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The Impact of Postpartum Mothers' Stress and Motivation on Breastfeeding Practice

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Abstract
Stress in postpartum mothers affects the production and pattern of breastfeeding. Postpartum mothers with high stress levels will have low self-efficacy, which then affects the breastfeeding pattern of their babies. This study aimed to determine the effect of postpartum mothers' stress levels on breastfeeding practices. This research method uses a correlation study through observation or data collection at one time (point time approach)—a sample of 80 mothers 1-6 weeks postpartum. Data was collected with the DASS (Depression Anxiety Stress Scale) questionnaire and breastfeeding. The research location is PMB East Cilendek and Tanah Sareal, Bogor City. The place was chosen because the failure rate of exclusive breastfeeding is high in that area. The independent variables in the study were postpartum maternal stress, motivation, and health education. The independent variable is breastfeeding in infants. Data analysis used the Lambda contingency coefficient test. Stress in postpartum mothers significantly affects the pattern of breastfeeding in infants. The confounding variables in this study were the motivation to breastfeed and the health education about breastfeeding that mothers had received. For this reason, health workers must be able to educate families, especially husbands, so that they can provide adequate social support to reduce stress on postpartum mothers so that the process of breastfeeding babies can run well.

Keywords: Postpartum Stress, Breastfeeding, Motivation

1. Introduction

Postpartum is a critical period in the transition of a mother's life, marked by several physical and psychological changes that begin after delivery up to 6 weeks. In this situation, a mother needs guidance from a health worker because she has a double task: meeting the needs of herself, her family, and her baby (Dodou et al., 2016). Lack of knowledge and the ability of mothers to deal with the post-partum period can result in fatigue. Yet, according to Reitmanova and Gustafson, fatigue in the post-partum period will cause anxiety (Reitmanova & Gustafson, 2008). According to the research results of Liabsuetrakul, Vittayanont, and Pitanupong, stress that occurs in the mother, lack of a good support system, and lack of knowledge can trigger the occurrence of *post*-partum *blues* and other puerperal complications (Liabsuetrakul et al., 2008). The research is in line with McCarter Spaulding's study,

which stated that post-partum mothers, especially primiparas who experience ongoing confusion in self-care in the post-partum period, are likely to develop post-partum depression (Mccarter-Spaulding et al., 2016).

The post-partum period is divided into 3: the post-partum period (*immediate post-partum*), the *early post-partum* period, and the *late post-partum* (Mccarter-Spaulding et al., 2016). During *early post-partum*, mothers already desire to take care of themselves and their babies and are allowed to stand and walk for self-care. Post-partum care is essential because, during the post-partum period, there are often deaths in the mother caused by various problems such as bleeding and infection; this can occur due to poor post-partum care (Herlina, 2011). The initial period after giving birth for a woman is generally the happiest event, especially if the child is born as expected. Few women experience the same thing and tend to experience harrowing events full of challenges and anxiety (Palupi, 2020).

Women who fail to adjust to biological, physiological, or psychological changes, including role changes, tend to experience emotional problems after childbirth. Psychological issues that often occur in post-partum mothers include post-partum blues/maternity blues, post-partum depression to delusional and hallucinating psychotic disorders. This problem can also be experienced by fathers (husbands or partners of women who give birth), although its occurrence is rarer and has not been studied. Several studies have concluded that post-partum depression can affect the mother's social life, professional skills, and mother-child influence which can be harmful (Erdogan, 2010).

Post-partum depression is defined in the International Statistical Classification of Diseases (ICD-10) as mental and behavioral disorders that occur after six weeks of delivery (WHO, 2007). Clinically, the symptoms of post-partum depression are similar to the criteria for diagnosing depressive disorders in general, namely: lack of enthusiasm in carrying out activities, changes in body weight and appetite, insomnia and even hyper insomnia, anxiety, psychomotor slowness, constant feeling tired and lacking energy, as well as features others that generally appear in those who suffer from depressive disorders. Women who suffer from post-partum depression experience symptoms in the first year after delivery; the impact is that it can affect the quality of life of both mother and baby, infant development, and the mother's inability to deepen parenting skills (Erdogan, 2010).

The prevalence of post-partum depression worldwide varies from 6.5% to 15% for one year after delivery (Leahy-Warren et al., 2011). The prevalence of post-partum depression in developing countries ranges from 2% -74%, with the most significant prevalence in Turkey (Forte Camarneiro & de Miranda Justo, 2020). Research conducted in Brazil states that the prevalence of post-partum depression increases every year. The predictor factor is the mother's lack of understanding to check the condition of herself and her baby so that screening and prevention efforts can be carried out. In Denpasar, the prevalence of post-partum depression reaches 20.5%, with risk factors including sociodemographic, obstetric, and marital factors. Based on the West Java Health Profile in 2012, it is known that in Bogor Regency, as many as 23 post-partum mothers died, even though as many as 87.4% of mothers received post-partum services from health personnel (Jabar, 2017).

According to Notoatmodjo, health behavior is formed by three factors: predisposing, supporting, and driving factors. Predisposing factors manifest in knowledge, attitudes, beliefs, beliefs, and values influencing health behavior. Supporting aspects embodied in the physical environment, availability or unavailability of health facilities or facilities. The third factor is the driving factor manifested in the attitude and behavior of health workers or other officers, which is a reference group for community behavior (Notoatmodjo, 2012). Does the stress felt by the mother affect breastfeeding in the baby? Based on the background above, this research is interested in examining "The Effect of Postpartum Mother's Stress on Breastfeeding in Babies in Bogor City."

2. Method

This research is an observational study using a cross-sectional, namely the measurement of independent and dependent variables carried out in the same group simultaneously. The study was conducted on postpartum mothers 1-6 weeks postpartum at the Independent Midwife Practice (PMB) in East Cilendek and Tanah Sareal, Bogor City. The location was chosen because, in that area, many postpartum mothers still fail to give exclusive

breastfeeding. The research is planned to be conducted in June-November 2020. The samples in this study were postpartum mothers in PMB Cilendek Timur and Tanah Sareal, Bogor City, who met the inclusion and exclusion criteria. The estimated sample size is 80 people.

The sampling technique was carried out by accidental sampling. Each sample must meet the following criteria: the baby was born alive, the mother and baby were not sick (based on the midwife's examination), and the mother had no dysfunction in one or more of her senses. The exclusion criteria were that both the toddler and the mother experienced severe illness while the research was still in progress, a doctor diagnosed the mother as having a mental disorder, and the baby did not live or be cared for by the mother. The data needed in this study are primary data obtained directly from the results of filling out a questionnaire using a stress level questionnaire and breastfeeding. Data on postpartum mothers were obtained from the Independent Midwife Practice, Bogor City. Samples were taken by accidental sampling technique up to 80 postpartum mothers.

Data collection was carried out after the 7th day because, at that time, the mother was psychologically no longer focused on herself (Notoatmodjo, 2012). And at that time, mature milk has been formed, and the newborn's weight loss usually returns to its initial weight. Data collection was carried out when the mother was in control; the enumerator inputted the data online via the Google form. Retrieval of research data using a questionnaire consisting of the following sub-sections: Questionnaire A is the first instrument filled in by the sample in the form of questions about the sociodemographic characteristics of the respondents, including age, parity, culture, education, and occupation. Stress on post-partum mothers is an instrument used in previous studies, namely DASS 21 (Price et al., 2021).

The validity test in this study used the *Rank Spearman*. The questionnaire/observation sheet is valid if the item has an r>0.3. While the reliability test was carried out using the *Cronbach Alpha formula.* An instrument can be reliable if it has a reliability coefficient or *alpha* greater than 0.05 (Dahlan, 2019). Univariable analysis was carried out to describe each variable measured in the study by looking at the frequency distribution of all variables and how each variable varied. Univariable analysis was carried out to describe the frequency and proportion of the various variables studied, both the independent and dependent variables. To analyze the stress level of postpartum mothers on breastfeeding patterns using the Lambda contingency coefficient test.

3. Results

Data collection was started by testing the validity and reliability of the research questionnaire on 30 respondents. As a result, five questions in the questionnaire were declared invalid; then, improvements were made to the questions. Furthermore, data collection has been carried out since September 2020 on 100 postpartum mothers. The sampling technique was carried out accidentally when the control mother went to BPM (7th day), who met the inclusion and exclusion criteria.

3.1. Subject Characteristics

Most subjects had high school and tertiary education, worked as housewives, had first children, received information about exclusive breastfeeding from health workers, had a household income above the minimum wage, were aged 20-35, and experienced moderate stress. The characteristics of the research subjects can be seen in Table 1 below:

Table 1: Characteristics of Research Subjects

Variable		N (80)	(%)
Education	Primary	11	13.8%
	Junior	9	11.3%
	Junior High	30	37.5%
	University	30	37.5%
Occupation	Housewive	50	62.5%
	Employed	30	37.5%
Parity	Primi	45	56.3%

Variable		N (80)	(%)
	Multi	35	43.8%
Breastfeeding Health Education	No	7	8.8%
	Yes	73	91.3%
Wedge	< UMR (4,1 million)	30	37.5%
	>= UMR (4,1 million)	50	62.5%
Age	<20 years	5	6.3%
	20-35 years	60	75.0%
	> 35 years	15	18.8%
Stress level	Normal	22	27.5%
	Mild	23	28.7%
	Moderate	35	43.8%
Diet Practice	Poor	19	23.8%
	Good	61	76.3%
family support	Poor	40	50.0%
	Good	40	50.0%
Breastmilk production	Poor	37	46.3%
	Good	43	53.8%
Breastfeeding practice	Poor	37	46.3%
	Good	43	53.8%
breastfeeding motivation	Poor	41	51.2%
	Good	39	48.8%

3.2. Results of Bivariable Analysis of Factors Affecting The Breastfeeding Practice

Analysis showed that the confounding variables in this study were Health education about breastfeeding from health workers and motivation to breastfeed. In addition, it is also known that the stress level of postpartum mothers significantly affects the breastfeeding pattern.

Table 2: Bivariable Analysis of Factors Correlating to Breastfeeding

Variable		Breastfeeding Practice		Total	R	P
		Poor	Good			
Family Support	Poor	23	17	40	0.225	*0.165
	Good	14	26	40		
Total		37	43	80		
Education	Primary	7	4	11	0.073	**0.667
	Junior	2	7	9		
	Junior High	15	15	30		
	University	13	17	30		
Total		37	43	80		
Occupation	Housewive	23	27	50	0.013	*0.954
	Employed	14	16	30		
Total		37	43	80		
Parity	Primi	19	26	45	0.014	*0.866
	Multi	18	17	35		
Total		37	43	80		
Breastfeeding Health Education	No	7	0	7	0.507	*0.004
	Yes	37	36	73		
Total		37	43	80		
Wedge	< UMR (4,1 million)	13	17	30	0.094	*0.684
	>= UMR (4,1 million)	24	26	50		
Total		37	43	80		
Age	<20 years	1	4	5	0.260	**0.281
	20-35 years	28	32	60		
	> 35 years	8	7	15		
Total		37	43	80		

Variable		Breastfeeding Practice		Total	R	P
		Poor	Good			
Mother Feeding Practice	Poor	10	9	19	0.018	*0.818
	Good	27	34	61		
Total		37	43	80		
Breastmilk Production	Poor	20	17	37	0.081	*0.621
	Good	17	26	43		
Total		37	43	80		
Breastfeeding Motivation	Poor	26	15	41	0.333	*0.042
	Good	11	28	39		
Total		37	43	80		
Stress	Normal	5	17	22		
	Mild	10	13	23	0.523	**0.001
	Moderate	22	13	35		
Total		37	43	80		

*Lambda correlation test **Gamma correlation test

4. Discussion

Both provide nutrition, share the workload and handle difficulties during breastfeeding. Even postpartum mothers need support from the people closest to them. Husband and family support helps the mother overcome problems adjusting to a new role. Most respondents can control their emotions or get angry when they experience problems. Anger due to intractable issues was experienced by at least the respondents in the postnatal period (Ulfa & Setyaningsih, 2020).

Breastfeeding problems often occur in the few days after delivery. The mother feels anxious because the milk is not flowing smoothly, and the milk that comes out is small, so she worries that the baby will not be complete. This anxiety can be overcome if the mother understands the physiology of lactation. Breast milk typically comes out 2-3 days after delivery, and the more frequent breastfeeding, the more milk will be produced. This understanding is often ignored when the mother is worried and there is encouragement from her husband or family to give formula milk to the baby.

There are still 20 subjects (25%) with junior high school education and below. Education, according to Notoatmodjo, will affect one's knowledge and mindset (Notoatmodjo, 2012). As many as 45 people (56.3%) of the research subjects were primi. Primi para is people giving birth or having children for the first time. According to Aprihastiwi, parity positively influences one's experience; mothers with children will be motivated to exclusively breastfeed their second child because mothers breastfeeding are inspired by efforts to breastfeed their previous children (Aprihastiwi, 2015). As many as seven people (9%) subjects have not received health education regarding exclusive breastfeeding. According to Ryadi et al., the source of information is essential. The results of their research show that the source of information and the health information obtained will affect the nutritional condition of children (Riyadi et al., 2011). In other words, it also influences how to provide proper nutrition to children, including exclusive breastfeeding. The study results also showed that thirty people (37.5%) earned income below the minimum wage.

Most (75%) of the research subjects were aged 20-35. The older woman has an optimally developed maturity level. They have more experience in daily applications, strength in thinking, and are not easily tempted by wrong information such as giving formula milk; this situation causes mothers to have a desire or high motivation to provide exclusive breastfeeding to their babies (Mizrak Sahin et al., 2019). This statement follows the results of this study that the mother's motivation in the high category was mostly in respondents with an age range of 20-35, namely 32 people (40%). As many as 19 postpartum mothers (23.75%) had poor eating patterns, including not eating fruit or vegetables daily and not drinking enough water. As many as 37 people (46.2%) of research subjects experienced less milk production. The smooth production of breast milk can be influenced by psychological stress. As was the result of Sari's research, which stated that there was a significant effect between psychological stress and the smooth production of breast milk in primiparous mothers who breastfeed (Puspita Sari et al., n.d.).

Forty-one people (51.25%) of research subjects had less motivation to breastfeed. Motivation is a person's strength or energy to raise persistence and enthusiasm in an activity. Research states that the factors influencing motivation are a person's level of education, knowledge, and economic status. Good motivation can be obtained through health education. The combination of planned learning experiences based on sound theory provided by individuals, groups, and communities can offer the opportunity to acquire the information and skills needed to make quality health decisions. The material or message and the method conveyed must be considered in providing health education.

From the results of the study, there were 22 people (27.5%) who did not experience stress (normal), 23 people (28.7%) with mild stress, and 35 (43.75%) people who were moderately stressed. According to Daima's research, mild stress lasts a few minutes or several hours. The condition of mother feels anxious because she has difficulty breastfeeding. Moderate stress lasts longer, from a few hours to a few days, for example, when the mother feels guilty for the baby because there is little milk for several days. Severe stress occurs because mothers feel anxious, depressed, often angry, and have health problems in breastfeeding. This condition lasts for several weeks (Ulfa & Setyaningsih, 2020).

The results showed that breastfeeding mothers with mild stress are caused by feeling angry, anxious, and depressed due to something happening while breastfeeding or caring for a child. This result follows Roesli's opinion that discomfort comes from something unexpected during breastfeeding, such as heartburn because the uterus contracts to return to its original state, swollen breasts, and painful stitches (Roesli, 2012). According to Daima, the moderate level of stress experienced by mothers is the feeling of not being able to breastfeed or care for the child, experiencing breastfeeding difficulties, and feeling unable to cope. This condition is mainly caused by less milk production that does not even come out, causing guilt for not being able to breastfeed the baby. Stress in nursing mothers occurs due to discomfort in breastfeeding and caring for themselves and their babies. This condition arises because the mother feels unable to complete the things that must be done. The situation will become more severe if the mother cannot overcome the difficulties that are piling up (Ulfa & Setyaningsih, 2020), especially if the mother does not get adequate support from the surrounding environment. The results showed that lack of support and stress during the perinatal period could put mothers at risk for postpartum depression (Recto & Champion, 2020).

Mothers who do not experience stress will feel happy breastfeeding their babies and will not have significant problems with breastfeeding. Good psychological conditions encourage mothers to breastfeed their babies so that the hormones that play a role in milk production increase because the baby's suction when breastfeeding stimulates milk production. Mothers who experience emotional disturbances can interfere with the let-down reflex process so that less milk is released. At the same time, breast milk creates a feeling of laziness breastfeeding and causes discomfort to the mother, which can trigger stress. Research shows that parenting stress is associated with lower parental sensitivity to their children (i.e., parental responsiveness), negatively affecting child outcomes (Kim et al., 2021). The study results show that the mother's stress symptoms are influenced by how the functioning of the family runs in the family (Qin et al., 2022).

As many as 37 mothers were included in the category of poor breastfeeding patterns. Meanwhile, 43 people (53.75%) were mothers with a good breastfeeding pattern category. For mothers in the good category, one of the indicators is giving only breast milk until data collection (7th day). As many as 37 mothers had already given formula milk, plain water, or honey to their babies' lips. Exclusive breastfeeding only gives breast milk to babies without additional food or other drinks, including water, until the baby is six months old. Exclusive breastfeeding benefits the mother and baby, such as protecting the baby's digestive tract and preventing diarrhea and infection. Breastfeeding protects mothers against breast and uterine cancer risks and provides contraceptive benefits for six months of breastfeeding (WHO, 2016).

Tactile nerve endings in the nipples receive stimulation when the mother is breastfeeding. This stimulation is carried to the hypothalamus at the base of the brain, then stimulates the anterior pituitary to secrete the hormone prolactin into the blood, spurring the epithelial cells (alveoli) to produce breast milk. The secretory activity of the mammary glands is influenced by the psychological psychology experienced by the mother (Roesli, 2012).

4.1. Influence between Breastfeeding Motivation and Breastfeeding Patterns

From Table 2, it is known that motivation in mothers to breastfeed has a significant correlation with breastfeeding patterns, with a correlation value of r 0.333 and a p-value of 0.042. According to Dahlan, the value of r 0.20-0.399 can be interpreted with a weak correlation. This situation happens because many other factors could have a stronger correlation with the practice of breastfeeding. The direction of the correlation is positive or unidirectional, so the greater the value of the mother's motivation to breastfeed, the better the breastfeeding pattern will be. It can be concluded that a mother's good self-confidence to produce enough breast milk to meet her baby's needs will be an essential basis for her success in breastfeeding. When a mother has strong motivation or encouragement, the mother will have an excellent ability to breastfeed. There is a significant relationship between the motivation and independence of postpartum mothers in self-care during early postpartum (Safitri & Cahyanti, 2016). Research shows that mothers who exclusively breastfeed their babies are more motivated than those who partially breastfeed. In addition, adult age, higher education level, non-smoking status, and breastfeeding support positively influence breastfeeding motivation (Mizrak Sahin et al., 2019).

This study follows the theory of Notoatmodjo, which says that motivation is the driving force or impetus to do something that comes from (intrinsic) motivation within oneself due to awareness of the importance of something. Supporting research shows that the mother's beliefs and motivation are factors that are influential in breastfeeding behavior (Listyaningrum & Vidayanti, 2016). Mothers with good motivation and self-confidence will be better able to provide exclusive breastfeeding to their babies. They state that the mature woman has the level of maturity to develop optimally, including experience in daily applications. They have strength in thinking, so one is not easily tempted by wrong information, such as giving formula milk; this condition causes mothers to have a high desire or motivation to provide exclusive breastfeeding to their babies.

4.2. The Effect of Health Education on Breastfeeding Practice

As seen in Table 2, the correlation value between Mother's Health Education about Breastfeeding and the stress level is 0.507 with a p-value of 0.004. According to Dahlan, the correlation value is included in the medium category, with a positive direction. This result is unidirectional; the greater the value of Health Education, the better the breastfeeding practice. This condition follows the results of Lestari's research, which states that overall, it can be concluded that there is an increase in the level of knowledge, ability, and motivation after being given health education using audiovisual media without using audiovisual media. After receiving health education using audiovisual media, primiparas' knowledge, abilities, and motivation became higher than those given health education without audiovisual media. It can be concluded that health education using audiovisual media effectively increases primipara breastfeeding knowledge, knowledge, abilities, and motivation. Therefore, it is recommended that health workers be able to provide health education about breastfeeding using audiovisual media, especially for primiparas because it is more effective than delivering health education without audiovisual media. Lestari's research showed a significant increase in the experimental group in the level of knowledge by 28% (pv=0.00), the ability to breastfeed by 41.33% (pv=0.001), and the motivation to breastfeed by 19.34% (pv=0.033).(lestari et al., 2014)

Listyaningrum and Vidayanti, in their research, said that there was an influence on mothers' motivation in exclusive breastfeeding. Motivation is one factor that influences mothers in giving exclusive breastfeeding; motivation is a state of a person's personality that encourages an individual's desire to carry out certain activities to achieve goals (Listyaningrum & Vidayanti, 2016). Ribek, in his research, said that every mother must have the drive, desire, and ability to breastfeed exclusively (Ribek & Kumalasari, 2020). Health education is one of the efforts to increase mothers' motivation to give exclusive breastfeeding. Health education combines planned learning experiences based on sound theory that can provide individuals, groups, and communities with opportunities to acquire the necessary information and skills. The research results by Lestari, Ameli, and Rahmalia recommend that health workers provide health education about breastfeeding using audiovisual media to increase knowledge, skills, and motivation to breastfeed (Astuti et al., n.d.).

4.3. The Influence of Stress Levels on Postpartum Mothers and Breastfeeding Practice

The stress level of postpartum mothers in this study has a moderately negative and significant correlation to breastfeeding patterns, with a correlation coefficient of r -0.523 and a p-value of 0.001. This value indicates that the stress level correlates with the breastfeeding pattern. The higher the level of stress experienced by the mother, the less good the mother does in the practice of breastfeeding. The postpartum period is a difficult time for developing severe mood disorders. The mother will feel mentally disturbed at this time even though no complications occur during pregnancy and the delivery process. Most women experience changes after giving birth in their physiological, psychological, and social aspects; some suffer from mild to severe mental disorders (Erdogan, 2010)(Guan et al., 2021).

Three problems can occur now: postpartum blues, postpartum depression, and postpartum psychosis. Each problem has a different prevalence, clinical symptoms, and management. Counselling and social support Providing counselling to couples and families is informational support, namely to increase the knowledge of partners and families about the incidence of depression in mothers. Thus, the husband and family will put more effort into supporting the mother during the postpartum period or parasites that cause disease (Potter & Griffin, 2012). Physiological stress is caused by physiological processes in the body that become abnormal, namely structural, tissue, organ, or systemic disturbances. Stress in the process of growth and development occurs due to growth and development disorders from infancy to old age. Psychological or emotional stress is caused by disturbances of interpersonal, social, cultural, or religious influences (Potter & Griffin, 2012).

Based on the results of Suryani's research, it was found that ρ was 0.041, which means there is an influence on the stress level of breastfeeding mothers with breastfeeding in the first month. The odds Ratio (OR) of 9.33 (95% CI = 1.38, 63.20) means that mothers with moderate-to-severe stress levels have a 9.33 greater probability of not breastfeeding in the first month. (Manurung, 2008) Breastfeeding mothers who do not experience stress or experience stress in the mild phase are more likely to continue breastfeeding in the first month. The impact if babies are not breastfed in the first month is believed to be able to increase 1/3 of the incidence of Upper Respiratory Tract Infection (ARI), the incidence of diarrhoea can increase by 50%, and severe intestinal disease in premature infants can increase by 58%. (Kemenkes, 2015) Neonates or newborns who are exclusively breastfed have a lower risk of death from infection in the first month than neonates who are partially breastfed (not exclusively for six months). Effective promotion of early initiation of breastfeeding and exclusive breastfeeding during the first month of life significantly reduces neonatal mortality and morbidity (Khan, J., Vesel, L, Bahl, R., and Martines, 2015).

The percentage of babies receiving exclusive breastfeeding in Indonesia in 2017 was 35.73%, still far below the national target of 80%. (BPS, 2019) According to Puspita Sari's research, as many as 75% of mothers experience stress because breast milk does not come out smoothly. As many as 60% of mothers feel sorry for their children because they are still fussy and cry if they are only given breast milk. A small proportion (20%) obtained information from older people in the village about providing food (bananas, porridge) and thought that giving food to infants aged less than six months had no negative impact on infants (Puspita Sari et al., n.d.).

Stress can affect breastfeeding; for example, mothers experience difficulties at the beginning of breastfeeding, such as fatigue, little milk, sore nipples, and sleep disturbances at night (Susanti, 2014). Stress can affect milk production because it inhibits milk production and eventually results in breastfeeding. Stress affects the continuity of exclusive breastfeeding. The success of breastfeeding affects milk production, while stress can affect milk production. Mothers who experience moderate stress successfully breastfeed because they are motivated to increase milk production. Motivation comes from oneself, the environment, family, and health workers (Elsanti & Isnaini, 2018). Difficulties in adjusting roles after delivery, if proper treatment is carried out after some time, can impact the mother's and her baby's health and well-being. From a few days after delivery until the first month, breastfeeding problems are often experienced.

Stress is a stimulus or situation that causes distress and creates physical and psychological demands on a person. Stress requires coping and adaptation. The body's response can be predicted without regard to a particular stressor

or cause.(Elsanti & Isnaini, 2018) Conditions that require coping and adaptation include the period after childbirth. Anxiety may increase during this period. Mothers experience a unique experience because there is a change in roles and responsibilities, including breastfeeding. The stage of carrying out this role can be a stressor when the mother experiences difficulties and cannot overcome them. Stress is divided into 3 (three) categories: mild, moderate, and severe. *Mild stress* is a stressor that everyone regularly faces, lasting minutes or hours. Moderate stress lasts longer, from a few hours to several days. *Severe stress* is a chronic situation that can last from weeks to years (Potter & Griffin, 2012).

5. Conclusions

Stress levels in postpartum mothers are correlated with patterns of breastfeeding. Motivation and health education about breastfeeding are correlated with patterns of breastfeeding. Health education or counselling is needed to motivate mothers to breastfeed correctly. In addition, cooperation from various parties is required to minimize stress on postpartum mothers so that mothers can breastfeed with the correct practice.

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Informed Consent Statement/Ethics approval: All subjects gave their informed consent for inclusion before they participated in the study. The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the Health Research Ethics Commitee, Ministry of Health, Bandung Health Polythechnic (No. 15/ KEPK/EC/X/2020). All participants fully informed if the anonymity is assured, why the research is being conducted, how their data will be used and if there are any risks associated.

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References

Aprihastiwi. (2015). The Relationship between Motivation and Mother's Behavior in Providing Exclusive Breast Milk in the Gamping II Yogyakarta Community Health Center Work Area. UNISA.

Astuti, F. P., Windayanti, H., & Sofiyanti, I. (n.d.). Hypnobreastfeeding and Motivation of Breastfeeding Mothers. Maret 2020 Indonesian Journal of Midwifery, 3(1). Retrieved January 18, 2021, from http://jurnal.unw.ac.id/index.php/ijm

BPS. (2019). Indonesia Health Statistics Profile. Jakarta: In BPS.

Dahlan, M. S. (2019). Statistik untuk Kedokteran dan Kesehatan, Seri Evidence Based Medicine Edisi 1. Salemba.

Dodou, H. D., Rodrigues, D. P., Maria, A. C., Lima, A. C. C., & Mônica Oliveira Batista Oriá1, Régia Christina Moura Barbosa Castro1, Nayara Souza de Mesquita2, A. (2016). Self-Care and Empowerment in Postpartum: Social Representations of Puerpera. International Archives of Medicine, 9(170), 1–11. http://www.imed.pub/ojs/index.php/iam/article/view/1783/1305

Elsanti, D., & Isnaini, O. P. (2018). The Relationship Between Social Support and Stress Levels on the Continuity of Exclusive Breastfeeding in the Kedungbanteng Community Health Center Work Area. Jurnal Ilmu Keperawatan Maternitas, 1(1), 13. https://doi.org/10.32584/jikm.v1i1.105

Erdogan, O. T. (2010). Some psychosocial correlates of Postpartum Depression: a longitudinal study. Istanbul Bilgi University.

Forte Camarneiro, A. P., & de Miranda Justo, J. M. R. (2020). Emotional states and psychopathological symptoms in couples during pregnancy and post-partum. Journal of Reproductive and Infant Psychology, 00(00), 1–15. https://doi.org/10.1080/02646838.2020.1814226

Guan, Z., Wang, Y., Hu, X., Chen, J., Qin, C., Tang, S., & Sun, M. (2021). Postpartum depression and family function in Chinese women within 1 year after childbirth: A cross-sectional study. Research in Nursing and Health, 44(4), 633–642. https://doi.org/10.1002/nur.22159

Herlina, S. (2011). The relationship between characteristics and the level of knowledge of postpartum mothers regarding postpartum care in the Camar I Room, Arifin Achmad Regional General Hospital, Pekanbaru, 2009. Universitas Sumatra Utara.

Jabar, D. (2017). Profil Kesehatan Provinsi Jawa Barat Tahun 2012 [West Java Province Health Profile 2012]. Dinkes Jabar. http://www.depkes.go.id/resources/download/profil/PROFIL_KES_PROVINSI_2012/12_Profil_Kes.Prov. JawaBarat_2012.pdf

Kemenkes. (2015). Ministry of Health Strategic Plan 2015-2019.

Khan, J., Vesel, L, Bahl, R., and Martines, J. C. (2015). Timing of Breastfeeding Initiation and Exclusivity of Breastfeeding During the First Month of Life: Effects on Neona- tal Mortality and Morbidity—A Systematic Review and Meta-Analysis. Maternal and Child Health Journal, 19(3), 468–79.

Kim, B., Han, S. R., Park, E. J., Yoo, H., Suh, S., & Shin, Y. (2021). The Relationship between Mother's Smartphone Addiction and Children's Smartphone Usage. Psychiatry Investigation, 18(2), 126. https://doi.org/10.30773/PI.2020.0338

Leahy-Warren, P., Mccarthy, G., & Corcoran, P. (2011). First-time mothers: social support, maternal parental self-efficacy and postnatal depression. Journal of Clinical Nursing. https://doi.org/10.1111/j.1365-2702.2011.03701.x

Lestari, W., Amelia, N. R., & Rahmalia, S. (2014). Effectiveness of Health Education about Breastfeeding on the Level of Knowledge, Ability and Motivation of Primiparous Breastfeeding. In Jurnal Ners Indonesia (Vol. 2, Issue 2). https://jni.ejournal.unri.ac.id/index.php/JNI/article/view/2030

Liabsuetrakul, Vittayanont, & Pitanupong. (2008). Clinical Applications of Anxiety, Social Support, Stressors, and Self-esteem Measured During Pregnancy and Postpartum for Screening Postpartum Depression in Thai women. http://web.ebscohost.com/ehost/pdf?vid=1&hid=12&sid=9f04f4b3-2df1- 4214-8048-d051eb27e09c%40sessionmgr12

Listyaningrum, T. U., & Vidayanti, V. (2016). Mother's Level of Knowledge and Motivation is Associated with Exclusive Breastfeeding for Working Mothers. Jurnal Ners Dan Kebidanan Indonesia, 4(2), 55. https://doi.org/10.21927/jnki.2016.4(2).55-62

Manurung, S. (2008). The Effectiveness of Music Therapy in Preventing Postpartum Blues in Primiparous Mothers in the Midwifery Room at Cipto Mangunkusumo Hospital, Central Jakarta.

Mccarter-Spaulding, D., Professor, A., & Shea, S. (2016). Effectiveness of Discharge Education on Postpartum Depression HHS Public Access. MCN Am J Matern Child Nurs, 41(3), 168–172. https://doi.org/10.1097/NMC.0000000000000236

Mizrak Sahin, B., Ozerdogan, N., Ozdamar, K., & Gursoy, E. (2019). Factors affecting breastfeeding motivation in primiparious mothers: An application of breastfeeding motivation scale based on self-determination theory. Health Care for Women International, 40(6), 637–652. https://doi.org/10.1080/07399332.2018.1526289

Notoatmodjo, S. (2012). Health Education and Behavior. Rineka Cipta.

Palupi, P. (2020). Phenomenological Study: Primiparas' Experiences When Experiencing Postpartum Depression. Jurnal Persatuan Perawat Nasional Indonesia (JPPNI), 4(2), 81. https://doi.org/10.32419/jppni.v4i2.181

Price, A. M., Middleton, M., Matthey, S., Goldfeld, S., Kemp, L., & Francesca, O. (2021). A comparison of two measures to screen for mental health symptoms in pregnancy and early postpartum: the Matthey Generic Mood Questionnaire and the Depression, Anxiety, Stress Scales short-form. Journal of Affective Disorders, 281, 824–833. https://doi.org/10.1016/j.jad.2020.11.055

Potter, P. A., & Griffin, P. A. (2012). Nursing Fundamentals: Concepts, Processes, and Practicals (First Edition). EGC.

Puspita Sari, H., Azza, A., & Rhosma Dewi, S. (n.d.). The Relationship between Psychological Stress and Smooth Breast Milk Production in Primiparous Mothers Who Breastfeed Babies Aged 1-6 Months in the Sukorambi Community Health Center Work Area.

Qin, X., Xu, S., Ma, M., Fan, X., Nie, X., Zhang, Y., Liu, B., & Li, L. (2022). Differences in associations between family functioning and anxious and depressive symptoms in Chinese women and their partners in early pregnancy. BJPsych Open, 8(5), 1–7. https://doi.org/10.1192/bjo.2022.549

Recto, P., & Champion, J. D. (2020). Social Support and Perinatal Depression: The Perspectives of Mexican-American Adolescent Mothers. Issues in Mental Health Nursing, 41(10), 932–939. https://doi.org/10.1080/01612840.2020.1731027

Reitmanova, & Gustafson. (2008). They Can't Understand It: Maternity Health and Care Needs of Immigrant Muslim Women in St. John's, Newfoundland. http://www.springerlink.com/content/h27870q6037t2113/fulltext

Ribek, N., & Kumalasari, N. M. Y. (2020). Mother's Motivation in Providing Exclusive Breastfeeding to Babies: Literature Review. Prosiding Seminar Nasional Kesehatan, 1, 201–205.

Riyadi, H., Martianto, D., Hastuti, D., Damayanthi, E., & Murtilaksono, D. K. (2011). Factors that influence the nutritional status of children under five in North Central Timor Regency, East Nusa Tenggara Province.

Jurnal Gizi Dan Pangan, 6(1), 66–73. https://doi.org/10.25182/JGP.2011.6.1.66-73

Roesli, U. (2012). Get to know exclusive breastfeedingf. Trubus Agriwidya.

Safitri, Y., & Cahyanti, R. D. (2016). The Relationship between Levels of Knowledge and Motivation on Postpartum Mothers' Independence in Self-Care During the Early Postpartum. Jurnal Kedokteran Diponegoro, 5(4), 1937–1945. http://ejournal-s1.undip.ac.id/index.php/medico

Susanti. (2014). ASI Eksklusif. Pustaka Swara.

Ulfa, Z. D., & Setyaningsih, Y. (2020). Stress Levels of Breastfeeding Mothers and Breastfeeding in the First Month. Jurnal Litbang: Media Informasi Penelitian, Pengembangan Dan IPTEK, 16(1), 15–28. https://doi.org/10.33658/jl.v16i1.145

WHO. (2016). WHO: The case for midwifery. WHO; World Health Organization. http://www.who.int/maternal_child_adolescent/topics/quality-of-care/midwifery/case-for-midwifery/en/