

# The Relation between Knowledge on Menopause and Anxiety Facing Menopause in Perimenopausal Women

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**Abstract:** *This study aims to ascertain the relation between knowledge on menopause and anxiety with regards to facing menopause in perimenopausal women. It is hypothesized there is a negative relation between knowledge on menopause and anxiety with regards to facing menopause in perimenopausal women. The subjects in this study are 67 women, ages 40 to 50 years old, in the perimenopausal stage, married, and had never undergone a hysterectomy. All subjects completed two data-gathering instruments: facing-menopause-anxiety scale and knowledge on menopause questionnaire. Simple linear regression was used to analyze the data. The result obtained from this study indicates there is a significant relation between knowledge on menopause and anxiety with regards to facing menopause in perimenopausal women ( $p < 0.05$ ). It can be concluded there is a negative relation between knowledge on menopause and menopausal anxiety. Knowledge on menopause provides 7.5% effective contribution to menopausal anxiety in women in the perimenopausal stage.*

**Keywords:** *anxiety, knowledge about menopause, perimenopausal*

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## I. INTRODUCTION

Menopause is a developmental phase that will be faced by women in middle adulthood [32]. All women who live long will experience menopause [3]. Menopause does not occur arbitrarily, but through a process that leads to menopause. Perimenopause is a transitional phase toward menopause. This phase starts a few years before menstruation completely stops, and will end in a year after the last phase when women have reached menopause.

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Women generally experiencing the menopausal phase between ages 40 and 50 years old, characterized by the end of the menstruation phase and the ability to give birth [32].

The menopausal process is complete within 3 to 5 years until a woman's menstruation cycle has ended lasting 12 months [22]. Meanwhile, according to Mason [21], a generally perimenopausal process occurs between 2 and 8 years.

During menopause, the estrogen hormone produced by the ovary undergoes a drastic decline and causes a few women experiencing uncomfortable physical and psychological symptoms, including hot flushes, dizziness, and heart palpitations irregular menstruation, excessive sweating, insomnia, depression, and irritability [33; 35]. Almost 70% of women in the perimenopausal stage also complaining about some vasomotor, somatic, psychological symptoms leading up to the postmenopausal phase [5]. Hormonal fluctuation during the perimenopausal phase also causes mood disorders in women [35].

One of the mood disorders often experienced by women in the perimenopausal phase is anxiety disorder [38]. Shakila, Sridharan, and Thiyagarajan [34] stated anxiety is one of the most common symptoms experienced by perimenopausal women, with as many as 92% of these women reporting experiencing anxiety symptoms, followed by depression (80%), muscle and joint pain (76%), vaginal itching (68%), hot flushes and night sweating (66%), irritability (64%), sleep and concentration disorder (60%), as well as physical and mental fatigue (58%). Factors such as development, social, and reproduction factors are believed to increase women's risk and vulnerability toward anxiety disorder [27]. Anxiety is the state of mood oriented on the future and is marked by the occurrence of worriness due to one's inability to predict or control approaching events [25].

Anxiety on menopause will arise with the presence of low knowledge [11]. The reality that there are still many perimenopausal women with low knowledge on menopause is unfortunate. Anxiety in facing menopause has negative effects on women. Knowledge on menopause is projected as one of the factors that can reduce the probability of perimenopausal women experiencing anxiety toward menopause. For this reason, the researchers aim to determine the relation between knowledge on menopause and anxiety with regards to facing menopause in perimenopausal women.

## **AI. LITERATURE REVIEW**

According to Lazarus [18], anxiety is an unpleasant subjective emotional experience caused by a psychological state that threatens an individual's existence; the source of threat is vague, thus causing the individual to fear the future.

According to Maher [7], a strong anxiety reaction is generally indicated by the emotional, cognitive, and physiological reactions. Maher [7] explains that emotionally, someone that experiences anxiety has an awareness of fear and experiences intense fear. Maher also added that increasing fear affects the cognitive functions, such as disrupting one's ability to think clearly, solve problems, and handle surrounding demands [7]. Physiologically, the body's response toward fear will mobilize one's self to perform an action either voluntarily or not [7]. When the mind is controlled by fear, the autonomic nervous system will shift the body into a state of intense stimulation, such as heart palpitations, increasingly rapid breathing, dilated pupils, high blood pressure, cessation of digestive and intestinal processes, increase of blood pressure, and the adrenal glands fire adrenaline into the blood [7].

Priest [28] stated that middle-aged women are more prone to experience anxiety than middle-aged men. Factors that cause these women to be at a higher risk include stress, menstruation, pregnancy, miscarriage, and menopause [28]. More middle-aged women experience anxiety because, in this transitional phase, there is a decrease in ovarian function, which causes physical and psychological symptoms [38]. According to Kothiyal and Sharma [16] psychological changes, such as depression, anxiety, and other mood disorders, are caused by changes in estrogen level that women in the transitional phase toward menopause experience, and this can affect a woman's quality of life after entering the menopausal phase. Flores-Ramos, Tomassoni, Guerrero-Lopez, and Salinas [12] also found that women in the perimenopausal phase experience a greater state of anxiety than women in the postmenopausal phase. This confirms that women tend to experience increased anxiety in the transitional phase in the lead up to menopause [12].

According to Smart [36], anxiety in facing menopause is indicated by worry about the occurrence of changes in the physical (biological), social, as well as sexual attributes. Physical changes experienced by women of this age include vaginal dryness, low libido, and a decrease in the quality of orgasm [39]. Smart [36] explained that women who experience anxiety in facing menopause tend to worry that the people they love will turn around and walk away due

to these physical changes. They start to feel anxious because they can no longer bear children, feel old, feel there is something wrong with them [1], or feel the loss of their attractiveness [9].

According to Kartono [15], this physical condition really influences women's psychological condition. In the perimenopausal phase, women often experience emotional pressure that at times is too deeply felt, causing them to feel upset or hatred and their facial expressions to become tense [9]. Perimenopausal women also often feel overly anxious about things to come, overthink, imagine unfortunate events that might happen to them and others, and become overly alert and overly observant toward their surroundings, resulting in distraction, difficulty in concentrating, pain, and difficulty in sleeping [24]. These menopausal symptoms experienced by women can have negative effects on women's lives, including a decrease in their quality of life [16] and a decline in their ability to work [13].

Anxiety on menopause will arise with the presence of low knowledge [11]. Based on a study conducted by Aprillia and Puspitasari [4], knowledge, attitude, family support, finance, and lifestyle have a significant influence on women's anxiety level in dealing with menopause. Unfortunately, there are still many women who have limited knowledge about menopause. A study by Paudyal and Nepal [26] demonstrated that of 142 women aged 40 to 60 years old, most (63.4%) still have very low knowledge about perimenopause, 33.8% have enough knowledge about this matter, and only 2.8% possess good knowledge about perimenopause. According to Paudyal and Nepal [26], this knowledge on perimenopause is influenced by education status, education level, and economic status.

The reality that there are still many perimenopausal women with low knowledge on menopause is unfortunate. The research shows that knowledge on menopause is proven to effectively reduce women's anxiety in facing menopause [38]. The study conducted by Ermawati et al. (2011) in Kudus Regency also showed that 65.8% of the perimenopausal women have a high anxiety level and 55.3% of these perimenopausal women have low knowledge on menopause. Ermawati et al. [11] stated there is a significant relation between anxiety and knowledge on menopause. In line with that, research conducted by Damayanti [8] also showed that a lack of knowledge or information on menopause can increase women's anxiety in dealing with menopause. According to Notoatmodjo [23], possessing adequate knowledge on menopause will let these women know about the cares that needed for the changes due to menopause and will not experience anxiety toward approaching menopause. Agee [2], explained that knowledge

is the power for women undergoing the menopausal phase, which may be filled with relations to physical as well as psychological ailments.

Knowledge on menopause is awareness about what menopause is, its symptoms, the changes that occur in this phase, as well as how to overcome the menopausal symptoms. Menopause is when the female menstruation period and the ability to give birth end completely, usually occurring during middle age, around the late 40s or early 50s [32]. A woman is said to be entering or undergoing menopause when she no longer experiences menstruation in 12 months [19]. Baziad [5] revealed that when a woman enters the menopausal phase, they will experience physical discomfort, including hot flushes, strong palpitations, insomnia, dizziness, fatigue, paresthesia, weight gain, and bone and muscle pain. Unfortunately, not all women have knowledge on menopausal symptoms and changes in the body, and how to overcome them.

### **III. METHOD**

The subjects in this study are 67 women aged 40 to 50 years old, with husbands, have never undergone ovary removal, not yet menopause, and are from Sleman Regency, Yogyakarta. Subjects were asked to fill in two scales. The scale of knowledge on menopause arranged by Suhaidah [37] was used to measure their knowledge on menopause in perimenopausal women. This scale consisted of 20 questions, which were closed or structured questions so respondents can only choose or respond to the existing answers, which are either right or wrong. This scale consists of statements about the meaning of menopausal women, menopausal signs and symptoms, changes occurring after entering menopause, the symptoms that take place in the lead up to menopause, and how to deal with these complaints. This measurement has been tested and has a reliability coefficient of 0.872 [37].

In measuring the anxiety level toward menopause, a menopausal anxiety scale developed by the researcher was used. This scale consists of 45 items based on three menopausal anxiety aspects, which are physical, sexual, and psychological aspects. The trial on 45 items indicated that 33 items had good quality with item discrimination between 0.312 and 0.738 and a reliability coefficient of 0.917. The data obtained were then analyzed using the simple linear regression technique.

### **IV. RESULT**

The data obtained present the respondents' anxiety level data. As many as 6% of respondents possess a very high anxiety level in facing menopause, 28.4% possessed high anxiety, 29.9% were on medium anxiety level, 31.3% had low anxiety, and 4.5% had very low anxiety. This result indicates that most respondents possess low, medium and high anxiety levels, and the amount is almost the same at each level. Aside from that, this research obtained data regarding the knowledge level on perimenopause from respondents. As many as 3% of respondents possess a very good level of knowledge on menopause, 28.4% possess good knowledge, 38.8% possess adequate knowledge, 23.9% fell under low knowledge category, and 6% possess very low knowledge on menopause. This data indicates that most subjects have adequate knowledge on menopause, but there was still almost one out of four respondents who possess low and even very low knowledge on menopause.

Next, to test the relation between knowledge on menopause and anxiety about facing menopause, the regression analysis result demonstrated a significance value of 0.025 ( $p < 0.05$ ). This demonstrated that there is a significant relation between the two variables. The value of the determination coefficient from the knowledge on menopause and anxiety with regards to menopause variable is 0.075. This value demonstrated that knowledge on menopause has a role of 7.5% in anxiety with regards to menopause. Meanwhile, the other 92.5% is influenced by other factors. The result of the analysis on the variable of knowledge on menopause with the anxiety regarding menopause resulted in the following regression equation:

$$Y = B + B_1 X_1$$

$$\text{Facing-Menopause Anxiety} = 87.509 + (-1.265) \text{ Knowledge on Menopause.}$$

The constant value of 87.509 explained that the value of knowledge on menopause variable is zero; thus, the menopause-facing anxiety is 87.509. If the coefficient of knowledge on menopause increases by 1 then the menopause-facing anxiety will increase by  $-1.265$ , or it can be concluded that if the coefficient of knowledge on menopause increases by 1, then the menopause-facing anxiety will be reduced by  $-1.265$ . Coefficient with negative value demonstrates a negative relation between knowledge on menopause and menopause-facing anxiety. The higher the knowledge on menopause is, the lower the menopause-facing anxiety is. On the contrary, the lower the knowledge on menopause is, the higher the menopause-facing anxiety is.

## V. DISCUSSION

As one of the developmental phases that will be faced by middle-aged women [32], there are many symptoms, including physical and psychological, that are experienced by women during the transitional phase in the lead up to menopause [5; 33; 35]. Significant estrogen fluctuation during this phase, also known as perimenopause, often causes mood disorder, including anxiety [16; 20], even placing anxiety as one of the most common symptoms faced by women during perimenopause [34].

The result of this research demonstrates that most respondents aged 40 to 50 years old experience low anxiety about menopause (31.3%). However, there are still many respondents who have medium anxiety levels (29.9%) and high anxiety levels (28.4%). This gap in anxiety levels is influenced by various factors, such as age, job status, menstruation history, personality traits, or monthly household income [20]. Aside from that, the longitudinal study by Bromberger et al. [6] shows that menopausal stages significantly correlate with anxiety faced by middle-aged women. The anxiety symptoms experienced by middle-aged women generally increase starting from the premenopausal phase, peaking at the end of perimenopause, and continuing to show high anxiety levels during the postmenopausal phase (Bromberger et al., 2013).

This research attempts to discover the correlation between knowledge on menopause in women of perimenopausal age and the menopause-facing anxiety level. From the result of this study, a significant negative relation is found between knowledge on menopause with menopause-facing anxiety in perimenopausal women. This indicates the higher the knowledge on menopause is, the lower the anxiety experienced by perimenopausal women in dealing with menopause. On the contrary, the lower the knowledge on menopause is, the higher the anxiety in perimenopausal women in dealing with menopause.

This research finding is in line with the previous research by Aprillia and Puspitasari [4] which shows a negative relation between knowledge on menopause and menopause-facing anxiety in perimenopausal women. Aprillia and Puspitasari [4] reported as many as 53.9% of respondents to have little knowledge and high anxiety level in facing menopause. The study by Rusmeirina [31] about knowledge on menopause and anxiety with regards to menopause also shows similar results. Other studies support the results of this research including research by Damayanti [8]. Damayanti's research [8] demonstrated there is a relation between knowledge on menopause and menopause-facing anxiety. Damayanti [8] revealed that less knowledge or

information on menopause can cause menopause-facing anxiety in women. It is important for women to know about the changes that occur with menopause as well as the symptoms arising with menopause [8].

Research by Wijayanti [38] also shows a significant correlation between health education and anxiety, or it can be inferred that education can reduce respondents' anxiety [38]. Wijayanti [38] gives health education in the form of knowledge on menopause to the respondents in her research. Before respondents were provided information, as many as 79% of the respondents have little knowledge about menopause and as many as 22.35% of respondents experience severe anxiety. After being provided information, as many as 54.8% of respondents have good knowledge and 34.54% of respondents experience light anxiety. This indicates that after being provided with the knowledge on menopause, respondents' anxiety in facing menopause decreases.

According to Notoatmodjo [23], someone who experiences anxiety in dealing with menopause can be caused by a lack of knowledge on menopause. Women who are aware of menopause are more able to handle the changes that occur with menopause, and they do not experience anxiety with regard to menopause [23]. Inadequate knowledge can increase the risk of women experiencing anxiety during the phase leading to menopause because they are unaware of how to handle the changes due to menopause [14].

According to Lestary [19], women's perception and judgment about menopause, in general, are mostly influenced by myths or faiths that might not necessarily be true. Most beliefs or myths about menopause that grow in the society are so trusted that they cause women to experience negative emotions, such as feeling less attractive, unneeded, invaluable, or less than a real woman [19]. Women's deep anxiety about menopause is most probably caused by the lack of accurate information about menopause [19].

There are still many women who need accurate information from midwives or doctors about menopause. Most women are unaware of the menopausal symptoms and do not know how to care for their health when approaching their menopause [31]. In this research, most respondents possess adequate knowledge, but still, almost 1 in 4 respondents lack the knowledge on menopause. This lack of knowledge on menopause still befalls in many parts of the world. In Kenya, as many as 84% of women have minimal knowledge on perimenopause, even as they experience perimenopausal symptoms [1]. Rukumani [30] discovered adequate knowledge on



the definition of menopause among perimenopausal women in India, but there is still little knowledge on menopause and its symptoms, treatment, as well as the needed nutrition and coping strategy. Similarly, Elkazeh and El-Zeftawy [10] found that most women in reproductive age (15 to 49 years old) in Egypt possess a lack of knowledge on the concept, symptoms, signs, emergence, and cause of menopause as well as accurate self and health management in dealing with menopause. Women who were not provided the right information end up imagining the negative effects they will experience with menopause [17]. The more knowledge a woman has about her body and its natural functions, the less she will fear menopause. Meanwhile, it is the lack of knowledge on menopause that will induce fear in women facing menopause [29]. Socialization on what menopause is, how to prevent it, and how to overcome it is needed by the society [19]

Overall, the results of this study demonstrate that knowledge on menopause has a significant relation with menopause-facing anxiety in perimenopausal women. It can be seen that knowledge on menopause has a role in menopause-facing anxiety of 7.5%. This proves that knowledge on menopause is one of the important ways for women to be more ready in overcoming menopausal symptoms and the changes that occur with menopause. Even so, other factors, including age, menstruation history, personality traits [20] and hormone [16], also influence the anxiety levels in women as they enter the transitional phase approaching menopause.

This research's limitation is that it only uses the age range to determine that subjects are on the perimenopausal phase. It is advisable that future researchers add a questionnaire regarding the symptoms that signal the subjects are in the perimenopausal phase in order to produce data that are more compatible with the research objective.

## **VI. CONCLUSION**

This research proves that knowledge on menopause has a relation with anxiety about facing menopause in perimenopausal women. The higher the knowledge on menopause, the lower the menopause-facing anxiety in women is. On the contrary, the lower the knowledge on menopause is, the higher the menopause-facing anxiety in women is. Knowledge on menopause has a role in menopause-facing anxiety of 7.5%.

## VII. SUGGESTION

It is advisable for women to increase their knowledge on menopause to be more ready in facing the changes that occur due to menopausal symptoms. Aside from that, adequate knowledge will reduce the anxiety of women about facing menopause. Information on menopause can be obtained by reading books or inquiring to doctors or midwives. Further research is hoped to reveal other factors that influence the anxiety of women in facing menopause.

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