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Comparative study of breastfeeding attitudes in rural and urban areas of Sleman Regency, Special Region of Yogyakarta, Indonesia

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Abstract

Purpose: This study determines the comparison of mothers' attitudes about breastfeeding in rural and urban areas of Sleman Regency. **Methods:** This quantitative research uses a comparative descriptive type and cross-sectional design. This research was conducted in January-March 2020 in 10 public health centers in Sleman Regency, selected by cluster random sampling. This research sample is breastfeeding mothers with children aged 1-7 months. Sampling was done using purposive, random, and consecutive sampling, obtaining 420 respondents. Data was collected using the Iowa Infant Feeding Attitude Scale (IIFAS) questionnaire, consisting of 17 statement items. Research analysis using Mann Whitney test, Spearman test, and Eta test. **Results:** The breastfeeding attitude score for mothers in rural areas was 60 (min-max 49-72), and in urban areas, the median value was 60 (min-max 45-77). There was no significant difference in the attitude of breastfeeding to mothers in rural areas and urban areas (p=0.769). External variables, maternal age (p=0.026) and education (p<0.001) had a significant relationship with breastfeeding attitudes (p<0.05). At the same time, parity status (p=0.261), work status (p=0.283), and experience received information on breastfeeding (F=0.345) showed no significant relationship with breastfeeding attitudes. **Conclusion:** The attitude of breastfeeding mothers in rural and urban areas is almost the same. There is no significant difference between the areas where they live, rural and urban areas, with breastfeeding attitudes.

Keywords: breastfeeding attitude; rural; urban

INTRODUCTION

Breastfeeding is one of the efforts to reduce infant mortality rates. Exclusive breastfeeding provides breast milk immediately after birth until 6 months without adding or replacing it with other foods or drinks. It continues until 24 months, with supplementary food starting at 6 months [1]. Breast milk provides perfect nutrition for babies' development and growth, protecting them against disease. It also contains antibodies, a form of immunity for babies [2].

Factors that influence breastfeeding include knowledge, attitude, education level, age, and employment status of the mother [3]. Knowledge will underlie good attitudes and behavior in providing breast milk [4]. However, the mother's attitude dramatically influences the provision of breast milk because attitude is a predisposing factor and underlies the formation of a person's behavior. Mothers with a positive attitude or support for breast milk exclusively tend to provide breast milk to their babies compared to mothers who have negative attitudes [5]. In addition, environmental factors also influence the provision of

breast milk, as seen from the characteristics of the population in rural and urban areas [6].

There are some differences in breastfeeding achievement in rural and urban areas. Achievement in villages is lower than in cities because in villages, the majority have less knowledge and low education, and the influence of in-laws and husbands is not good. In contrast, it is easy in cities to access health services because the place is affordable, so the achievement of early breastfeeding initiation is high [7]. On the other hand, the accomplishment of breast milk in villages is higher than in cities because they do not provide formula milk and give breast milk every time the baby asks for it. In contrast, in cities, many give formula milk from when the baby is born, and the time required to provide breast milk varies [8].

Sleman Regency is one of the regencies in the Special Region of Yogyakarta, which has the highest ranking in terms of exclusive breastfeeding in 2016 and 2017 [9]. The local Health Service has also created several programs to increase the coverage of exclusive breastfeeding, exclusive breastfeeding promotion, technical guidance for breastfeeding counselors, breastfeeding week, and improving the capacity of officers. However, the implementation of the breastfeeding policy has not been running optimally; seen from the 25 health centers in Sleman Regency, there are still 18 health centers that have not reached the strategic plan target, and the percentage in each health center is uneven [10]. According to BPS No. 37 of 2010 concerning urban and rural classification, 17 sub-districts are included in rural areas, and 69 are included in urban areas [11].

Based on the explanation above, there are still problems and ineffectiveness in providing breast milk in rural and urban areas, so the achievement of breast milk is still low. The mother's attitude is less than appropriate. Research on the comparison of attitudes towards providing breast milk based on place of residence is still very limited, so researchers are interested in comparing mothers' attitudes toward giving breast milk in rural and urban areas.

METHODS

This research is quantitative and uses a comparative descriptive research design. It is cross-sectional. The study was conducted in 10 health centers in Sleman Regency, Special Region of Yogyakarta, selected by cluster random sampling and implemented from January to March 2020.

The population included all breastfeeding mothers in rural and urban health centers in Sleman Regency. This study's sample was breastfeeding mothers with children aged 1-7 months in rural and urban health centers in Sleman Regency. Sampling was carried out using purposive, random, and consecutive sampling methods. The sampling results showed that Cangkringan and Ngaglik 2 Health Centers represented rural areas, while urban areas were defined by Depok 1, Depok 2, Depok 3, Sleman, Ngaglik 1, Tempel 1, Mlati 1, and Mlati 2 Health Centers. This study's respondents were 420, 121 from rural areas and 299 from urban areas. The inclusion criteria for this study were mothers with babies aged 1-7 months, mothers who breastfed their babies, could read, write, and communicate well, and were willing to be research respondents. Meanwhile, the exclusion criteria were mothers who did not breastfeed their babies (e.g., suffering from chronic diseases), did not live with their babies, and had mental disorders.

The measurement tool for breastfeeding attitudes in this study used the Iowa Infant Feeding Attitude Scale (IIFAS) questionnaire created by De La Mora and Russel in 1999. The number of statement items in this questionnaire was 17 statements. The IIFAS questionnaire was translated and tested for validity and reliability by Utami (2016) with results at the threshold of 0.5 and a Cronbach alpha value of 0.87. However, because there was one invalid statement item, the researcher modified the statement and conducted a validity and reliability test again. The validity and reliability test was conducted at the Gamping 2 Health Center, Sleman Regency, with a Cronbach alpha value of 0.526. The research respondents filled out the informed consent sheet, demographic data sheet, and attitude questionnaire while still accompanied by the researcher.

Data analysis used in this study is univariate and bivariate analysis. Univariate analysis is used to analyze each single variable. Bivariate analysis for hypothesis testing using the Mann-Whitney and correlative testing using the Spearman and beta tests.

RESULTS

Based on Table 1, most mothers in rural and urban groups are 20-35 years old. Most of their educational status is high school. The highest parity status between rural and urban is multiparous. The highest number of children in both groups is respondents who have two children in rural areas, while in urban areas, they have one child. Most mothers' breastfeeding experience has been breastfeeding before.

Table 1. Frequency distribution of respondent characteristics (n=420)

Respondent characteristics	Rural group (n=121)		Urban group (n=299)	
	n	(%)	n	(%)
Mother's age (years)				
< 20	1	0.8	7	2.3
20-35	99	81.8	241	80.6
>35	21	17.4	51	17.1
Education				
S2	5	4.1	6	2.0
Diploma/S1	33	27.3	77	25.8
Senior high school	60	49.6	164	54.8
Junior high school	19	15.7	38	12.7
Elementary school	4	3.3	13	4.3
Did not graduate from elementary school			1	0.3
Parity status				
Primipara	45	37.2	132	44.1
Multipara	76	62.8	167	55.9
Employment status				
Work	29	24.0	90	30.1
Doesn't work	92	76.0	209	69.9
Distance from workplace				
Doesn't work	92	76.0	209	69.9
>2 km	12	9.9	48	16.1
≤ 2 km	17	14.0	42	14.0
Experience getting information about breastfeeding				
Once	108	89.3	249	83.3
Never	13	10.7	50	16.7
Breastfeeding information sources				
Family	2	1.7	10	3.3
Health workers	78	64.5	113	37.8
Integrated service post	10	8.3	23	7.7
cadres	0	0	1	0.3
Friend	1	0.8	31	10.4
Media	13	10.7	50	16.7
Never	1	0.8	4	1.4
Family, health workers	8	6.6	11	3.7
Health workers, cadres	8	6.6	11	3.7
Health workers, media	0	0	1	0.3
Family, cadre	0	0	44	14.7
Living together				
Husband	82	67.8	199	66.5
Biological mother/father	6	5.0	19	6.4
Mother/father in law	2	1.6	5	1.7
Grandparents	0	0	0	0
Etc	1	0.8	2	0.6
Husband, biological mother/father	21	17.3	47	15.8
Husband, mother/father in law	8	6.7	23	7.7
Husband, biological mother/father and in-laws	1	0.8	4	1.3
Social support				
Yes	113	93.4	285	95.3
No	8	6.6	14	4.7
Sources of social support				
Family	87	71.9	165	55.2
Health workers	7	5.8	9	3.0
Family and health workers	19	15.7	111	37.1
Income				
≥ Minimum wage (Rp. 1,701,000)	75	62.0	207	69.2
< Minimum wage (Rp. 1,701,000)	46	38.0	92	30.8
Number of children				
1	45	37.2	129	43.1
2	51	42.1	117	39.1
>2	25	20.7	53	17.7
Breastfeeding experience				
Once	76	62.8	168	56.2
Never	45	37.2	131	43.8
Baby age				
1-6 months	104	86.0	263	88.0
>6-7 months	17	14.0	36	12.0
Breast milk status				
Breast milk only	92	76.1	214	71.6
Breast milk + other supplements	12	9.9	49	16.4
Exclusive breastfeeding	16	13.2	30	10.0
Not exclusive	1	0.8	6	2.0

The employment status of both groups was mainly unemployed. The highest distance between work and home occurred in rural areas, which was ≤ 2 km, while in urban areas, the highest was >2 km. Household income in both groups was mostly ≥ minimum wage (IDR 1,701,000). Most rural mothers had experienced obtaining information about breastfeeding, while most urban mothers had also experienced it. For sources of obtaining information about breastfeeding, the majority of both groups came from health workers.

In both groups, most respondents lived with their husbands, and most mothers received good social support. Urban groups received more social support than rural groups. The majority of sources of social support in both groups came from family (husbands, parents, and siblings). Table 2 shows that the median breastfeeding attitude score in rural and urban groups is the same, 60.00. Statistical tests show that the significance value is 0.769 (p>0.05), and both groups' scores show no significant difference.

Table 2. Attitudes towards breastfeeding in rural and urban groups

Variables	Group	Median (min-max)	*p value*
Attitude	Rural (n=121)	60.00 (49.00–72.00)	0.769
	Urban (n=299)	60.00 (45.00–77.00)	

Table 3. Relationship between external variables and attitudes towards breastfeeding

External variables	Median (Min – Max)	Attitude towards breast-feeding (n=420)
		p-value
Mother's age (years)		
< 20	60.00 (58 – 69)	0.026 [a]
20 – 35	60.00 (45 – 77)	
>35	59.00 (51 – 73)	
Education		
S2	65.00 (54 – 71)	
Diploma/S1	62.00 (51 – 77)	
Senior high school	60.00 (48 – 73)	< 0.001 [a]
Junior high school	57.00 (49 – 65)	
Elementary school	59.00 (47 – 69)	
Parity status		
Primipara	60.00 (47 – 77)	0.261 [a]
Multipara	60.00 (45 – 73)	
Employment status		
Work	60.00 (51 – 76)	0.283 [b]
Doesn't work	60.00 (45 – 77)	
Experience getting breast milk information	60.00 (47 – 77)	
Once	58.00 (45 – 76)	0.345 [b]
Never		

[a]*Spearman* Test , [b] *Eta* Test

Table 3 shows that the mother's age and education variables have a significant value ($p<0.05$), which has a significant relationship with the breastfeeding attitude. The parity status variable has a significant value ($p>0.05$), so there is considerable significance between it and hip with the breastfeeding attitude. The Eta test on the two variables shows that the calculated F value<F table (3.87) means no relationship between employment status and experience of receiving information on breastfeeding with the breastfeeding attitude.

DISCUSSION

The results of this study indicate that there is no significant difference between the areas of residence, rural and urban, with the attitude of mothers in breastfeeding. This result means that the attitude of breastfeeding in mothers in rural and urban areas is no different. This can be caused by the fact that these areas have the same median value, which means that the relatively similar score of breastfeeding attitudes makes no difference in attitudes in these areas.

The results of the identical breastfeeding attitude scores are in line with research that states that the IIFAS scores in rural and urban areas that are relatively the same can cause no difference in breastfeeding attitudes in rural and urban areas. The highest IIFAS score will form a good attitude and indicate mothers breastfeeding. A high IIFAS score [12] indicates a good maternal attitude. This is supported by other research that shows that mothers with an IIFAS score >65 are approximately 2 times more likely to breastfeed exclusively, so mothers with a high IIFAS score will have a positive attitude with a long breastfeeding duration [13]. The results of this study are also in line with research, which states that the scores for attitudes toward giving breast milk in both regions are almost the same and both groups agree that breast milk alone is sufficient as food for the first 6 months [14].

A mother's attitude regarding her baby's needs and health will provide exclusive breastfeeding as much as the mother can. This is by research that states the instinct as a woman after giving birth is to provide exclusive breastfeeding [15]. These two regions have no difference in attitudes due to the same demographic characteristics—employment status. The status of mothers working in rural and urban areas does not differ too much, even though the employment status of mothers in urban areas is higher. This is also in line with research that shows the absence of differences between residential areas and attitudes towards providing exclusive breastfeeding can be caused by employment status [16].

The relationship between external variables and attitudes towards breastfeeding consists of 5 variables. Most rural and urban respondents are healthy, aged 20-35 years. This study's results indicate a significant relationship between maternal age and attitudes towards breastfeeding. This is related to readiness and maturity, both physically and sexually, to have a pregnancy. This study's results align with research that maternal age influences the mother's positive attitude towards breastfeeding. Mothers aged 30-33 get a higher IIFAS score than other ages, meaning the mother has a positive attitude towards breastfeeding [17]. Other studies also confirmed that the mother's age factor is an essential factor that can trigger mothers to breastfeed [18].

The majority of maternal education in both groups was high school. This study's results indicate a significant relationship between maternal education and attitudes towards breastfeeding. Education level can affect breastfeeding because education can affect a person's knowledge. This knowledge will make mothers have a positive attitude towards breastfeeding [19]. The results of this sbased ondy are by thatrch which shows that the level of education of mothers is positively related to attitudes towards giving breast milk, especially to urban mothers. Urban mothers' high level of education is primarily high school and college graduates, who have more information about breast milk than rural mothers [8]. This result is in line with research which states that a high level of education is significantly related to positive attitudes towards breastfeeding mothers [17].

The highest parity status in both groups is the same, multipara. The relationship test results showed no significant relationship between parity status and the mother's attitude toward providing exclusive breastfeeding. This can happen because the number of multipara statuses between rural and urban areas does not differ too much, causing mothers to have the same attitude in providing breastfeeding. The results of this study are not in line with research that states that there is a relationship between parity and attitudes in providing breastfeeding. This parity can be related to previous breastfeeding experience and be a differentiator between primiparous and multiparous mothers [12].

The employment status of both groups is primarily unemployed and is ≤2 km from their homes in rural areas, while the distance is >2 km in urban areas. This shows that mothers who work in rural areas are mostly not too far from their homes while in urban areas the distance is >2 km, and it takes longer to travel. This study's results indicate no significant relationship between employment status and attitudes towards

breastfeeding. This may be because even though working mothers still take the time to provide exclusive breastfeeding, either directly/expressed breast milk. Other studies have explained that the positive attitude of working mothers makes them offer to provide expressed breast milk because they understand that breast milk is essential for infant health [20].

Experience in getting information about breastfeeding in both groups: the majority had received information about breastfeeding. The source in both groups came from health workers. This means that it shows the importance of the role of health workers, especially the place where the mother gave birth, in providing education about breastfeeding. This study's results indicate no significant relationship between the experience of getting information about breastfeeding and attitudes toward breastfeeding. The results of this study are in contrast to research which states that exposure to mass media information influences attitudes about exclusive breastfeeding. It can be seen that the percentage of media used by urban mothers to find out information is more diverse [8].

CONCLUSION

This study concludes that breastfeeding mothers' attitudes in rural and urban areas are identical, indicating no significant difference. There is a significant relationship between maternal age and education and the attitude toward breastfeeding. In contrast, parity status, employment status, and experience receiving information on breastfeeding do not show a significant relationship.

The study can encourage researchers to provide several suggestions. Health centers can consider the results of breastfeeding attitudes or create/develop existing programs related to increasing the scope of exclusive breastfeeding. In addition, they can consider factors that influence the attitude of breastfeeding mothers so that the right approach can be taken to them.

The community can actively seek information related to breastfeeding so that mothers have confidence and strong motivation to have a positive attitude toward breastfeeding. Further researchers can develop research by taking populations in other places and at the sub-district/village level. In addition, other factors that can influence attitudes toward breastfeeding that have not been examined in this study (cultural influences and emotional factors) are expected to be re-examined. The method of filling out the questionnaire must be the same, including travel time to work and ANC visits to demographic data.

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