ORIGINAL ARTICLE

Family Support to Increase the Accuracy in Giving Additional Food

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ABSTRACT

Background: Giving additional food that has a good quality is important for children's physical and intellectual development. However, based on the previous study, two of the six mothers who had a 6-23 months baby had already given the additional food to a baby whose age was under six months old. The accuracy in giving the additional food is influenced by several factors such as age, education, occupation, income, knowledge, source of information, and family support.

Aim: This study aims to reveal the relation between age, education, occupation, income, knowledge, source of information, and family support and the accuracy in giving the additional food.

Method: This study applied an observational analytic research design with a cross-sectional plan. The sampling in this study was taken with Cluster sampling, and the bivariate analysis was used chi-square.

Result: There were 46 Respondents in this study. The data was collected directly from the respondent by using a valid and reliable questionnaire. The hypothesis test to reveal the correlation between variables used the chi-square analysis. From the data analysis, factors that did not have a relation toward the accuracy in giving the additional food were age (p=0.170), education (p=0.315), occupation (p=0.723), income (p=0.240), knowledge (p=0.498), source of information (p=0.461). At the same time, the factor that had a relation with accuracy in giving the additional food was the family support (p=0.006) (p<0.05).

Conclusion: There is no relation between age, education, occupation, income, knowledge, source of information toward the accuracy in giving the additional food, and there is the relation between the family support and the accuracy in giving the additional food at maternal and child health center Sorosutahn Sub District. It is expected that the mother can be active in searching for information from non-health workers or from health workers about giving accurate additional food.

Keyword: Accuracy, Additional food, age, education, occupation, income, knowledge, source of information, and family support

INTRODUCTION

The baby's neonatal period's growth and development is the most critical period because it can cause infant morbidity and mortality. One indicator of achieving Millennium Development Goal's (MDG's) in Indonesia is the reduction in the infant mortality rate (IMR) to 23 per 1000 live births in 2012. However, based on the results of the Indonesian Demographic and Health Survey (IDHS 2012) infant mortality rate (IMR) in Indonesia is still relatively high compared to ASEAN countries such as Singapore (3 per 1000 live births), Brunei Darussalam (8 per 1000 live births), Malaysia (10 per 1,000 live births), Vietnam (18 per 1000 live births), and Thailand (20 per 1000 live births).

Exclusive Breastfeeding for six months is a public health intervention that has the most significant positive impact on reducing under-five mortality, around 13%. The behavior of exclusively breastfed infants from birth to 6 months of age can reduce the mortality rate of 30,000 babies in Indonesia each year.

Breast Milk is the most important source of nutrition needed by every baby, ideally given exclusively for six months and continued with complimentary food until two years. The introduction and administration of Additional food must be carried out in stages both in form and in number, according to the baby or child's digestive ability. Adequate provision of Additional Food in quality is essential for physical growth and children's intelligence development, increasing rapidly in this period [1].

Children who are given additional food after working six months are faster and stronger. When complementary food is given to increase the infant mortality rate, the baby's expenditure system, and provide benefits, it will also make the baby malnourished [2].

Based on the results of interviews conducted at the Umbulharjo I Public Health Center in 2016, 2 out of 6 mothers who had children aged 6-23 months provided complementary foods when their children were 4-5 months old. The reason for providing complementary feeding for ASI less than the age of 6 months is that Breast milk production is not smooth, the mother works. Besides that, she wants to be more interested in more practical packaging companion food products. The types of complementary foods provided by mothers are, on average, factory food as the first complementary food for their children compared to local foods.

The emergence of giving additional food early is strongly influenced by human behavior, in this case is knowledge, attitudes, and characteristics. Human behavior can be determined and shaped by predisposing factors, supporting factors (enabling factor), and driving factors (reinforcing factor) [3].

Based on the Decree of the Minister of Health of the Republic of Indonesia Number: 369 / Menkes / SK /

111/2007 concerning professional midwives' standard. A midwife must provide postpartum care and breastfeed with good service by providing knowledge about problems while breastfeeding, the benefits of exclusive Breastfeeding, and counseling postpartum by adjusting to the local community's culture [4].

METHOD

The design of this study was descriptive correlational research with a cross-sectional approach. The sampling technique in this study is Cluster Sampling. This study's population were all mothers who were domiciled in Sorosutan Subdistrict who had babies aged 6-23 months in the work area of Umbulharjo I Public Health Center, which was 304 respondents. The relationship analysis used is Chi-Square test with a significance level of 5%.

RESULTS

Characteristics of Respondents Based on the results of research conducted on 46 respondents, respondents' characteristics based on age, education, occupation, and income are as in Table 1.

Table 1: Distribution of Frequency Characteristics of Factors Affecting Additional Giving Food Among Mothers in Sorosutan Subdistrict.

Characteristics	n	%
Age		
1. Early Adult (<20 years)	6	13.0
2. Middle Adult (20-30 years)	24	52.2
3. Advanced Adult (> 30 years)	16	34.8
Education		
1. Basic (Elementary School)	6	13,0
1. Middle (Middle School, High School)	22	47.8
2. College University	18	39.1
Occupation		
1. Does not work	15	32.6
2. Not work	31	67.4
Income		
1. Low (<IDR 1,000,000)	7	15.2
2. Medium (IDR 1,000,000 – IDR 2,000,000)	25	54.3
3. High (> IDR 2,000,000)	14	30.4

Table 1 shows that of the 46 respondents in the Sorosutan Village Work Area of Umbulharjo Health Center 1 Yogyakarta has the following characteristics: the highest age characteristics of respondents are middle adulthood amounting to 24 people (52.2%), the most characteristic education level is Middle (Middle School, High School) a total of 22 people (47.8%), job characteristics of the most respondents, namely working mothers, 31 people (67.4%), and the highest income characteristics, namely mothers with moderate-income (IDR 1,000,000-IDR 2,000,000) 25 people (54.3%).

Table 2 shows that respondents in middle adult age as many as 15 respondents (17.7%) are the highest age who give Additional food appropriately. However, respondents in middle adult age were also the most respondents who gave Additional inappropriate food, which was nine people (6.3%). From the Chi-square calculation, the significant value of the p-value is 0.170 (p> 5%), so that it can be stated that there is no relationship between maternal age and the accuracy of Additional food administration in Sorosutan Subdistrict in 2016.

Table 2. Cross Tabulation of Relationship between Mother Age, Mother's Education, Occupation, Income, Knowledge, Sources of Information with Accuracy in Giving Additional Food in Sorosutan Subdistrict

Variable	Accuracy Giving Additional Food						X^2	p-value
	Wrong		Right		Total			
	n	%	n	%	n	%		
Mother's age								
Early Adult	1	1.4	5	4.4	6	6.0	2.349	0. 170
Middle	9	6.3	15	17.7	24	24.0		
Adult								
Advanced	2	4.2	14	11.8	16	16.0		
Adults								
Total	12	12.0	34	34.0	46	46.0		
Mother's Education								
Basic (elementary)	1	1.6	5	4.4	6	6.0	1.361	0.135
Middle (Middle School, High School)	8	5.7	14	16.3	22	22.0		
College University	3	4.7	15	13.3	18	18.0		
Total	12	12.0	34	34.0	46	46.0		
Occupation								
Does Not Work	3	3.9	12	11. 1	15	15.0		
Work	9	8. 1	22	22.9	31	31.0		
Total	12	12.0	34	34.0	46	46.0		
Income								
Low income	2	1.4	5	5.6	7	7.0	1.973	0.240
Medium	6	4.9	19	20. 1	25	25. 0		
High	1	2.7	13	11.3	14	14.0		
Total	9	9. 0	37	37.0	46	46.0		
Knowledge								
Less	3	1.6	3	4.4	6	6.0	0.685	0498
Enough	6	6.3	18	17.7	24	24.0		
Good	3	4.2	13	11.8	16	16.0		
Total	12	12.0	34	34.0	46	46.0		
Source of information								
Non-Nakes	10	8.6	23	24.4	33	33.0	1.076	0.461
Nakes	2	3.4	11	9.6	13	13.0		
Total	12	12.0	34	34.0	46	46.0		

Table 2 shows that as many as 14 respondents (16.3%) of secondary education (junior high, high school) are the highest education respondents who provide Additional food appropriately. Nevertheless, secondary education respondents (junior high school, high school) were also the most educated respondents who gave Additional food inappropriately, as many as eight respondents (5.7%). From the Chi-square calculation, it was obtained a significant value of p-value of 0.315 (p> 5%) so that it could be stated that there was no relationship between maternal education and the accuracy of Additional food administration in Sorosutan Subdistrict in 2016.

On The other results, working mothers as many as 22 respondents (22.9%) were the most respondents who appropriately gave Additional food. However, working mothers were also the most respondents who gave

Additional food improperly, as many as nine respondents (8.1%). From the Chi-square calculation, the significant value of the p-value is 0.723 (p> 5%), so it can be stated that there is no relationship between work and the accuracy of the provision of Additional food in Sorosutan Subdistrict in 2016.

Mothers who have moderate income as many as 19 respondents (20.1%) are the most respondents who give Additional food appropriately. However, mothers who had moderate-income were also the most respondents who gave Additional food improperly, as many as six respondents (4.9%). From the Chi-square calculation, the significant value of the p-value is 0.240 (p> 5%). It can be stated that there is no relationship between family income and the accuracy of Additional food administration in Sorosutan Subdistrict in 2016.

On the other hand, Mothers with sufficient knowledge, as many as 18 respondents (17.7%), were the most respondents who appropriately gave Additional food. However, mothers with sufficient knowledge were also the most respondents who gave Additional food inappropriately, as many as six respondents (6.3%). From the Chi-square calculation, the significant value of the p-value is 0.498 (p> 5%). It can be stated that there is no correlation between maternal knowledge and the accuracy of giving Additional food to Sorosutan Subdistrict in 2016.

Table 2 shows that non-health information sources as many as 23 respondents (24.4%) are the largest source of information that provides Additional food appropriately. Nevertheless, the source of non-health information is also the source of the most respondents who gave Additional food incorrectly, namely ten respondents (8.6%). From the Chi-square calculation, it was obtained a significant value of p-value of 0.461 (p> 5%) so that it could be stated that there was no relationship between the sources of information and the accuracy of the provision of Additional food in Sorosutan Subdistrict in 2016.

Table 3. Cross Tabulation Relation of Family Support to the Accuracy of Giving Additional Food in Sorosutan Subdistrict.

Family Support	Giving Additional Food				Total		Accuracy	
	Wrong		Right				X2	p value
	n	%	n	%	n	%		
Less	4	1.6	2	4.4	6	6.0	8.755	0.006
Enough	3	1.6	3	4.4	6	6.0		
Good	5	8,9	29	25.1	34	34.0		
Total	12	12.0	34	34.0	46	46.0		

According to Table 3, 29 respondents (25.1%) had the best family support; most respondents appropriately gave Additional food. However, mothers who have good family support are also the most respondents who gave Additional food improperly as many as five people (8.9%). From the Chi-square calculation, the significant value of p-value is 0.006 (p <5%), so that it can be stated that there is a relationship between family support and the accuracy of Additional food administration in Sorosutan Subdistrict in 2016

DISCUSSION

Relationship of Mother's Age with Accuracy in Giving Additional food in Sorosutan Subdistrict. There was no correlation between maternal age and the accuracy of Additional food administration from the research conducted.

This means that the accuracy in giving Additional food is not determined by age but can be influenced by other factors [5]. This study's results are supported by research conducted by Steptoe, which states that there is no significant relationship between age with Additional food administration. Factors that influence the accuracy of Additional food administration and age include knowledge, education, occupation, and social culture [6]. From this study, it can be seen that increasing maternal age is not always followed by good knowledge about the practice of giving Additional food. Young mothers who lack experience in parenting and most of them still live with their parents, causing additional food provision is still a lot of help from parents at home. Whereas mothers at young age are tired of caring for their babies, they affect the mother in providing the child's right complementary food. Besides that, cultural factors and habits can influence maternal behavior, eating habits in the previous family, and there is no desire to change the bad practice habits. It is also a precipitating factor for inaccuracy in providing complementary feeding to children.

Relation of Mother's Education to the Accuracy of Giving Additional food in Sorosutan Subdistrict.

This study indicates that there is no relationship between maternal education and the accuracy of giving Additional food. This means that the accuracy in giving Additional food is not determined by a mother's education factor but is influenced by other factors. This study's results are supported by a previous study conducted by Britton that there is no significant relationship between education and the accuracy of Additional food administration. Factors other than education that can affect additional food accuracy include culture, family support, and sources of information [7]. Not always higher education can improve mothers' ability to accept ways to provide complementary feeding for Additional food. This is because mothers with higher education tend to have activities outside the home, so they often leave their babies. Whereas mothers with low education live more at home, there are more opportunities to pay attention to their baby's feeding.

Employment Relationship with Accuracy in Giving Additional food in Sorosutan Subdistrict.

There is no relationship between maternal work and the accuracy of giving. Additional food This means that the accuracy in giving Additional food is not determined by a mother's work factor but is influenced by other factors. This study supports the results of previous research by Rivami that there is no significant relationship between work with the provision of Additional food. Other factors that can influence the provision of Additional food in addition to work include media support and exposure [8].

The break-up of exclusive Breastfeeding is often caused because the mother works, the mother's time is more in the office, so she has to part with her baby for a while. However, working mothers actually provide complementary breastfeeding foods precisely than mothers

who do not work. This is because knowing how to provide complementary feeding to mothers works better than mothers who do not work. In addition, strong motivation and intention to provide the best food for children is one of the factors related to the accuracy of complementary feeding and family support, and work environment [9].

Family Income Relationships with Accuracy in Giving Additional food in Sorosutan Subdistrict.

From the research that has been done, it is found that there is no relationship between family income and the accuracy of giving Additional food. This means, the accuracy in the provision of Additional food is not determined by the income factor of a mother but is influenced by other factors. This is supported by research conducted by Semenic that there is no meaningful relationship between socio-economics with the provision of Additional early food in infants. Other factors that can influence other than income include the level of knowledge, attitudes, parity, family support, the role of health, and socio-cultural officers [10].

Mothers from low economic groups generally suffer from malnutrition so that the amount of breast milk produced is not much. Therefore, low economic groups usually provide additional food tends to be earlier to the baby. In comparison, mothers from high economic groups were more aware of the benefits of exclusive Breastfeeding. So the provision of Additional food in infants tended to be given after six months, while mothers of economic groups seemed to be much influenced by Additional food advertisements that promote that babies will grow faster by feeding manufacturers.

Knowledge Relationship with the Accuracy of Giving Additional food in Sorosutan Subdistrict.

Based on the research that has been done, it can be concluded that there is no relationship between maternal knowledge and the accuracy of Additional food administration. This means that giving Additional food is not determined by a mother's knowledge factor but is influenced by other factors. This was supported by a previous study by Vijayalakshmi that there was no significant relationship between maternal knowledge and breast milk supplementary feeding practices. Other factors that can influence the provision of Additional food and knowledge include work, income, and family support [11].

The main obstacle to achieving exclusive Breastfeeding and the correct utilization of Additional food is a lack of correct knowledge about exclusive Breastfeeding and in Additional food mothers. A mother must have good knowledge of Breastfeeding. Loss of knowledge about Breastfeeding means a large loss of confidence in a mother to be able to provide the best care for her baby, and a baby will lose vital food sources and optimal care methods, lack of knowledge about breast milk and Additional food can be seen from the use of formula milk early and giving banana or mushy rice in addition to Breast milk.

Relation of Information Sources to the Accuracy of Giving Additional food in Sorosutan Subdistrict.

From the research that has been done, it is found that there is no relationship between sources of information and the accuracy of Additional food administration. This means that factors of information do not determine the accuracy in granting MP-ASI.

Sources but are influenced by other factors.

This is supported by Nielsen's research that there is no significant relationship between Information Sources with early Additional food administration in infants. Other factors that can influence the provision of Additional food and sources of information are the knowledge and work of the mother [12]. Not always technological advances and sophisticated communication have a positive impact on mothers. The many sources of information in this modern era sometimes confuse mothers in determining the best for their children. The incessant promotion of additional food and formula milk as a substitute for breast milk made people less trust in breast milk's greatness, so finally chose Additional food or formula milk. Health workers who should give a good example do the opposite. Many health workers also practice the practice of providing free samples of baby food manufacturers. This makes people less confident about the benefits contained in breast milk. Awareness and active role of health workers are needed to socialize the right way to administer Additional food to mothers.

Relation of Family Support to Accuracy in Giving Additional food in Sorosutan Subdistrict.

Based on the research that has been done, it can be concluded that there is a relationship between family support and the accuracy of additional food administration in Sorosutan Subdistrict in 2016, with the strength of the two variables stated to be quite strong. This is supported by Hanifah's research that there is a significant relationship between family support with the provision of Additional food [13].

Low family support for complementary feeding of breast milk harms the health of the baby. It is clear that if the family gives a suitable role or support, it will encourage mothers not to provide complementary Breastfeeding to their babies when they are 0-6 months old. Therefore, information about Additional food is given to mothers and husbands, and families, so they also get knowledge about Additional food and help prevent or support mothers not giving Additional food early.

CONCLUSION

This paper discussed the factors related to the accuracy of giving Additional food. The finding is no relationship between maternal age, maternal education, employment, family income, knowledge, and sources of information on the accuracy of additional food provision. Besides, there is a relationship between respondent's family support for the accuracy of giving Additional food. This research suggests that more factors should be explored that influence breastfeeding, which will help refine the results of research and get more complex research results.

REFERENCES

[1] D. K. Yogyakarta, “Profil Kesehatan Kota Yogyakarta Tahun 2014,” Dinas Kesehat. Kota Yogyakarta. Yogyakarta, Indones., 2015.

[2] P. Nestel et al., “Complementary food supplements to achieve micronutrient adequacy for infants and young children,” J. Pediatr. Gastroenterol. Nutr., vol. 36, no. 3, pp. 316–328, 2003.

[3] M. Gurven, “To give and to give not: the behavioral ecology of human food transfers,” Behav. Brain Sci., vol. 27, no. 4, pp. 543–559, 2004.

[4] M. K. R. Indonesia, “Keputusan Menteri Kesehatan Republik Indonesia Nomor 369/Menkes/Sk/Iii/2007 Tentang Standar Profesi Bidan,” Jakarta Kemenkes RI, 2007.
[5] K. Alaimo, C. M. Olson, and E. A. Frongillo, “Food insufficiency and American school-aged children’s cognitive, academic, and psychosocial development,” Pediatrics, vol. 108, no. 1, pp. 44–53, 2001.
[6] A. Steptoe, T. M. Pollard, and J. Wardle, “Development of a measure of the motives underlying the selection of food: the food choice questionnaire,” Appetite, vol. 25, no. 3, pp. 267–284, 1995.
[7] J. R. Britton, H. L. Britton, and V. Gronwaldt, “Breastfeeding, sensitivity, and attachment,” Pediatrics, vol. 118, no. 5, pp. e1436--e1443, 2006.
[8] D. S. Rivami, Maternal and Child Diet-Related Factors Associated with Stunting and Wasting in Children 6-23 Months of Age in Indonesia. Michigan State University, 2017.
[9] C. G. Perrine, K. S. Scanlon, R. Li, E. Odom, and L. M. Grummer-Strawn, “Baby-friendly hospital practices and meeting exclusive breastfeeding intention,” Pediatrics, vol. 130, no. 1, pp. 54–60, 2012.
[10] S. Semenic, C. Loiselle, and L. Gottlieb, “Predictors of the duration of exclusive breastfeeding among first-time mothers,” Res. Nurs. Health, vol. 31, no. 5, pp. 428–441, 2008.
[11] P. Vijayalakshmi, T. Susheela, and D. Mythili, “Knowledge, attitudes, and breast feeding practices of postnatal mothers: A cross sectional survey,” Int. J. Health Sci. (Qassim)., vol. 9, no. 4, p. 364, 2015.
[12] G. A. Nielsen, B. L. Thomsen, and K. F. Michaelsen, “Influence of breastfeeding and complementary food on growth between 5 and 10 months,” Acta Paediatr., vol. 87, no. 9, pp. 911–917, 1998.
[13] L. Hanifah, R. Wulansari, R. Meiandayati, and E. Laksminingsih, “Stunting trends and associated factors among Indonesian children aged 0-23 months: Evidence from Indonesian Family Life Surveys (IFLS) 2000, 2007 and 2014,” Malays. J. Nutr., vol. 24, no. 3, pp. 315–322, 2018.