women at increased risk of depression. This conclusion has implications for both clinicians and researchers. For clinicians, this suggested that at present women suffering from depression in middle age should not be treated differently from those attending at other ages.

In addition to methodological and statistical problems, a temporal problem in the menopause concept hinders research in this area.

Some cross-sectional studies examining the relationship between menopause and depressive symptoms revealed no association while others showed an increase in depression among women in the menopausal transition. The Penn Ovarian Aging Study showed an increased risk for depressive symptoms during the transition to menopause followed by a decrease in this risk in subsequent years (that is, in the postmenopausal period); the authors also suggested that depression and hormone-related symptoms could share some underlying mechanisms since history of severe PMS (premenstrual syndrome), emergence of hot flashes and sleep problems were independent predictors of depression in this population. Two long-term prospective studies followed women with no history of depression across the meno- pause transition to examine the risk for new onset of depression.(IN Claudio, N. 2010).

Study conducted on Night sweats, sleep disturbance, and depression associated with diminished libido in late menopausal transition and early post-menopause, aim to evaluate the association of depression, sleep disturbance and menopausal symptoms with diminished libido. Data from a 2001-2002 baseline survey of 341 peri- and post-menopausal women, ages 45-55, participating in a randomized trial was analyzed. Eligibility included at least two hot flashes and/or night sweats per day and no hormone therapy for at least the prior 3 months. The survey evaluated sexual function, depression, sleep and vasomotor symptoms. They examined the association between these factors, using multivariate regression models. They found out that of 341 women, 64% had diminished libido, 18% had moderate-severe depression, and 43% had poor sleep quality. Women averaged 4.6 hot flashes and 1.9 night sweats per day. Depressive symptoms, poor sleep, and night sweats were significantly associated with diminished libido. Therefore, factors associated with diminished libido in midlife are complex but include *depression, disturbed sleep and night sweats, all common symptoms of the menopausal transition and early menopause* according to the findings of this study.(Reed, S.D., Newton, K.M., LaCroix, A.Z., Grothaus, L.C., and Ehrlich,K., 2007).

Three qualitative studies on menopause were reviewed. One study using purposive sampling technique explores the perceptions of Turkish women regarding menopause and Hormone Therapy (HT) to provide health care workers with an insight into the needs and expectations of postmenopausal women. Semi-structured and in-depth interviews were used to explore the study questions.The interview questions focused on two areas; 1) knowledge, experiences, attitudes and beliefs about menopause and; 2) menopause-related experiences and ways to cope with menopause and perception of HT. Most of the participants defined menopause as a natural transition process that one should go through. According to this study, there is a positive experience during menopause -*Cleanliness, maturity, comfort of not having a period and positive changes in health behaviour were the concepts positively attributed to menopause*. *Menopause was also perceived as "comforting" as it removed the risk for pregnancy as well as the termination of menstrual symptoms. One participant was pleased that her menstrual migraine had disappeared along with the menstruation and, according to her; none of the symptoms of menopause were comparable to that of migraine* Menopause also was defined as maturity, and the participants stated that as they went through "all stages of femininity" they could guide youngsters about these issues and therefore they felt more mature, whereas hot flushes, getting old and difficulties in relationships were the negatives. Osteoporosis was an important concern for most of the participants. (Cifcili, S.Y, 2009).

The other qualitative study was on women's conception on menopausal transition. The aim of this study was to explore, with a qualitative approach, whether the conceptions of the menopausal transition vary between women seeking medical advice due to climacteric symptoms and, if this is the case, to describe these different conceptions. Semi-structured interviews were held with 20 women after their first-time visits at outpatient clinics of gynaecology for discussion of climacteric symptoms. A phenomenographic method was used to determine the qualitative variations of women's conceptions of menopause. The method is empirical and searches for qualitatively different ways people experience phenomena in the lived world. The interviews were audio-taped, transcribed and analyzed using a phenomenographic approach. The outcome

of this study revealed a wide variation of conceptions. Two main categories were identified including different physical changes with varying symptoms and both positive and negative psychological changes. The menopausal transition was also described as a natural process and as a developmental phase of life.

Women's conceptions of the menopausal transition were individual and contained both physical and psychological symptoms but also expressed a more holistic view of the menopausal transition. The transition was described as a natural process affected by endocrine and life-style factors as well as by the psychosocial situation and by aging per se. It is important that health care providers are aware of women's conceptions about the menopausal transition to be able to communicate optimally, support and empower middle-aged women in different health care situations and thereby optimized the result of care. (Lindh-Åstrand, L.et al.,2007).

In a Qualitative Study with Heterosexual Women, participants were recruited from the patient register of two general practices in South Yorkshire, UK, selected because of their mixed demographic catchment areas. Sampling was purposive sampling.The interview guide was developed following a review of the relevant literature and explored: subjective meanings of sexuality and perceived influences upon it; body image and physical appearance; sexual pleasure and satisfaction; changes in sexual activity around menopause; and the potential impact of sexual difficulties on psychological well-being and relationships. They concluded that personal factors, such as sexual history and relationship with partner are central to the women's experiences. (Hinchliff, S., Gott, M. and Ingleton, C. 2010).

Nagar (1997) aimed at finding out the perception of middle-aged women regarding menopause and its impact. A sample consisted of 30 married women in the age range of 39 to 52 years residing in Baroda city. A positive correlation was found between the physiological and socio-psychological problems associated with menopause. The results of the study indicated that women reported problems like backache, increased headache, hot flushes and sleep disturbances, sadness, impatience, lack of concentration, decrease in memory and nervousness. Most of the women perceived their spouses,

friends and mother-in-law as supports during stressful situations due to menopause. Majority of the women sought professional help for physiological problems associated with menopause. (Palkar,A.,2010).

A study conducted in America examined the association between persistent mood symptoms and menopausal status and factors that increase a woman's vulnerability to an overall dysphoric mood during the early peri- menopausal period. The sample consisted of an ethnically diverse community cohort of 3,302 pre- and early peri- menopausal women aged 42–52 years who were participants in the Study of Women's Health Across the Nation, an ongoing US multisite longitudinal study of menopause and aging. At study entry (1995–1997), women reported information on recent menstrual regularity and premenstrual symptoms, as well as on socio- demographic, symptom, health, sleep, psychosocial, and lifestyle variables. *Rates of persistent mood symptoms were higher among early peri- menopausal women (14.9%–18.4%) than among pre-menopausal women (8%–12%).* Early peri- menopausal women had higher odds of irritability, nervousness, and frequent mood changes but not of feeling "blue." The effect of being early peri- menopausal on overall dysphoric mood was greatest among women with an educational level of less than high school graduation. These findings suggest that persistent mood symptoms and overall dysphoric mood are associated with the early peri-menopause, particularly among women with lower educational attainment affect; depression; menopause; pre- menopause; women. (Bromberger,J.T., Assmann,S.F.,, Avis,N.E., Schocken,M., Kravitz,H.M., Cordal,A., 2010).

Though menopause is not a time when women are at risk of psychiatric illness, *it may be a time of high psychological stress, and changes in hormone levels certainly play a role*. Menopause is not associated with increased psychiatric major morbidity, but some women experience psychological symptoms during peri- menopause. Large epidemiological studies have shown that the years usually associated with natural menopause, i.e, 45 to 55, are not associated with increased psychiatric morbidity or more utilization of health services by women.

The authors of several studies of smaller or small specific population have

suggested that certain individuals maybe at greater risk of psychiatric morbidity during the peri- menopausal years. Women who have a history of mood disorder, women who have had severe premenstrual mood instability and have met criteria for premenstrual dysphoric disorder, and women who have experienced psychiatric morbidity associated with other reproductive life events such as postpartum depression are likely to attend menopause clinic for help. *However, even in this group the risk of an episode of major psychiatric illness associated with menopause is not high.* (Carter,D., 2008).

In study conducted by Lennon, M.C., 1982, in order to determine whether the timing of menopause was related to psychological status, the interaction between menopausal status and timing (i.e., the three categories of age) was examined. The age/menopausal status interaction effect was statistically significant. The results indicate that psychological distress and depression vary within combinations of age and menopausal status.

There was no statistical association between menopausal status and psychological distress or depression among the middle aged. The analysis of variance and covariance exploring the relationship among age, menopause, and psychological status may be summarized in terms of the main argument of the research. Women for whom menopause was on time do not differ significantly in psychological distress or depression from like-aged women of diverse menopausal statuses, whereas women who experience menopause off-schedule-whether early or late-display significantly greater distress and depression than other women their age. In addition, *an unanticipated relationship between menopausal status and psychological status was found within the younger age category*. (Lennon, M.C., 1982).

Results of a postal questionnaire survey of 638 women aged 45 to 54, living in the London area in 1964-65, indicate that hot flushes and night sweats were clearly associated with the onset of a natural menopause. Hot flushes were reported to occur more frequently and over more of the body by women whose menstrual flow showed evidence of change or cessation,and for 25 % of those women whose menses had ceased for at least one year, hot flushes persisted for five years or more. The other six symptoms

specified, namely, headaches, dizzy spells, palpitations, sleeplessness, *depression*, and weight increase, *showed no direct relationship to the menopause* but tended to occur together, each being reported by approximately 30 to 50% of the respondents with little variation according to menopausal status. None of the six socio- demographic variables investigated, i.e., employment status, school leaving age, social class, domestic workload, marital status, and parity, had any marked association with the reported frequency of symptoms. The majority of respondents did not anticipate or experience any difficulties and only about 10% expressed regret at the cessation of menses. Despite embarrassment and/or discomfort from hot flushes, reported by nearly three-quarters of those experiencing this symptom, only one- fifth had apparently sought medical treatment. (McKinlay, S.M., Jefferys, M.,1974).

To investigate the prevalence of depression and anxiety symptoms and their influence factors in women during menopausal transition and post- menopause, Li,Y., Yu,Q., Ma, L.,Sun,Z.,Yang,X., 2008 conducted a survey. Randomized sampling method was used in this survey. The survey was performed in eight districts of Beijing city, which included: Dongcheng, Xicheng, Xuanwu, Chongwen, Chaoyang, Haidian, Fengtai and Shijingshan. The total female resident population aged 45–59 of eight districts was about 1,029,000 in 2004 according to population statistical annual report of Beijing. Among the 1280 cases, 974 (76.1%) presented no depression, 224 (17.5%) presented mild depression, 72 (5.6%) presented moderate depression and 10 (0.8%) presented severe depression. The prevalence of depression in peri-menopausal stage, menopause between 1 and 5 years and that more than 5 year were 23.4%, 23.8% and 23.6%, respectively with no statistical difference. The prevalence of depression in 45–49, 50–54 and 55–59 age group were 26.1%, 23.5% and 22.1%, respectively and had no statistical difference. One hundred and thirty-one experienced anxiety symptoms with a prevalence rate of 10.2%. Peri-menopausal stage, early menopausal stage and late menopausal stage were not related with anxiety and menstruation status (regular, irregular and menopausal) did not affect it. The prevalence of depression in peri-menopausal stage, menopause between 1 and 5 years and that more than 5 year were 9.0%, 9.5% and 11.8%, respectively with no statistical difference. The prevalence of anxiety in 45–49, 50–54 and

55–59 age group were 10.0%, 10.0% and 10.9%, respectively and had no statistical difference.

Univariate analysis suggested that some factors were associated with anxious symptom, which included satisfaction with family, intercourse frequency, history of PMDD (premenstrual dysphoric disorder), divorced or separated, contradict between spouses, serious illness in a recent year, strait financial status, delivery pressure, children failed entering college or getting job, crowded housing, hot flashes or sweat, dyspareunia or dry vagina and degree of social support. Other factors were not related to anxiety, such as age, menopause age, employment status, educational background, menopause or not, menopause staging, family income by person and empty nest. Anxiety related factors were analyzed in stepwise logistic regression model. The factors which entered the equation in the sequence were hot flashes and sweating, satisfaction with family, strait financial status, dyspareunia and dry vagina, contradict between spouses, history of PMDD, severe illness or operation, social support and pressure in work. (Li,Y., Yu,Q., Ma, L.,Sun,Z.,Yang,X., 2008).

2.2 Menopause and Social Support

Studies indicate that older women experience changes in sexual functioning, which includes the pain of vaginal dryness. Menopause is often what drives this symptom. Vaginal dryness after menopause is also common. However, whether a woman experiences menopausal vaginal dryness depends on her social support network, level of physical activity and presence and absence of sexual activity with a partner according to authors. A study conducted by Hess at al (2009), titled; "Association of Lifestyle and Relationship Factors with Sexual Functioning of Women during Midlife" explores this issue. Menopausal vaginal dryness and vaginal dryness after menopause are more than just biological changes in sexual functioning and is triggered by psychological and social factors. In this study, 677 women between the ages of 41 and 68 were interviewed, giving both the perspective of menopausal vaginal dryness and vaginal dryness post-menopausal. Over two-thirds of women studied reported being sexually active. For the purpose of this study, sexual activity was defined as "engagement in and enjoyment of

sexually intimate activities." Those who did not participate in sexual activity cited that their main reason for not doing so was lack of a partner (70%); More than a tenth (12%) reported a lack of interest in sex in general while 5% cited lack of interest in their partner. The least common response was for physical problems such as vaginal dryness. *Women who were sexually active tended to be better educated, younger, married, have a stronger social support network in general, have a lower rate of comorbid medical illnesses, and a lower body mass index.* However, women who reported being sexually active also experienced higher level of vaginal dryness. Menopause plays a big part in this process, but sexual activity is also a factor. Sexual enjoyment also played a role in whether or not women experienced vaginal dryness. However, according to the authors it is unknown whether vaginal dryness is a symptom of lack of sexual enjoyment or the cause of it. In short, women who experience vaginal dryness and vaginal dryness after menopause should not view vaginal dryness as a purely physiological symptom. Menopause and its symptoms should not be left untreated. *The study found that physical activity and strong social support network were particularly associated with enhanced sexual enjoyment, which lower the risk of suffering from vaginal dryness.* (Hess, Rachel et al.,2009).

In the study conducted by N.E. Avis, S.F. Assmann, H.M. Kravitz, P.A. Ganz and M. Ory, There was a stepwise selection of interaction terms between racial/ethnic group and each independent variable revealed interactions with four predictors: education, marital status, social support, and perceived stress. *One of their finding was that the lack of social support had a much greater impact on QOL for the Chinese and Japanese menopausal women than menopausal women in the other racial/ethnic groups*. *Having low social support had the most effect among Caucasian and Chinese women.* Perceived stress was strongly and consistently related to QOL across all five ethnic groups, but the gradient of this association was greatest for the Japanese women and lowest for the Hispanic women. (Avis, N.E., Assmann, S.F., Kravitz, H.M.,Ganz, P.A., and Ory, M., 2003).

In a study conducted by Bauld, R., and Brown, R.F titled "Stress, psychological distress, menopause symptoms and physical health in women" reported an association

between emotional intelligence (EI), menopause symptom severity and physical health in middle-aged women. The findings of this study was that high stress, anxiety and depression, low social support (number, quality), proactive coping and EI and negative attitude to menopause were all related to worse menopause symptoms and physical health. High stress, anxiety and depression was reported to potentially worsen menopause symptoms, whereas proactive coping, *effective social support and high EI may potentially protect women as they enter mid-life, although they have rarely been evaluated in relation to menopause symptoms.*

Attitude to menopause captured the greatest amount of variance in menopause symptom severity in this study, and a negative attitude to menopause partly mediated between EI and menopause symptoms. These results suggested that women who expected menopause to be negative were more likely to have a negative menopause experience and they were more likely to have low EI.

Stress, anxiety and *depression* partly mediated between EI and menopause symptoms and physical health. These results suggest that stress and psychological distress may worsen the experience of menopause and general health, although it is also possible that worse menopause or other somatic symptoms may have contributed to a poorer mood in some individuals. These findings suggested that women with high EI were better equipped to regulate and express their emotions than women with low EI.

Low social support and less proactive coping did not mediate between EI and menopause symptoms, and social support did not mediate between EI and physical health. The researchers did not expect such non-significant results since women with high EI might have been expected to seek out support from friends, family and health professionals more often than those with low EI, and such support was expected to be associated with less severe menopause symptoms. *(*Bauld, R., and Brown, R.F., n.d).

2.3 Social Support and Mental Health

Strong social support has been shown to be an important factor in decreasing functional impairment in patients with depression. *If social support increases, the physiological symptoms decrease.* Thus, high level of social support in married and

unmarried group is perhaps associated with lower level of physiological distress. (Kale, M.K., n.d).

Social support is a well-known correlate of menopause symptoms and physical and psychological well-being in women, and low social support and distressing relationships are reported to lead to stress and illness. However, it is not clear how these resources may impact on menopause symptom severity; for example, whether the putative 'effects' are direct or are mediated through another variable (i.e. mediator). Mediators are defined as variables that are affected by and can affect other variables. For example, social support may potentially mediate between stress and menopause symptoms by first contributing to psychological distress. (IN Bauld, R., and Brown, R.F., n.d).

Depression affects some 121 million people worldwide and in particular middle – aged and elderly women. One of the most vulnerable times in a women life is during the peri-menopausal and post- menopausal years. During menopause, many women report increased feelings of the blues from mild period of sadness to intense diagnoses of depression. For menopausal women, the stresses associated with 'the change' and aging exacerbate the problem. Dealing with a multitude of responsibilities is a challenge due to mood swings, sleeplessness, irritability, difficulty concentrating and various other common symptoms, according to authors. Researchers are noticing an increased link between depression and isolation. *Patients who lack a social support tend to increase occurrences of melancholy*. A recent study carried out in the Iranian city Khashan set out to find out if there were links between isolation and depression in elderly women. *The most important findings showed that women with support networks reported depression less frequently than did women who lived in relative isolation*. In the depression group, more than a third of the women said that they had a support network, while in the non – depression group, less than three -quarters (nearly double) of respondents reported having social support. (www.bellaonline.org) indicating the role of social support in thwarting depression.

Social support is a key source of psychological health and has been identified as a

specific aid to recovery. Corrigan et al. found that size of social networks as measured by number of friends was correlated to recovery, but that satisfaction with social support was not. However, in another study with a larger sample, *Corrigan and Phelan found that recovery was related to both social network size and perception of network satisfaction*. Other studies have examined social support and recovery from a more limited symptoms perspective. Pevalin and Goldberg followed a sample of 4,878 people to track episodes of mental illness over time and found that low social support increased the chances of an illness episode onset and decreased chances of recovery. Kendler et al. reported that social support predicted shorter tome to recovery from symptoms for women with major depression. Similarly, Lara et al. found that social support predicted both depression severity and six month symptom recovery, and Johnson et al. found social support related to better six month recovery from depression but not mania among patients with bi-polar disorders. (IN H,Michael.,Green,C.A.,Perrin,N.A.,2008).

In the prospective studies, *psychosocial factors were found to be the main predictors of depression during the menopause.* These included past depression, socioeconomic status, stressful life events such as bereavements, and negative beliefs about the menopause. The menopause seemed to have a more negative effect on women who previously believed that the menopause brings a host of physical and emotional problems. *Marital and employment status as well as social support can moderate the effects of stress, as at other stages of life*. Those who suffered chronic arthritis or thyroid problems were more prone to continued depression.8 Experiencing a longer menopause (at least 27 months) was associated with an increased but transitory risk of depression; this association seemed to be explained by increased exposure to vasomotor symptoms. (IN Hunter,M.S., 1996).

2.4 Research Gaps

The review of related literature helped the researcher in many ways. The review showed the researcher that there are very few studies related to women, menopause and mental health in India.It also stated the important methodologies that have been used by previous studies. The menopausal transition brings with it both positive and negative

changes . Positive changes include looking at the post- menopausal years as a new phase in life, as relief and liberation .Negative changes look at effects such as depression, anxiety, fears , sense of loss in fertility, body image distortions etc. There are still few studies that have been conducted on positive life changes in menopausal transition. Menopause and mental health studies across cultures capturing different realities of women are few. Even fewer are the studies that document challenges faced in social support and coping . Vulnerability studies of women who are single, widowed, in sex work, below poverty line etc are still untapped areas of research.

CHAPTER III

METHODOLOGY

3.1 Pilot Study

A pilot study was conducted among the key informants at Psychiatry Hospital, Aizawl to understand the mental health of women in menopausal transition in Aizawl since, often they seek services to cope with their problems.

From the pilot study it was found that mental health problems among the women in menopausal transition are reported and that it was more prevalent among the middle aged women.

3.2 Methodology

This study focused on women in menopausal transition in Aizawl.

3.2.1 Research Design

The study employed the mixed- methods design.

3.2.2 Sources of Data

The study used primary data. Such data was obtained from respondents using interviews.

3.2.3 Universe of the Study

The universe includes all women in menopausal transition (i.e 45 to 70 years) in Aizawl.

3.2.4 Sampling

Multi-stage sampling was used. In the first stage, Aizawl was selected using purposive sampling. In the second stage, two (2) localities,1 core i.e Dawrpui and 1 periphery i.e Hlimen in Aizawl were identified using objective indicators. In the third stage, through systematic random sampling a final sample of 64 women (32 each from a core and peripheral area) was obtained.

3.2.5 Tools of Data Collection

a. Interview Schedule: A semi- structured Interview Schedule was administered to collect data from respondents. The schedule included information on socio-demographic profile, socio- economic profile, menstrual history, reproductive health history, menopausal history and level of social support of the respondents. Following the construction of the tool, it was pre- tested and modified suitably.

b. Depression Anxiety Stress Scale (DASS 21): The Depression, Anxiety, and Stress Scale were developed by researchers at the University of New South Wales (Australia). The DASS is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. Each of the three DASS scales contains 14 items, divided into subscales of 2-5 items with similar content. The Depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia. The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The Stress scale is sensitive to levels of chronic non-specific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient. Subjects are asked to use 4-point severity/frequency scales to rate the extent to which they have experienced each state *over the past week*. Scores for Depression, Anxiety and Stress are calculated by summing the scores for the relevant items.

After checking on a normed sample, thescores were subsequently checked for validity against outpatient groups including patients suffering from anxiety and depressive disorders, insomniacs, myocardial infarction patients, as well as patients undergoing treatment for sexual, *menopausal* and depressive disorders. The reliability scores of the scales in terms of Cronbach's alpha scores rate the Depression scale at 0.91, the Anxiety scale at 0.84 and the Stress scale at 0.90 in the normative sample.

c. Menopause Rating Scale (MRS): Menopause rating scale was developed by the Berlin Center for Epidemiology and Health Research. It was developed in response to

the lack of standardized scales to measure the severity of aging symptoms and their impact on health related Quality of Life (HRQoL) in the 1990s. The scoring is straightforward: the score increases point by point with increasing severity of subjectively perceived complaints in each of the 11 items (severity expressed in 0…4 points in each item). The total score of the MRS ranges between 0 (asymptomatic) and 44 (highest degree of complaints). The minimal/maximal scores vary between the three dimensions depending on the number of complaints allocated to the respective dimension of symptoms:

- psychological symptoms: 0 to 16 scoring points (4 symptoms: depressed, irritable, anxious, exhausted)
- somato-vegetative symptoms: 0 to 16 points (4 symptoms: sweating/flush, cardiac complaints, sleeping disorders, joint & muscle complaints)
- urogenital symptoms: 0 to 12 points (3 symptoms: sexual problems, urinary complaints, vaginal dryness).

The composite scores for each of the dimensions (sub-scales) are based on adding up the scores of the item so the respective dimensions. The composite score (total score) is the sum of the dimension scores.

3.3. Data Processing and Analysis

Data of all variables was processed through the use of SPSS and data is presented in the form of simple percentages.

CHAPTER IV

RESULTS AND DISCUSSION

4.1 Introduction

Results from the study are presented in this chapter. This chapter is organized under the following sub- sections. Keeping in mind the objectives of the research, the results are arranged. The first sub- section presents the profile of the respondents in relation to demographic details, family details, socio-economic details and profile in reference to menstrual history, reproductive and menopausal history. In any study or research, respondents' profile is very important to understand the population being studied. The second section discusses about the menopausal symptoms and its relationship with other variables. The third section presents mental health of the respondents and it relationship with other variables as well as its relationship with menopausal symptoms. And the fourth section discusses about the social support with reference to the most and least supportive as well as the adequacy and satisfaction over social support. This section also presents the relationship between social support with mental health and menopause symptoms.

Sub-Section I Profile of Respondents

Table. 1.1 Demographic profile

Sl. No	Characteristics	Location		Total N = 64
		Core N = 32	Periphery N = 32	
I	**Age Group**			
	45 -50 Years	7	5	12
		(21.9)	(15.6)	(18.8)
	50 - 55 Years	8	10	18
		(25.0)	(31.3)	(28.1)
	55 - 60 Years	9	6	15
		(28.1)	(18.8)	(23.4)
	60 and above	8	11	19
		(25.0)	(34.4)	(29.7)
II	**Marital Status**			
	Married	24	20	44
		(75.0)	(62.5)	(68.8)
	Unmarried	2	3	5
		(6.3)	(9.4)	(7.8)
	Widow	6	9	15
		(18.8)	(28.1)	(23.4)

Sl. No	Characteristics	Location		Total
		Core N = 32	Periphery N = 32	N = 64
III	**Education**			
		11	16	27
	Below 10	(34.4)	(50.0)	(42.2)
		15	11	26
	10	(46.9)	(34.4)	(40.6)
		2	0	2
	12	(6.3)	(0.0)	(3.1)
		0	4	4
	UG	0.0	(12.5)	(6.3)
		1	0	1
	PG	(3.1)	(0.0)	(1.6)
		3	1	4
	Any Other	(9.4)	(3.1)	(6.3)
IV	**Size of Family**			
		4	4	8
	Large Size Family	(12.5)	(12.5)	(12.5)
		16	18	34
	Medium Size Family	(50.0)	(56.3)	(53.1)
		10	9	19
	Small Size Family	(31.3)	(28.1)	(29.7)
		2	1	3
	Live Alone	(6.3)	(3.1)	(4.7)
V	**Denomination**			
		20	14	34
	Presbyterian	(62.5)	(43.8)	(53.1)
		4	15	19
	Baptist	(12.5)	(46.9)	(29.7)
		2	1	3
	UPC	(6.3)	(3.1)	(4.7)
		1	0	1
	Seventh Day Adventist	(3.1)	(0.0)	(1.6)
		4	1	5
	Salvation Army	(12.5)	(3.1)	(7.8)
		1	1	2
	Catholic	(3.1)	(3.1)	(3.1)

Source: Computed Figures in parentheses are percentages

Age: More than a quarter (29.7%) of the respondents are in the age group of 60 years and

above. A sixth (18.8%) of the respondents are in the age group of 45 to 50 years.

This shows that 60 years and above constitute the most among the respondents. As this study is relation to menopause it is not surprising that a preponderance of people would be in this age group. Worldwide have shown that menopause would have clearly set in for most women by the age of 60 years.

Marital Status: More than two thirds (68.8%) of the respondents are married and less than a quarter (23.4%) of the respondents are widows. Respondents who are unmarried constitutes less than a tenth (7.8%). *Since this study attempts to understand mental health in relation to menopause, information related to marital status becomes important. Further, social support also is increased when people are married and therefore in this study it is important to note that a third of the respondents are single (widowed or unmarried), indicating that they would have less social support.*

Education: Less than a half (42.2%) of the respondents had studied below high school level while an almost equal number (40.6%) had completed X standard. Only 1 respondent has completed post-graduation revealing that the educational status of the respondents was low. Avery old study in India(Upadhyaya and Chaturvedi, 1988) on psychiatric morbidity and peri-menopausal women in Karnataka used an experimental design with a control group of women who were between ages of 25-35 years and an experimental group of women in peri- menopausal state belonged to a rural background and reported higher rates of illiteracy .

Size of the Family: More than half (53.1%) have a medium size family. Less than a third (29.7%) have a small- sized family. More than a tenth (12.5%) have large sized family. Those who live alone (4.7%) constitute an insignificant minority. Size of the family also reflects social support and hence the results are very important.

Denomination: All respondents are Christians. More than a half (53.1%) of the respondents belongs to the Presbyterian Church. Respondents belonging to Baptist church constitutes less than a third (29.7%). Salvation Army constitutes less than a tenth (7.8%) An insignificant minority are UPC (4.7%), Seventh Day Adventist (1.6%) and Catholic(3.1%).

Table 1.2 Socio- Economic Profile

Sl.No	Characteristic	Location		Total N= 64
		Core n = 32	Periphery n = 32	
I	**Socio-Economic Category**			
		0	1	1
	Very Poor(AAY)	(0.0)	(3.1)	(1.6)
		4	7	11
	Poor(BPL)	(12.5)	(21.9)	(17.2)
		28	24	52
	Non-Poor(APL)	(87.5)	(75.0)	(81.3)
II	**Employment Status**			
		8	10	18
	Unemployed	(25.0)	(31.3)	(28.1)
		12	15	27
	Employed	(37.5)	(46.9)	(42.2)
		12	7	19
	Self employed	(37.5)	(21.9)	(29.7)
III	**Adequacy of Monthly Income**			
		11	6	17
	Highly Adequate	(34.4)	(18.8)	(26.6)
		21	24	45
	Somewhat Adequate	(65.6)	(75.0)	(70.3)
		0	1	1
	Not Adequate at all	(0.0)	(3.1)	(1.6)
		0	1	1
	No Response	(0.0)	(3.1)	(1.6)

Source: Computed Figures in parentheses are percentages

Socio – Economic Category: The socio economic category consists of AAY, APL and BPL. Majority (81.2%) of the respondents are APL and less than a fifth (17.2%) are BPL. An insignificant minority (1.6%) is AAY.

Employment Status: Less than half (42.2%) of the respondents are employed. Less than a third (29.7%) is self-employed and more than a quarter (28.1%) is unemployed. In the employment included government employment as well as private however in the peripheral area employment included petty business, labor on farms and other sources.

Adequacy of Monthly Income: Less than three -quarters (70.3%) perceived their income as being somewhat adequate and more than a quarter (26.6%) of the respondents consider it highly adequate.

Table 1.3 Menstrual History

Sl. No	Characteristic	Location		Total N= 64
		Core n = 32	Periphery n = 32	
I	**Age at Menstruation (in years)**			
	10—13	3	1	4
		(9.4)	(3.1)	(6.3)
	13 -16	18	19	37
		(56.3)	(59.4)	(57.8)
	16- 18	11	12	23
		(34.4)	(37.5)	(35.9)
II	**Frequency of Period**			
	25 days	3	0	3
		(9.4)	0.0	(4.7)
	26 days	5	0	5
		(15.6)	0.0	(7.8)
	27 days	2	3	5
		(6.3)	(9.4)	(7.8)
	28 days	19	23	42
		(59.4)	(71.9)	(65.6)
	Irregular	3	5	8
		(9.4)	(15.6)	(12.5)
	Any other	0	1	1
		0.0	(3.1)	(1.6)
III	**Duration of Period**			
	2 -3	10	14	24
		(31.3)	(43.8)	(37.5)
	4—5	17	12	29
		(53.1)	(37.5)	(45.3)
	6—7	5	6	11
		(15.6)	(18.8)	(17.2)
IV	**Discomfort During Menstruation**			
	Yes	19	14	33
		(59.4)	(43.8)	(51.6)
	No	13	18	31
		(40.6)	(56.3)	(48.4)

Source: Computed Figures in parentheses are percentages

Age at Menstruation: More than half of the respondents (57.8%) attained menarche

between the ages of 13 to 16 years. More than a third (35.9%) had attained menarche between the ages of 16 to 18 years. Age at menstruation is often significant in understanding menopausal history.

Frequency of Period: Menstruation history suggests that almost two thirds (65.6%) have their period once in 28 days while more than a tenth (12.5%) had irregular periods.

Duration of Period: Almost a fifth (17.2%) had a reported very heavy period of 6 to 7 days duration. More than a third (37.5%) reported however that they have only a period of 2 to 3 days suggesting a very light menstrual flow.

Discomfort during Menstruation: More than half of the respondents (51.6%) have had discomfort during menstruation. WHO technical Report series also states that during peri-menopausal stage, women tend to experience very heavy , irregular bleeding that causes tremendous discomfort and health problems.

Table 1.4 Reproductive Health History

Sl. No	Characteristic	Location		Total N= 64
		Core n = 32	Periphery n = 32	
I	**Used any Contraception**	7	9	16
		(21.9)	(28.1)	(25.0)
II	**Ever had any miscarriages/abortion**	3	6	9
		(9.4)	(18.8)	(14.1)
III	**Nature of child birth of children**	1	0	1
	Natural delivery at home	(3.1)	0.0	(1.6)
	Natural delivery at hospital	27	27	54
		(84.4)	(84.4)	(84.4)
	C-section	1	3	4
		(3.1)	(9.4)	(6.2)
	Any other	3	2	5
		(9.4)	(6.2)	(7.8)
IV	**Urinary Tract Infection**			
	Yes	17	13	30
		(53.1)	(40.6)	(46.9)
	No	1	0	1
		(3.1)	0.0	(1.6)
	No response	14	19	33
		(43.8)	(59.4)	(51.6)
V	**Sexually Transmitted Infection(STI)**			
	No	12	9	21
		(37.5)	(28.1)	(32.8)
	No response	20	23	43
		(62.5)	(71.9)	(67.2)

Source: Computed Figures in parentheses are percentages

Use of Contraception: A quarter reported use of contraception with more in the peripheral area reporting the same (28.1%)

Miscarriages / Abortion: A sixth of the respondents (14.1%) of the total respondents reported having had miscarriages while more peripheral area respondent (18.8%) reported the same.

Nature of Child Birth of Children: A small number (6.2%) had had delivery of a child through Cesarean - Section.

Urinary Tract Infection (UTI): Less than half (46.9%) reported having had Urinary tract infection.

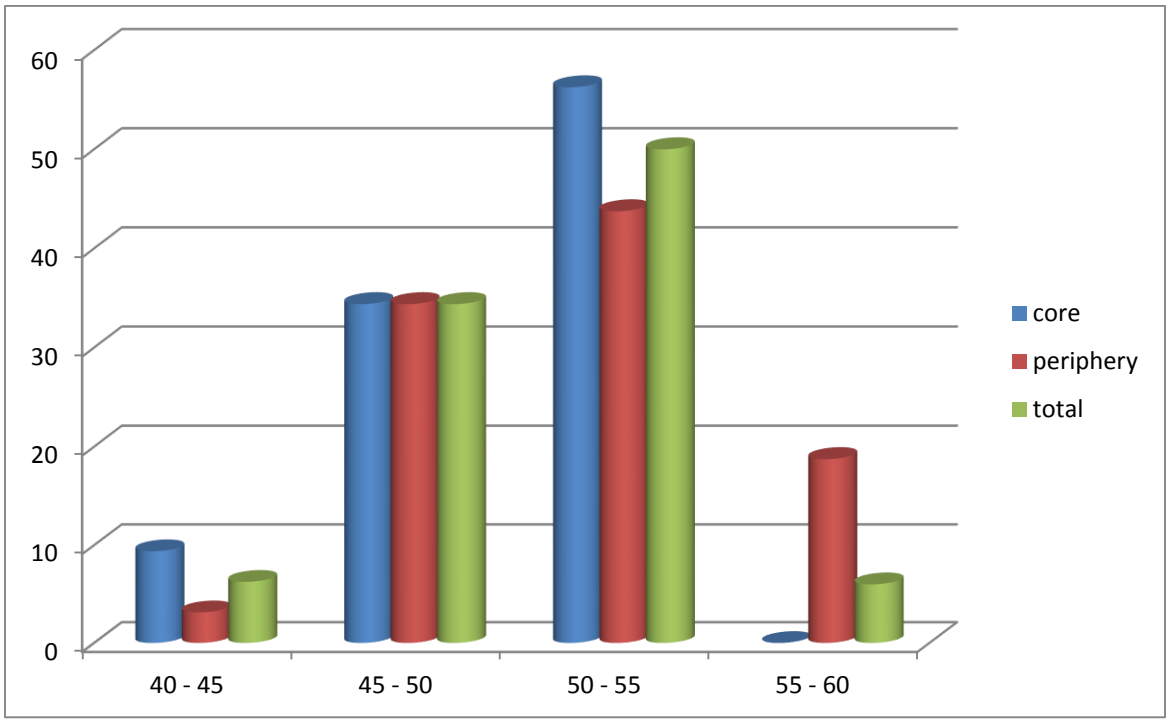
Sexually Transmitted Infection was not reported by any.

Table 1.5 Menopausal History

Sl. No	Characteristic	Location		Total N= 64
		Core n = 32	Periphery n = 32	
I	**Age at Menopause**			
	40 – 45	3	1	4
		(9.38)	(3.13)	(6.25)
	45-50	11	11	22
		(34.38)	(34.38)	(34.38)
	50 – 55	18	14	32
		(56.25)	(43.75)	(50.00)
	55 -60	0	6	6
		0.00	(18.75)	(9.38)
II	**Perceived Stage of Menopause**			
	Pre- menopause	3	4	7
		(9.4)	(12.5)	(10.9)
	Peri –menopause	14	16	30
		(43.8)	(50.0)	(46.9)
	Post- menopause	15	12	27
		(46.9)	(37.5)	(42.2)
III	**Cause of Menopause**			
	Natural	29	29	58
		(90.6)	(90.6)	(90.6)
	Hysterectomy	3	3	6
		(9.4)	(9.4)	(9.4)

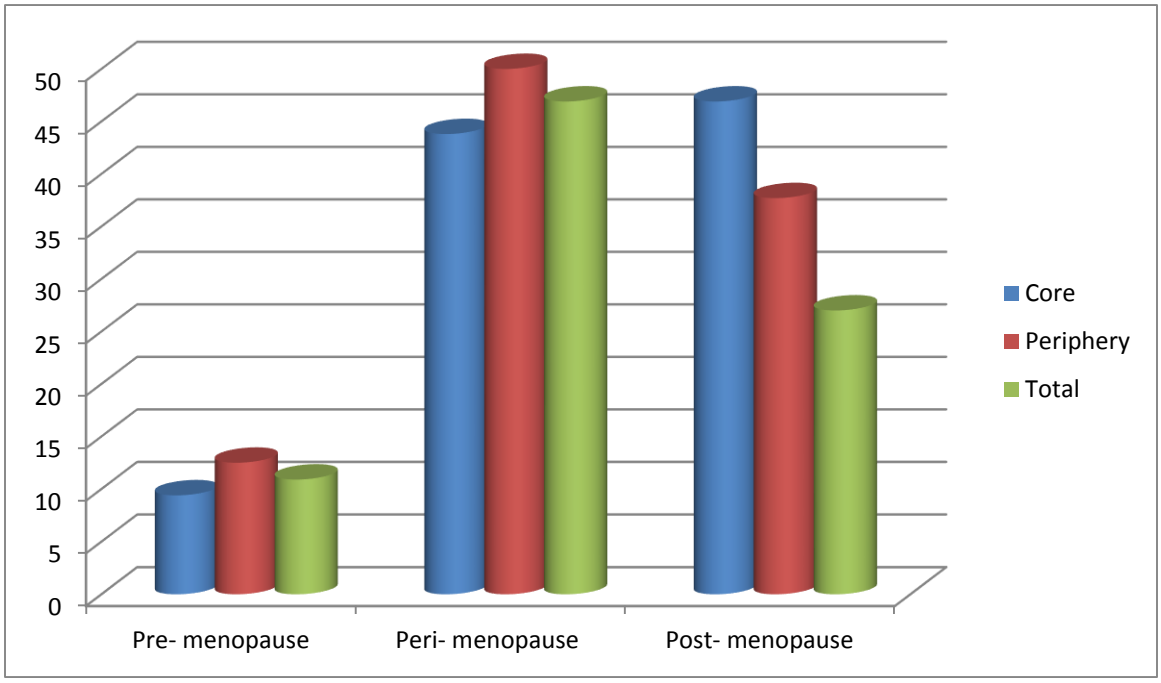
Source: Computed Figures in parentheses are percentages

Figure 1: Age at Menopause



Age at Menopause: More than a third (34.38%) attained menopause between ages 45 to 50 while half (50%) of the respondents attained menopause between ages of 50 to 55 years. Very few each attained it earlier than 45 years or late than 55 years. Early menopause was seen more in the core group. Other Indian study mentioned that natural menopause occurs between the ages of 45 and 55 years with a mean age of incidence around 51 years worldwide. The mean age at menopause among Indian women is 44.3 years. (Syamala, T.S., Sivakami, M.,2005). This study too reports similar findings among Mizo women.

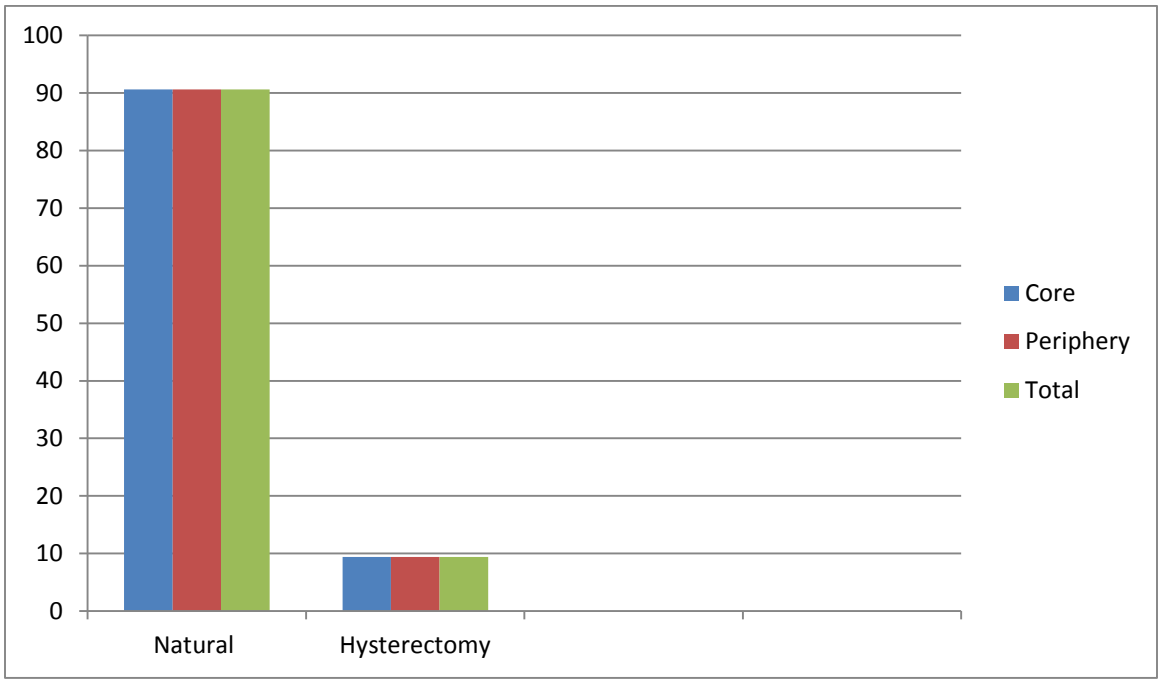
Figure 2: Perceived Stage of Menopause



Perceived Stage of Menopause: Women who checked that they were still menstruating regularly were classed as pre-menopausal. The peri-menopausal group includes women who said their menstrual cycle had become irregular during the previous year or who had menstruated within the last 12, but not within the past 3 months. Post-menopausal women checked that they had not menstruated within the previous 12 months. (Kaufert, P.L.,1986)

Less than half (46.9%) in this study perceived themselves being in peri menopausal stage while a smaller number (42%) perceived they were in post-menopause. The WHO technical Report series which is a comprehensive report on research on menopause in the nineties clearly defines terms related to menopause and considers menopause to have occurred with certainity only after a year in retrospect of the FMP(Final Menstrual period). Different challenges are faced in relation to the stage in the menopausal transition.

Figure 3: Cause of Menopause



Cause of Menopause: An overwhelming majority (90.6%) had attained menopause normally while almost a tenth (9.4%) had attained it following hysterectomy. Menopause can be natural or due to surgical removal of ovaries (hysterectomy) or due to iatrogenic causes such as induced cessation including chemotherapy etc. The manner in which mental health occurred can have outcomes on mental health and this was the reason as to why information on this was sought.

Sub- Section II

Table 2.1 Menopausal Symptoms (Menopause Rating Scale)

Sl. No	Symptoms	Location				Total	
		Core		Periphery			
		Mean	S.D	Mean	S.D	Mean	S.D
I	**Psychological Symptoms**						
	Physical and mental exhaustion	*1.6*	*0.8*	*1.8*	*0.6*	*1.7*	*0.7*
	Irritability	1.4	0.9	1.4	0.8	1.4	0.8
	Depressive mood	1.2	1.0	1.3	0.8	1.3	0.9
	Anxiety	1.0	1.0	1.0	1.0	1.0	1.0
	Psychological Symptoms	5.3	3.0	5.6	2.1	5.4	2.6
II	**Somato Vegetative Symptoms**						
	Joint and muscular discomfort	1.8	1.2	1.8	1.0	1.8	1.1
	Hot flushes, sweating	1.6	1.1	1.7	1.1	1.7	1.1
	Sleep problems	1.5	1.0	1.5	1.0	1.5	1.0
	Heart discomfort	0.8	1.2	0.6	0.9	0.7	1.1
	Somato Vegetative Symptoms	5.8	3.2	5.7	2.6	5.7	2.9
III	***Urogenital Symptoms***						
	Bladder problems	1.0	1.1	1.0	1.0	1.0	1.0
	Sexual problems	1.0	1.0	0.6	0.8	0.8	0.9
	Dryness of vagina	0.6	0.8	0.3	0.6	0.4	0.7
IV	***Urogenital Symptoms***	2.6	2.2	1.9	1.5	2.2	1.9
	Menopause Symptoms	13.6	7.0	13.1	4.5	13.3	5.9

Source: Computed

Psychological Symptoms: The psychological symptoms include physical and mental exhaustion, irritability, depressive mood, anxiety. The psychological symptoms are almost the same in the core and the peripheral area.

Somato Vegetative Symptoms: These symptoms include joint and muscular discomfort, hot flushes, sweating, sleep problems and heart discomfort. Somato vegetative symptoms in the core and the peripheral are almost the same. Hot flushes and night sweats are caused due to thermoregulatory disturbances and are the single most commonly associated factors with menopause.

Urogenital Symptoms: This symptom includes bladder problems, sexual problems and dryness of vagina. Urogenital symptoms are more prevalent in the core area than in the peripheral area.

It is therefore not surprising to note that in this study Somato Vegetative Symptoms are the most common symptoms among the respondents. In the study by Lindh-Astrand et al also sixteen out of twenty women reported seeking medical advice for hot flushes and night sweats and ranked it as the single most common factor for seeking medical help.

Table 2.2: Demographic Characteristics, Reproductive Health and Menopausal Symptoms: Correlation

Sl. No	Characteristic	Psychological Symptoms	Somato Vegetative Symptoms	Urogenital Symptoms	Menopause Symptoms
1	Age	-0.23	0.05	-0.17	-0.13
2	Education	0.07	-0.03	0.10	0.05
3	Socio-Economic Category	0.01	-0.06	0.17	0.03
4	Age at Menstruation	-0.14	0.01	-0.08	-0.08
5	Age at Marriage(in years)	-0.03	-0.05	-0.04	-0.05
6	Age at First Child	0.01	0.14	-0.05	0.06
7	Age at Last Child	0.06	0.17	-0.08	0.09
8	Ever had any miscarriages/abortion?	-0.13	-0.18	-0.07	-0.17
9	Ever undergone surgical interventions in reproductive health	-0.04	-0.09	-0.21	-0.13
10	Age at Menopause	-0.03	0.22	-0.20	0.03

Source: Computed

To understand the pattern of relationship between menopausal symptoms on the one hand and the demographic characteristics and reproductive health on the other Pearson's coefficients of correlation was used.

The coefficients of correlation between demographic variables and reproductive health variables such as age, education, socio- economic category, age at menstruation,

age at marriage, age at first child, age at last child, miscarriages/ abortion, surgical interventions, age at menopause, on the one hand and menopausal symptoms such as psychological symptoms, somato vegetative symptoms, urogenital symptoms on the other were computed and presented in table 2.2. This table shows that there is no relationship between demographic characteristics, reproductive health and menopausal symptoms.

Sub- Section III: Mental Health

Table 3.1 Depression Anxiety and Stress Scale.

Sl.No	Characteristic	Location		
		Core n = 32	Periphery n = 32	Total N= 64
I	**Level of Depression**			
	Normal (0 -4)	19	23	42
		(59.4)	(71.9)	(65.6)
	Mild (5 - 6)	7	2	9
		(21.9)	(6.3)	(14.1)
	Moderate (7 -10)	4	6	10
		(12.5)	(18.8)	(15.6)
	Severe (11- 13)	1	1	2
		(3.1)	(3.1)	(3.1)
	Extremely Severe (above 14)	1	0	1
		(3.1)	(0.0)	(1.6)
II	**Level of Anxiety**			
	Normal (0 -3)	19	16	35
		(59.4)	(50.0)	(54.7)
	Mild (4- 5)	4	10	14
		(12.5)	(31.3)	(21.9)
	Moderate (6 - 7)	5	0	5
		(15.6)	(0.0)	(7.8)
	Severe (8- 9)	1	3	4
		(3.1)	(9.4)	(6.3)
	Extremely Severe (above 10)	3	3	6
		(9.4)	(9.4)	(9.4)

Source: Computed Figures in parentheses are percentages

Level of Depression – Less than two thirds (65.6%) of the respondents do not report depression while less than a sixth (15.6%) have moderate level of depression. An insignificant minority of the respondents have severe (3.1%) and extremely severe (1.6%) level of depression and this is comparable across both areas.

Level of Anxiety- More than a half (54.7%) of the respondents do not report anxiety while *only less than a tenth (6.3%) have extremely severe level of anxiety* and this figure is much higher in peripheral areas.

Level of Stress – Less than two thirds (60.9%) of the respondents have normal level of stress while only *less than a tenth (9.4%) have severe level of stress* and this is the same across core and peripheral area.

Table 3.2: Demographic Characteristics, Reproductive Health and Mental Health: Correlation

Sl. No	Characteristic	Depression	Anxiety	Stress
1	Age	**-0.40****	-0.17	**-0.45****
2	Education	0.14	0.00	0.22
3	Socio-Economic Category	0.07	0.03	0.02
4	Age at Menstruation	-0.20	-0.21	-0.18
5	Age at Marriage(in years)	-0.08	-0.14	-0.21
6	Age at First Child	-0.02	0.03	-0.02
7	Age at Last Child	0.02	0.11	-0.04
8	Ever had any miscarriages/abortion	0.11	0.07	0.07
9	Ever undergone surgical interventions in reproductive health	-0.22	-0.11	-0.17
10	Age at Menopause	-0.20	-0.01	-0.06

Source: Computed ** P<0.01

To understand the pattern of relationship between mental health on the one hand and the demographic characteristics and reproductive health on the other Pearson's coefficients of correlation were used. The coefficients of correlation between demographic variables and reproductive health variables such as age, education, socio-economic category, age at menstruation, age at marriage, age at first child, age at last child, miscarriages/ abortion, surgical interventions, age at menopause, on the one hand and mental health variables such as depression, anxiety, stress on the other were computed and presented in the table 3.2. Among the demographic and reproductive health variables only age has been significantly associated with depression and stress. *Age has significant negative relationship with depression and stress. In other words, higher the age lower the depression and higher the age lower the stress.*

Table 3.3: Relationship between Menopausal Symptoms and Mental Health (MRS and DASS)

Symptoms	Depression	Anxiety	Stress
Psychological Symptoms	0.58**	0.50**	0.57**
Somato Vegetative Symptoms	0.36**	0.52**	0.37**
Urogenital Symptoms	0.46**	*0.25**	0.36**
Menopause Symptoms	0.58**	0.56**	0.55**

Source: Computed ** P<0.01

To understand the pattern of relationship between menopausal symptoms on the one hand and the mental health variables on the other Pearson's coefficients of correlation were used. The coefficients of correlation between menopausal symptoms such as psychological symptoms, somato vegetative symptoms, urogenital symptoms on the one hand and mental health variables such as depression, anxiety, stress on the other were computed and presented in table 3.3. Menopause symptoms and mental health variables (i.e, depression, anxiety, stress) are found to have positive association. *In other words, higher the severity of menopause symptom higher the severity of mental health problems.*

Sub- section IV: Social Support

Table 4.1: Social Support (Most Supportive and Least Supportive)

Sl. No	Characteristic	Location		Total N= 64
		Core n = 32	Periphery n = 32	
I	**When you are feeling sad you have someone to turn to.(most supportive)**			
	Husband	13	12	25
		(40.6)	(37.5)	(39.1)
	Daughter	8	7	15
		(25.0)	(21.9)	(23.4)
	Friend	5	4	9
		(15.6)	(12.5)	(14.1)
	Any Other	4	4	8
		(12.5)	(12.5)	(12.5)
	No response	2	5	7
		(6.3)	(15.6)	(10.9)
II	**When you are feeling sad you have someone to turn to.(least supportive)**			
	Husband	28	27	55
		(87.5)	(84.4)	(85.9)
	Daughter	1	0	1
		(3.1)	0.0	(1.6)
	Son	3	5	8
		(9.4)	(15.6)	(12.5)
III	**When you have to go to a doctor you have someone to take you there.(most supportive)**			
	Husband	12	7	19
		(37.5)	(21.9)	(29.7)
	Daughter	6	7	13
		(18.8)	(21.9)	(20.3)
	Son	2	2	4
		(6.3)	(6.3)	(6.3)
	Any Other	5	5	10
		(15.6)	(15.6)	(15.6)
	N.A	7	11	18
		(21.9)	(34.4)	(28.1)

Sl. No	Characteristic	Location		Total N= 64
		Core n = 32	Periphery n = 32	
IV	**When you have to go to a doctor you have someone to take you there.(least supportive)**			
	Daughter	1	0	1
		(3.1)	0.0	(1.6)
	Any other	1	0	1
		(3.1)	0.0	(1.6)
	N.A	30	32	62
		(93.8)	(100.0)	(96.9)
V	**There is someone who shares my work when I feel weak.(most supportive)**			
	Husband	6	4	10
		(18.8)	(12.5)	(15.6)
	Daughter	9	13	22
		(28.1)	(40.6)	(34.4)
	Son	1	1	2
		(3.1)	(3.1)	(3.1)
	Daughter in law	0	1	1
		0.0	(3.1)	(1.6)
	Any Other	10	8	18
		(31.3)	(25.0)	(28.1)
	N.A	6	5	11
		(18.8)	(15.6)	(17.2)
VI	**There is someone who shares my work when I feel weak.(least supportive)**			
	Daughter	1	0	1
		(3.1)	0.0	(1.6)
	Son	0	1	1
		0.0	(3.1)	(1.6)
	N.A	31	31	62
		(96.9)	(96.9)	(96.9)

Characteristic	Location		Total N= 64
	Core n = 32	Periphery n = 32	
When I have age related problem I have someone to help me.(most supportive)	0	0	0
Husband	13	5	18
	(40.6)	(15.6)	(28.1)
Daughter	3	4	7
	(9.4)	(12.5)	(10.9)
Friend	3	1	4
	(9.4)	(3.1)	(6.3)
Any Other	2	2	4
	(6.3)	(6.3)	(6.3)
N.A	11	20	31
	(34.4)	(62.5)	(48.4)
Some of us in our age group get together to discuss our problems.(most supportive)			
Husband	5	5	10
	(15.6)	(15.6)	(15.6)
Daughter	1	3	4
	(3.1)	(9.4)	(6.3)
Friend	3	1	4
	(9.4)	(3.1)	(6.3)
Any Other	1	2	3
	(3.1)	(6.3)	(4.7)
N.A	22	21	43
	(68.8)	(65.6)	(67.2)
Some of us in our age group get together to discuss our problems.(least supportive)			
Husband	1	0	1
	(3.1)	0.0	(1.6)
N.A	31	32	63
	(96.9)	(100.0)	(98.4)

Source: Computed Figures in parentheses are percentages

Information was sought regarding to mental health issues and how social support was perceived in reference to this.

In reference to sadness experienced by them most of the women reported that their husband was most supportive. Daughter and friends were also perceived as supportive. However a majority (86%) husbands were least supportive.

In relation *to Instrumental support* such as accompanying them to doctors also husbands (39.6%) followed by daughters (20%) were seen as most supportive. However, when it came to sharing household or other work daughters were more supportive than husbands.

Empathy for menopausal stage was most seen among husbands (28%) while a sixth (16%) also said that husbands were in fact, least empathic.

Table 4.2: Adequacy of Social Support

Sl. No	Adequacy	Core		Periphery		Total	
		Frequency	%	Frequency	%	Frequency	%
1	When I have age related problem I have someone to help me.	21	65.6	12	37.5	33	51.6
2	When you have to go to a doctor you have someone to take you there.	24	75.0	20	62.5	44	68.8
3	There is someone who shares my work when I feel weak.	25	78.1	27	84.4	52	81.3
4	Some of us in our age group get together to discuss our problems.	11	34.4	11	34.4	22	34.4
5	When you are feeling sad you have someone to turn to.	6	18.8	10	31.3	16	25.0
	Adequacy of Social Support	0.54 ± 0.23		0.50 ± 0.21		0.52 ± 0.22	

Source: Computed Mean ± S.D

Table 4.3: Satisfaction Over Social Support

Sl. No	Satisfaction	Core		Periphery		Total	
		Frequency	%	Frequency	%	Frequency	%
1	When you are feeling sad you have someone to turn to.	28	87.5	27	84.4	55	85.9
2	There is someone who shares my work when I feel weak.	25	78.1	27	84.4	52	81.3
3	When you have to go to a doctor you have someone to take you there.	24	75.0	20	62.5	44	68.8
4	When I have age related problem I have someone to help me.	22	68.8	12	37.5	34	53.1
5	Some of us in our age group get together to discuss our problems.	11	34.4	11	34.4	22	34.4
	Satisfaction over Social Support : Average	0.69 ± 0.34		0.61 ± 0.32		0.65 ± 0.33	

Source: Computed Mean ± S.D

Adequacy of Social Support – Adequacy of social support is more among the respondents from the peripheral area (3.9%) than the core area(3.3%)

Satisfaction Over Social Support – Respondents from the core area (3.0%) are less satisfied compared to the peripheral area (3.9%).

This result reveals that there is a close knit and intimate relationship in the peripheral area as compared to the core area.

Table 4.4: Social Support and Mental Health: Correlation Matrix

Characteristic	Depression	Anxiety	Stress
Adequacy of Social Support	-0.07	0.10	-0.07
Satisfaction over Social Support	-0.21	-0.03	-0.17

Source: Computed

To understand the pattern of relationship between social support on the one hand and the mental health variables on the other Pearson's coefficients of correlation were used. The coefficients of correlation between social support variables such as adequacy and satisfaction on the one hand and mental health variables such as depression, anxiety, stress on the other were computed and presented in table 4.4.

There is no relationship between social support and mental health since there is no significant association between any of the variables.

Table 4.5: Social Support and Menopause Symptoms: Correlation Matrix

Characteristic	Psychological Symptoms	Somato Vegetative Symptoms	Urogenital Symptoms	Menopause Symptoms
Adequacy of Social Support	0.06	0.17	0.04	0.12
Satisfaction over Social Support	-0.09	0.04	-0.02	-0.03

Source: Computed

To understand the pattern of relationship between social support on the one hand and menopause symptoms on the other Pearson's coefficients of correlation were used. The coefficients of correlation between social support variables such as adequacy and satisfaction on the one hand and menopausal symptoms such as psychological symptoms, somato vegetative symptoms, urogenital symptoms on the other were computed and presented in table 4.5.

There is no relationship between social support and menopause symptoms since there is no significant association between any of the variables. This shows that the menopause symptoms of the respondents are not affected by the level of social support available to them.

CHAPTER V

CONCLUSION AND SUGGESTIONS

Conclusion

This study titled “Social Support And Mental Health Of Women In Menopausal Transition In Aizawl, Mizoram” was conducted in Aizawl city with a sample size of 64 women between the ages of 45 to 70 years. The study explores the menopausal transition and its related mental health problems (specifically depression, anxiety and stress) among women in Aizawl and the level of social support available for them in relation to challenges faced during menopausal transition. T*he objectives of the study i*ncluded profiling Mizo women undergoing menopause in Aizawl; studying the mental health (depression, anxiety and stress) of Mizo women undergoing menopause; To explore the levels of social support available to them and to understand the relationship of mental health and social support of women in menopause.

The study employed a Mixed-methods design and is cross-sectional in nature. Multi-stage sampling was used and a final sample of 64 women in menopausal transition was obtained. The basis of comparison was across a core and a peripheral area.

The women in menopausal transition were between the ages of 45 to 70 years in the sample. This is in keeping with other studies which define the average age at menopause as 51 years in industrialized societies. The WHO technical Report series on research on Menopause in the nineties records menopause as occurring when the FMP (Final Menstrual Period) has set in. Usually world-wide the age at which this occurs naturally is said to be between 45-55 years and then women spend a lot of time in post-menopausal years. All these years unto the post-menopausal years are considered to be the transition. This period is said to be marked by several challenges for women and these range from physical changes to emotional and mental health issues . Menopausal transition as Lindh-Astrand, Hoffman, Hammar and Kjellgren state in their article is the natural process affected by endocrine and Lifestyle factors, psychosocial factors and ageing . Studies reveal that both physiological and psychological alterations occur when a women is in menopausal transition. Such changes include perceived loss of fertility, emotional changes, feelings of sadness, heightened anxiety but as some qualitative studies have revealed they can also include positive outcomes as well where women feel relieved

about cessation of menstruation , feelings of relief that there is no danger of pregnancy in relation to a continued sex life and look at the post- menopausal years as a ‘new phase’ to look forward to.

This study conducted on Mizo women attempted to explore the perceptions related to menopause among women in menopausal transition. To fulfill the first objective, a profile of women in menopausal transition has been attempted.

The profile describes the women in this study predominantly as **not very well** educated and this was seen more in the peripheral than in the core areas. Two -thirds of the respondents were married and almost a quarter of them were widowed at the time of interview with a small number of unmarried respondents. This has tremendous implications on perceived social support from a social work perspective. Infact, many of the married women have considered husbands and daughters as being most supportive when they faced mental health problems of sadness, anxiety and stress. While there may be no definite relationship in earlier studies between depression and menopause, the context of large families enhances perceptions of social support.

The coefficients of correlation between demographic variables and reproductive health variables such as age, education, socio- economic category, age at menstruation, age at marriage, age at first child, age at last child, miscarriages/ abortion, surgical interventions, age at menopause has been correlated with mental health variables such as depression, anxiety, stress . Among the demographic and reproductive health variables only age has been significantly associated with depression and stress. *Age has significant negative relationship with depression and stress.*

Age at menstruation is often significant in understanding menopausal history. Menstruation history suggests that almost two thirds have their period once in 28 days while more than a tenth report irregular periods. Almost a fifth had a reported very heavy period of 6 to 7 days duration. More than a third reported however that they have only a period of 2 to 3 days suggesting a very light menstrual flow. Discomfort during Menstruation was reported by more than half of the respondents.

Several symptoms have been associated with the menopausal transition and the most

commonly seen symptoms experienced by women in this study included somato-vegetative symptoms. This is in keeping with studies done elsewhere too. Most studies report that hot flushes, night sweats etc are the most common occurrences during menopause and most women seek medical help for the same.

Mental health challenges among the menopausal women in Aizawl appears to be minimal. Though there are some cases of high level of depression, anxiety and stress, more than half of the respondents have a normal level of depression, anxiety and stress. It is unclear as to what could be the reason for this besides the fact that current literature too states that while earlier studies related depression and anxiety as being linked to menopausal transition, many studies have found the link or relationship to be inconclusive. In that sense, the findings of this study corroborate the findings and sees no relationship established between the mental health burden and menopause.

The level of social support available to the respondents in the peripheral area is more adequate and satisfactory as compared to that reported by respondents from the core area which shows that the relationships enjoyed in the peripheral area is more close and intimate than those reported in the core area. There is no relationship established between social support and mental health either in this study.

Menopause was studied with the use of a scale and mental health also was assessed with the use of a scale .Menopause symptoms and mental health variables (i.e, depression, anxiety, stress) are found to have positive association indicating that higher the severity of menopause symptom higher the severity of mental health problems.

In the light of the above findings , the study concludes that women in menopausal transition in Aizawl, Mizoram have fairly good mental health , adequate and satisfactory social support from the family although they have poor social support from secondary and tertiary social sources.In this context therefore the following suggestions are offered. The suggestions have implications for Social Work Practice and Research.

I Social Work Practice

1) Direct intervention

i) Treatment options for women can co-opt husbands and family members as they are considered very supportive .Helping families to cope with the transition needs to be strengthened.

ii)Support groups that involve peers may help women address mental health issues by facilitating sharing of feelings and encourage catharsis and ventilation.

2) Indirect Interventions

i) Secondary social support needs to be strengthened while ensuring that primary support is maintained.

ii) Tertiary social Support requires strengthening for women who are in need of medical and /or psychological help.

II Research

1) Qualitative Research on lived experiences of women in menopausal transition may be able to capture the dynamics of the stage better than this study has been able to achieve.

2) Understanding the positive and strengths perspective in relation to the transitional stage is important. Few studies if any, in India have documented this aspect of menopause.

3) Comparative studies of women across backgrounds - Rural/ Urban; Educated/ not educated; regions; across stages in the menopausal transition are required.

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APPENDIX I

(a) Interview Schedule (English)

SOCIAL SUPPORT AND MENTAL HEALTH OF WOMEN IN MENOPAUSAL TRANSITION IN AIZAWL, MIZORAM

(Confidential and for Research Purpose Only)

Interview Schedule

Research Investigator:
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Mizoram University

Research supervisor:
Dr. Kalpana Sarathy
Associate Professor
Dept. of Social Work
Mizoram University

I. Demographic profile

1. Age:
2. Marital status

Married		Unmarried		Widow		Remarried		No response			

3. Education

Below X		X		XII		UG		PG		Any other	

4.Which of the following applies to your family?

Large size family		Medium size family		Small size family		Live alone		Any other	

5. Denomination

Presbyterian		Baptist		UPC		7th day		Salvation		Catholic		Any other	

6. Geographical location

Core		Periphery	

II. Socio- economic Profile

7. Socio economic category

BPL		AAY		APL		Any other	

8. Employment status

Unemployed		Employed		Self –employed		Govt. servant		No response	

9. The monthly income of our family is

Highly adequate		Somewhat adequate		Not adequate at all		No response	

III. Menstruation History

10. Age at menstruation:

11. Frequency of period:

12. Duration of period:

13. Is your menstruation marked by discomfort?

Yes		No	

IV. Reproductive Health History

14. Have you ever used any contraception?

Yes		No	

15. Have you ever had any miscarriages/abortion?

Yes		No	

16. Any history of surgical interventions in reproductive health?

Yes		No	

17. How was the childbirth of your children?

Natural at home		Natural delivery at hospital		C- section		Any other	

18. Have you ever experienced any of the following?

UTI		STI		Any other	

V. Menopausal History

19. Age at menopause:

20. Which stage of menopause do you perceive yourself to be at?

Pre-menopause		Peri-menopause		Post-menopause	

21. How did your menopause occur?

Natural		Hysterectomy		Oral medication		Any other	

VI. Maternal History:

22. Age at marriage (in years):

23. No. of children:

24. Age at first child:

25. Age at last child:

26. Spacing between children:

No children		1 to 2 years		3 to 4 years	
5 to 6 years		Any other			

VII. Social support:

Sl.no.	Statements	Most supportive	Adequate/ Inadequate	Satisfied/ Dissatisfied	Least supportive
27	When you are feeling sad you have someone to turn to.				
28	When you have to go to a doctor you have someone to take you there.				
29	There is someone who shares my work when I feel weak.				
30	When I have age related problem I have someone to help me.				
31	Some of us in our age group get together to discuss our problems.				

APPENDIX II

(b) Interview Schedule (Mizo)

SOCIAL SUPPORT AND MENTAL HEALTH OF WOMEN IN MENOPAUSAL TRANSITION IN AIZAWL, MIZORAM

(Confidential and for Research Purpose Only)

Interview Schedule

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Research supervisor:
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Dept. of Social Work
Mizoram University

I. Demographic Profile

1. Kum zat:
2. Nupui pasal:

Nei		Neilo		Hmeithai		Nei nawn		Chhan na awmlo	

3. Zirna

X hnuai		X		XII		UG		PG		A dang	

4. In chhungkua eng ber hi nge in nih?

Chhungkaw rual		Chhungkaw laihawl		Chhungkaw tlem		Mahni a awm		A dangte	

5. Kohhran

Presbyterian		Baptist		UPC		7^{th} day		Salvation		Catholic		Any Other	

6. Chenna hmun

Khawpui lai li		Khawpui kil khawr	

II. Socio- economic Profile

7. Socio economic category

BPL		AAY		APL		A dang	

8. Eizawnna

Hna neilo		Hna nei		Sawrkar hnathawk		Chhan na awm lo	

9. Thlakhat chhung a kan chhungkaw sum lakluh hi

Kan kham khawp hle		Kan kham khawp chang chang		Kan kham khawp lo		Chhan na awm lo	

III. Thanthi neih chungchang:

10. Than thi neih a kum zat:

11. Thi neih kar hlat zawng:

12. Thi neih rei zawng(thla khat ah):

13. Thi I neih in nuam loh na dang I nei thin em?

Aw		Aih	

IV. Chi kawng hrisel na lam chngchang:

14. In dan na I hmang thin em?

Aw		Aih	

15. Nauchhiat/ nau tih tlak I paltlang tawh em?

Aw		Aih	

16. Chi kawng ah in zai I tawk tawh em?

Aw		Aih	

17. Eng angin nge fa I neih?

Neih pangngai in(inah)		Neih pangngai in(damdawi inah)		Zai chhuah		A dang	

18. Heng te hi I paltlang tawh ngai em?

UTI(urinary tract infection)		STI (sexually transmitted infection)		A dang		Chhanna awmlo	

V. Thi hul chungchang:

19. Thi hul a kum zat:

20. Thi hul a a bi in dawt chhoh dan ah eng ah nge I awm mek nia a I hriat?

Pre-menopause		Peri-menopause		Post-menopause	

21. Eng tin nge I thi a hul ?

A pangngai in		Chhul paih		Damdawi ei		A dang	

VI. Nu nih chungchang:

22. Pasal neih a kum zat:

23. Fa neih zat:

24. Fa hmasa ber neih a kum zat:

25. Fa naupang ber neih a kum zat:

26. Fa chhangkhat dan:

Fa neilo		Kum 1 to 2		Kum 3 to 4	
Kum 5 to 6		A dangte			

IV. Khawtlang chhawmdawlna:

Sl.no.	Statements	Chhawmdawltha bertu	Tawk/tawklo	Lungawi/lungawilo	Chhawmdawlthalo bertu
27	I lungngaih in belh tur I nei thin.				
28	Doctor I in entir dawn in hruiatu che I nei thin.				
29	Ka chauh chang in ka hna min thawh pui tu ka nei thin.				
30	Kum upat kaihhnawih a harsatna ka neih in min tanpui tu ka nei.				
31	Ka kum rualpui thenkhat te nen kan harsatna sawi ho turin kan in hmu khawm thin.				

APPENDIX III

(a) Menopause Rating Scale (English)

SOCIAL SUPPORT AND MENTAL HEALTH OF WOMEN IN MENOPAUSAL TRANSITION IN AIZAWL, MIZORAM

(Confidential and for Research Purpose Only)

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Menopause Rating Scale (MRS)

Which of the following symptoms apply to you at this time? Please, mark the appropriate box for each symptom. For symptoms that do not apply, please mark 'none'.

None mild moderate severe very severe
I ---------- I----------I----------I ----------I
0 1 2 3 4

Sl. no	Symptoms	Score				
		None (0)	Mild (1)	Moderate (2)	Severe (3)	Very severe (4)
1	Hot flushes, sweating (episodes of sweating)					
2	Heart discomfort (unusual awareness of heart beat, heart skipping, heart racing, tightness)					
3	Sleep problems (difficulty in falling asleep, difficulty in sleeping through, waking up early)					
4	Depressive mood (feeling down, sad, on the verge of tears, lack of drive, mood swings)					

5	Irritability (feeling nervous, inner tension, feeling aggressive)					
6	Anxiety (inner restlessness, feeling panicky)					
7	Physical and mental exhaustion (general decrease in performance, impaired memory, decrease in concentration, forgetfulness)					
8	Sexual problems (change in sexual desire, in sexual activity and satisfaction)					
9	Bladder problems (difficulty in urinating, increased need to urinate, bladder incontinence)					
10	Dryness of vagina (sensation of dryness or burning in the vagina, difficulty with sexual intercourse)					
11	Joint and muscular discomfort (pain in the joints, rheumatoid complaints)					

APPENDIX IV

(b) Menopause Rating Scale (Mizo)

SOCIAL SUPPORT AND MENTAL HEALTH OF WOMEN IN MENOPAUSAL TRANSITION IN AIZAWL, MIZORAM

(Confidential and for Research Purpose Only)

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Menopause Rating Scale (MRS)

Heng a hnuaia natna lan dan hi I paltlang dan ang zelin I duhna zawn ah I thai/tick dawn nia. I paltlang loh natna lanchhuah dan a awm anih chuan 'Awmlo' tih zawn ah I thai/tick dawn nia.

None mild moderate severe very severe
I ---------- I----------I----------I ----------I
0 1 2 3 4

Sl. no	Natna inlar dan	Score				
		Awmlo	Tlemte	Tlanglawn	Nasa	Nasahle
		0	1	2	3	4
1	Sa hal, thlan tla					
2	Lung phu dik lo/ Lungphu rang					
3	Muthilh harsatna (muhil theilo/tui taka muhil theilo/hma taka harh zel)					
4	Nguaina (rilru hnual,tah chhuak					

	reng,rilru put hmang thlak thut thut)					
5	Thinur hma na					
6	Hlauthawng					
7	Taksa leh rilru chau (hna thawk tha theilo,haihawt)					
8	Mipat hmeichhiat na kawng a harsatna					
9	Zun kawng lama harsatna (zung tha theilo,zung zing lutuk)					
10	Serh ro					
11	Ruh chuk tuah leh ti hrawl nawmlohna)					

APPENDIX V

(a) Depression Anxiety Stress Scale 21 (English)

SOCIAL SUPPORT AND MENTAL HEALTH OF WOMEN IN MENOPAUSAL TRANSITION IN AIZAWL, MIZORAM

(Confidential and for Research Purpose Only)

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DEPRESSION ANXIETY STRESS SCALE (21)

The rating scale is as follows:
0 – never
1 – sometimes
2 – often
3 – almost always

1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty.(eg, excessively rapid breathing,breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (eg, in the hands)	0	1	2	3

8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (e.g;sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

APPENDIX VI

(b) Depression Anxiety Stress Scale 21 (Mizo)

SOCIAL SUPPORT AND MENTAL HEALTH OF WOMEN IN MENOPAUSAL TRANSITION IN AIZAWL, MIZORAM

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DEPRESSION ANXIETY STRESS SCALE (21)

A hnuai ami hi a nasat zawng thliar na ani:

0- Awm ngailo
1- A chang chang in
2- Awm fo thin
3- Engtik lai pawhin

1	In ben daih hi har ka ti.	0	1	2	3
2	Ka ka chhung hi a ro thin.	0	1	2	3
3	Thil a eng zawng in ka thlir thei thin lo.	0	1	2	3
4	Thawk harsa tih chang ka nei thin.(eg.thaw rang thut thut)	0	1	2	3
5	Hna emaw thil dang thawh dawn a bul tan mai hi harsa ka ti thin.	0	1	2	3
6	Eng emaw hlekah phi buai chang ka nei thin.	0	1	2	3
7	Ka khur thin. (eg. Kut khur)	0	1	2	3
8	Ka zam nasa thin hle.	0	1	2	3
9	Thil lo thleng ah ka buai thut anga keimah ka in ti mualpho ang tih ka hlau thin.	0	1	2	3
10	Hmathlir neilo angin ka in ngai thin.	0	1	2	3
11	Ka in chawk buai thin.	0	1	2	3
12	Hahdam taka awm ka harsat	0	1	2	3
13	Rilru hnual leh hrehawm tihna ka nei thin.	0	1	2	3
14	Ka thil tih tum min daltu reng reng ka ngaitheilo thin.	0	1	2	3
15	Thlabar a chiai mai tur angin ka awm thin.	0	1	2	3
16	Tha tho tak leh phur taka thil tih chakna ka nei lo.	0	1	2	3
17	Hlutna neilo in ka in hre thin.	0	1	2	3
18	Thinawrh tak nia in hriat chang ka nei thin.	0	1	2	3
19	Pawn lama min ti buai tu a awm loh pawh in ka lungphu a buai thin.	0	1	2	3
20	Chhan tha tak awm lo in ka hlauthawng thin.	0	1	2	3
21	Nun hian awm zia a neilo in ka hria.	0	1	2	3

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2. SCHOOL BOARD	:	16th May, 2014
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