ANXIETY AND DEPRESSION DURING PRE AND POST MENOPAUSAL PERIOD

A Thesis

Submitted to the University of Dhaka in partial fulfillment of the requirements for the degree of Master of Philosophy in Psychology.

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October, 2014

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DEDICATION

To my precious parents, MD. Abdul Hai Molla and Sultana Begum whose unconditional love and continuous support have made my present identity and the person I am.

This thesis is dedicated to my parents for their love, endless support and encouragement.

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DECLARATION

I hereby declare that this thesis is my own work and effort and that it has not been submitted anywhere for any award. Where other sources of information have been used, they have been acknowledged.

……………………..

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APPROVAL SHEET

This is to certify that I have read the thesis entitled **"Anxiety and depression during pre and post menopausal period"** submitted by Jebin Nahar in partial fulfillment of the requirements for the degree of Master of Philosophy in Psychology and that is an original study carried out by her under my supervision and guidance.

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ABSTRACT

The purpose of the present study was to investigate anxiety and depression during pre, and post menopausal period. The sample of the study was comprised of 150 (50 pre menopause, 50 during menopause and 50 post menopause) period. They were incidentally selected from different areas of Dhaka city. Anxiety was measured by the Bangla version of the Anxiety scale developed by Deeba & Begum (2004), and the Depression scale was developed by Uddin & Rhaman (2005). Analysis of Variance indicated anxiety and depression scores varied significantly ($p<.01$) between the three periods (pre, during and post menopause periods). Analysis of variance also indicated that anxiety and depression scores varied significantly ($p<.01$) according to different levels of education. "t" test indicated that anxiety and depression scores varied significantly($p<.01$) with the occupation of respondents. The result also showed that physical symptoms like joint pain, heart disease, gyaenocological problems, and diabetics were greater in post menopause period than in other periods. From the findings of the present study, it is suggested that education and awareness, counseling and psycho-education can be given to reduce these symptoms and help them to make better adjustment with the physical and psychological changes. Counseling can help the women prepare themselves pre, during and post menopause periods.

ACKNOWLEDGEMENT

At first, I would like to express my gratitude to the Almighty Allah, because he give me the necessary strength to complete my task.

I am extremely grateful to my research supervisor **Dr. Parvin Huque**, Professor; Department of psychology , University of Dhaka, for her active support, intellectual guidance, constructive instructions and continuous encouragement during research work. Her support and guidance provided me expedience and an exquisite perception of all technical knowledge – how to do the study, how to prepare study report. It would be quite impossible to carry out this study without her help, direction and co-operation.

Md. Nazir Ahamed, Professor is one of the best teachers that I have had in my life. He sets high standards for his students and he encourages and guides them to meet those standards.

I would like to special thanks Dr. Quazi Affifa sultana for continuous encouragement and helps. My M.phil degree would not have been possible with her helps.

I am extremely grateful to my Executive Director,RHSTEP,Quazi Suriaya Sultata to give me opportunity to finish to M. phil doing in jobs. Without her help it is quite difficult me to finish my thesis in time. So I grateful to her.

I am grateful to MD.Shaheen Molla, Assissant Profressor,University of Jagannath for his encouragement and practical advice. I am also thankful to him for reading my reports; commenting on my views and helping me understand and enrich my ideas.

I would like to thank Ifrat Jahan , who as a good friend, was always willing to help and give his best suggestions.

I would like to thank my best friend, Mohammad Shafiqual Islam Bhuiyan . He was always there encouraging me up and stood by me through the good times and bad.

I would like to thank Participates. This thesis would not have been possible without the participation of the subjects.

Last but not the least; I would like to thank my family: my parents Md. Abdul Hai Molla and Sultana Begum, for giving birth to me at the first place and supporting me spiritually throughout my life.

May the Almighty Allah richly bless all of you.

……………………..

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Introduction

One cool fall day, Shaila and Rashida were watching their teenagers play soccer when all of a sudden Shaila flushed and seemed to be sweating. Rashida asked if Shaila was okay. "Oh, it's a hot flash," Shaila said. "This is happening to me several times a week now—even at night. At first, I didn't know what was going on, but my doctor told me these are symptoms of menopause." Rashida laughed and said, "Yes, I remember hot flashes, but they're over now."

Menopause, or the "change of life," is different for each woman. For example, hot flashes and sleep problems may trouble your sister. Meanwhile, you are enjoying a new sense of freedom and energy. And your best friend might hardly be aware of a change at all.

Menopause is a normal part of life, just like puberty. It is the time of your last period, but symptoms can begin several years earlier. Some symptoms of menopause can last for months or years after. Changing levels of estrogen and progesterone, which are two female hormones made in your ovaries, might lead to these symptoms.

This time of change is known as the menopausal transition, but it is also called perimenopause by many women and their doctors. It can begin several years before your last menstrual period. Perimenopause lasts for 1 year after your last period. After a full year without a period, you can say you have been "through menopause**."** ***Post menopause"*** follows menopause and lasts the rest of your life.

The average age of a woman having her last period, menopause, is 51. But, some women have their last period in their forties, and some have it

later in their fifties. Smoking can lead to early menopause. So can some types of operations. For example, surgery to remove your uterus (called a hysterectomy) will make your periods stop, and that's menopause. But you might not have menopause symptoms like hot flashes right then because if your ovaries are untouched, they still make hormones. In time, when your ovaries start to make less estrogen, menopause symptoms could start. But, sometimes both ovaries are removed (called an ophorectomy), usually along with your uterus. That's menopause too. In this case, menopause symptoms can start right away, no matter what age you are, because your body has lost its main supply of estrogen.

1.1. Age at menopause

The median age of natural menopause is 51.4 years, with a range of 48 to 55 years. Menopause due to surgery may happen from the age of 22 years up to 48 years. It is expected that the age of menopause may be increasing, but studies have indicated that it has remained unchanged for centuries. The factors that may cause earlier menopause include: family history of early menopause, cigarette smoking, blindness, abnormal chromosome cerotype (Turner’s syndrome, gonadal dysgenesis), lifestyle, stress and chronic stress, and physical illness. Also, obesity and socioeconomic class tend to produce later onset of menopause (Dawood Yusoff, 2000).

1.2. Epidemiology of menopause

There is an increasing rate in the number of postmenopausal women in the United States and it will continue to increase as the population ages. In 1990, there were 52 million women in menopausal status from the 125 million women population. In addition, the statistical analysis indicated that from 1950 through 1991, the number of women at age of 65 years

has tripled from 6.5 million in 1950 to 19.0 million in 1991 (Dawood Yusoff & Tidey, 1993, cited from Dawood Yusoff, 2000). From 1990 to 1994 there has been further appreciable growth in the female population of the United States who are 45 years and older. With the current life expectancy of 80 years for women projected to increase to 81 years, now the women will spend at least 30 years, or more than one third of their lives after menopause. According to the World Health Organization, more than 20 % of the world population will be older than 60 years in 2020 (Dawood Yusoff, 2000) and more than half of this population will be women who spend the years after menopause.

1.3. Stages of Menopause:

Menopause occurs in a series of stages. While menopause is usually divided into two main stages, perimenopause and post menopause, it is more accurately divided into the following four stages:

1. **Pre menopause:** This refers to the fertile or reproductive stage of woman's life; it spans from the time of her first period to her last period. **This** phase refers to the age of 20-45 years. This period of women's life is identified as the reproductive time. At this time the menstrual cycles are regular, women have the ability to have children, ovaries are at the natural function, and women's body experience sufficient and adequate hormonal state (Dawood Yusoff, 2000).

2. **Perimenopause** refers to the time around menopause, which may last 2-10 years. Perimenopause usually refers to the two years before and after menopause. But it could be used for a wider time span. By presenting clear evidence of changes in ovarian function using objective endocrine measurements, or observing changes in

the menstrual period, we can use the term Perimenopause freely. Perimenopause is often marked by many symptoms, including hot flashes, mood swings, night sweats, vaginal dryness, trouble concentrating, and infertility. Depression often occurs around menopause (the perimenopausal period), when, in addition to hormonal changes, other factors such as cultural pressure (Dawood Yusoff, 2000) sudden recognition of aging, and sleeplessness are involved.

3. **Menopause** refers to the final menstrual period accompanied by the permanent cessation of ovarian function and menstruation (Dawood Yusoff, 2000). The sample of this study includes women who are at Perimenopause and Pre menopause classes of their menstruation. This stage is confirmed when a woman doesn't have a period for twelve consecutive months. Most women experience natural menopause, but some may experience artificial, or premature menopause. Natural menopause is caused by aging and occurs after a natural decline in estrogen and progesterone production. Artificial menopause usually follows a medical intervention, such as a hysterectomy, radiation treatment to the pelvic area or the removal of the ovaries. Premature menopause refers to when a woman stops menstruating before she is forty years old and can occur due to smoking, heredity or exposure to chemicals.

4. **Post menopause:** this term refers to the stage after a woman's last period; due to a decline in hormone levels, this stage brings with it a new set of health concerns, including heart disease and osteoporosis.

Stages	**Reproductive**			**Menopausal Transition**		**Postmenopause**		
	Early	Peak	Late	Early	Late	Early		Late
				Perimenopause				
Duration of stage	**variable**			**variable**		**1 year**	**4 years**	**until death**
Mentrual cycles	regular to variable	regular		variable cycle length (more than 7 days different than normal)	more than 2 skipped cycles and 260 consecutive days without a period	first full year of no menstrual periods	none	
FSH levels	normal		rising	rising		consistently above 40		

Source: Adapted from the Stages of Reproductive Aging Workshop

1.4. Signs of Menopause:

Often the first symptom of impending menopause is a change in bleeding patterns. Periods may become lighter or heavier, longer or shorter, the time between periods may increase and there may be occasional missed periods. These changes may occur gradually in some women, yet are more abrupt in others.

There are also a wide range of physical and psychological signs and symptoms associated with menopause. In some women they are very mild while in others they are more severe. They may last for only a few

months, or may continue for several years. The average length of time for menopausal symptoms to be experienced is three to five years.

Physical signs and symptoms may include:

- Hot flushes (occurring in approximately 60% of women)
- Sweats (often at night)
- Fatigue
- Headaches
- Joint and bone pain
- Palpitations
- Unusual skin sensations
- Vaginal dryness, incontinence and infections of the urinary tract and vagina may occur due to the thinning of the vagina and bladder walls.

Psychological signs and symptoms may include:

- Anxiety
- Reduced interest in sex
- Irritability and mood swings
- Difficulty concentrating
- Loss of confidence
- Forgetfulness
- Difficulty sleeping
- Depression.

1.5. Common effects of Menopause:

Two common health problems can start to happen at menopause, and it might not even notice.

1.5.1 Osteoporosis and Joint pain: Osteoporosis is a disease that weakens bones, increasing the risk of sudden and unexpected fractures. Literally meaning "porous bone," osteoporosis results in an increased loss of bone mass and strength. The disease often progresses without any symptoms or pain. There is a direct relationship between the lack of estrogen during perimenopause and menopause and the development of osteoporosis. Early menopause (before age 40) and any prolonged periods in which hormone levels are low and menstrual periods are absent or infrequent can cause loss of bone mass.

Joint pain affects many people as they get older and is also common among menopausal women. Aches, stiffness and swelling around the joint and sometimes heat are typical symptoms of menopausal joint pain. These may be worse in the morning, improving as the day continues. Joints which experience high impact such as the hips and knees tend to be most affected and it called 'menopausal arthritis.' Hands and fingers can also be affected. High impact exercise such as jogging can exacerbate the problem, although this is often eased with rest.

1.5.2 Heart disease: The loss of natural estrogen as women age may contribute to the higher risks of heart disease seen after menopause. Other factors that may play a role in postmenopausal risks of heart disease include:

- Changes in the walls of the blood vessels, making it more likely for plaque and blood clots to form.

- Changes in the level of fats in the blood (LDL, or "bad" cholesterol increases and HDL, or "good" cholesterol decreases).
- Increases in fibrinogen levels (a substance in the blood that helps the blood to clot). Increased levels of blood fibrinogen are related to heart disease and stroke since it makes it more likely for blood clots to form, narrowing the arteries and reducing blood flow to the heart.

1.6. The psychological effects of menopause

There are some common psychological features of menopause. These include increased moodiness, irritability and greater anxiety and fearfulness. Some women undergo depression and experience insomnia (inability to sleep). Others report a decreased libido. All these psychological symptoms form part of the menopausal syndrome, which follows reduced oestrogen in the body. Menopause, like puberty, is another time when women require a lot of reassurance. Menopausal women also have to cope with a changing self-image. Emotional disturbances and insecurity only worsen the uncomfortable symptoms of menopause. Two common effects of menopause among women is the developed of anxiety and depression.

1.6.1. Depression and Menopause

It is perfectly normal from women to experience signs of depression and anxiety at both a menopausal and perimenopausal stage of life. Such psychological conditions are common place amongst many people at various stages of their lives. Both psychological conditions are however 2 of the 34 menopause symptoms and if signs of such symptoms are manifesting at a perimenopausal stage of life, it can be indication that

women could suffer from the same condition later in life. Depression can happen to anyone of any age. It afflicts almost 19 million Americans each year, and up to one in five American women will suffer from clinical depression at some point in her life. Women are two to three times more likely than men to suffer from depression. Many women first experience symptoms of depression during their 20s and 30s.

As menopause symptoms, depression and anxiety during menopause is often common. Perimenopausal women may begin to exhibit signs of anxiety and depression in relation to the changes that their body may begin to go through.

Depression can range in severity of symptoms. Severe depression symptoms include thoughts of death or suicide, or losing interest in daily activities, according to psychguides.com. Milder depression symptoms include persistent feelings of fatigue, constant restlessness, trouble concentrating and difficulty sleeping.

Anxiety disorders are characterized by experiencing intense feelings of worry or being on edge, irrational thoughts, belief that something bad will happen, avoidance of everyday activities out of fear, and irritability, according to helpguide.org.

1.6.2. Anxiety and menopause

During menopause, many women experience increased anxiety. Some also deal with anxiety in the years leading up to full-blown menopause, a time called *perimenopause*. Anxiety can arise as general nervousness or worry, specific fears, recurrent panic attacks, or intrusive thoughts and associated compulsions. Anxiety can often occur in combination with

depression. Both pre-existing and newly diagnosed anxiety disorders can occur throughout all phases of menopause, including post-menopause.

While the exact connection between anxiety and menopause remains unclear, a complicated combination of factors common during this transitional time in a woman's life may contribute.

A woman's reproductive cycles can exert great influence over her emotional and mental health. The shifting levels of the hormones *estrogen* and *progesterone* play a part in the mood swings and ups and downs that accompany PMS and pregnancy. During menopause, those same hormones fluctuate and freefall, often impacting moods and possibly amplifying any anxiety symptoms a woman already feels. Some women who use hormone replacement therapy experience an increase in anxiety symptoms when they transition off the therapy.

The symptoms of menopause can worsen existing mood and anxiety problems. Night sweats, for instance, can wake a woman out of a sound sleep or make it difficult to get to sleep in the first place. Lack of sleep can lead to fatigue, which can in turn make a woman feel irritable and unable to concentrate.

Menopause happens at a time in life that is often associated with greater life stress. Midlife worries and responsibilities accumulate, and chronic stress can leave a woman vulnerable to anxiety. Common midlife stresses include taking care of both children and aging parents, as well as issues in relationships (divorce, widowhood), money, and career.

The way a woman feels about herself and her stage in life can factor into her overall mental health. The changes to a woman's body and appearance as she gets older and goes through menopause can worsen self-esteem

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that is already low. Some women experience disappointment about getting older or not being able to have children anymore.

Unhealthy lifestyle habits, like smoking and not getting enough physical activity, can also factor into a woman's vulnerability to anxiety, no matter what stage of life she is in.

Menopause and anxiety disorders have some similar symptoms, including racing or irregular pulse and pounding heart, sweating, skin flushing, and mood swings. Overlapping symptoms can make it harder to know what is due to an anxiety disorder and what is due to symptoms of menopause. A woman may not receive the treatment she needs if anxiety symptoms are dismissed as "all part of the process."

Anxiety can even make certain menopause symptoms worse. In one study, women with even moderate anxiety were found to be about 3 times as likely to suffer through hot.

1.7. Identify of depression and anxiety during perimenopause :

As previously mentioned depression and anxiety during perimenopause is a common occurrence as feelings of sadness and apprehension affect most human beings at some point in their life. Depression and anxiety during perimenopause can be identified by such feelings becoming so overwhelming that they begin to interfere with a woman’s day to day life. Many elements in a woman’s life can be responsible for such feelings and in order to treat them it is necessary to identify such factors.

1.8. Causes of depression and anxiety during perimenopause:

The causes of depression and anxiety during perimenopause can be split into two distinctive categories and these are either physical or psychological.

- **Physical cause of depression and anxiety during perimenopause:**
  The physical cause of depression and anxiety during perimenopause is usually a hormone balance.

Psychological causes of depression and anxiety during perimenopause:

- Heredity diseases that can be triggered by chemical imbalances can sometimes be responsible for depression and anxiety during perimenopause.
- Daily stress and overwork are often related to depression and anxiety during perimenopause.

1.9. Review of Literature:

Menopause takes place when a woman stops ovulating and menstruating and can no longer concessive a child; it is generally considered to have occurred 1 year after the last menstrual period. For American women, this typically happens between ages 45 and 55, at an average age of 51. Some women, however, experience menstrual changes in thirties; other, not until their sixties. The period of 2 to 5 years during which a women body undergoes physiological changes that bring on menopause is the climacteric, popularly known as the "change of life". The ovaries and adrenal glands begin to produce less of the female hormone estrogen, and menstruation usually becomes irregular, with less flow than before and a longer time between menstrual periods.

Table: 1

Changes in Human Reproductive Systems During Middle Age	
Female	
Hormonal change	Drop in estrogen and Progesterone
Symptoms	Hot Flashes, vaginal dryness, urinary dysfunction
Sexual Changes	Less intense arousal, less frequent and quicker orgasms
Reproductive capacity	Ends

The term menopause refers to the cessation of the menses. Since men do not menstruate. They do not experience menopause. The term climacterium refers to the loss of reproductive ability. In women these events are two sides of the same coin since. When the menstrual cycle ends, reproductive ability also comes to an end. In men there may be a climacterium late in life when fertile sperm are no longer produced. Some men remain the ability to produce offspring into extreme old age, however (Harman & Tallbert. 1985, p. 478).

Menopause typically occurs between the ages of 48 and 51 in a wide variety of populations (Talbert, 1977). For example, the age of menopause in Japanese, Caucasian, Chinese, and Hawaiian women in Hawaii was between 49 and 50 and was unrelated to the age at which the women began menstruating (Goodman, Grove & Gilbert, 1978).

The onset of menopause may not be sudden, but may be preceded by some irregular cycles and menses. Once it has stopped, however, it does not begin again and any renewed “menstrual” flow should be checked by a physician to determine the cause (Comfort, 1976).

Although it is not clear why menopause occurs, it appears that the ovaries stop responding to the gonadotropic stimulation from the pituitary, which had regulated the menstrual cycle since puberty. Only a small fraction of the number of acolytes that are present at birth are ovulated during the women's reproductive years; about half appear to be lost by the age of puberty, and those that do not become ova are lost by the process of artesian (atrophy of follicles) by the age menopause begins (Harman & Talbert, 1985).When the ovaries no longer response by bringing an ova to maturity and do not produce estrogens and progestin's, menopause occurs and the menstrual cycle ends.

Hormone production is an important change during menopause. There is a marked drop in levels of estrogens and progestin's that are produced by the ovaries and a related increase in the gonadrotropic hormones (FH and LH) that are produce by the pituitary to stimulate the ovary (Figure 5.3) , which after menopause, does not respond. Small amounts of estrogens continue to be produced in other parts of the body; for example, body fat converts androgens into estrogens and this appears to increase after menopause. There is little decline in the levels of androgens in women after menopause, unless the ovaries have been removed (Harman & Talbert, 1985, p. 467). Thus, there is a shift in the relative amounts of estrogens and progestin's (the predominant hormones in women) and androgens (the predominant hormone in men).

In contrast to women's menopause, men do not experience a sudden decline in hormone production during adulthood. Some studies have found a gradual decline in testosterone (an androgen) beginning about age 50, although there was considerable individual variation: some men between the ages of 70 to 90 had very low levels but others had normal or even higher levels of testosterone. Physical health may be a factor since

some studies that selected older men on the basis of good health found no age difference in levels of testosterone between younger and older men (Harman & Talbert, 1985, pp. 481-482).

In the past, such problems as irritability, nervousness, anxiety, depression and even insanity were blamed on the climacteric, but research shows no reason to attribute mental illness to this normal change. In fact, clinical depression is more common in younger women juggling work and family roles. Only about 10 percent of healthy women develop symptoms of depression as they after menopause, and those symptoms tend to be slight; the vast majority do not become depressed (Matthews, 1992).

Women who do become depressed tend to be those who are anxious, pessimistic, or under chronic stress (Bromberger & Matthews, 1996).

The myth that menopausal produces depression say derive from the fact that women at this time are undergoing changes in roles, relationships, and responsibilities. These changes may be either stressful or exciting, and how a woman perceives them can affect her view of menopause. In one study, most women reported less stress after menopause than before (Matthews, 1992).

Psychological problems at midlife are more likely to be caused by attitude than by anatomy, and especially by negative societal views of aging. In cultures that value older women, few problems seem to be associated with menopause (Dan & Bernhard,1989; see Table-1).

Also contrary to myth, most women experience little or no physical discomfort during the climacteric (NIA, 1993).

About 85 percent have “hot flashes”(sudden sensations of heat that flash through the body) due to expansion and contraction of blood vessels, but

only 30 percent call them severe (Oldenhave, Jaszman, Haspels & Everaerd, 1993).

Other Possible symptoms, which affect a small minority of women, include vaginal dryness, burning, and itching; vaginal and urinary infections; and urinary dysfunction caused by tissue shrinkage. Some women do not become sexually aroused as readily as before, and some find intercourse painful because of thinning vaginal tissues and inadequate lubrication. Small doses of the male hormone testosterone may solve the first problem, and use of water-soluble gels can prevent or relieve the second. The more sexually active a women is, less likely she is to experience such changes (Katchadourian, 1987; Spence, 1989).

Other physical problems reported by menopausal women include joint pain or muscle pain, headache, insomnia, and fatigue (Valde & Van Leusden, 1994).

The menopause has been described as a deficiency disease associated with a wide variety of Physical and psychological symptoms including hot flushes, night sweats, dyspareunia, urinary frequency, sleep disturbance, tiredness, depression and anxiety. (Neugarten B, Kraines R, 1965; Studd J. Watson N, Henderson A, 1990.

While the psychological disorders during the climacteric have been related to estrogen deficiency, there is no specific symptom of the menopause.(Aylward M, 1976; Matthews et al. 1990).[3,14]

Many symptoms have been attitude to menopause. These are somatic symptoms (numbness, muscle pain, palpitation, dizziness) vasomotor symptoms (hot flushes and sweating) and psychological symptoms (anxiety, depression, fatigue, irritability, insomnia, weakness , memory

impairment)(Polo-Kantola P, Erkkola R, Helenius H, Irjala K , Polo O, 1998.

There is controversy about the psychological symptoms of the menopause. High socioeconomic status is associated with lower depression rates. (Eaton WW, Kessler LG, 1982; Murrell et al. 1993, [9,15]

Anxiety and depression during the preimenopausal period are more than in the menopausal period (Stward et al.1992).

Avis et al.(1994) stated that onset of natural menopause was not associated with increased risk of depression. Experiencing a long perimenopausal period (27 months), was associated with increased risk of depression. And they thought that this association was because of increased menopausal symptoms rather the menopausal status itself.

Pearlstein et al.(1997) stated that depression rates did not increase during the menopause but mild mood and anxiety symptoms increased in the few years prior to menopause. In patients who have affective disorders that are cyclic or that are associated with reproductive events, the depression risk is increased during the menopause.

Bebbington et al. (1998) stated that depression rate was higher in women before 55 years of age. After this it was higher in men. This difference could not be explained by marriage status, child care or employment status. This may be linked to the menopause. The cause of depression during the menopause are not only social problems such as children leaving home, the death and illness of family members, the stresses of daily living, onset of chronic disease but also biological factors.

The psychological disorders during the climacteric can only be adequately diagnosed and treated if the gynecologist is aware of their possible existence. During this period, psychoneurotic and psychosomatic reactions are common but psychotic reactions are rare.

Freeman et al. (2005) recently observed anxiety was strongly associate with hot flashes in American and causation women in the Penn Ovarian aging study, women with moderate anxiety scores were their times more likely and women with high anxiety scores were five times more likely to report hot flashes compared to women with normal anxiety scores. The association of anxiety with hot flashes was independent of race, smoking behavior, BMI, age, estradiol level and the presence of depressive symptoms.

Masoumeh.et al.(2012) showed that the severity of menopausal symptoms had significant difference with educational levels. Several studies have shown that women who had longer education, reported milder menopausal symptoms (Gharaibeh et al. 2010; Shafie et al. 2011; Lee & Kim 2005). But one study in Taiwan showed that educated women had more menopausal symptoms compared to less - educated women. (Cheng et al.2005).

Gharaibeh et al. (2010) conducted a study which showed that severe, moderate and mild symptoms were experienced by 15.7%; 66.9%; 17.4% of women respectively and there was a significant correlation between the severity of menopause symptoms and age, educational level, income menopausal status and number of children.

Singh and Singh.(2006) that 32 post-menopausal and 32 pre-menopausal patients aged between 40-55 years to investigate the anxiety and depression at postmenopausal women, the Beck depression scale showed

highly significant difference whereas, State Trait Anxiety Inventory (STAI) I and II resulted statistically significant difference and therefore concluded that depression and anxiety rate is significantly higher among menopausal women. This study showed that in working or well paid employed women, the prevalence of symptoms was less reported. Perhaps a more active lifestyle, with a focus on work may distract women from noticing some of the adverse experiences. Being unemployed for either personal or health reasons was also a source of stress or anxiety.

Some previous research showed that Pre menopausal women with vasomotor symptoms have more psychological and somatic symptoms and stress, independently of the vital events, family dysfunction, or poor social support. Vasomotor symptoms in the pre menopause are associated with increased risk of anxiety. (Blumel et al. 2004).

Aaron et al. in their studies confirmed that family factors exerted on especially strong effect on the level of depression of post menopause period. A very high level of depression was observed in menopausal women who experienced physical and psychological violence in the family. (Mouton et al. 2010).

Kakkara et al. (2010) showed that working women had a higher proportion of psychological symptoms while the non-working or housewife women had a higher proportion of somatic symptoms among the study subjects.

Atrophic changes in the genital tract occur with menopause and are associated with symptoms including vaginal dryness, irritation, itching, infection and dyspareunia.(NAMS;2000).

A study conducted in India by Govil in 2007 reported headache (38.8%); abdominal pain (31%), eye problem (28.1%); hypertension (23.8%), muscle and joint pain (32.8%) and diabetes (8.7%) as common general problem.

According to Yang et al. menopausal symptoms in mid-life women in southern China in 2008 reported joint pain and muscle pain in 33.7% women.

1.10. Rationale of the study:

Menopause may have a significant effect on women's quality of life. Due to the resulting lack of female hormones, women suffer from various kinds of physical and psychological problems.

Anxiety and depression during the preimenopausal period are more than in the menopausal period (Stward et al.1992).

Avis et al.(1994) stated that onset of natural menopause was not associated with increased risk of depression. Experiencing a long perimenopausal period (27 months), was associated with increased risk of depression. And they thought that this association was because of increased menopausal symptoms rather the menopausal status itself.

Avis and Colleagues (2001) detected that besides Vasomotor symptoms, psychological symptoms consistently seven percent of pre menopause subjects reported depressed mood symptoms and this increased to 30.5% and 37.7% in early and late menopause respectively but declined to 24.6% in post menopausal women (Bosworth et al.2001)

Many studies found different health problems in women to some extent. Bangladesh Institute of Research for Promotion of Essential & Reproductive Health and Technologies (BIRPERHT) conducted a study on menopausal women. Among the respondents, 71.1% had depression, 41.4% had waist pain, 34% had experienced sudden warm sensation, 22.8% showed vertigo, 10.5% showed burning sensation in hands/feet, 10.7% occurred swelling. Various mental problems were reported by the women during menopause like restlessness, ill temperament, increased feeling of stress, insomnia etc.

Menopause is a largely neglected issue in public health of developing countries like Bangladesh. Women towards the end of reproductive years suffer from various physical and psychological problems. Menopause is associated with increase risk of cardiovascular diseases, osteoporosis and ovarian, breast and uterine cancer. Anxiety and depression are also associated with menopause. The social custom of respect and care for the old does not cause much problem in general. The global increase in women's life span with the added problems of old age has impacted on Bangladeshi women. There are 28–30 million women (49% of the total population) and elderly women are increasing in number (3–5% aged ≥ 46). The average age of menopause is 51 years and the average life span of women is now 62 years. Under such circumstances, it was thought mandatory that a society be formed for the care of a population that was increasing in such numbers. So it is an important life event that warrant special health care at that time. In this country, there is very limited awareness of menopause and its consequences.

From the intensive literature reviewed it is seen that anxiety and depression during menopause affects a women normal routine life-occupational, physical, family relationship and other important areas of functioning.

Depression and anxiety may have detrimental effect not only on the women's life but also on other family members. Therefore, the present study will attempt to assess the level of depression and anxiety among women pre, during and post menopause.

The findings of the study will help the mental health professional and others to take extra care of these women so that proper counseling can be given to reduce these symptoms and help them to make better adjustment

with home work and other areas of functioning. Counseling can help the women prepare themselves before and also during and after menopause, they are giving services.

1.11. The present study

The present study will investigate the level of depression and anxiety during pre and post menopausal period.

1.12. Objectives of the study

1. To assess of anxiety and depression among women during pre, during and post menopause.
2. To see the levels of anxiety and depression among women during pre, during and post menopause.
3. To see whether anxiety and depression varies with the family type, and other factors such as income, occupation etc.
4. To assess the physical symptoms developed during pre, during and post menopause such as joint pain, heart disease and other gyaenocological problems.

Operational Definitions:

1. **Anxiety:** anxiety scale would measure the presence and severity of anxiety in the women. This scale have 36 item .The highest scored of anxiety scale was 144 and lowest possible score was 0.The total score of the respondents can be categorized into four levels of severity. Score ranges for mild, moderate, severe and profound severity were 27-54, 55-66, 67-77, and 78-144 respectively.

2. **Depression:** A depression scale would be useful for the assessment of severity as well as for the screening of depression. The depression scale consisted of 30 items or statements with printed instruction. The highest possible score of 30-item from of depression scale was 150 and the lowest possible score was 30. Higher score indicated higher depression, and lower score indicated low level of depression. It was indicated to categorize the subjects into four levels of severity. Score range for minimal, mild, moderate, and severe were 30-100, 101-114, 115-125 and 125-150 respectively.

3. **Pre menopause:** It phase refers to the age of 40 to 45 years. This period of women's life is identified as the reproductive time.

4. **During menopausal women:** It refers to the women who are in the age group of 45 to 49, who has attained the menopause.
5. **Post Menopausal women:** It refers to the women who are in the age group of 50 and above, who has attained the menopause.
6. **Post menopausal Health problems**

In this study it refers to selected physical problems during pre, during and post menopause. The health problems are:

1. Heart disease
2. Joint pain
3. Diabetics
4. Gyaenocological problems
5. Blood pressure.

Method

2.1. Sample and sampling Technique:

The sample of present study was comprised of 150 (50 Pre Menopause, 50 during menopause and 50 post menopause female whose ages were between 40-60 years). The respondents were selected by purposive sampling method from different areas of Dhaka city. Demographic Characteristics of the Respondents (N = 150) are presented in table-2.1.1

Table -2.1.1: ***Demographic Characteristics of the Respondents (N = 150)***

Variable	Menopause periods			Total
	Pre-menopause *n (%)*	During-menopause *n (%)*	Post-menopause *n (%)*	*n (%)*
Marital Status				
Unmarried	2 (4)	6 (12)	0 (0)	8 (5.3)
Married	43 (86)	34 (68)	26 (52)	103 (68.7)
Widow	5 (10)	10 (20)	24(48)	39 (26)
Education				
Below-S.S.C	25(50)	28(56)	29(58)	82(54)
H.S.C	9(18)	3(6)	11(22)	23(15.3)
B.A/ B.Sc	7(14)	8(16)	6(12)	21(14)
Masters	9(18)	11(22)	4(8)	24(16)
Occupation				
House wife	21(42)	29(58)	31(62)	81(54)
Service holders	29(58)	21(42)	19(38)	69(46)
Family Type				
Single family	41(82)	36(72)	31(62)	108(72)
Join family	9(18)	14(28)	19(38)	42(28)

Table 2.1.1 show that among the total respondents 68.7% were married. And most of the respondents in pre-menopause and during menopause period were married. But in post-menopause period 52% respondents were married and 48% were widow. It is evident that among the total respondents 54% were below-S.S.C. And most of the respondents in during and post menopause periods were below –S.S.C. But in pre menopause period 50% respondents were below-S.S.C. Among the total respondents 15.3% were H.S.C. And most of the respondents in pre menopause (18%) and post menopause (22%) periods were H.S.C. But in during menopause respondents 14% were B.A/B.sc. And most of the respondents in during menopause and pre menopause (14% and 16%) were B.A/B.Sc. But in post menopause period 12% were B.A/ B.Sc and 8% were Masters. It is evident that among the total respondents 54% were housewives. And most of the respondents in post menopause and during menopause were housewives. But in pre menopause period 42% respondents were housewives and 58% were service holders. It is evident that among the total respondents 72% were single family. And most of the respondents in pre menopause and during menopause period were single family. But in post menopause period 62% were single family and 38% were joint family.

Sampling criteria:

The criteria used for the respondents were:

1. Respondents who were willing to participate.
2. Pre menopausal women in the age of 40-44 years.
3. During menopausal women in the age of 45-49 years.
4. Post menopausal women in the age of 50-above years.

5. Sick or persons with physical or mental handicap (e.g. bed ridden, short of hearing, poor eye sight dementia) were excluding in the study.

2.2. Instruments used:

2.2.a. Demographic data sheet : A Demographic and Personal Information Questionnaire was used to collect information about age, marital status, education, occupation, monthly income, social status , duration of menopause, physical problems, gynecological problem, family type.

2.2.b. Anxiety Scale : An anxiety scale would measure the presence and severity of anxiety in the women. Thus this scale can be used for therapeutic assessment, for screening of anxiety and in research. The anxiety scale, which is used in this study, was developed by Deeba and Begum (2004). This scale consisted of 36 items. All the items of the scale were positive and were complied in Likert format with five options. For each response on each item, a score was assigned 0 for "never occurs", 1 for "mildly occurs", 2 for "moderately occurs", 3 for "severely occurs", and 4 for "profoundly occurs". Total anxiety score of any individual was obtained from sum total of scores of all the 36 items. A larger total score indicates higher anxiety. The highest possible score of 36 item from of anxiety scale was 144 and lowest possible score was 0. The total score of the respondents can be categorized into four levels of severity. Score ranges for mild, moderate, severe and profound severity were 27-54, 55-66, 67-77, and 78-144 respectively.

Reliability: Split-half reliability (r = .916, œ = .01), Cranach alpha reliability (r = .9468). And the test rest reliability (r = .688, œ = .01) indicate that the anxiety scale has good reliability.

Validity: Significant (œ = .01) correlations wit external criterions (Psychiatrists' rating, r = .317; Patients' self-rating, r = .59; HADS, r = .628) indicate that the scale has criterion r = .748, œ = .01) indicate that the scale also has good construct validity.

2.2.c. Depression Scale : A depression scale would be useful for the assessment of severity as well as for the screening of depression. It was also considered to use it in a therapeutic session and research. The depression scale developed by Uddin and Rahman (2005), which is used for the present study. The depression scale consisted of 30 items or statements with printed instruction. All of the items were positively stated. The answer options for each item of the scale were according to 5 point rating scale. In depression scale, "not at all applicable" was scored 1, "not applicable" was scored 2, "uncertain" was scored 3, " a bit applicable" was scored 4 and " totally applicable" was scored 5. Sum of all values indicated total score on the scale. The highest possible score of 30-item from of depression scale was 150 and the lowest possible score was 30. Higher score indicated higher depression, and lower score indicated low level of depression. Total score of the respondents reveal their levels of depression. It was indicated to categorize the subjects into four levels of severity. Score range for minimal, mild, moderate, and severe were 30-100, 101-114, 115-125 and 125-150 respectively.

Reliability: Both the split-half reliability (Guttman split-half r = .7608) and test-retest reliability (r = .599) of the present depression scale ensured that the scale was a reliable instrument.

Validity: Estimation of concurrent Validity (by rating scales) shows that, rating of depression by the psychiatrist (r = .377) and self-rating of depression by the patients (r = .558) were positively correlated

with the obtained scores on the current depression scale ($p < .01$). Discriminability ($F = 85.386$, $p < .01$) concluded that the depression scale has reasonably high concurrent validity. The depression scale was found to be positively correlation with the depression sub-scale of the Hospital Anxiety and Depression Scale (HADS) (Person correlation, r = .716 at œ = .01). It is a good indicated of construct validity of this depression scale.

2.3. Procedure:

The above instruments were administered individually to the members of the sample. They were informed of the purpose of the present study and necessary rapport was established before administering the questionnaires. The respondents were instructed to read the items of the scales attentively and to respond rapidly. All necessary clarifications were made regarding the items. They were asked to give tick (✔) mark in the appropriate box. They were also requested not to omit any item in the questionnaire and told that there was no right or wrong answer and no time limit for answering. They were assured that the data would be kept confidential and would be used only for research purpose. Some respondents showed resentment, because of the lengthy questionnaires. In case of illiterate respondents, the researcher explained the items and filled up their responses accordingly. After finishing the job they were given lots of thanks. To administer all the approximate average time required were forty to fifty minutes per individual respondent.

2.4. Statistical analysis:

Statistical package for social sciences (SPSS) version 16.0 was used for data analysis. The following Statistical analysis were performed.

1. Descriptive statistics : Descriptive statistics for each variable was calculated (Mean and Standard Deviation)
2. T test (two tailed): t-test was computed to see if depression and anxiety as a function of occupation and family type.
3. One way ANOVA: one way ANOVA was computed to see if depression and anxiety as a function of education.

2.5. Ethical considerations:

Ethical issues were considered for the present research. Before interviewing, a written informed consent was obtained from the respondents. The participants were assured that the collected data only used for the research purpose and kept it confidentiality.

Results

The purpose of the study was to investigate anxiety and depression during pre and post menopause. The objectives of the present study were-

1. To assess anxiety and depression among women during pre, during and post menopause period.
2. To see the levels of anxiety and depression among women during pre, during and post menopause periods.
3. To see whether anxiety and depression varies with family types, and other factors such as education, occupation etc.
4. To assess the physical symptoms developed during pre, during and post menopause such as joint pain, heart disease and other gynecological problems.

Anxiety and depression assessed in the dissertation were analyzed using appropriate statistical technique. Results of the analysis are presented in three sections.

Section-1 : Anxiety and Menopause period

1.1. Describes anxiety during pre, during and post menopause period.

1.2. Describes anxiety during pre, during and post menopause period according to family type, education, occupation.

Section -2: Depression and Menopause period

2.1. Describes depression during pre, during and post menopause period.

2.2. Describes depression during pre, during and post menopause period according to family type, education and occupation.

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Section -3: Physical symptoms and Menopause

3.1. Describes the physical symptoms developed during pre, during and post menopause period such as Joint pain, heart disease and other gynaecological problems.

In this study, the respondents' anxiety and depression scores were analyzed by using Mean, SD, t – value and one way analysis of variance.

Table 3.1 ***Levels of Anxiety of the three groups of Respondents (N = 150)***

	Anxiety Levels				
Respondents Type	Below Cut Off *n (%)*	Mild *n (%)*	Moderate *n (%)*	Severe *n (%)*	Profound *n (%)*
Pre-menopause	35 (70)	8 (16)	3 (6)	2 (4)	2 (4)
During-menopause	23(46)	17(34)	7(14)	2(4)	1(2)
Post-menopause	8(16)	14(28)	16(32)	7(14)	5(10)
Total	66(44)	39(26)	26(17)	11(7.3)	8(5.3)

Table 3.1 indicates that in pre-menopause period 16% respondents were in mild anxiety level, 6% were in moderate, 4% were in severe, and 4% were in profound anxiety level. The table also shows that during menopause period 34% respondents were in mild anxiety level; 14% were in moderate; 4% were in severe and 2% profound anxiety level. Whereas in post menopause periods 28% respondents were in mild anxiety level; 32% were in moderate 14% were in severe and 10% were in profound anxiety level.

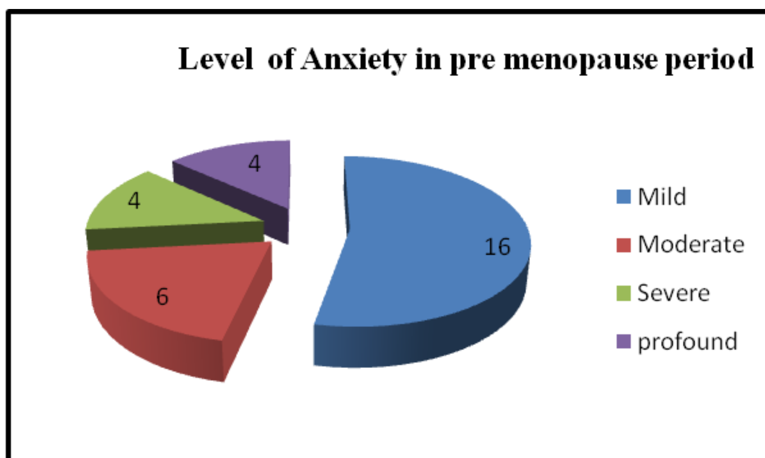

Fig-: 3.1.1 Level of Anxiety in pre menopause period.

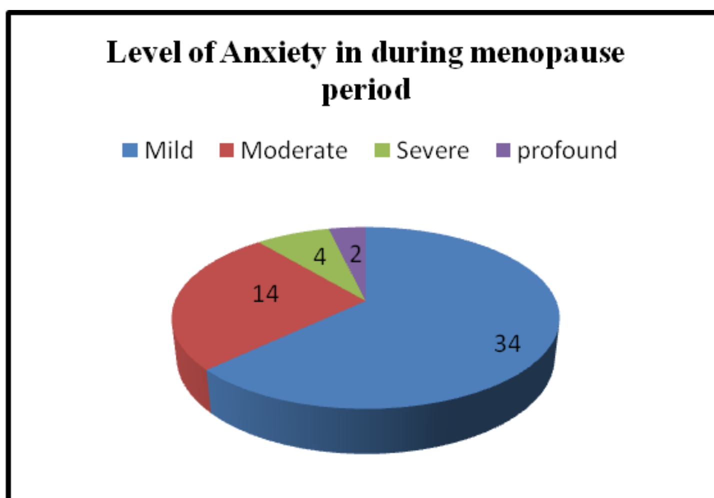

Fig- 3.1.2 Level of Anxiety in during menopause period.

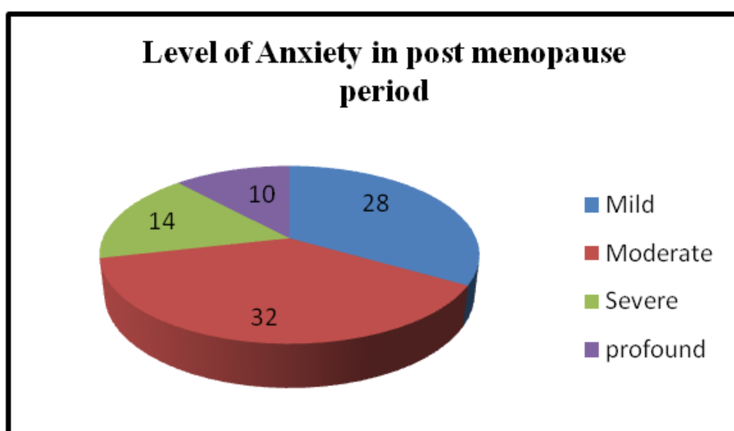

Fig-3.1.3: Level of Anxiety in post menopause period.

Table 3.2 ***Mean, Standard Deviation of Anxiety Scores of the Respondents with F Value (N = 150)***

Respondents	*N*	Mean	*SD*	*F*
Pre-menopause	50	32.60	19.58	
During-menopause	50	40.60	18.24	24*
Post-menopause	50	56.87	15.45	

$^*p < .01$

Table 3.2 shows that respondents in post menopause had the highest anxiety score ($\bar{X}$= 56.87, SD = 15.45), whereas the anxiety scores in pre menopause and during menopause were ($\bar{X}$= 32.60, SD = 19.58) and ($\bar{X}$= 40.60, SD = 18.24) respectively. The table indicates that anxiety scores varied significantly ($F_{2,147,.01} = 24$) with the three menopause periods (pre, during & post).

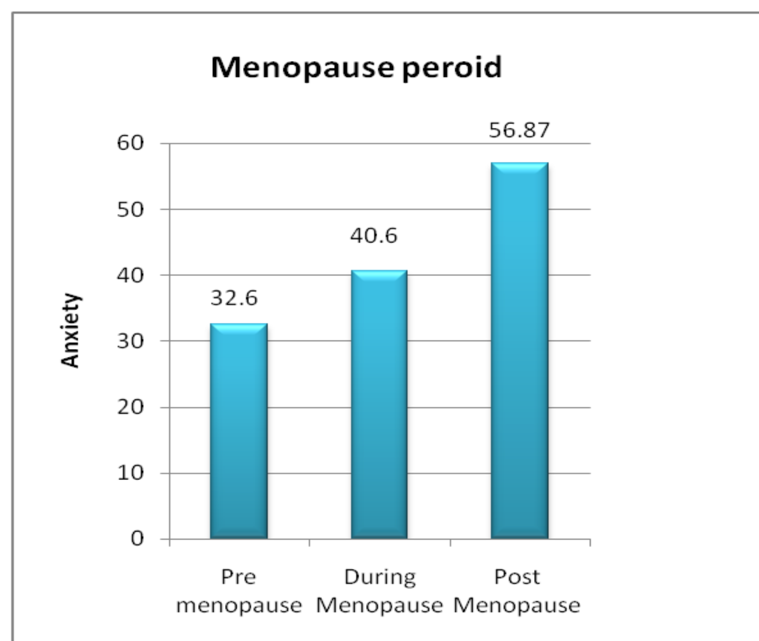

Fig-3.2.: Mean of Anxiety Scores among women during three periods (pre, during and post)

Table 3.3 ***Mean, Standard Deviation of Anxiety Scores according to Education with F value***

Education	*N*	Mean	*SD*	*F*
Below-SSC	82	49.98	19.20	
HSC	23	44.78	19.36	11.16*
BA/BSC	21	34.19	20.11	
Masters	24	27	13.66	

*$p < .01$

This table shows the anxiety scores among women during the three periods (pre, during and post) with below-S.S.C had highest ($\bar{X}$ = 49.98; SD=19.20), whereas women with Masters Degree had the lowest ($\bar{X}$ = 27; SD=13.66). The table also indicates that anxiety scores varied significantly ($F_{3,146,.01}$ = 11.16*) with the three menopause periods (pre, during & post) according to education .

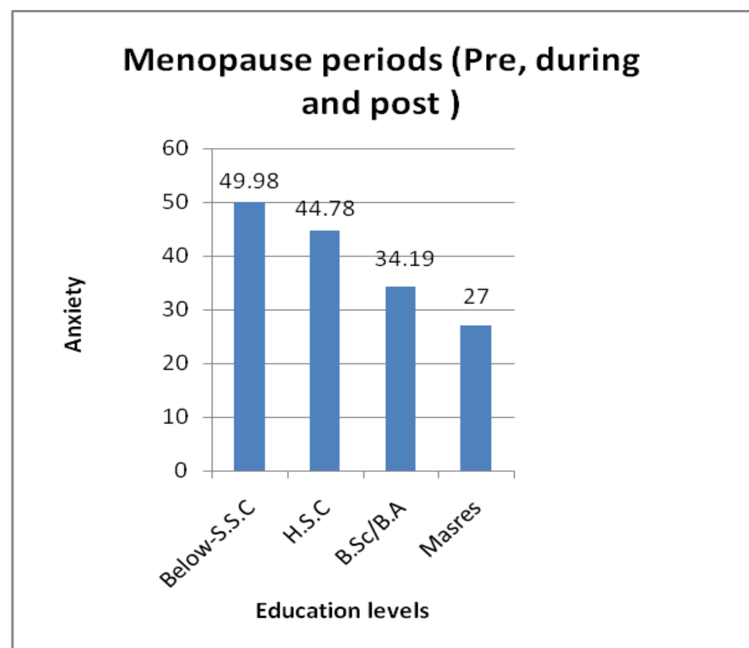

Fig-3.3 : Mean of Anxiety Scores among women during three periods (pre, during and post) according to education.

Table 3.4 ***Mean, Standard Deviation of Anxiety Scores according to Occupation with t value***

Occupation	*N*	Mean	*SD*	*t*
House-wife	81	49.09	18.66	
Service	69	36.60	20.43	3.91*

*$p < .01$

This table shows that during the three periods (pre, during and post) the anxiety scores of house wives ($\bar{X}$= 49.09; SD= 18.66) were higher than service holders ($\bar{X}$= 36.60; SD= 20.43). The table also indicates that anxiety scores varied significantly ($t_{,148,.01}$ = 3.91) with the occupation of respondents.

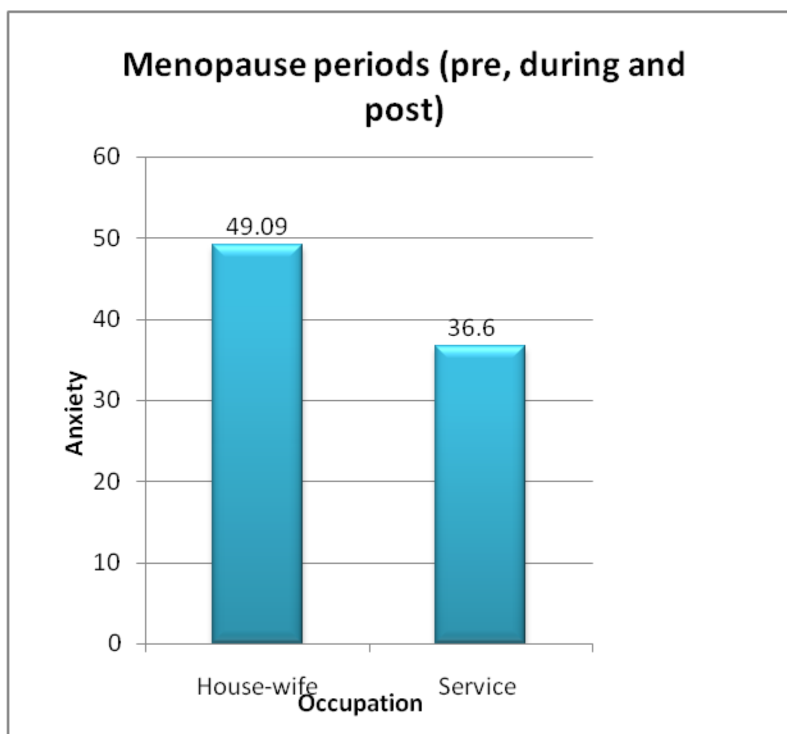

Fig-3.4: Mean of Anxiety Scores among women during three periods (pre, during and post) according to occupation.

Table 3.5 ***Mean, Standard Deviation of Anxiety Scores according to Family Type with t-value***

Family Type	*N*	Mean	*SD*	*t*
Single	108	42.10	21.13	-1.2
Joint	42	46.57	18.28	

The above table shows the mean anxiety scores of women during the three periods (pre, during and post) living in joint families was the highest ($\bar{X}$ =46.57, SD=18.28) whereas women living in single families was the lowest ($\bar{X}$=42.10, SD= 21.13). The table also indicates that no significant difference ($t_{=-1.2,df=148,.01}$) in anxiety scores was found with the types of family

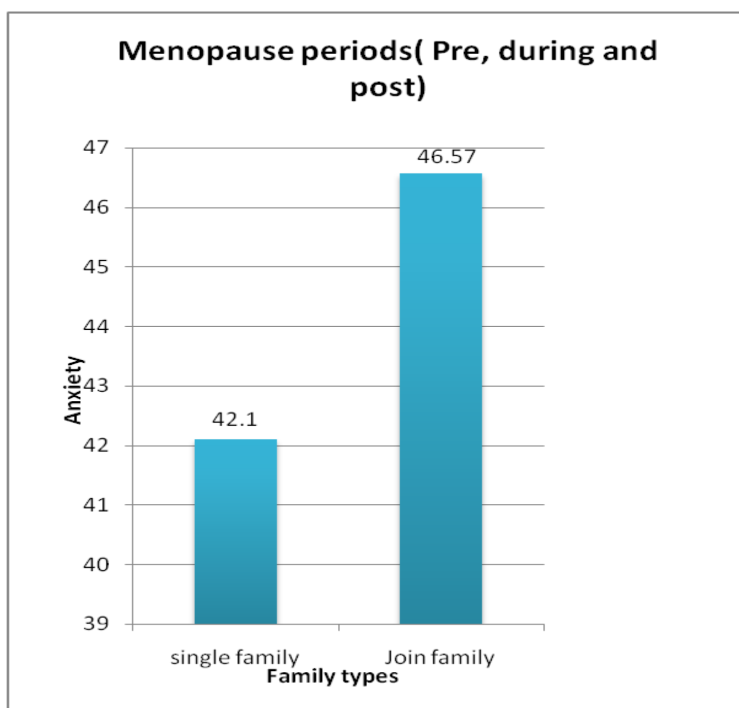

Fig-3.5 : Mean of Anxiety Scores among women during three periods (pre, during and post) according to family type.

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Table 3.6 ***Level of Depression of the three groups of respondents (N = 150)***

Respondents Type	Depression Levels			
	Minimal *n* (%)	Mild *n* (%)	Moderate *n* (%)	Severe *n* (%)
Pre-menopause	43(86)	6(12)	1(1)	0(0)
During-menopause	39(78)	8(16)	3(6)	0(0)
Post-menopause	16(32)	17(34)	14(28)	3(6)
Total	98(65.3)	31(20.7)	18(12.0)	3(2)

Table 3.6 indicates that in pre-menopause period 86% respondents were in minimal depression level, 12% were in mild, 1% were in moderate depression level. The table also shows that in during menopause period 39% respondents were in minimal depression level; 16% were in mild; and 6% were in moderate depression level. Whereas in post menopause periods 32% respondents were in minimal depression level; 34% were in mild; 28% were in moderate; and 6% were in severe depression level.

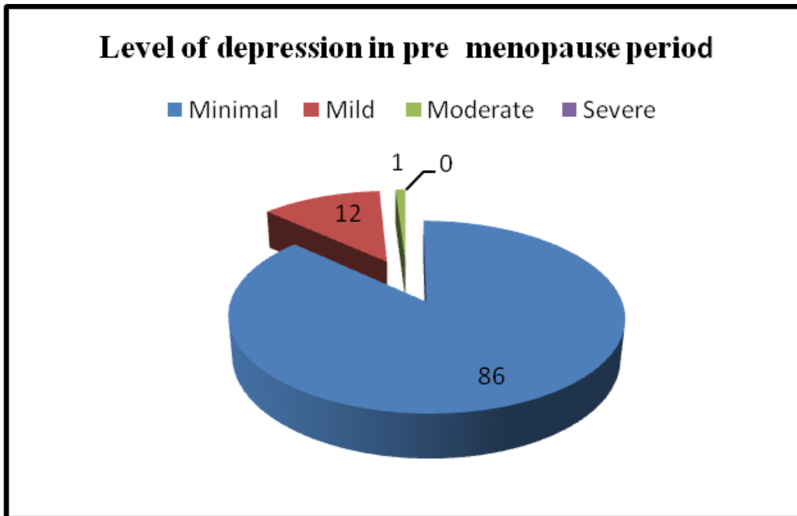

Fig-3.6.1: Level of depression in pre menopause period

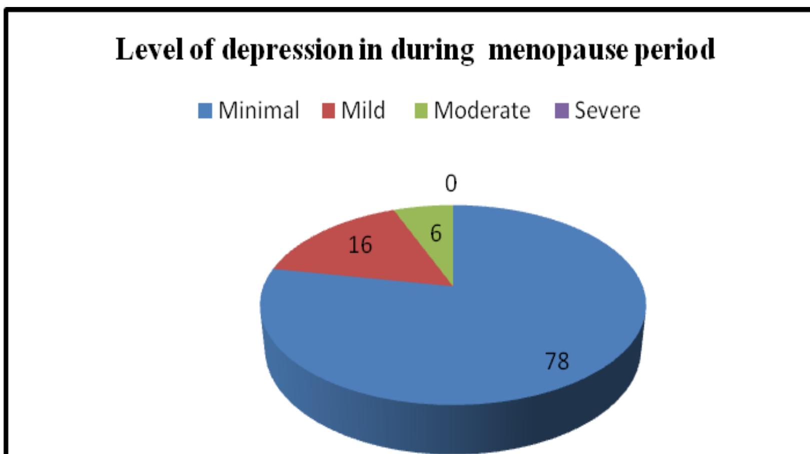

Fig-3.6.2 : Level of depression in during menopause period

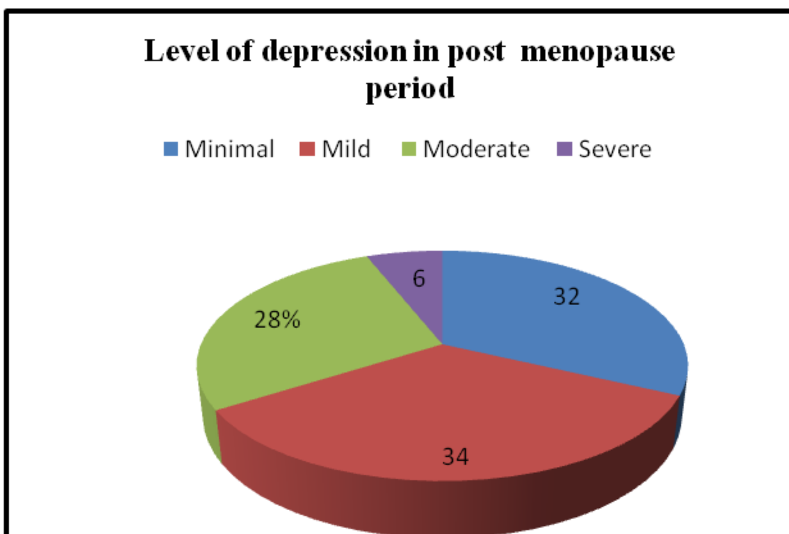

Fig-3.6.3 : Level of depression in post menopause period.

Table 3.7 ***Mean, Standard Deviation of Depression Scores of the Respondents (N = 150) with F value***

Respondents	*N*	Mean	*SD*	*F*
Pre-menopause	50	60.64	24.48	39.78*
During-menopause	50	75.14	22.85	
Post-menopause	50	100.38	20.08	

$*p < .01$

The above table shows that respondents in post menopause had the highest depression score ($\bar{X}$= 100.38, SD = 20.08), whereas the anxiety scores in pre menopause and during menopause were ($\bar{X}$ = 60.64, SD =24.48) and ($\bar{X}$ = 75.14, SD = 22.85) respectively. The table also indicates that anxiety scores varied significantly ($F_{2,147,.01}$ = 39.78) with the three menopause periods (pre, during & post).

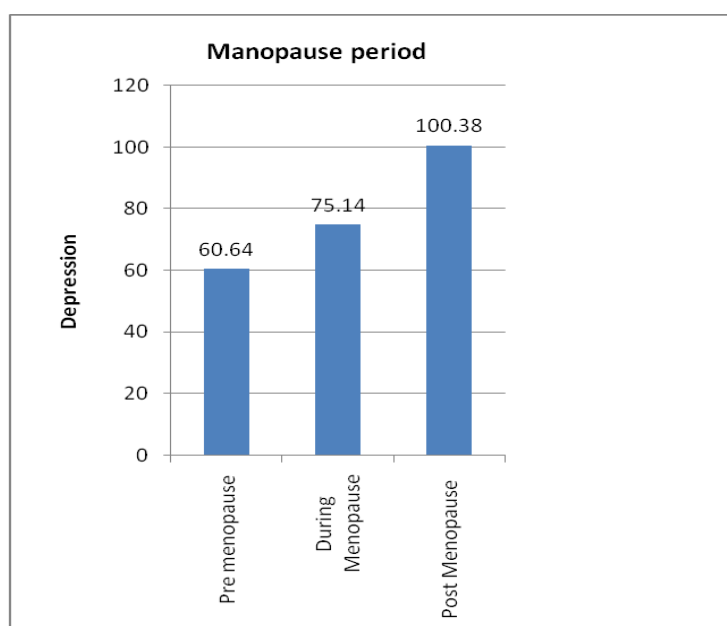

Fig-3.7: Mean of depression Scores among women during three periods (pre, during and post)

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Table 3.8 ***Mean, Standard Deviation of Depression Scores according to Education with F value***

Education	*N*	Mean	*SD*	*F*
Below-SSC	82	87.57	26.03	8.86*
HSC	23	78.17	27.75	
BA/BSC	21	63.09	26.29	
Masters	24	62.66	22.60	

$^{*}p < .01$

The above table shows the mean depression scores among women during the three periods (pre, during and post) with below-S.S.C had highest ($\bar{X}$= 87.57) whereas women with Masters Degree had the lowest ($\bar{X}$=62.66). The table also indicates that depression scores varied significantly ($F_{3,146,.01}$ = 8.86*) according to education of the respondents .

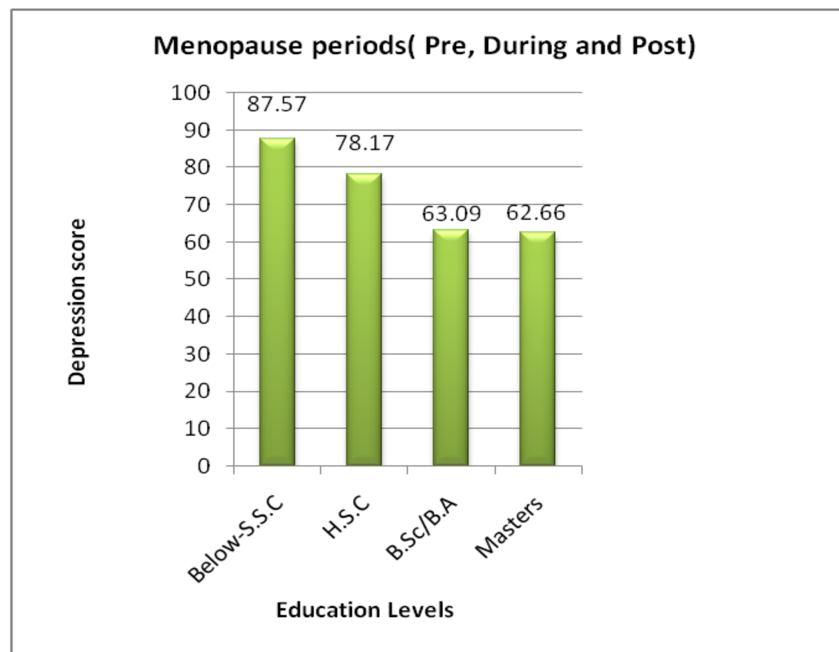

Fig-3.8: Mean of depression Scores among women during three periods (pre, during and post) according to education

Table 3.9 ***Mean, Standard Deviation of Depression Scores according to Occupation with t value***

Occupation	*N*	Mean	*SD*	*t*
House-wife	81	90.16	24.63	6.08*
Service	69	65.28	25.31	

*$p < .01$

The above table shows that depression in women varied significantly ($t_{148,.01} = 6.08$*) with the occupation of respondents.

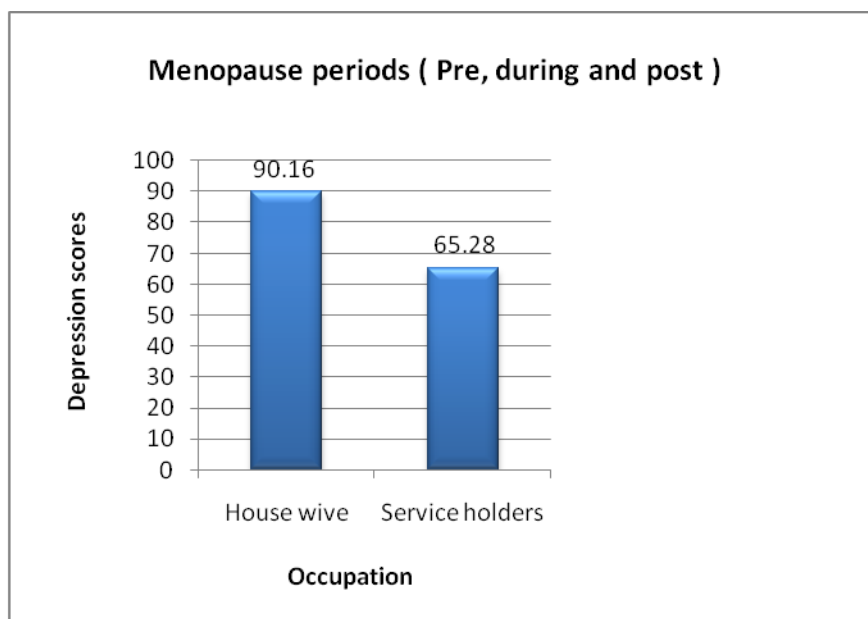

Fig-3.9 : Mean of depression Scores among women during three periods (pre, during and post) according to occupation.

Table 3.10 ***Mean, Standard Deviation of Depression Scores According to Family Type with t-value***

Family Type	*N*	Mean	*SD*	*t*
Single	108	76.36	28.37	-1.6
Joint	42	84.78	25.58	

The above table indicates that no significantly (t =-16,df = $_{148,.01}$) difference in depression scores with the types of family.

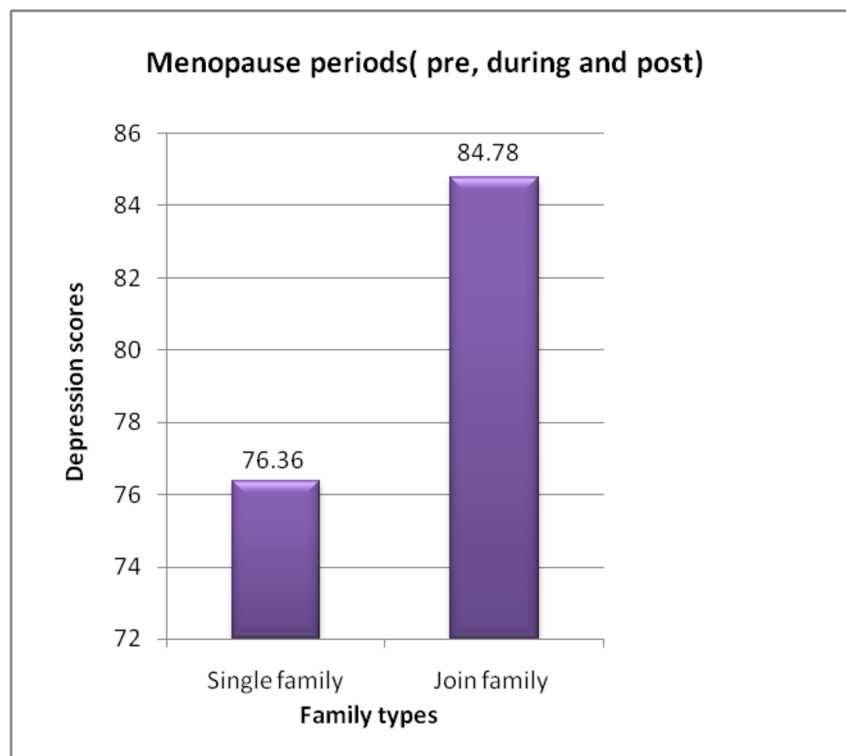

Fig-3.10 : Mean of depression Scores among women during three periods (pre, during and post) according to family type.

Table 3.11*Percentage of Respondents' Physical Symptoms Developed in Pre-Menopause, During-Menopause, and Post-Menopause Period*

	Physical Symptoms				
Respondents Type	Joint Pain *n (%)*	Heart Disease *n (%)*	Diabetes *n (%)*	Gyaenocological Problems *n (%)*	High blood pressure *n (%)*
Pre-menopause	27 (54)	8 (16)	7 (14)	12 (24)	7 (14)
During-menopause	30(60)	1(2)	9(18)	17(34)	14(28)
Post-menopause	44(88)	18(36)	11(22)	22(44)	14(28)
Total	101(67.3)	27(18)	27(18)	51(34)	28(18.7)

It is evident from the above table that in all the three menopausal period joint pain was reported in greater number, followed by Gyaenocological Problems, high blood pressure. The percentage of heart disease and diabetics was the same.

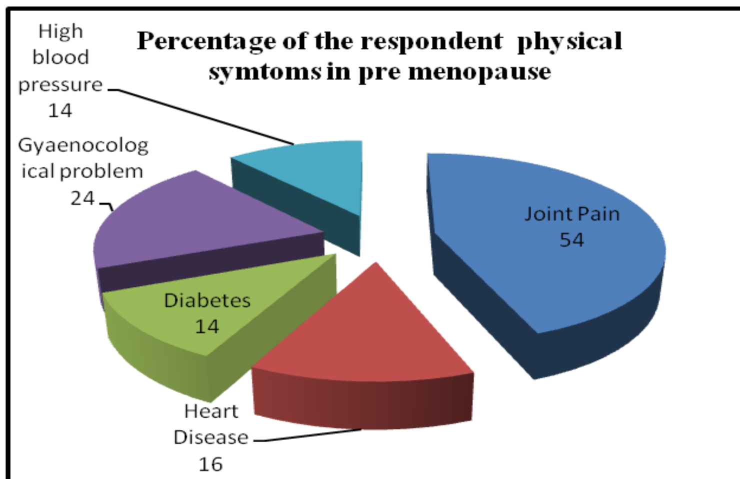

Fig-3.11.1: Percentage of physical symptoms in pre menopause period

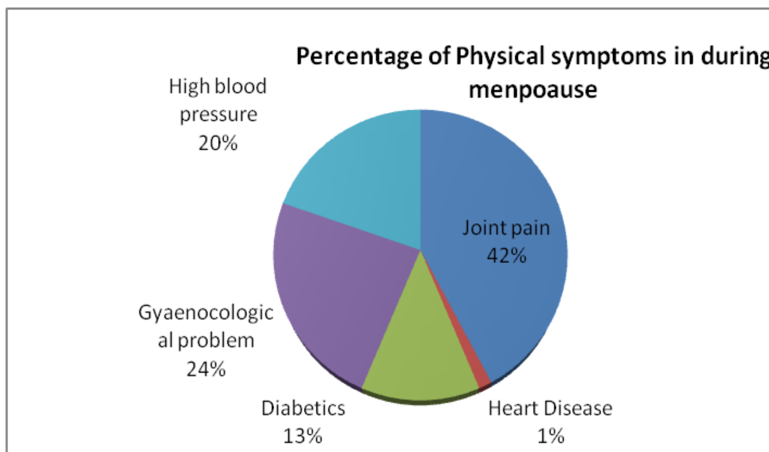

Fig-3.11.2 : Percentage of physical symptoms in during menopause period

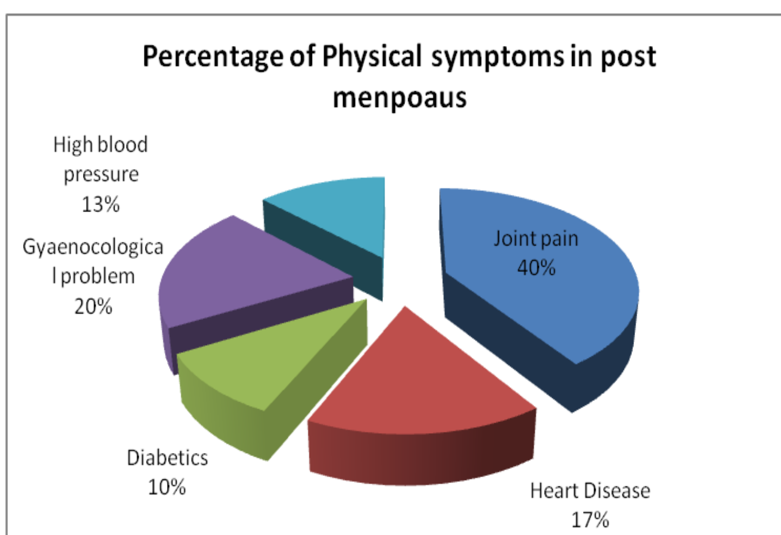

Fig-3.11.3: Percentage of physical symptoms in post menopause period

Discussion

The purpose of the study was to investigate anxiety and depression during pre and post menopausal period. The sample of the present study comprised of 150 (50 Pre Menopause, 50 during menopause and 50 post menopause female respondents whose ages were between 40 to 60 years). They were incidentally selected from different areas of Dhaka city. Anxiety was measured by the Bangla version of the anxiety scale developed by the Deeba & Begum (2004) and depression scale developed by Uddin & Rahman (2005); was used in the present study to measure the respondent's depression level.

4.1.1: Anxiety and Menopause periods:

The present findings show that the intensity of anxiety is greater in post-menopause period than pre and during menopause periods. There was a significant difference in anxiety among the three periods (pre, during & post menopause periods) .The possible reason may be that different stresses around the time of menopause may be attributed to psychological changes. Frequently, women of post-menopause period face many challenging stresses including divorce, having grown children leave the house, concerns about aging and widowing, and caring for older parents. Women in their menopausal period can experience a deep feeling of loss (e.g. loss of youth, physical attractiveness, decrease their importance as a mother), which can lead to the loss of one's sense of life. They often experience the fear of losing their femininity, which stems from a consciousness that menopause means the end of youth, female charm, and sexual attractiveness. Result of the study is consistent with some previous research (Rahman et al. 2011). They found that there was a significant difference in anxiety among the three periods. In another study compared

with premenopausal women, perimenopausal women have a greater risk for each symptom of anxiety (Bromberger et al.2003). However, studies have reported conflicting results concerning the extent to which the prevalence of anxiety symptoms varies during different stages of the menopausal transition, with some studies indicating statistically significant differences by menopausal stage (Dennerstein et al, 2000 and Freeman et al.2008) and with others finding that early or postmenopausal women have significantly higher rates of anxiety symptoms than premenopausal women (Tangen & Mykletun (2008); Tangen & Mykletun ,1965) .

4.1.2: Anxiety and Menopause periods according to education:

There was a significant difference in anxiety between three periods (pre, during and post menopause) according to the education (Table-5 shows). The reason that the women who belongs to the lower education level (such as below- S.S.C) they have a very poor knowledge of menopause. They know only their menstruation will stop in future. But they do not have any idea about the physical and mental changes. They felt anxiety and fear about physical changes and also menopause symptoms. Some of them goes to doctor for seeking help. Otherwise, they do not know that they have to go to psychologist for taking counseling about their physical and mental changes of menopause period. Whereas educated women have some knowledge about the menopausal changes. They get this information from difference sources like books, media, internet and seminars and therefore prepare themselves and their life style during menopause period. As a result women do not feel anxiety and fear about menopause period. Result of the study is consistent with the some previous research. Masoumeh.et al.(2012) showed that the severity of

menopausal symptoms had significant difference with educational levels. Several studies have shown that women who had longer education, reported milder menopausal symptoms (Gharaibeh et al. 2010; Shafie et al. 2011; Lee & Kim 2005). But one study in Taiwan showed that educated women had more menopausal symptoms compared to less - educated women. (Cheng et al. 2005). Gharaibeh et al. (2010) conducted a study which showed that severe, moderate and mild symptoms were experienced by 15.7%; 66.9%; 17.4% of women respectively and there was a significant correlation between the severity of menopause symptoms and age, educational level, income menopausal status and number of children.

4.1.3: Anxiety and Menopause periods according to occupation:

There was a significant difference in anxiety between three periods (pre, during and post menopause) according to occupation. This study finding is consistent with Singh and Singh.(2006). They found that 32 post-menopausal and 32 pre-menopausal patients aged between 40-55 years to investigate the anxiety and depression at postmenopausal women, the Beck depression scale showed highly significant difference whereas, State Trait Anxiety Inventory (STAI) I and II resulted statistically significant difference and therefore concluded that depression and anxiety rate is significantly higher among menopausal women. This study showed that in working or well paid employed women, the prevalence of symptoms was less reported. Perhaps a more active lifestyle, with a focus on work may distract women from noticing some of the adverse experiences. Being unemployed for either personal or health reasons was also a source of stress or anxiety.(Singh and Singh ; 2006)

4.1.4: Anxiety and Menopause periods according to family:

There was no significant difference in anxiety between three periods (pre, during and post menopause) according to family. The possible reason may be that family support and satisfaction with socializing relationship had no effect on anxiety in menopausal women. Result of the study is not consistent with some previous study. But some previous research showed that Pre menopausal women with vasomotor symptoms have more psychological and somatic symptoms and stress, independently of the vital events, family dysfunction, or poor social support. Vasomotor symptoms in the pre menopause are associated with increased risk of anxiety. (Blumel et al. 2004).

4.2.1: Depression and Menopause periods:

The present findings showed that the intensity of depression is greater in post-menopause period than in pre-menopause and during menopause period. It indicated that there was a significant difference in depression among the three periods (pre, during & post menopause periods). The possible cause of depression during the menopausal period are divided into several basic groups; biological causes (hormonal, intensification of symptoms accompanying menopause, early natural menopause, surgically induced menopause), psychiatric causes (cultural and education), Psychological causes(life style, exposure to stress, change of roles, social- occupational status, martial life. A negative attitude towards menopause significantly decreases the women’s self-esteem in their menopausal period and contributes to developing somatic and psychological symptoms. It has been proved that young women who claim that during menopause, women are unattractive more often experience intense menopausal symptoms. This study findings is

consistent with Sagsoz et al.(2000). They found that in post menopausal period depression scores in women were significantly higher than pre menopausal women. For a long time, the period of menopause has been associated with the possibility of the occurrence of psychological problems especially depression. The results of studies systematically confirm that pre and during menopause period, as well as some time after post menopause is the period of increased risk of the development of depression (Bromberger . Mathews et al.2007).

4.2.2: Depression and Menopause periods according to education:

There was a significant difference in depression between three periods (pre, during & post menopause) according to education. It was found that respondents (pre, during and post menopause period) having higher level of education scored low on depression. It indicated that higher educated women who are in the state of post menopausal period got many occupational opportunities rather than lower educated women. Moreover education brings better self confidence and increased capacity to overcome the situation. This finding supports Humenick et al, 2011, a lower level of depression in pre, during and post menopausal women were observed among those with a higher education level. Respondents having lower educational qualification were found to score high on depression. The reason that they have no knowledge on menopause period (especially psychological changes eg. depression). From these findings that lower levels of education women with psychological problems frequently seek help at gynecological clinic at any age. Result of the study is consistent some previous research (Bromberger et al. 2003; Lerner Geval et al. 2010; Devecise et al. 2010; Sabias et al.2008). The study found that the level of depression among women examined

varied .Women with a lower education had a higher level of depression. This observation is confirmed by the results of many studies i.e. (Bromberger et al. 2003; Lerner Geval et al. 2010; Devecise et al. 2010; Sabias et al.2008).

4.2.3: Depression and Menopause periods according to family:

There was no significant difference in depression scores in pre, during and post menopause period according to family. This study finding is not consistent with some pervious research. Dissatisfaction of women with marital and family life is a depression risk factor during the menopause period (Deveei et al. 2010; Rasgon et al.2007). Aaron et al. in their studies confirmed that family factors exerted on especially strong effect on the level of depression of post menopause period. A very high level of depression was observed in menopausal women who experienced physical and psychological violence in the family. (Mouton et al. 2010).

4.2.4: Depression and Menopause periods according to Occupation:

There was a significant difference in depression between three periods (pre, during and post menopause) according to occupation. The reason is that housewife women are generally faced socioeconomic problems, financial problem, and workload which develop to depression. This study finding is consistent with Christian et al. 2011. Christian et al. (2011) found that a majority of the women were housewives (73.5%) and only few were laborer (25.2%). Importance of the type of occupation lays in the fact that several studies have shown an association of the nature of the work done by the women and severity of psychological complaints (depression and anxiety) after menopause. In another study by Kakkara et al. (2010) showed that working women had a higher proportion of

psychological symptoms while the non-working or housewife women had a higher proportion of somatic symptoms among the study subjects.

4.3.1: Physical symptoms and Menopause periods:

Result indicated that physical symptoms (Joint pain, heart disease, diabetes and other gynecological problems) were greater among women in post menopause than pre and during menopause period. The reason for these findings may be that Estrogen insufficiency correlation to musculoskeletal problems, muscle stiffness and joint pain during menopause is very common.

Some of the side effects and symptoms were often misunderstood or just not mentioned by the menopausal women. This is as a result of hormonal changes during menopause coupled with insufficient physical activity which aggravates the development of the condition. Other menopause-related health risks include, heart disease, also due to decreased estrogen levels, and weight gain. Urinary incontinence can occur due to the loss of elasticity of tissue in the vagina and uterus.

This study finding is consistent with Gavild in (2007). He reported muscle and joint pain (32.8%), diabetes (8.5%) as common general health problems. Rahman et al. (2011) reported that joint and muscular pain (76.20%), gynecological problem (36%) and Cardiac discomfort (19.10%) . These studies showed that during menopausal and post menopausal women have more physical problems than that of pre menopausal women. It has been suggested that Asian women suffer more from the atypical symptoms and fewer, and with lesser severity psychological and vasomotor symptoms in comparison to those reported in Caucasian women in the west.(Dhillon et al. 2006; Fuh et al.2001). Also Ashrafi et al.(2010) showed that night sweats, joint and Muscle pain

and hot flashes are the most common symptoms associated with menopause in Iranian women. These findings were also noted by Rahman et al. (2010) emphasized that frequency of sexual problem, bladder problems and vaginal dryness were experienced mainly by during menopausal and post menopausal group of women and it was also significant statistically in comparison to other menopause status.

Limitations of the study:

There were some limitations of the study. The sample size of the present study was small. It was done only in Dhaka city with respondents selected from a limited place .So the result of the study may not reflect the exact scenario of the country regarding anxiety and depression level among women during pre, during and post menopause periods. Further studies are therefore required in this area with large samples to confirm the present findings. Although menopausal women were selected randomly, the comparable control groups were chosen on the basis of who were available. A representative sample of all the traditional groups should have been drawn. This study used depression and anxiety scales, in view of substantial number of women studied does not formal education, in order to include these illiterate women, interviews were used instead. In collecting data, women are asked to provide some retrospective information such as menopausal symptoms experienced in the preceding one month, last menstruation etc.

Recommendations:

From the study following recommendation can be drawn:

1. The government of Bangladesh should give more emphasis on health education for creating awareness regarding predisposing factors and sign symptoms of menopause may be communication. Mass Media, i.e., Newspaper, Television, Radio could be utilized for this purpose.

2. Women above 40 years should adopt a life style (diet, exercise etc) that incorporates stress management.

3. Awareness campaigns must be undertaken to inform women about the various coping strategies to be used during the phase of menopause enlightenment.

4. There is need for counseling Psychologist to organize seminars, workshops, community session for spouses of menopausal women, aimed at educating them on the psychosocial (family) adjustment needs of these women which includes love, closeness to spouse etc, which will enable the women to make better adjustment to menopause and so live happily.

5. Individual and group counseling should be planned for menopausal women, aimed at helping them to understand themselves better and share their concerns with other women who experience similar problems in order to find solution to such problems. Psychological counseling enables women to adjust better situation and grants them the assurance that menopause is a natural phenomenon.

6. The medical experts should help to dispel fears, anxieties, and worries, depression in menopausal women by letting them understand that menopause is a natural phenomenon, as well as giving them

information on how to cope with it in addition to administering treatment for severe cases.

7. Husbands should encourage their wife's during menopause and take them to social functions regularly so as to build up their self confidence.

8. There is need for Community leaders to introduce training, workshop/ seminars through medical experts or Psychologist so that women will be sufficiently enlightened on Psychological problems (depression and anxiety) and coping strategies before, during and post menopause period. This will prepare the women ahead of time instead of allowing them to learn in a way. Husbands should also be advised on how to assist their wife's during the period, by showing concern and making the women feel loved.

9. Physical relaxation, emotional support and essential care are needed for healthy living. Certain modifications in life-style and some programmed interventions can provide enhancement of positive healthy habits, reduce stress and can add quality to their life.

10. A cognitive behavioral treatment has been developed with promising outcomes, suggesting a 40–50 per cent reduction in hot flushes and their problem ratings. This is based on either individual cognitive behavioral therapy (CBT) of four sessions (Hunter & Liao, 1996) or group CBT of six sessions (Hunter, Coventry, Hamed et al., 2009). The CBT approach is psycho-educational with individual treatment goals and a focus on cognitive and behavioral changes.

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APPENDIX-A

অংশগ্রহনকারীর সম্মতি পত্র

আমি মনোবিজ্ঞান বিভাগের ছাত্রী জেবিন নাহার গবেষনায় স্বইচ্ছায় অংশগ্রহণ করতে সম্মত আছি। এই অংশগ্রহণ করার মাধ্যমে আমার কোন প্রকার শারীরিক, মানসিক, অর্থনৈতিক ও সামাজিক ক্ষতি সাধন হবে না। আমার পুরো তথ্য গোপন রাখা হবে এবং তথ্যগুলো শুধুমাত্র গবেষনার কাজে ব্যবহৃত হবে। এই শর্ত গুলোর সাপেক্ষে আমি তার গবেষনায় অংশগ্রহণ করতে রাজি আছি।

অংশগ্রহনকারী স্বাক্ষর

তারিখ ঃ

নির্দেশনা

আমি ঢাকা বিশ্ববিদ্যালয় মনোবিজ্ঞান বিভাগের এম.ফিল. শেষ পর্বের একজন গবেষক। আমি আমার গবেষনার অংশ হিসাবে গবহড়ঢ়ধঁংব চবৎরড়ফ এর মহিলাদের বিষনতা ও উদ্বেগ পরিমাপের জন্য বিষন্নতা মানক (জহির উদ্দিন এবং ডঃ মাহমুদুর রহমান, ২০০৫) এবং উদ্বেগ মানক (দিবা এবং বেগম রোকেয়া ,২০০৪) প্রয়োগ করব। এই উদ্দেশ্য আপনার নিকট থেকে কিছু তথ্য আবশ্যক। যদি আপনি অংশগ্রহন করতে রাজি থাকেন তবে অনুগ্রহ করে নিচের বিবৃতিগুলো পড়ুন। এই বিবতিগুলো আপনার ক্ষেত্রে প্রযোজ্য কিনা তা যাচাই করাই আমাদের উদ্দেশ্য। লক্ষ্য করুন প্রতিটি বিবৃতির পাশেই সম্ভাব্য পাঁচ ধরনের উত্তর দেয়া আছে। এগুলোর হলো " একেবারেই প্রযোজ্য নয়", " প্রযোজ্য নয়", "মাঝামাঝি", "কিছুটা প্রযোজ্য", "পুরোপুরি প্রযোজ্য"। প্রশ্নমালায় প্রদত্ত বামপাশের বিবৃতিগুলো পড়ে এই বিবৃতিগুলো আপনার ক্ষেত্রে কতটা প্রযোজ্য তা বিবৃতির ডানপাশের সম্ভাব্য পাঁচটি উত্তরের যেটি প্রযোজ্য সেটির ঘরে টিক চিহ্ন (✔) দিয়ে নির্দেশ করুন। আপনাকে সম্ভাব্য এই পাঁচটি উত্তর থেকে যে কোন একটিকে বেছে নিতে হবে এবং সবগুলো প্রশ্নের উত্তর দিতে হবে। অনুগ্রহ করে লক্ষ্য করুন সবগুলো বিবৃতির উত্তর দিয়েছেন কিনা । তথ্যগুলো কেবলমাত্র গবেষনার কাজে ব্যবহার করা হবে এবং সম্পূর্ন গোপন রাখা হবে। আপনার সহযোগিতার জন্য ধন্যবাদ ।

গবেষকের স্বাক্ষর

জেবিন নাহার

এম.ফিল.(শেষ পর্ব)

মনোবিজ্ঞান বিভাগ

ঢাকা বিশ্ববিদ্যালয়

ঢাকা-১০০০।

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ব্যক্তিগত তথ্য ঃ

উপযুক্ত স্থানে টিক (✔) দিন। তারিখ ঃ

১. লিঙ্গ ঃ মহিলা

২. বয়স ঃ

৩. আপনি যে জেলায় / এলাকায় বসবাস করেন তার নাম ঃ

৪. পেশা ঃ

ক. কর্মহীন খ. ব্যবসা

গ. চাকুরী ঘ. গৃহিনী

ঙ. অন্যান্য

৫. শিক্ষাগত যোগ্যতা ঃ

৬. বৈবাহিক অবস্থা ঃ

ক. অবিবাহিত

খ. বিবাহিত

গ. বিধবা বা বিপত্নীক

৭. ধর্ম ঃ

ক. ইসলাম খ. হিন্দু

গ. খ্রিস্টান ঘ. বৌদ্ধ

ঙ. অন্যান্য

৮. পরিবারের ধরন ঃ

ক. যৌথ পরিবার

খ. একক পরিবার

৯. পরিবারের মোট মাসিক আয় ঃ

১০. জন্মক্রম / ভাইবোনদের মধ্যে অবস্থান ঃ

১১. কত দিন ধরে আপনার মাসিক বন্ধ ঃ

১২. পরিবারে সদস্যদের সাথে সম্পর্ক কেমন ঃ

১৩. আপনার বর্তমান এই সমস্যা ,আপনার সামাজিক জীবনে কতটুকু অসুবিধা সৃষ্ট করেছে ?

একেবারেই না	সামান্য	মোটামুটি	খুব বেশি

১৪. আপনার বর্তমান এই সমস্যা আপনার পারিবারিক জীবনে কতটকু অসুবিধা সৃষ্টি করেছে ?

একেবারেই না	সামান্য	মোটামুটি	খুব বেশি

১৫. আপনার বর্তমান এই সমস্যা, আপনার যৌন জীবনে কতটুকু অসুবিধা সৃষ্ট করেছে ?

একেবারেই না	সামান্য	মোটামুটি	খুব বেশি

১৬. আপনার বর্তমানে কোন শারীরিক অসুবিধা আছে কি (যদি থাকে) ?

ক.

খ.

গ.

ঘ.

ঙ.

১৭. কি কারণে আপনার এই সমস্যা হয়েছে বলে আপনি মনে করেন ?............

১৮. বর্তমান সমস্যার জন্য কোন ডাক্তার / মনোবিজ্ঞানী/ মনোচিকিৎসকের কাছে গিয়েছেন কিনা ?হ্যাঁ/ না

১৯. বর্তমান আপনি আপনার সমস্যার জন্য কোন ঔষুধ ব্যবহার করছেন কি ? হ্যাঁ / না

২০. উত্তর যদি হ্যাঁ হয় তবে নিচের প্রশ্নগুলোর উত্তর দিন ঃ

ক. আপনি কি ঔষুধ ব্যবহার করছেন?..........

খ. কতদিন ধরে এই ঔষুধ ব্যবহার করছেন?...........

গ. আপনি বর্তমান সমস্যার জন্য এতদিন কতজন ডাক্তার দেখিয়েছেন ?..........

ঘ. ডাক্তারের বেধে দেয়া নিয়ম অনুযায়ী ঔষুধ নিচ্ছেন কি না ?..........

ঙ. যদি কোন কারণবশতঃ কিছু দিন ঔষুধ গ্রহণ বা চিকিৎসা বন্ধ থাকে তবে রোগের বর্তমান পর্যায়ে কতদিন , সপ্তাহ বা মাস যাবৎ ঔষধ ব্যবহার করছেন ?...............

আপনার সহযোগীতার জন্য ধন্যবাদ

অনুগ্রহ করে এবার বিষন্নতা ও উদ্বেগ মানকের বিবৃতিগুলোর উত্তর দিন ।

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APPENDIX-B

উদ্বেগ বা Anxiety পরিমাপনের মানক

এই বিবৃতিগুলো আপনার ক্ষেত্রে প্রযোজ্য কি না যাচাই করাই আমাদের উদ্দেশ্য। লক্ষ্য করুন প্রতিটি বিবৃতির পাশেই সম্ভাব্য পাঁচ ধরণের উত্তর দেয়া আছে। এগুলো হলো-' **একেবারেই হয় না','খুব সামান্য হয়', 'মোটামুটি হয়', অনেক বেশী হয়'।** **প্রশ্নমালায় প্রদত্ত বামপার্শ্বের** বিবৃতিগুলো পড়ে গত এক মাসের মধ্যে এই বিবৃতি গুলো আপনার ক্ষেত্রে কতটা প্রযোজ্য তা বিবৃতির ডানপার্শ্বের সম্ভাব্য পাঁচটি উত্তরের যেটি প্রযোজ্য সেটির ঘরে টিক (√) চিহ্ন দিয়ে নির্দেশ করুন। এই পাঁচটি উত্তরের থেকে যে কোন একটিকে বেছে নিন এবং সবগুলো প্রশ্নের উত্তর দিন। অনুগ্রহ করে লক্ষ্য করুন সবগুলো বিবৃতির উত্তর দিয়েছেন কি না। আপনার সহযোগীতার জন্য ধন্যবাদ।

বিবৃতিসমূহ	একেবারেই হয় না (০)	খুব সামান্য হয় (১)	মোটামুটি হয় (২)	বেশী হয় (৩)	অনেক বেশী হয় (৪)
১. আমার ঘনঘন শ্বাস পড়ে					
২. আমার দমবন্ধবোধ হয়					
৩. আমার বুক ভার ভার লাগে					
৪. আমার বুক ধড়ফড় করে					
৫. আমি বুকে ব্যথা অনুভব করি					
৬. আমার গা/হাত-পা শিরশির করে					
৭. আমার হাত/পা কাঁপে					
৮. আমার হাত/পা অবশ লাগে					
৯. আমার হাত-পা জ্বালাপোড়া করে					
১০. আমার মাথা ঝিমঝিম করে					
১১. আমার মাথা ঘোরে					
১২. আমার মাথা ব্যথা করে					
১৩. আমার মাথা থেকে গরম ভাপ ওঠে					

বিবৃতিসমূহ	একেবারেই হয় না (০)	খুব সামান্য হয় (১)	মোটামুটি হয় (২)	বেশী হয় (৩)	অনেক বেশী হয় (৪)
১৪. আমার গলা শুকিয়ে যায় ও পিপাসা লাগে					
১৫. আমি অসুস্থ হয়ে যাবো এমন মনে হয়					
১৬. আমি আমার স্বাস্থ্য নিয়ে চিন্তিত থাকি					
১৭. আমি দুর্বলবোধ করি					
১৮. আমার হজমে অসুবিধা হয়					
১৯. আমার পেটে অস্বস্তি লাগে					
২০. আমার বমি বমি লাগে					
২১. আমার খুব ঘাম হয় (গরমের জন্য নয়)					
২২. আমি আরাম করতে পারি না					
২৩. আমার সামাজিক পরিবেশে কথা বলতে অসুবিধা হয়					
২৪. একই বিষয় নিয়ে আমার বারবার চিন্তা হয়					
২৫. আমার খুব খারাপ কিছু ঘটবে বলে আশংকা হয়					
২৬. আমি প্রায়ই দুঃশ্চিন্তাগ্রস্থ থাকি					
২৭. আমি প্রায়ই চমকে ওঠি					
২৮. আমি বিচলিত ও সন্ত্রস্তবোধ করি					
২৯. আমার আত্মনিয়ন্ত্রন হারাবার ভয় হয়					
৩০. আমি এত নার্ভাস বা উত্তেজিত বোধ করি যে মনে হয় আমার সবকিছু এলোমেলো হয়ে যাচ্ছে					
৩১. আমি ধৈর্য ধরতে পারি না					

বিবৃতিসমূহ	একেবারেই হয় না (০)	খুব সামান্য হয় (১)	মোটামুটি হয় (২)	বেশী হয় (৩)	অনেক বেশী হয় (৪)
৩২. আমি সিদ্ধান্তহীনতায় ভুগি					
৩৩. আমার আত্মবিশ্বাসের অভাববোধ হয়					
৩৪. একটা বিষয়ের প্রতি মনোযোগ দিয়ে রাখা আমার জন্য বেশ কষ্টকর					
৩৫. আমার মনে হয় আমি এখনই মারা যাচ্ছি					
৩৬. আমার মৃত্যু ভয় হয়					

54 & less = Mild; 55 to 66= Moderate; 67 to 77= Severe; 78 to 135 & above= Profound. Cut off point =47.5Developed by: Farah Deeba and Dr. Roquia Begum, Department of Clinical Psychology, DU.

APPENDIX-C

বিষন্নতা পরিমাপক

নিচের বিবৃতি গুলো পড়ে গত এক সপ্তাহের মধ্যে এই বিবৃতি গুলো আপনার ক্ষেত্রে কতটা প্রযোজ্য তা বিবৃতির পার্শ্বের সম্ভাব্য পাঁচটি উত্তরের যেটি প্রযোজ্য সেটির ঘরে টিক(√) চিহ্ন দিয়ে নির্দেশ করুন। আপনাকে সম্ভাব্য এই পাঁচটি উত্তর থেকে যে কোন একটিকে বেছে নিতে হবে এবং সবগুলো প্রশ্নের উত্তর দিতে হবে। অনুগ্রহ করে লক্ষ্য করুন সবগুলো বিবৃতির উত্তর দিয়েছেন কি না।

বিবৃতিসমূহ	একেবারেই প্রযোজ্য নয়	প্রযোজ্য নয়	মাঝামাঝি	কিছুটা প্রযোজ্য	পুরোপুরি প্রযোজ্য
১. আমার অশান্তি লাগে।					
২. ইদানিং আমি মনমরা থাকি।					
৩. আমার ভবিষ্যত অন্ধকার।					
৪. ভবিষ্যতে আমার অবস্থা দিন দিন আরো খারাপ হবে।					
৫. আমার সব শেষ হয়ে গেছে।					
৬. আমি মনে করি যে, জীবনটা বর্তমানে খুব বেশী কষ্টকর।					
৭. বর্তমানে আমি অনুভব করি যে মানুষ হিসাবে আমি সম্পূর্ণ ব্যর্থ					
৮. আমি কোথাও আনন্দ-ফুর্তি পাই না।					
৯. নিজেকে খুব ছোট মনে হয়।					
১০. সবকিছুতে আমার আত্নবিশ্বাস কমে গেছে।					
১১. আমার মনে হয় মানুষ আমাকে করুণা করে।					
১২. জীবনটা অর্থহীন।					
১৩. প্রায়ই আমার কান্না পায়।					

১৪. আমি প্রায়ই বিরক্ত বোধ করি।					
১৫. আমি কোন কিছুতেই আগ্রহ পাই না।					
১৬. আমি ইদানিং চিন্তা করতে ও সিদ্ধান্ত নিতে পারি না।					
১৭. আমি আজকাল অনেক কিছুতেই মনোযোগ দিতে পারি না।					
১৮. আমি আগের মতো মনে রাখতে পারি না।					
১৯. আমি দূর্বল বোধ করি এবং অল্পতেই ক্লান্ত হয়ে পড়ি।					
২০. আমি এখন কম ঘুমাই।					
২১. আমি এখন বেশী ঘুমাই।					
২২. আমার মেজাজ খিঁটখিঁটে হয়ে গেছে।					
২৩. আমার ক্ষুধা কমে গেছে।					
২৪. আমার ক্ষুধা বেড়ে গেছে।					
২৫. আমার ওজন কমে গেছে (ইচ্ছাকৃতভাবে ওজন নিয়ন্ত্রণের চেষ্টা করার ফলে নয়)।					
২৬. আমার মনে হয় যে আমার কাজকর্মের গতি কমে গেছে।					
২৭. হাসির কোন ঘটনা ঘটলেও আমি আর হাসতে পারি না।					
২৮. যৌন বিষয়ে আমার আগ্রহ কমে গেছে।					
২৯. সামাজিক কাজকর্মে আগের মতো অংশগ্রহণ করতে পারি না।					
৩০. শিক্ষা বা পেশাগত কাজকর্ম আগের মতো করতে পারি না।					
				Total:	

***94+** = Depressed;* ***30-100** = Minimal;* ***101-114** = Mild;* ***115-123** = Moderate;*
***124-150** = Severe. Developed by: Zahir Uddin and Dr. MahMudur Rahman,* Department of Clinical Psychology, D.U.