



QUALITY OF LIFE, DEPRESSION, SLEEP QUALITY & POSITIVE AND NEGATIVE EMOTION AMONG MENOPAUSAL WOMEN POST COVID

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Abstract:

Background: Menopause is entirely normal and biological process for women life. Postmenopausal women have experienced hormonal changes at menopause, such as depression, anxiety symptoms and other psychological issues and challenges. The physical and mental changes that occur during menopause can have an impact on many parts of a woman's life.

Method: Correlational design was used in this study. The Research was done on 101 women between the age range 40-55. The simple random sampling was used for the selection of menopause women. The psychometrically standardized tools of Depression (Hamilton Depression Rating Scale HAM-D), Positive and Negative Affect Schedule (PANAS), World Health Organization Quality of Life (WHOQOL) and Sleep quality (Pittsburgh Sleep Quality Index) were administrated to meet the objective.

Results: The descriptive result revealed that perimenopause mean score is higher on positive emotions and quality of life than postmenopause, as well as sleep quality and negative emotions, depression mean score is lower than post menopause. The simple regression result revealed perimenopause and postmenopaus positive emotion strongly predict sleep quality, quality of life as a predicator of sleep quality, and positive emotions strongly predictor on depression and negative emotions predictor on quality of life.

Conclusion: conclusion of the study women should make lifestyle and sleep improvements before and after menopause because doing so will promote their overall health and wellbeing. Positive emotions will also help to prevent bad emotions like despair.

Keywords: Quality of life, Depression, Sleep Quality, Positive and Negative Emotions, menopause.

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Introduction:

Menopause is one of the most difficult and important phases of a woman's life. Menopause is a natural process characterized by a permanent interruption of the menstrual cycle due to ovarian function loss. [1]. In 2 to 8 years, women progress from premenopausal to menopausal status. Because of changes in ovarian function, women's menstrual cycles change throughout this time. Menopause is the time when your menstrual cycles come to an end. Menopause is a natural biological process that marks the end of a woman's reproductive years [2].

It is a stage in a woman's life when the ovaries stop producing eggs and menstruation stops permanently. Menopause is considered to have occurred when a woman has gone without a menstrual period for 12 consecutive months [3]. Hormonal changes during menopause can affect mood; for example, depressive and anxiety symptoms have been reported in postmenopausal women changes in estradiol levels and the relationship between serum oestrogen levels and platelet mono-amine oxidase levels, which is a marker of adrenergic and serotonin function [4, 5]. The menopause transition period is defined as the period between the onset of menstrual cycle changes or vasomotor symptoms and one year after the last menstrual period [6]. The menopause transition begins around the age of 47 and lasts for an average of 5-8 years. While the onset of menopause is relatively consistent, according to a study of postmenopausal women, anxiety was independently associated with low quality of life and severe menopausal symptoms [7]. Other factors, in addition to hormonal changes, are effective in causing and exacerbating mood changes [8]. These factors include the negative effect of vasomotor symptoms on mood (domino theory), negative events in social life such as illness, a previous history of depression, retirement, death of a spouse, care of elderly parents, empty nest syndrome, how women feel about menopause, prolonged menopause, chronic pain and disability changes in sexual function, the level of emotional intelligence, and menopausal symptoms such as flushing, night sweats, and secondary sleep disorders, and menopausal symptoms such as flushing [9].

Physical activity has also been demonstrated to improve quality of life in menopausal women. Physical activity may aid in weight control, which is linked to more frequent vasomotor symptom reporting [10]. The symptoms of menopause have a tight relationship with the quality of life during

the menopausal era and can impair their quality of life both medically and mentally.

It is a multidimensional concept that emphasizes an individual's self-perceptions of their current state of mind, which is affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships, and their relationship to salient features of their environment. [11,12]

Educational level, employment position, physical activities, income satisfaction, duration of menopause, marriage satisfaction, and the number of children living with family are some of the demographic and lifestyle factors that are associated to quality of life in menopausal women [13]

Dietary habits have another aspect of lifestyle that must be addressed. Evidence suggests that consumption of soy products (isoflavones) influences the occurrence and severity of menopausal symptoms, hence affecting quality of life [15]. The physical and emotional changes that occur during menopause can affect various aspects of a woman's life, including her work, relationships, and overall well-being [17,16].

Perimenopause refers to the years preceding menopause and is marked by well-known symptoms such as hot flashes, moodiness, and weight gain.

Menopause is not diagnosed until one has been without a period for 12 months. You are in post menopause once you have went through menopause.

Some of the symptoms of menopause, such as hot flashes, night sweats, and sleep disturbances which can impact a woman's ability to perform daily activities [18]. Vaginal dryness and discomfort can also affect sexual function and intimacy, leading to decreased sexual satisfaction [19].

Quality of life and emotions are closely related. Our emotions, whether positive or negative, can significantly impact our quality of life. When we experience positive emotions such as happiness, contentment, and fulfillment, we tend to feel more satisfied with our lives and enjoy a higher quality of life [20,21]. On the other hand, negative emotions such as stress, anxiety, and depression can significantly decrease our quality of life [22]. Menopause can have a significant impact on a woman's emotions and mental health [23]. The hormonal changes that occur during menopause

can cause mood swings, irritability, anxiety, and depression in some women. [24].

It is important for women going through menopause to take care of their emotional health and seek support if needed. This can involve talking to a trusted friend or family member, seeking counseling, or joining a support group [24]. Exercise, mindfulness practices, and other stress-management techniques may also be helpful in managing mood changes during menopause [25]. In some cases, medication may be prescribed to help manage mood symptoms.

Depression is a common mental health concern that can affect women during menopause [26].

Women who have a history of depression or who have experienced depression during previous life transitions may be at higher risk of developing depression during menopause [28]. Other factors that may contribute to depression during menopause include stress, lifestyle changes, and physical symptoms such as hot flashes and sleep disturbances.

Prospective data suggest that up to one-third of women may experience new onset sleep disturbance during the MT [29]. Women spend more than a third of their lives during menopause as the world's and Iran's elderly population grows, as does life expectancy. These biological and endocrine changes have an impact on a woman's perception of her physical and mental health. As a result, it is critical to pay attention to this period's health and improve one's quality of life [28].

Research Gap: -

The study was conducted on premenopausal and post menopause because there are no such research or they are not well reported on both populations. The research focus on both premenopause and post menopause with above research. This study will compare the results of all four aspects and women who have experienced premenopause and post menopause with the four aspects.

After covid phase women has faced disturbances related to quality of life, depression, sleep quality & positive and negative emotion due to which the psychological factor has got affected. We have measured emotions, sleep quality, depression, quality of life and how it can be improved. Some studies have reported but not accurate.

The purpose of this investigation, based on the existing literature, was to assess the relationship between quality of life, depression, sleep quality & positive and negative emotion on Menopausal women.

Methods:-

Design:

Correlational design was used in this study

Sample:

Random participants were selected. In 2 groups category the survey was performed on 101 premenopausal women and post-menopausal women. Having a minimum age of 40 and a maximum age of 55. The Simple Random Sampling Method been used. The goals and methods of the study were briefly explained, and the women were examined for inclusion and exclusion criteria. If they are eligible and willing to participate in the study. The objectives of the research were fully explained. The sample with perimenopause was 52.5, the Post menopause was 47.5.

Inclusion criteria:

- Perimenopause and Post menopause women's, marriage, and a minimum of a middle school education.
- Having a upto age of 40 and a maximum age of 55.
- Only females can participate.

Exclusion criteria:

- There are also exclusion criteria such as use of tobacco, alcoholic beverages, and herbal medicines, known systemic problems such as cardiovascular, gastrointestinal, liver, blood, endocrine, and so on.
- Use of any effective drug against fussing, participation in relaxation and yoga classes, and not using anti-anxiety drugs
- Not using sedatives such as cinnamon and chamomile.
- Subjects will be excluded from the study if they are currently on any medication affecting sleep, prescription drugs, or other drugs that in the opinion of the research team may interfere with the results of the study.

Procedure:

The participants gave their time freely and anonymously. Participants were advised that their participation was entirely voluntary, and they were guaranteed that the information they supplied would be kept confidential and that they could

withdraw from the study at any time. Written consent was taken from all subjects after which administration was done.

Research tools –

Depression (Hamilton Depression Rating Scale) HAM-D

Max Hamilton and presented to the psychiatric community in 1960. The 21 items version included items sub type the depression. Scoring of 0-7 [is generally accepted to be within the normal range] While a score of 20 or [higher indicate at least moderate severity] stratifies severity of depression similar to PHQ-9, HAM - no depression (0-7) Mild depression (8-10) Moderate depression (17-23) and severe depression (≥ 24) The maximum score being 52 on the 17 point scale [31,32].

Positive and Negative Affect Schedule (PANAS).

The PANAS measures positive and negative affect. The PANAS was developed in 1988 by psychologists David Watson, Lee Anna Clark, and Auke Tellegen [33]. Intends to measure positive and negative affect and how a person is feeling at the moment [34]. A questionnaire with 20 items [34]. Scores ranging from 0.86 to 0.90 for Positive Scale and 0.84 to 0.87 for Negative Scale. Scores may range anywhere from 10 – 50. Higher scores represent higher levels of positive affect. Score the Negative Affect, one would add up the scores on items may range from 10 – 50. Higher scores represent high levels of negative affect.

The World Health Organization Quality of Life (WHOQOL)

The World Health Organization (WHO) has developed a quality-of-life instrument, the WHOQOL, which captures many subjective aspects of quality of life). A 26-item instrument consisting of four domains: physical health (7 items), psychological health (6 items), social relationships (3 items), and environmental health (8 items); it also contains QOL and general health items [36]. Each individual item is scored from 1 to 5 on a response scale, The scores are then transformed linearly to a 0–100-scale. The physical health domain includes items on mobility, daily activities, functional capacity, energy, pain, and sleep [36,37].

Sleep quality (Pittsburgh Sleep Quality Index)

The PSQI was developed in 1988, by Buysse and his colleagues, The questionnaire consists of 18 questions and seven components, which include

subjective sleep quality, sleep latency, sleep duration, sleep efficacy, sleep disturbances, use of sleep medication, and daytime dysfunction. Each question has a score between 0 and 3, and each component has a maximum score of 3. The total score of the instrument, which ranges from 0 to 21, is the sum of the average scores of these seven components. If the score becomes too high, the quality of sleep suffers. A score of 5 or higher indicates poor sleep quality [38]. Calculated by totaling the seven component scores, providing an overall score ranging from 0 to 21, where lower scores denote a healthier sleep quality [38].

Data collection:

The data was collected from women aged 40 to 55. Half of the participants were given an offline sheet, while the other 51 were given an online survey form. The online survey asked for demographic information such as name, age, and whether menstruation is active or inactive. Participants would complete the Hamilton Depression Rating Scale, the PANAS, the WHOQOL, and the Pittsburgh Sleep Quality Index. This survey took approximately 9- 10 minutes to complete. There are 81 total questions.

Data analysis:

The data were analyzed using IBM SPSS-Version 22 software after collecting information from all participants. Regression analysis was used to see the predictive factors of the variables that is Pre-Menopausal women and post-Menopausal women with depression, sleep quality, quality of life and positive and negative emotions.

Results:

The researcher evaluated 101 women aged range between 45 to 55 years. There were 2 groups the subjects were classified as per-menopause and post menopause. There was no subject excluded or withdraw in the study. Correlation and simple regression analysis was conducted to examine the relationships and predictor between per-menopausal women and post-menopausal women with depression, sleep quality, quality of life and positive and negative emotions. There were 53 participants for Per menopause and 48 for post menopause.

Age:-

The below Table No 1 show age interval wise groups with number of participants from particular age group participated in research with percentage.

| Age | Frequency | Percent | |
|-----------|-----------|---------|------|
| Intervals | 40 to 44 | 35 | 34.6 |
| | 45 to 49 | 39 | 38.6 |
| | 50 to 55 | 27 | 26.7 |
| | Total | 101 | |

Table No 2

| Menstruation | | Mean | N | Std. Deviation |
|----------------|-------------------|-------|-----|----------------|
| Perimenopause | Sleep Quality | 16.53 | 53 | 10.615 |
| | Depression | 8.19 | 53 | 7.947 |
| | Positive Emotions | 33.04 | 53 | 8.62 |
| | Negative Emotions | 19.96 | 53 | 7.235 |
| | Quality of life | 96.49 | 53 | 14.547 |
| Post-menopause | Sleep Quality | 20.83 | 48 | 11.484 |
| | Depression | 10.29 | 48 | 8.839 |
| | Positive Emotions | 31.25 | 48 | 8.049 |
| | Negative Emotions | 20.58 | 48 | 7.034 |
| | Quality of life | 93.37 | 48 | 16.572 |
| Total | Sleep Quality | 18.57 | 101 | 11.191 |
| | Depression | 9.19 | 101 | 8.407 |
| | Positive Emotions | 32.19 | 101 | 8.36 |
| | Negative Emotions | 20.26 | 101 | 7.111 |
| | Quality of life | 95.01 | 101 | 15.542 |

Table No 3

| Age | Sleep Quality | Depression | Positive Emotions | Negative Emotions | Quality of life | |
|-------|----------------|------------|-------------------|-------------------|-----------------|--------|
| 40-44 | Mean | 17.66 | 7.83 | 32.26 | 20.23 | 94.03 |
| | N | 35 | 35 | 35 | 35 | 35 |
| | Std. Deviation | 11.114 | 8.542 | 9.275 | 7.063 | 16.087 |
| 45-49 | Mean | 18.69 | 10.56 | 32.18 | 20.64 | 94.31 |
| | N | 39 | 39 | 39 | 39 | 39 |
| | Std. Deviation | 10.974 | 8.035 | 7.437 | 7.242 | 14.224 |
| 50-55 | Mean | 19.59 | 8.96 | 32.11 | 19.74 | 97.3 |
| | N | 27 | 27 | 27 | 27 | 27 |
| | Std. Deviation | 11.914 | 8.755 | 8.688 | 7.22 | 16.954 |
| Total | Mean | 18.57 | 9.19 | 32.19 | 20.26 | 95.01 |
| | N | 101 | 101 | 101 | 101 | 101 |
| | Std. Deviation | 11.191 | 8.407 | 8.36 | 7.111 | 15.542 |

Table No 2 showed that age intervals with mean and total number of participants. Age range 40-44 year this age group (N=35) is low level of mean on sleep quality (M=17.66), depression (M = 7.83) , Negative Emotions (M= 20.23) and quality of life (M=94.03) with only Positive emotions being slightly higher (M= 32.26) than age range (45-49-50-55 year)

Age range 45-49 year this age group (N=39) is low level of mean on sleep quality (M=18.69) positive emotions (M=32.18) and slightly higher mean of quality of life (M=94.31), depression (M=10.56), and negative emotions (M=20.64) than other range (40-44, 50-55)

Age range 50-55 year this age group (N=27) is low level of positive emotions (M=32.11) and negative emotions (M=19.74) with only quality of life being

slightly high (M=97.3) and sleep quality with high mean (M=19.59), depression (M=8.96)

Table no 4 Coefficient of Correlation measure on sleep quality, depression, positive emotions, negative emotions and quality of life

Table No 4
N= 101

| | Sleep Quality | Depression | Positive Emotions | Negative Emotions | Quality of life |
|-------------------|---------------|------------|-------------------|-------------------|-----------------|
| Sleep Quality | 1 | .727** | -.203* | .654** | -.587** |
| Depression | | 1 | -.265** | .640** | -.676** |
| Positive Emotions | | | 1 | -.114 | .646** |
| Negative Emotions | | | | 1 | -.574** |
| Quality of life | | | | | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).

A Pearson product moment coefficient of correlation was conducted to examine the relation between Sleep Quality, Depression, Positive Emotions, Negative Emotions and Quality of life in Premenopausal and Postmenopausal women. These finding indicated that depression explains much more of the variability in menopausal women than does sleep quality and positive emotions.

Depression showed significantly positive correlation with negative emotions = (r=.640, P=0.001). Positive emotions are significantly positive correlation to quality of life with (r=.646, P=0.01)

Table 4 show coefficient of correlation results revealed that Sleep quality was significantly positive correlation to depression (r= .727, P=0.01) than negative emotions = (r=.654, P=0.01).

Sleep quality was significantly negative correlation with quality of life = (r=-.587, P=0.01) than positive emotions = (r= -.203, P=0.05). Depression significantly negative correlation to quality of life (r = -.676, P=0.01) than positive emotions. Negative emotions significantly negative correlation with quality of life = (r= -.574, P=0.01).

Table 5: Regression analysis for prediction of sleep quality

| Variable | B | β | SE |
|-------------------|-------|-------|------|
| Constant | 27.36 | | 4.34 |
| Positive Emotions | -.272 | -.203 | .14 |
| R square | .041 | | |

Note N=101; Dependent variable: Sleep Quality
**p<0.001

Table 5 simple regression analysis showed that positive emotions influence the sleep quality. The R2 value of 0.41 revealed that the predictor (Positive Emotions) variable explained variance in

the outcome variable with F (4.248) = 515.359 P<.001. The findings revealed that Positive Emotions strongly predicted sleep quality (β = -.203, p<0.001)

Table 6: Regression analysis for prediction of sleep quality

| Variable | B | β | SE |
|-----------------|--------|-------|------|
| Constant | 58.748 | | 5.64 |
| Quality of life | -.423 | -.587 | .059 |
| R square | .070 | | |

Note N=101; Dependent variable: Sleep Quality
**p<0.001

Table 6 regression analysis showed that quality of life influences the sleep quality. The R2 value of .345 revealed that the predictor (quality of life) variable explained variance in the outcome variable

with F (52.102) = 4318.656 P<.001. The findings revealed that quality of life strong predicted sleep quality (β = -.587, p<0.001)

Table 7 : Regression analysis for prediction of positive emotions

| Variable | B | β | SE |
|------------|--------|---------|------|
| Constant | 34.613 | | 1.12 |
| Depression | -.264 | -.265 | .096 |
| R square | .070 | | |

Note N=101; Dependent variable: Positive Emotions
 **p<0.001

Table 7 regression illustrates how depression influences the positive emotions. The R2 value of .070 revealed that the predictor (Positive Emotions) variable explained variance in the outcome variable

with $F(7.504) = 492.452$ $P < .001$. The findings revealed that sleep quality strong predicted sleep quality ($\beta = -.265$, $p < 0.001$)

Table 8: Regression analysis for prediction of quality of life

| Variable | B | β | SE |
|-------------------|---------|---------|-------|
| Constant | 120.422 | | 3.859 |
| Negative Emotions | -1.254 | -.574 | .180 |
| R square | .329 | | |

Note N=101; Dependent variable: Quality of Life
 **p<0.001

Table 4 regression analysis showed that negative emotions influence the quality of life. The R2 value of .329 revealed that the predictor (Negative Emotions) variable explained variance in the outcome variable with $F(48.648) = 7958.703$ $P < .001$. The findings revealed that negative emotions strong predicted quality of life ($\beta = -.574$, $p < 0.001$)

Discussion:

In this present study results revealed that pre-menopausal women and post-menopausal women with depression, sleep quality, quality of life and positive and negative emotions. The study represent that post-menopausal women show high score mean for sleep quality , negative emotions and Depression and low level score with Quality of life and Positive Emotions. Some studies did reported that menopausal women with depression, Stress , low sleep quality , Negative emotions , low level quality of life , psychosomatic symptoms (eg : - Pain and discomfort) [4]. Menopause have negative impact towards quality of life and psychological factors as well [5]. There are studies reported for menopausal women but there are no accurate findings for both perimenopause and post menopause women's. The study reported post menopause women have high level of negative emotions, depression and low level of positive emotions, sleep quality and quality of life as compare to perimenopause women. In summary, there was a direct and substantial association between sleep quality and quality of life, as well as between their dimensions, in this study of postmenopausal women. A decline in sex hormone

levels in postmenopausal women has an impact on their lifestyles. Menopause's Complications.

As the study has reported with low quality of life there are many factors that get affected with low quality of life it diversely affects health of one can cause problems with health and sanitation. There will be lack of basic needs fulfillment. Low life quality denotes a lower standard of living in the lack of fundamental demands as well as social, cultural, emotional, and spiritual needs [22]. A low quality of life indicates a low standard of living. There can be physiological and psychological issues as well as Conflict within the family members is one of the reasons with Low income and poverty & High maternal and infant mortality rate as well in women. There can be major issue in case of high depression as the reported in study for women. Depression can affect all aspect of a woman's life, including their physical health, social life, relationships, profession, and sense of self-worth, and is exacerbated by factors such as reproductive hormones, social pressures, and the specific female stress response. A person suffering from depression may also have a variety of physical symptoms such as aches and pains, headaches, cramps, or digestive issues [16]. Someone suffering from depression may also have difficulty sleeping, getting up in the morning, and feeling weary. There can many other problems related to physical health and psychologically as well. Women can have difficulty concentrating in every aspect of life or find it hard to remember or decision making as there is psychological affect which directly affects physically as changes in appetite or weight [18].

One can have thoughts of suicide or attempts for one which can cause death. There are other issues related to health such as pains, cramps, problems with digestion and headaches. Due to depression women faces issues in relationship, cannot fulfill their responsibilities can face financial difficulties, which is also an factor to increase risk of developing depression. As depression can cause low quality of life as it affects physical, emotional, and cognitive functioning of one. Even depression have lead to negative emotions as resulted in study as well like sadness, hopelessness, guilt, worthlessness, and a loss of interest in activities that were once enjoyed. The cognitive gets affected and cause changes in one behaviour [20].

Conclusion:

Although the menopause is a medical and physiological process, women also have psychological issues before, during, and after the menopause. In this study, a positive association was shown; postmenopausal women displayed higher levels of depression and negative feelings than premenopausal women.

The four key factors (life quality, depression, positive and negative emotions, and sleep quality) could differ from one another. When compared to premenopausal women, postmenopausal women showed considerably higher levels of depression and negative emotion ratings, along with poor sleep and a poor quality of life that reduced positive feelings. These results suggest that studies.

Conclusion of the study premenopause and postmenopause, women should also improve life style , quality of life , sleep quality, positive emotions automatically are indirectly reduce depression and negative emotions because doing so will benefit them holistic health and wellbeing of the women.

Limitations of Study:

- 1: Time constraints.
- 2: Limited access to data as the age limit was for 40-55.
- 3: Women's with Psychotic Disorder were not participated.

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