

CORRELATION STUDY OF QUALITY OF LIFE OF PREGNANT WOMEN AND MATERNAL FETAL ATTACHMENT

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ABSTRACT

Background: Pregnancy is a natural process involving the conception of an ovum and sperm, leading to physical and psychological changes that increase the risk of mental and physical health issues. Pregnant women's quality of life is influenced by their biological, physical, mental, and social functions. Conditions like hyperemesis, discomfort, anxiety, and lack of support networks can impact their quality of life. Maternal Fetal Attachment (MFA) plays a crucial role in maternal and fetal health, with high MFA scores indicating better self-care and pregnancy behavior. **Objective:** This research about points to decide the relationship between the quality of life of pregnant women and maternal fetal attachment. **Methods:** Quantitative correlational study with a sample of 30 pregnant women. Accidental sampling technique using Prenatal Attachment Inventory Questionnaire and Quality of Life (QoL). Data analysis using Kendall Tau. **Results:** The age range of respondents was 20-35 years, the majority were high school graduates (63.3%), multigravida (76.75). The quality of life of pregnant women was good (80%). Maternal Fetal Attachment was high (25 respondents (83.3%). The results of Kendall Tau showed a p value of 0.017 or p-value α 0.05. **Conclusion:** There's relationship between quality of life of pregnancy and maternal-fetal connection in pregnant mother. Mothers are recommended to increase maternal-fetal attachment Strengthening and pay attention to mental health and emotional support.

Keywords: maternal fetal attachment; pregnancy; quality of life

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INTRODUCTION

The World Health Organization (WHO) states that pregnancy and childbirth are specific conditions and are not classified as a disease/disorder. However, the physiological and social process of pregnancy can have an impact on health risks. Pregnancy is one of the physiological processes that will be experienced by women during the reproductive period and a happy experience for a mother. The process of becoming a mother involves the process of learning, integrating and finally intuitively practicing the skills needed to care for a baby. (Mariani, 2020). Pregnancy is a time when women experience physical and psychological changes. (Wahidah Sukriani, 2018).

Changes during pregnancy are physical and psychological. Physical changes include breast enlargement, morning sickness, weight gain,

enlarged stomach, skin changes especially around the stomach, the color will darken and stretch marks appear, easy to feel tired, and false contractions. Psychological changes such as feelings of happiness and sadness, sexual changes, stress and psychological disorders, worries, mood swings, and anxiety can cause discomfort. Physical and psychological changes in pregnant women have an impact on the quality of life of pregnant women Where the measurement of quality of life includes physical, mental and social health (Yuliania, 2021).

WHO reports that as many as 10% of pregnant ladies and 13% of unused moms endure from mental issues, particularly misery. In creating nations, the number increments, specifically 15.6% amid pregnancy and 19.8 after giving birth. In addition, mothers with mental disorders are usually unable to perform daily tasks properly. This

outlines that wellbeing issues in pregnant and postpartum moms are not as it were physical wellbeing issues but too mental and social wellbeing. Quality of life is an pointer utilized to degree a person's physical, mental and social wellbeing. In this indicator, there is a relationship between domains that cannot be separated. there is a relationship between each domain. The quality of life of pregnant women is determined by the pregnancy process from the first trimester to the last trimester.

The quality of life of pregnant ladies influences the physical and mental wellbeing of pregnant ladies. There are numerous components that can influence the mental wellbeing of pregnant ladies and can affect their physical health, including the attachment between pregnant women and the fetus in the womb or called Maternal Fetal Attachment (MFA) (Prihandini, 2019).

Pregnant ladies involvement physical, mental and mental changes. In common, pregnancy may be a wonderful thing and is anticipated by ladies to proceed their descendant, however, pregnancy can sometimes have uncomfortable effects, and sometimes changes in mood or lead to depression which is related to various physical and psychological changes. (Huailiang Wu et al, 2021).

Hormonal changes can affect emotional changes that cause physiological issues such as anxiety and depression. Even this can affect or interfere with the daily activities of pregnant women. Changes that happen within the physical, otherworldly and social measurements can influence the quality of life of pregnant ladies, where the quality of life of pregnant ladies is impacted by gestational age (Amal Bouti et al, 2022). The World Health Organization (WHO) states quality of life (QOL) is characterized as "individuals' discernments of their position in life within the setting of the culture and esteem frameworks in which they live and in connection to their objectives, desires, guidelines and concerns (Krzepota et al., 2018) . Quality of life includes a exceptionally wide concept, and can be impacted in a complex way by the subject's physical wellbeing, his mental state and level of

autonomy, social connections and connections with critical components of his environment. Hence, it is based on a few objective components (related to the quality of the environment and living conditions), and subjective variables (related to the individual environment and can be measured in terms of fulfillment and wellbeing) (Lagadec et al., 2018). The quality of life of pregnant women certainly affects the relationship between mother and fetus or what is commonly called maternal fetal attachment.

Maternal fetal connection is an inner enthusiastic representation of the infant and the pre-birth relationship between mother and hatchling as a interesting encounter. A few thinks about have utilized the term "maternal-fetal attachment" (MFA) to characterize the passionate connection between mother and baby as an marker of their wellbeing and the mother's productivity within the postnatal period. Essentially, a few analysts utilize the term "prenatal attachment," which alludes to the enthusiastic relationship that guardians create towards their unborn child amid pregnancy.

The broad writing on pre-birth connection has appeared that maternal pre-birth connection contributes to the organizing of the child's discernment as a human being and the advancement of connection between mother and mother and baby in the future (Maria C Giogia, 2022). Connection as a set of inside behaviors that cause the child to ended up near to its essential caregiver, more often than not the mother, is to begin with presented in the postpartum period, but it is accepted that connection starts long some time recently birth, amid pregnancy. Based on the accessible prove, this relationship can be impacted by different variables such as nationality, culture, mental and social conditions and the individual's past; that's , ladies who have not experienced secure connection amid their childhood may have issues in creating connection to their babies. (Atashi et al., 2018). From the description above, it is necessary to conduct research to determine the relationship between the quality of life of pregnant women and maternal fetal attachment.

METHOD

This sort of investigate is a quantitative descriptive correlational research, specifically finding the correlation between the autonomous variable (maternal-fetal attachment) and the subordinate variable of the quality of life of pregnant ladies with a cross-sectional approach (Arikunto, 2019). Cross Sectional, namely, researchers conduct measurements or research at the same time. The population in this study were all pregnant women in their third trimester in the last three months at one of the Community Health Centers in the Klaten area. The research sample was pregnant women in their third trimester who met the inclusion and exclusion criteria, including mothers with healthy reproductive age, and checked ANC accompanied by their families, a total of 30 pregnant women. The sampling technique used was accidental sampling using the Prenatal Attachment Inventory Questionnaire and Quality of Life (QoL) Questionnaire instruments. Researchers collected data by giving research questionnaires to pregnant women who were undergoing ANC at the Community Health Center.

Bivariate analysis is carried out to prove the research hypothesis to see the relationship between quality of life and maternal-fetal attachment. Bivariate analysis in this study is ordinal categorical data so that the data will be tested using Kendall's Tau which is used to measure the closeness of the relationship between two ordinal-scale variables and the data distribution does not have to be normal. If $P \text{ count} < 0.05$ then H_0 is rejected and if $P \text{ count} > 0.05$ then H_0 is accepted (Sugiyono, 2016). This research has passed the ethics of the Health Research Ethics Committee with no.5202A/B.2/KEPK-FKUMS/II/2024.

RESULTS

Table 1 Overview of Respondent Characteristics (n-30)

Characteristics of responden	n	%
Age		
20-35 Years	30	100
> 35 years	0	0

Education		
Low	2	6,7
Inter mediate	23	76,6
High	5	16,7
Work		
Work	5	16,7
Not working	25	83,3
Gravid		
Primigravida	7	23,3
Multigravida	23	76,7
Total	30	100

Result showed that Table 1, the distribution of respondents' age characteristics is 100% with non-risk ages (20-35 years). Majority of education is intermediate (76,6%), mother is not work (83,3%) and multigravida (76,7%).

Table 2 Overview of Quality of Life and Maternal fetal attachment (n-30)

Quality of Life	Maternal fetal attachment				Total		P value	π
	High		Low					
	f	%	f	%	f	%		
Good	23	76,7	1	3,3	2	80	0,017	0,6
Moderate	2	6,7	4	13,3	6	20		
Jumlah	25	83,3	5	16,7	3	10		
					0	0		1

Research showed that Table 2 The majority of Maternal Fetal Attachment (MFA) was high, as many as 25 respondents (83.3%). The results of Kendal Tau showed a p value of 0.017 or p-value $< \alpha 0.05$. There's relationship between quality of life of pregnancy and maternal-fetal connection in pregnant mother

DISCUSSION

Research results show that it is obtained that the distribution of respondents' age characteristics is 100% with non-risk age (20-35 years). The results of the study show that the characteristics of respondents are 100% with non-risk age (20-35 years). This means that the respondents' age is included in the productive age. Wiknjastro (Wiknjastro, 2015) states that the productive age is 20-35 years. The productive age is a good age for pregnancy, childbirth, postpartum and breastfeeding as well as family planning (Manuaba, 2015).

This study obtained data that most of the ages of pregnant women are in the range of 20-35 years. The age of pregnant women is a factor that can indicate the maturity and readiness of pregnant women in facing the pregnancy process. The age of pregnant women is divided into 2 categories, namely high risk and not high risk. The high-risk age is the age of the mother <20 years and > 35 years. Pregnancy under the age of 20 years can cause many problems because it can affect organs such as the uterus, even premature babies and low birth weight (Blackburn, 2012). This is because women who are pregnant in the early stages cannot provide a good supply of food from their bodies to the fetus while in the womb. Pregnancy under the age of 20 will result in fear of pregnancy and childbirth, this is because at that age women may not be ready to have children and the reproductive organs in women are not ready for pregnancy. (Pilliteri, 2015)

The educational characteristics of the majority of respondents are intermediate education, as many as 23 respondents (76.6%). This result shows that the majority of respondents with secondary education are junior high school and high school. According to Mariani (Mariani, 2020) knowledge is not completely gotten in formal instruction, but can too be gotten in non-formal instruction. A person's higher instruction can be gotten through data from other individuals or the mass media. The more data that comes within, the more information is gotten around wellbeing, particularly approximately pregnancy. This result is in accordance with Marlina (Marlina, 2017) which states that the majority of respondents are highly educated.

Education level can help pregnant women and their families in improving mental health and also the mother's affection for her fetus. During pregnancy, the mother will play 4 important roles in an effort to become a mother who goes through pregnancy comfortably, the baby's acceptance of the family, and getting communication with the baby, therefore the health education received by the mother regarding the relationship between the mother and the fetus will increase the mother's affection and awareness in optimizing her pregnancy (Wahyuntari & Puspitasari, 2021).

The characteristics of gravida are mostly multigravida as many as 23 respondents (76.7%). This means that respondents have given birth 2-4 times. Mothers with their first pregnancy will be motivated to check their pregnancy with health workers because for them pregnancy is something new. On the other hand, mothers who have given birth to more than one child assume that they already have experience from previous pregnancies so they are not motivated to check their pregnancy with health workers. (Wiknjosatro, 2015). Gravida greatly influences a person's acceptance, the more experience a mother has, the easier it will be to accept knowledge. Multigravida mothers utilize health services more because of previous pregnancy experiences. In addition, according to Sari's research, the most infectious diseases are found in multigravida with pregnancy-related diseases, preeclampsia. Based on theory, pregnancy is at greater risk of experiencing preeclampsia or pregnancy hypertension (Sari et al., 2019)

Most pregnant women unemployed as many as 25 respondents (83.3%). Work is related to monthly income or socioeconomic status which can affect the beliefs of pregnant women. This study is in line with Bidjuni (Bidjuni, 2015) entitled The relationship between socio-economic factors and anxiety of primigravida mothers at the Stuminting Community Health Center, data was obtained that the majority of pregnant women were not working, as many as 31 people (77.5%) and the fewest pregnant women were working, as many as 9 people (22.5%).

This is in line with the theory (Hastanti et al., 2021) work shows the socio-economic level and interaction with the wider community, it is assumed that more information is obtained. However, the risk of work is related to physical and psychological exposure so that it can cause stress. Pressure and demands on work can also affect the mother's psychology, causing stress. On the other hand, pregnant women who do not work have an impact on the family's income which is lacking so that it can cause stress in pregnant women. Bidjuni explained that working can divert feelings of stress for pregnant women, because working is a time-consuming activity and pregnant women will focus

on their work. Pregnant women who work can interact with the community so that they can increase their knowledge, besides that working can increase family income to meet needs during pregnancy (Bidjuni, 2015).

Maternal Fetal Attachment (MFA) is mostly high, as many as 25 respondents (83.3%). Where the factors that influence maternal-fetal attachment are the age of the pregnant mother, gestational age, education, parity, income, and pregnancy planning (Prihandini, 2019). Maternal-Fetal Attachment is an emotional bond between mother and fetus during pregnancy. This can be seen from the way a mother shows affection to her baby, by taking care of her and having a commitment to look after her baby. (Lamdianita, 2019). MFA plays an important role in maternal and fetal health and influences maternal decisions in healthy behavior during pregnancy. Mothers who have high MFA scores pay more attention to their pregnancy because they can feel attached to their fetus. These results are in accordance with Lamdianita (Lamdianita, 2019). bahwa mayoritas responden dengan MFA tinggi.

Maternal-fetal attachment certainly plays an important role in maternal and fetal health and influences the mother's decision to behave healthily during pregnancy. Mothers who have high maternal-fetal attachment scores have better behavior towards self-care and their pregnancy than those with low scores. Prenatal attachment has three main concepts, namely cognitive, affective, and altruistic attachment. Cognitive attachment is defined as the desire to know the baby. Affective attachment describes the happiness associated with fetal interaction, while altruistic attachment is described as the desire to protect the fetus. (Yang et al., 2019)

Pregnancy affects a woman's physiological and psychological condition. One of the foremost vital angles to consider is the quality of life of pregnant ladies. The quality of life of ladies amid this period is affected by a number of components, such as back and pelvic torment, physiotherapy and physical activity, and sexual satisfaction. Hormonal changes, physical discomfort, and problems related to sexual life are just some of the aspects that affect a woman's life during pregnancy. A superior quality of life for pregnant ladies is affected by variables

such as the normal age of the mother, primiparity, early gestational age, nonattendance of financial issues, tall level of instruction, work, marriage, having family and companions (Wójcik et al., 2024).

Pregnant ladies, particularly amid the third trimester, have altogether lower quality of life scores than non-pregnant ladies of the same age. Physically, quality of life diminishes altogether amid this trimester. At the mental level, a few considers report an increment in quality of life relative to mental wellbeing amid pregnancy, and in others mental solidness is seen. Numerous components have been related with quality of life in pregnant ladies. A few variables related with higher well-being are socio-demographic (to begin with pregnancy, great financial status, social back, accomplice back). So also, want to ended up pregnant and direct physical action are variables related with positive quality of life. Lower quality of life is related with physical components, (such as complications amid pregnancy, restoratively helped generation, corpulence some time recently conception, physical indications such as sickness and heaving, trouble resting), and then again related with mental components, (such as uneasiness and stretch amid pregnancy and depressive side effects) (Lagadec et al., 2018).

The comes about of the think about appeared that there's a critical relationship between the quality of life of pregnant ladies and maternal-fetal connection. Moms who have a great quality of life—both in physical, mental, emotional, and social aspects—are more likely to have a strong emotional bond with their fetus. Conversely, health problems, stress, lack of social support, and mental disorders can prevent mothers from building such an attachment, which can ultimately affect the health of the mother and fetus. Therefore, it is important to support pregnant women by providing comprehensive health care, strong social support, and attention to their emotional well-being during pregnancy.

There is a reciprocal relationship between maternal-fetal attachment and maternal quality of life, as both influence each other in shaping a healthy and positive pregnancy experience for both mother and fetus. Mothers who feel healthy and

physically comfortable tend to be more connected to their fetus. When mothers feel healthy, they are more active in caring for themselves and their fetus, leading to stronger feelings of attachment. Stress, anxiety, or depression can reduce the level of maternal attachment to their fetus. Mothers who feel happy, optimistic, and satisfied with their lives are more likely to build a good attachment to their fetus. Support from partners or family also plays a role in improving the quality of life of pregnant women. Mothers who receive emotional support from those closest to them are more likely to feel calmer and more able to build an emotional connection with their fetus. Cox et al (Cox, J. L., Holden, J. M., & Sagovsky, 2023) showed that maternal quality of life, especially psychological and social aspects, have a direct impact on the mother's feelings of emotional attachment to her fetus. Bennett et al (Bennett, P., 2024) found that mothers who feel more connected to their babies tend to have a better quality of life, especially in terms of mental and physical health.

The Influence of Maternal-Fetal Attachment on the Quality of Life of Pregnant Women is the Feeling of Connectedness to the Fetus. Mothers who feel emotionally connected to their fetuses tend to be more concerned about their own health and take actions that support the well-being of the pregnancy. Mothers who have a strong emotional attachment to their fetuses are more likely to feel happy and satisfied with their pregnancy. This has a positive impact on the mother's mental health, which improves the overall quality of life. Mothers who feel a strong attachment to their fetuses are more likely to attend regular pregnancy check-ups, live a healthy lifestyle, and plan for the future well. Müller et al (Müller, 2023) showed that the mother's emotional attachment to the fetus can increase the mother's self-confidence and ability to care for herself, which improves their quality of life. Mothers with high levels of MFA reported higher levels of life satisfaction and felt more positive during their pregnancy.

The implication of this study is that increasing social support by increasing social support for pregnant women can improve both the mother's quality of life and maternal-fetal attachment. Therefore, it is important to pay special attention to

the aspects of emotional and psychological support during pregnancy. In addition, ensuring that pregnant women receive good care for their mental health, including therapy or counseling if needed, can increase the mother's attachment to her fetus and improve her quality of life. A limitation of this study is that the data generated through self-report may be at risk of bias or lack objectivity, because mothers may have difficulty or be reluctant to convey their feelings.

CONCLUSION

There is a relationship between the quality of life of pregnant women and maternal fetal attachment. Mothers are recommended to increase maternal-fetal attachment by doing prenatal bonding program focusing on fetal development, relaxation. Family support is also essential in providing emotional support to increase quality of life of pregnant women.

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