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The Relationship Between Health Literacy and Breastfeeding Patterns in Postpartum Mothers

Hubungan Health Literacy dengan Pola Menyusui pada Ibu Nifas

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ABSTRACT

Background: Breast milk is the best food for babies because it contains complete nutrients, hygienic, and safe. Breastfeeding cannot be separated from the pattern of breastfeeding applied. One of the factors that determine the application of breastfeeding patterns to the mother according to the needs of the baby is Health Literacy (HL).
Objectives: This study aimed to determine the relationship between health literacy and breastfeeding patterns in postpartum mothers at Lavalette Hospital, Malang.
Methods: The type of research used was a cross sectional study. The research population was all postpartum mothers. The sampling technique used was quota sampling, with 30 respondents. Data was collected using the Short-Form Health Literacy Questionnaire (HLS-SF-12Q) and breastfeeding pattern questionnaires. The data was then analyzed using the Spearman-Rank test (α <0.05).
Results: The study found that most respondents had HL (56.7%) and breastfeeding patterns (56.7%) in the good category. Based on the statistical test obtained p value = 0.012, there was a significant relationship between HL and breastfeeding patterns in postpartum mothers. The correlation coefficient value was obtained at 0.455, indicating that the strength of the relationship was moderate.
Conclusions: By having a good HL, mothers can apply the right breastfeeding patterns, selecting the duration, frequency, and good position, so that it has a positive impact during the breastfeeding process. It also reduces the chance of exclusive breastfeeding failure. Health workers are advised to be more massive in providing education related to breastfeeding patterns and their application, as well as increasing HL wisely and positively.

INTRODUCTION

Health literacy (HL) is still being neglected and can impact unequal access to health information in society. One of the primary keys to processing and understanding information is the ability to access information[1]. The need for information is considered essential in the 21st century. Decision-making in the health sector is often influenced by previously obtained information, both by providers and users of health services[2]. HL is no exception, owned by mothers in the postpartum period who give breast milk or *air susu ibu* (ASI) to their babies. According to the World Health Organization (WHO), the rate of exclusive breastfeeding worldwide was only 38% in 2017, and the target for 2025 is expected to increase by at least 50%. According to the United Nations Children's Fund (UNICEF), a lack of knowledge about breastfeeding patterns can be the reason for the low rate of exclusive breastfeeding[3].

Mothers' and babies' health must be given special attention, it is even a benchmark for a country's health, which is based on maternal and infant mortality. The postpartum period is essential for the mother's health because both mother and baby need extra care. Therefore, health information during the puerperium is urgently needed to avoid errors when searching, collecting and analyzing it[2]. While many studies have explored the relationship between HL and health outcomes, less attention has focused specifically on the effects of HL on women's reproductive health. This is unfortunate because health literacy will likely impact many aspects of reproductive health care. Knowledge of contraception, safe sexual practices, healthy pregnancy and postpartum behaviors, and preventive care are essential for keeping women healthy and leading productive lives[4].

The failure of a mother to exclusively breastfeed is caused by a disruption in the process of forming breast milk so that milk production is less or even stops, which can be prevented if the mother prepares for it early[5]. Low HL in the mother will cause complications during

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pregnancy, childbirth and baby care, such as anemia, hypertension, bleeding, low birth weight babies and failure to provide exclusive breastfeeding[6]. Mothers can be said to be the main focus in improving community HL because their health and knowledge directly affect children and family members before and during pregnancy as well as during and after childbirth[7].

The HL concept has several important things, including knowledge about health, nutrition, disease prevention, decision-making, taking action, first aid skills, and the ability to obtain information. Related to obstetrics and gynecology, the essential things related to HL include recognizing, making decisions, and anticipating problems during pregnancy, childbirth and the postpartum period[8]. One of the results of the study showed that mothers with good HL had significant differences in terms of early initiation of care, including the frequency of prenatal checks, monitoring of fetal weight, weight during pregnancy, consumption of iron and folic acid, mode of delivery, and infant feeding patterns, after giving birth[9,10].

Other research shows that several factors can affect breastfeeding patterns, especially in primiparous mothers, namely the mother's age and HL[11]. Although several research results show that maternal HL does not affect infant breastfeeding patterns[7,10], there is a possibility that HL can trigger better maternal breastfeeding behavior. Based on this background, further research is needed regarding the relationship between HL and breastfeeding patterns in postpartum mothers.

METHODS

This study used a cross-sectional design. The independent variable in this study was health literacy, while the dependent variable was breastfeeding patterns. The characteristics of the respondents identified in this study were age, education, occupation, and delivery method. The population of this research was 152 people. A sampling quota was used as a sampling method, and obtained 30 respondents. The criteria used in the sampling of this study were postpartum mothers who gave exclusive breastfeeding and normal baby conditions (weight, physical and oromotor).

Two questionnaires were used in this study: the Health Literacy Survey-Short Form (HLS-SF-12Q) and the breastfeeding pattern questionnaire. HLS-SF-12Q consists of 12 questions divided into four domains: finding, understanding, appraising, and applying information. The HLS-SF-12Q questionnaire had high reliability, namely 0.85[12]. HL was categorized into three criteria, namely good (score>36), moderate (score 28–35), and poor (score<28). The breastfeeding pattern questionnaire consists of 19 questions divided into three domains: duration, frequency, and position of breastfeeding. This questionnaire was developed from several previous studies and was tested for reliability with a result of 0.746. Breastfeeding patterns are categorized according to two criteria, namely good (>average) and not good (<average).

Once collected, the data were analyzed using univariate and bivariate methods. Univariate analysis was used to test the respondent's characteristic data. Meanwhile, the Spearman Rank test was used to determine the relationship between HL and breastfeeding patterns in postpartum mothers. Alpha level <0.05 or less was used to determine statistical significance. Data analysis was performed using SPSS version 25. Ethical approval for this research was obtained from the STIKES Majapahit Health Research Ethics Commission with No. 028/KEPK-SM/2022. All respondents to this study had been given information regarding research procedures and had signed research consent forms.

RESULTS AND DISCUSSION

Table 1 presents data on the respondents' characteristics, including age, education, occupation, method of delivery, HL, and breastfeeding patterns. Table 2 presents the relationship between HL and breastfeeding patterns in postpartum mothers. Based on table 1, it was found that half of the respondents were aged 26-30 years (50%), almost half of the respondents had a higher education level (43.3%), almost half of the respondents did not work (43.3%) and almost half of them worked as private employees (46.7%), most of the respondents underwent spontaneous vaginal delivery (63.3%). The data regarding HL found that most respondents were in a good category (56.7%). The data on breastfeeding patterns found that most respondents were in a good category (73.3%).

Table 1. Characteristics of respondents

Characteristics	n	%
Age		
21-25	9	30
26-30	15	50
31-35	2	6.7
36-40	4	13.3
Education level		
Elementary school	1	3.3
Junior high school	5	16.7
Senior high school	11	36.7
College	13	43.3
Occupation		
Doesn't work	13	43.3
Government employees	3	10

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Characteristics	n	%
Private sector employee	14	46.7
Delivery Method		
Spontaneous vaginal delivery	19	63.3
Sectio Caesar	11	36.7
Health Literacy		
Good	17	56.7
Enough	9	30
Not enough	4	13.3
Breastfeeding Patterns		
Good	17	56.7
Not good	13	43.3

Based on table 2, the statistical test results were obtained, namely a p-value of 0.012 which indicated a significant relationship between HL and breastfeeding patterns. The strength of the correlation was 0.455, which was positive, meaning that the relationship between HL and breastfeeding patterns had moderate strength in the direction that the better the HL, the better the breastfeeding pattern.

Table 2. Relationship between health literacy and breastfeeding patterns in postpartum mothers

Health Literacy	Breastfeeding Pattern				Total		p-value	r
	Good		Not Good					
	n	%	n	%	n	%		
Good	13	43.3	4	13.3	17	56.7	0.012	0.455
Enough	3	10	6	20	9	30		
Not enough	1	33	3	10	4	13.3		

In the 21st century, people have many choices in accessing information and services, particularly in the health sector. Communities are increasingly forced to make lifestyles and manage the health system, but many are not ready or not supported from a literacy perspective[13]. HL can be described as a person's ability to read, write, and perform information-based literacy tasks needed to make health decisions, whether at home, in the community, or a health clinic[14]. It can be said that HL is one of the essential elements in a mother's ability to engage in health promotion activities to protect the health of herself and her baby[15].

This study's results indicated a significant relationship between HL and breastfeeding patterns in postpartum mothers ($p<0.05$). It is known that breast milk has many benefits for both mother and baby. Benefits for the mother include reducing the risk of postpartum depression and breast and ovarian cancer. Benefits for babies include reducing the risk of sudden death, allergies, asthma, and many other benefits[16,17].

Mothers can be said to be the main focus in improving community HL because their health and knowledge directly affect children and family members before and during pregnancy as well as during and after childbirth[7]. HL is influenced by several aspects, including the individual's ability to search, understand, evaluate and apply the information provided[18,19]. In this study, 50% of respondents were aged 26-30 years (n=15), 43.3% of respondents had a college education (n=13), and 46.7% of respondents worked as private employees (n=14). These characteristics indirectly affect the HL that postpartum mothers own. Viewed from age, the more mature a person's age, the more mature and easier it is to digest the information received. From the aspect of education, the higher the level of education one has, the easier it will be to access sources of information and have a high awareness of the application of actions related to their health. From the aspect of work, this will be related to the income earned, affecting a person's access to information and health services.

One of the results of the study showed that mothers with good HL would have significant differences in terms of initiation of early care, including the frequency of prenatal checks, monitoring of fetal weight, weight during pregnancy, consumption of iron and folic acid, mode of delivery, and infant feeding patterns, after giving birth[9,10]. Breastfeeding pattern refers to the way of breastfeeding during breastfeeding, including the technique, duration, frequency and position of breastfeeding[15].

A good breastfeeding pattern in this study included the duration of breastfeeding, which averaged 10-15 minutes per breast. Apart from the duration, there is the frequency and position of breastfeeding. The frequency of breastfeeding is at least eight times a day, but it is recommended to breastfeed the baby as needed because babies determine their own needs, even though the average frequency is 8-15 times a day. Breastfeeding position also plays a role in every breastfeeding pattern because it affects the baby's satisfaction in sucking, the duration and frequency of breastfeeding[20].

This study's results differ from previous studies' findings, which did not show a relationship between HL and breastfeeding behavior[10]. This study obtained OR=0.984 (CI=0.963-1.007); however, breastfeeding behavior was limited to 4 months. In contrast, this study used exclusive breastfeeding for six months. Although there are differences in research results, there is a possibility that HL can trigger better breastfeeding behavior in mothers. One study stated that mothers educated and given accurate information about

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breastfeeding would find it easier to initiate and continue exclusive breastfeeding[21].

CONCLUSIONS

There is a significant relationship between HL and breastfeeding patterns with a positive correlation strength, meaning that the better the HL, the better the breastfeeding pattern. Great effort is needed to increase the HL owned by the mother because it indirectly affects the pattern of care for children and family members before and during pregnancy as well as during and after childbirth, including breastfeeding patterns. In this case, educational interventions can be started early, both before and during pregnancy, so that later mothers are better prepared to apply the information and knowledge they have acquired. In addition, the role of health workers during antenatal care visits in providing information related to preparing good breastfeeding patterns also needs further improvement. Future research is expected to use a more significant number of samples and a variety of locations because this research was only conducted in one location.

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