

## THE IMPACT OF ANXIETY ON THE SUCCESS OF EXCLUSIVE BREASTFEEDING CHILDREN'S GROWTH AND DEVELOPMENT

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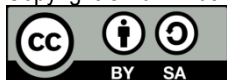
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### ABSTRACT

Pregnant women experience many psychological changes that can result in prenatal stress. This condition can lead to heightened anxiety and tension, creating a feedback loop that amplifies overall emotional intensity. The objective of this study is to examine the impact of prenatal anxiety on the effectiveness of exclusive breastfeeding, as well as on the growth and development of the child. The population in this study were all children aged 20-24 months with a total of 100 children in the Taman Sari District, Tasikmalaya City . The research results showed that 50 people (50%) had maternal anxiety during pregnancy. The Chi square analysis test on maternal anxiety during pregnancy and its impact on the success of exclusive breastfeeding yielded a p-value of 0.016. The study found a significant association between maternal worry during pregnancy and child growth, with a p-value of 0.008. Maternal anxiety during pregnancy has a significant impact on infant development, as indicated by a p-value of 0.022. Therefore, it can be inferred that maternal worry during pregnancy has an impact on exclusive breastfeeding, child growth, and child development

Keywords: Pregnant, Exclusive Breastfeeding, Child Development

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### INTRODUCTION

Pregnancy is a process that occurs between the meeting of sperm cells and the ovum in the ovaries or what is called conception until it grows into a zygote and then attaches to the uterine wall, the formation of the placenta, until the result of conception grows and develops until the birth of the fetus. The duration of a normal pregnancy is 280 days (40 weeks or 9 months and 7 days), calculated from the first day of the last menstrual period. Pregnancy is divided into 3 trimesters, the first trimester is 0 – 14 weeks of complaints experienced by mothers, namely mood swings, constipation, frequent diarrhea. The second trimester of pregnancy is 14-28 weeks, complaints in the second trimester are pain in the lower abdomen, appetite begins to improve. The third trimester of pregnancy is at 28 – 40 weeks. In the third trimester, fatigue, discomfort, frequent sickness, and emotional instability. (Efendi et al., 2022)

Psychological stress during pregnancy is defined as “the imbalance that a pregnant woman feels when she cannot cope with the requirements and is expressed both behaviorally and physiologically. The most common stressors that lead to depressive symptoms during pregnancy include: young mother’s age, low socioeconomic status, low educational level, daily stress, and high number of pregnancies. Pregnant women are more likely to be exposed to physiological stress, such as anxiety about their babies and their completely new lifestyle. (Răchită et al., 2022)

Anxiety/Stress in pregnant women as a result of an increase in the hormones adrenaline and noradrenaline or epinephrine. The hormone norepinephrine disrupts the regulation of the body's biochemistry. Consequently, pregnant women experience bodily strain. The physiological process can have a significant influence on daily behavior. Pregnant women may experience irritability, restlessness, difficulty concentrating,

indecisiveness, and a desire to escape from the challenges of life. This condition can lead to heightened anxiety and tension, creating a feedback loop that amplifies overall emotional intensity. (Gelaye et al. 2016; IUPHAR n.d.)

Anxiety and stress commonly manifest in pregnant women, however they are frequently overlooked and deemed relatively insignificant in the context of pregnancy. A Canadian study revealed that pregnant women experienced varying degrees of psychosocial stress, with 6% reporting significant levels of stress. In Spain, pregnant women had a 30% reduced likelihood of feeling stress, whereas in Indonesia, 64.4% of pregnant women suffer severe stress, which increases the risk of preterm birth. Anxiety/stress in pregnancy also affects the outcome of childbirth, namely it can influence the occurrence of preeclampsia, asphyxia in babies, and premature birth, so it will affect the mother's readiness to face her new role as a mother. (Silalahi and Kurnia 2023)

Exclusive breastfeeding was challenged by a lack of knowledge and different sociocultural beliefs; the incorrect beliefs that breastfeeding mothers are unable to produce enough milk to exclusively breastfeed their child for the first 6 months of life and that society believes that breastfeeding mothers look older than their age. The other barriers include, societal or peer pressure to bottle feed the child. (Jama et al., 2020) The first day to the 14th day postpartum of 114 mothers in America, who experienced spontaneous labor and cesarean section experienced breast swelling after returning from the hospital, and it was not well documented. The World Health Organization (WHO) recommends EBF until the age of 6 months, and then continuation of breastfeeding along with complementary feeding until 2 years or more. (Hossain & Mahrshahi, 2022) UNICEF highlights that infants who are fed formula milk have a higher likelihood of mortality within the initial month after delivery. The mortality rate for infants who are fed formula milk is 25 times greater than that of infants who are solely breastfed by their mothers.

Exclusive breastfeeding has the potential to prevent around 12% of child deaths under 5 years of age in developing countries. (Hossain & Mahrshahi, 2022) The level of exclusive breastfeeding in Indonesia is

currently still very low, namely between 39-40% of the number of mothers who give birth .

The advantages of exclusive breastfeeding encompass the provision of optimal nutrition for infants, as breast milk is more easily digested compared to formula milk. Additionally, breast milk contains colostrum, which is abundant in antibodies and SigA, providing localized protection on the digestive tract's surface. Furthermore, breastfeeding fosters a stronger emotional connection between the mother and baby. Moreover, exclusive breastfeeding for a duration of 6 months can enhance children's intelligence by ensuring the optimal development of their intellectual potential. This is because breast milk contains special nutrients that the brain needs, babies who are breastfed have more potential to gain ideal body weight. In addition, breastfeeding can prevent sudden infant death syndrome (SIDS); may lower the risk of diabetes, obesity, and certain cancers .

In providing exclusive breastfeeding, the mother must be given support so that the mother avoids worry and anxiety, because this will affect the mother's psychology. So, it is feared that mothers will not be optimal in providing the best for their children, for example in monitoring the child's growth and development.

Child growth and development is the growth and development of children which is divided into two things, namely physical growth and growth in body structure abilities. Early childhood growth and development is influenced by several factors, both internal and external. Internal factors consist of age, genetics, chromosomes, race, and also gender. However, external factors include parental stimulation, economic, social and nutritional conditions

In a child's golden period, parents must be more observant and carefully monitor their child's growth and development because it will have a big influence on the child's subsequent development. With proper monitoring and stimulation, children's growth and development will be optimal and children's growth and development disorders can be prevented from an early age

## METHOD

This research employs a quantitative approach and utilizes a quasi-experimental methodology with a one-group design. Analytical observational research design is research carried out without intervention. This research observes the success of exclusive breastfeeding and child development. Meanwhile, data on anxiety/stress when pregnant women were obtained from the results of previous research.

The duration of the investigation was carried out for six months between March and September 2023 in the Tasikmalaya City Area. The study focused on children between the ages of 20 and 24 months residing in the Taman Sari District of Tasikmalaya City. The participants in this study consisted of 67 children who were between the ages of 20 and 24 months.

The instrument used in this research was the standardized Depression Anxiety Stress Scale (DASS) questionnaire. The researchers used an instrument that had been adapted to Indonesian. Exclusive breastfeeding assessment uses a questionnaire. Growth and development is carried out using the KPSP instrument.

The Ethical Review was carried out at the Health Research Ethics Commission (KEPK) Poltekkes Kemenkes Malang with the statement of Ethical Appropriateness No. 280/V/KEPK POLKESMA/2023 on May 4, 2023

## RESULTS

**Table 1.** Description of Maternal Anxiety During Pregnancy

| Category anxiety | F   | %   |
|------------------|-----|-----|
| Normal           | 50  | 50  |
| anxiety          | 50  | 50  |
| Total            | 100 | 100 |

Based on table 1, it shows that the groups of mothers who are anxious during pregnancy and those who are normal are balanced with a percentage of 50% for each group.

**Table 2.** The influence of maternal anxiety during pregnancy on the success of exclusive breastfeeding

| Anxiety Category | Exclusive breastfeed ing |    | Not exclusive breastfeed ing |    | Total |     | P Value |
|------------------|--------------------------|----|------------------------------|----|-------|-----|---------|
|                  | F                        | %  | F                            | %  | F     | %   |         |
| Normal           | 29                       | 58 | 21                           | 42 | 50    | 100 | 0.016   |
| anxiety          | 17                       | 34 | 33                           | 66 | 50    | 100 |         |

Based on table 2, it shows that 29 (58%) mothers who did not experience anxiety (normal) during pregnancy gave exclusive breast milk and 17 (34%) mothers who experienced anxiety gave exclusive breast milk and 33 people (66%) did not. provide exclusive breastfeeding to mothers who experience anxiety. The results of the analysis test with Chi square obtained a P value of 0.016 so that the hypothesis was accepted. There is an influence of anxiety in pregnant women on giving exclusive breast milk to babies . Physical and mental readiness will influence your new role as a mother. The mother's psychology and family support greatly influence the success of the mother's role in accepting it

**Table 3.** Effect of maternal anxiety during pregnancy on child growth

| Anxiety Category | In accordance |    | It is not in accordance with |    | Total |     | P-Value |
|------------------|---------------|----|------------------------------|----|-------|-----|---------|
|                  | F             | %  | F                            | %  | F     | %   |         |
| Normal           | 42            | 84 | 8                            | 16 | 50    | 100 | 0.008   |
| anxiety          | 30            | 60 | 20                           | 40 | 50    | 100 |         |

Based on table 2, it shows that mothers who do not experience anxiety (normal) mostly have a child's growth curve that is appropriate to their age, namely 42 people (84%), while mothers who experience anxiety during pregnancy have a growth curve mismatch of 20 people (40%) . An analysis test was carried out with Chi square and obtained a P value of 0.008 so that the hypothesis was accepted. There

is an influence of anxiety during pregnancy on the child's growth.

**Table 4.** Effect of maternal anxiety during pregnancy on child development

| Anxiety Category | In accordance |    | Doubtful |    | Total |     | P-Value |
|------------------|---------------|----|----------|----|-------|-----|---------|
|                  | F             | %  | F        | %  | F     | %   |         |
| Normal           | 45            | 90 | 5        | 10 | 50    | 100 | 0.022   |
| anxiety          | 36            | 72 | 14       | 28 | 50    | 100 |         |

Based on table 4, it shows that mothers who do not experience anxiety (normal) mostly show appropriate development in their children, namely 45 people (90%), while there are 14 (28%) mothers who experience anxiety during pregnancy who have doubts about their child's development. An analysis test was carried out with Chi square and obtained a P value of 0.016 so that the hypothesis was accepted. There is an influence of anxiety during pregnancy on child development.

## DISCUSSION

### Description of Maternal Anxiety in Pregnancy

The level of maternal anxiety during pregnancy for each group of pregnant women who were anxious during their pregnancy and those who were normal was balanced with a percentage of 50% for each group. Anxiety in pregnant women can arise, especially in the third trimester. Anxiety experienced includes the uncertain gender of the baby, whether the baby will be born normal or not, the pain that will be felt, and so on. (IUPHAR, n.d.). Psychological anxiety disorders during pregnancy are related to the occurrence of resistance index in the uterine arteries. The disruption of blood flow to the uterus is a result of an elevated concentration of noradrenaline in the blood plasma. The uterus exhibits a high sensitivity to noradrenaline, which can induce vasoconstriction. The mechanism leads to impaired growth and development of the fetus in the womb due to insufficient oxygen and nourishment, culminating in low birth weight (LBW). Furthermore, stress and anxiety can trigger an elevation in the hormone corticotropin, which is recognized for its interaction with the hormones oxytocin and prostaglandin. Oxytocin hormone

facilitates uterine contractions, leading to preterm birth. (Gelaye et al., 2016)

The results of research by Maki, et al 2018, the factors that cause anxiety in pregnant women are divided into internal factors and external factors. Internal factors were divided into two categories, namely beliefs about childbirth as many as 13 people (52.0%) and feelings before childbirth with severe anxiety as many as 8 people (32.0%). External influences can be categorized into two groups: information provided by health personnel acting as educators, who are responsible for providing guidance and counseling, particularly in relation to reproductive health, including addressing anxiety during pregnancy and husband's support. This study builds upon previous studies investigating the correlation between anxiety and various outcomes. It specifically focuses on the relationship between the severity of stress experienced by pregnant women and their susceptibility to preeclampsia, asphyxia in newborns, and premature birth.

The Influence of Maternal Anxiety During Pregnancy on the Success of Exclusive Breastfeeding. From the results of measuring the level of anxiety, 29 (58%) mothers who did not experience anxiety (normal) during pregnancy gave exclusive breast milk and 17 (34%) mothers who experienced anxiety gave exclusive breast milk and 33 people (66%) did not provide exclusive breastfeeding to mothers who experience anxiety. The results of the analysis test with Chi square obtained a P value of 0.016 so that the hypothesis was accepted. Physical and mental readiness will influence your new role as a mother. Maternal psychology and family support greatly influence a woman's success in accepting her role as a mother, one of which is breastfeeding her baby. In line with the research results of Yulianti, et al 2022, it was stated that postpartum mothers in the Polokarto Community Health Center Working Area and the Mojolaban Community Health Center Working Area experienced anxiety which affected the exclusive breastfeeding of their babies. (Yulianti et al., 2022) This is also in line with the results of research conducted by Sulastri et al (2016) that the more anxious a mother experiences, the less likely she is to provide exclusive breastfeeding. According to the

researchers, it can be concluded that mothers who experience anxiety in the mild, moderate or severe categories can influence the mother's success in providing exclusive breastfeeding starting in the first month, as a result of the anxiety experienced by the mother which causes delays in the breast milk production process and the mother prefers to give her child formula milk.

**The Effect of Maternal Anxiety During Pregnancy on Child Growth** The measurement results show that mothers who do not experience anxiety (normal) mostly have a child's growth curve that is appropriate to their age, namely 42 people (84%), while mothers who experience anxiety during pregnancy have a growth curve mismatch of 20 people (40%). A Chi-square analysis was conducted, yielding a P value of 0.008, indicating that the hypothesis was accepted. Anxiety during pregnancy has a significant impact on the growth of the child. The study conducted by Lutfia et al. aimed to establish a correlation between exclusive breastfeeding and the occurrence of stunting. The results revealed a significant correlation between exclusive breastfeeding and the incidence of stunting. (Luthfia et al., 2023)

From the results of measurements of exclusive breastfeeding by mothers with an anxiety score of 0-7, 89% can provide exclusive breastfeeding and 25% cannot provide exclusive breastfeeding with an anxiety score of 10-14. Thus, maternal anxiety factors influence exclusive breastfeeding so that it can influence the child's growth.

According to Handayani et al. (2019), there is a positive correlation between exclusive breastfeeding duration for children aged 0-24 months and their growth in terms of height at the age of 24-36 months. The child's nutritional status improves in direct correlation with the mother's provision of exclusive breastfeeding. Conversely, if a mother does not provide exclusive breastfeeding for her infant, the youngster's nutritional status (stunting) would be negatively affected. Other research also states that children aged 12-36 months who are not exclusively breastfed by their mothers have a 3.7 times greater risk of stunting compared to children aged 12-36 months who are exclusively breastfed. Additional research indicates that children who do not receive exclusive

breastfeeding from their moms are 5.54 times more likely to experience stunting compared to infants who are exclusively breastfed. Providing infants with exclusive breast milk for a duration of 6 months can enhance their cognitive abilities, boost their immune system, and promote overall growth. Additionally, it can help prevent infections and lower the likelihood of nutritional deficiencies. (Handayani et al., 2019)

The findings of this study indicate that a significant majority of children who are exclusively fed breast milk experience optimal growth, specifically 94%. Meanwhile, children who do not receive exclusive breast milk experience inadequate growth, specifically 23%. Children who are exclusively breastfed have a significantly higher proportion of experiencing age-appropriate growth.

**The Effect of Maternal Anxiety During Pregnancy on Child Development** From the measurement results, the majority of mothers who did not experience anxiety (normal) showed appropriate development in their children,

The discussion contains a narrative that compares the results of the study with the results of previous research. Other reference sources (from previous research) are aimed at strengthening the argumentation of the results of research that has been done. The focus is on highlighting the parallels, contrasts, or distinctiveness of the collected findings. The reasons for these findings need to be discussed. The implications of the results are written to clarify the impact of the results and advances in the science studied. The discussion ended with various research limitations.

namely 45 people (90%), while there were 14 (28%) mothers who experienced anxiety during pregnancy who had doubts about their children's development. An analysis test was carried out with Chi square and obtained a P value of 0.022 so that the hypothesis was accepted. According to research results (Shofiyah, 2019). Babies that only get breast milk exhibit superior development compared to those who do not, as breast milk includes unique chemicals that are highly advantageous for infants and cannot be found in formula or any other alternative.

According to the results of research by Hye Jeong Choi, Su Kyoung Kang, and Mi Ra Chung in 2019.

Compared with babies who were not breastfed at all, babies who were exclusively breastfed until 4 months of age followed by mixed breast milk had better communication and social interactions at that age. 6 months. Enhanced cognitive abilities, improved communication skills, and enhanced social connections observed at 12 months of age. There is no significant effect on children at 6 and 12 months of age when they are exclusively breastfed till 6 months old.

From the results of research conducted by (Karang et al., 2020). which shows that the majority of exclusive breastfeeding is 73.9% compared to non-exclusive breastfeeding. This means that there are more mothers who give exclusive breast milk than those who give non-exclusive breast milk. Supported by research by Rosita Rahel Enambere et, al. It was found that the majority of respondents consumed exclusive breast milk, namely 72 (61.0%) respondents, 18 (15.3%) respondents who consumed formula milk and a combination of both amounted to 28 (23.7%) respondents.

The results of research by An-Nisa, et al 2023, regarding the development of babies aged 0-12 months at YARSI Hospital Jakarta were mostly within normal criteria (88%) and 6 people (12%) were suspect. There are 6 children in the suspect category. Three (3) children receive exclusive breast milk and the other three (3) children do not receive exclusive breast milk. This result is higher than research (Karang et al., 2020). which shows that the development of babies aged 0-12 months who receive exclusive breast milk or non-exclusive breast milk at Community Health Center II Denpasar Selatan is at normal development criteria (59.1%) (An-Nisa et al., 2023)

The findings of this study indicate that a significant majority of children who receive only breast milk experience appropriate child development, specifically 94%. Meanwhile, children who do not receive exclusive breast milk experience inadequate growth, specifically at a rate of 23%. Children who are exclusively breastfed have a significantly higher likelihood of achieving age-appropriate development.

## CONCLUSION

Based on the results of the research, it can be concluded that the percentage of mothers who experience anxiety during pregnancy is 50% and the percentage of mothers who do not experience anxiety during pregnancy is 50%. Anxiety during pregnancy experienced by pregnant women has an effect on exclusive breastfeeding, as evidenced by a p-value of 0.016. Anxiety during pregnancy affects the growth of the child, which is evidenced by a p-value of 0.008. In addition, anxiety also affects child development, as evidenced by a p-value of 0.022.

### Suggestion

Pregnant women should have regular check-ups during pregnancy to get additional information during pregnancy such as pregnancy signs and physiological changes of pregnancy, which can reduce anxiety in pregnant women. Health workers can improve the quality of counseling, including information about psychological changes in mothers during pregnancy and exclusive breastfeeding that can affect the growth and development of children. In the future, it is hoped that additional studies can be conducted on maternal anxiety variables during pregnancy, because these factors can affect exclusive breastfeeding, growth and development of the child.

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