RELATIONSHIP ON EDUCATION LEVEL AND MOTHER'S ATTITUDES ABOUT EXCLUSIVE ASSOCIATION WITH NUTRITIONAL STATUS OF CHILDREN

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Abstract

The magnitude of the problem of malnutrition in infants is a health problem for citizens in Indonesia. This research aims to analyze the relationship between knowledge and behavior of mothers about breastfeeding and exclusive breastfeeding with the nutritional status of infants aged 6-24 months. This research used a quantitative observational analytic method with a cross sectional approach. The research population consisted of 98 mothers and toddlers aged 6-24 months in Kayu Raja Village, Kerintang Indragiri Hilir Subdistrict and 78 illustrations, using random sampling method. The questionnaire instrument for information on the level of learning, behavior and exclusive breastfeeding as well as the baby's nutritional status used the BPJS Health Card information. The results of the analysis show the bonding level of learning (p = 0.011 OR = 25.196; 95% CI = 2, 087 to 304, 158), behavior (p = 0.044; OR = 21.656; 95% CI = 1, 081 to 434, 028) and exclusive breastfeeding (p = 0.029; OR = 19.769; 95% CI = 1, 361 to 287, 238) as well as all variables (Nagelkerger R Square of 68.2%). There is a significant positive relationship between the level of learning and behavior of mothers about breastfeeding and exclusive breastfeeding with the nutritional status of infants aged 6-24 months.

Keywords: Knowledge, Attitudes, Exclusive Breastfeeding, Nutritional Status of Toddlers

INTRODUCTION

Universally, the nutritional problem in Indonesia, especially KEP (Lack of Protein Power), is still bigger than in other ASEAN countries (Mardisantosa, Huri, & Edmaningsih, 2017). At the world level, it is said that there are at least 17.289 babies die every day because of hunger and malnutrition with all the consequences it causes. There is no country in the world like Indonesia which is rich and resourceful agriculture naturally (perennial factor), however in the country of Indonesia is facing a crisis in the fields of energy, food, health or natural energy sources (Rahman, 2018), which is caused by several aspects, one of which is the action of citizens who exploit and use nature in excess, so that many problems continue to arise, including poverty, food and nutrition crises, which is a meaningful task for the government and citizens to solve these problems (Mahyarni, 2016).

The triggers for nutritional problems are influenced by 2 aspects, namely direct aspects and indirect aspects (Marut, 2007). The immediate trigger is the aspect of eating and inflammatory diseases (Nihwan, 2019). The indirect trigger aspects are food security in the family, parenting styles, health care and insufficient sanitation in the area. The four indirect aspects relate to the mother's learning, knowledge, income and expertise (Salla, 2017). The results of the national census survey show that the percentage of well-nourished...
babies was 71.88% in 2012 and in 2013 it fell to 69.59%. Infants with less / less good nutrition were 25.82% in 2012 and increased to 28.17% in 2013 (Statistik, 2016). The national prevalence of very thin babies is still quite large, at 6.2%. This matter means that the problem of being underweight in Indonesia is still a serious health problem for citizens. Moreover, out of 34 provinces, 18 provinces are among the critical types (wasting prevalence 15%), 12 provinces are in serious type (wasting prevalence is 10-15%).

Results of Nutrition Status Monitoring (PSG) in 2013–2019 in Riau Province, the prevalence of malnutrition faced a decrease along with the improvement of health service facilities and a reduction in the incidence of inflammatory diseases. Intent, but the depreciation is still not normal, it can be seen from the results of PSG in 2014 amounting to: 0.22%, 2015: 0.46% and in 2016 amounted to 0.35% (Riau Provincial Health Office, 2017).

In the area of Kayu Raja Village in 2016, there were 7 babies with a malnutrition status and in 2017 the number of malnourished was 4 people. The total number of babies in this village is 366 children, of which babies aged 6-24 months are some 98 children. The settlement conditions for the local Village Midwives to this area are malnutrition and lack of good nutrition. From this phenomenon, things that are important to observe are the factors that are related to the nutritional status of the baby, such as the characteristics of the mother, the characteristics of the toddler, the knowledge and behavior of mothers regarding breastfeeding, the position of posyandu cadres and village midwives, data media and history of breastfeeding, exclusive and non-ASI milk as well as breastfeeding couple's meal.

This research aims to analyze the relationship between the level of learning and the mother's behavior regarding breastfeeding and exclusive breastfeeding with the nutritional status of babies aged 6-24 months in Kayu Raja Village, Keritang District. The lack of knowledge of mothers about breastfeeding is one of the obstacles to the sustainability of breastfeeding. The level of education of mothers about exclusive breastfeeding can be obtained from various data sources. Towards the end of pregnancy, mothers need a variety of meaningful data that are usually provided by health services and personnel (Arifeen, 2016). Mother's behavior is related to breastfeeding practice. Mothers who think that breast milk is the best food for toddlers plans to share breast milk for 6 months (Foo, 2016). Breast milk is a hygienic, inexpensive, easy-to-provide meal that is available for toddlers. Breast milk is one of the foods that toddlers need during the first 6 months of their life to become healthy toddlers.

Its dynamic composition that suits the needs of toddlers makes breast milk the maximum nutritional consumption for toddlers. Breast milk and plasma have the same ion concentration, so toddlers don't need fluids or bonus meals. Breast milk has all the elements that meet the needs of toddlers for nutrition throughout the period close to 6 months, unless the mother is experiencing severe malnutrition or other health problems. The composition of breast milk will change in line with the needs of toddlers (Fawtrell, 2017). The condition of malnutrition status will have broad consequences, including the ease with which children face inflammation and problems with development and development as well as constraints for the use of their body organs (Rodrigues, 2016). One of the ways to know nutritional status is by using anthropometric procedures which are divided into 2 types, namely measurement of development (body dimensions) and measurement of body composition (Sarni, 2019). The hypothesis in this research is that there is a link between the levels of mother’s learning about breastfeeding and behavior mother about breastfeeding, exclusive breastfeeding, and these three variables together with the nutritional status of babies aged 6-24 months in Kayu Raja Village, Keritang District.
RESEARCH METHODS

This research will be conducted in Kayu Raja Village, Keritang District. This research is an analytic observational quantitative study with a cross sectional approach. The population in this study were all mothers whose toddlers aged 6-24 months in Kayu Raja Village, Keritang District, totaling 98 people. Data collection was carried out directly to the research subjects with a questionnaire and recording the results of the nutritional anthropometric measurements of children under five listed in the KMS. To determine the relationship between the level of education and attitudes of mothers regarding breastfeeding and the implementation of exclusive breastfeeding with the nutritional status of children aged 6-24 months, the statistical analysis used in this study was multiple logistic regression analysis to test hypotheses 1, 2, 3 and 4.

RESULTS AND DISCUSSION

The level of education of the interviewee is divided into two categories, namely low education (SD-SMP) and higher education (SMA-Perguruan Tinggi). Among the respondents with a low level of breastfeeding education, 11 (14.1%) had high attitudes, and as many as 67 (85.9%) attitude respondents were divided into two categories, namely low attitudes and high attitudes.

<table>
<thead>
<tr>
<th>Category Attitude</th>
<th>Frekuency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>32</td>
<td>41,0</td>
</tr>
<tr>
<td>High</td>
<td>46</td>
<td>59,0</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Respondents with low attitudes were 32 respondents (41.0%), and those with high attitudes were 46 respondents (59.0%). Exclusive breastfeeding data from the informants is divided into several categories, namely mothers who are not exclusively breastfed and exclusively breastfed. Respondents who did not provide exclusive breastfeeding were 19 respondents (24.4%), and those who only gave exclusive breastfeeding were 59 respondents (75.6%).

<table>
<thead>
<tr>
<th>Exclusive breastfeeding</th>
<th>Frekuency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tidak</td>
<td>19</td>
<td>24,4</td>
</tr>
<tr>
<td>Ya</td>
<td>59</td>
<td>75,6</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>100,0</td>
</tr>
</tbody>
</table>

The nutritional status of children under five is divided into two categories, namely the nutritional status of children under the Red Line (BGM) and not under the Red Line. There were 8 respondents (10.3%) with nutritional status below the red line (BGM), and 70 respondents (89.7%) with nutritional status not lower than the red line.

<table>
<thead>
<tr>
<th>Toddler Nutritional Status</th>
<th>Frekuency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGM</td>
<td>8</td>
<td>10,3</td>
</tr>
<tr>
<td>Tidak BGM</td>
<td>70</td>
<td>89,7</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>100,0</td>
</tr>
</tbody>
</table>
Table 4. Results of Multiple Logistic Regression Analysis of the relationship between education level and attitudes of mothers about breastfeeding and exclusive breastfeeding with nutritional status of children aged 6-24 months

<table>
<thead>
<tr>
<th>Variable Interval</th>
<th>OR</th>
<th>Signifikancy (p)</th>
<th>Confidence</th>
<th>Lower Limit</th>
<th>Upper Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother's education level 25, 196</td>
<td>0,011</td>
<td>2,089</td>
<td>304,158</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother's Attitude Breastfeeding Exclusive</td>
<td>21,656</td>
<td>0,044</td>
<td>1,081</td>
<td>434,028</td>
<td></td>
</tr>
<tr>
<td>N Observasi= 78</td>
<td>19,769</td>
<td>0,0029</td>
<td>1,361</td>
<td>287,238</td>
<td></td>
</tr>
</tbody>
</table>

-2 log likelihood= 21,093
Negelkerker R²= 66,9%

Figure 1. Relationship between mother's education level regarding breastfeeding and nutritional status of children aged 6-24 months

As can be seen in the figure above, there is a tendency for children under five with a lower level of breastfeeding education and mothers with a higher level of breastfeeding education to have a better nutritional status. It can be seen that there are 6 respondents (7%, 7%) and 5 respondents (6%, 4%) whose nutritional status is below the red line (7%, 7%) and 5 respondents (6%, 4%). Among 83.3% mothers with tertiary education, the nutritional status of children under five is above the red line, while 2.6% of children under five are below the red line..

Through the results of the logistic regression test, it can be seen that the significance value or p = 0.011 or less than 0.05, and it can be concluded that there is a significant relationship between the education level of breastfeeding mothers and the nutritional status of children under five, 6-24 months. And based on the OR value obtained of 25,196, it can be concluded that the nutritional status of mothers with higher education may be 25.196 times higher than uneducated mothers. There is a relationship between mother's attitude towards breastfeeding and the nutritional status of children aged 6-24 months. The relationship between mothers' attitudes about breast milk and nutritional status of children aged 6-24 months can be seen in the following figure:
Figure 2. The relationship between mother's attitudes about breastfeeding and nutritional status of children aged 6-24 months

As seen in the picture above, there is a tendency that mothers with high attitudes towards breast milk tend to make their babies more nutritious than mothers with low attitudes. It can be seen that 32.1% of mothers with low attitudes have children whose nutritional status is above the red line, 9% of mothers have children whose nutritional status is below the red line, and among mothers who have high attitudes, 57.7% have children with higher status, nutrition below the red line. nutritional status is above the red line and 1.3% of children are below the red line.

Based on the results of the logistic regression test, it can be seen that the significance value or p = 0.044 or less than 0.05. It can be concluded that there is a significant relationship between mother's attitude towards breastfeeding and the nutritional status of the baby. Children aged 6-24 months. Based on the OR value obtained of 21.656, it can be concluded that mothers with higher attitudes tend to improve the nutritional status of infants up to the age of 21, which is 656 times higher than mothers with lower attitudes. This relationship was stated as statistically significant analysis (p = 0.044; OR = 21.656; 95% CI 1.081 to 434.028). There is a relationship between exclusive breastfeeding and the nutritional status of children 6-24 months. The figure below shows the relationship between exclusive breastfeeding and the nutritional status of children aged 6-24 months:

Figure 3. Relationship between exclusive breastfeeding and nutritional status of children aged 6-24 months

Sourced from the photo above, shows that there is a tendency that mothers who distribute exclusive breastfeeding tend to have babies with better nutritional status than mothers who do not share exclusive breastfeeding. It appears that mothers who do not share exclusive breastfeeding, as many as 15.4% have babies with nutritional status above the red line and 9% have babies with nutritional status at the bottom of the red line, in contrast
to mothers who distribute exclusive breastfeeding, as much as 74.4% have babies with nutritional status above the red line and 1.3% have babies with nutritional status at the bottom of the red line.

Based on the results of the logistic regression test, it is known that the significance value or $p = 0.029$ or less than 0.05, it can be concluded that there is a significant relationship between exclusive breastfeeding and the nutritional status of infants aged 6-24 months. And based on the OR value, it was obtained at 19,769, where from this it can be concluded that mothers who distribute exclusive breastfeeding may have babies with nutritional status 19,769 times greater than mothers who do not share exclusive breastfeeding. There is a relationship between knowledge and behavior of mothers about breastfeeding and exclusive breastfeeding with the nutritional status of infants aged 6-24 months.

The results of multiple logistic regression tests can be concluded that there is a significant correlation between the level of education of mothers regarding breastfeeding, mother's behavior regarding breastfeeding and exclusive breastfeeding with the nutritional status of infants aged 6-24 months in Kayu Raja Village. Based on the Nagelkerger R Square value, it is known as 0.669, this matter can be explained if the variable influence of mother's knowledge about breastfeeding, mother's behavior about breastfeeding and exclusive breastfeeding on the nutritional status of babies aged 6-24 months is 66.9%, on the contrary the influence of aspects others who were not examined in this study amounted to 33.1%. Based on the results of the Hosmer and Lemeshow test with a significance value of 0,806 or greater than $\alpha 0.05$, it can be concluded that the multiple logistic regression equation model is feasible and can be interpreted.

Based on the regression equation, an analysis is made if the mother has a large level of education (1), great behavior (2), and distributes exclusive breastfeeding so that it is possible for the mother to have a baby with a nutritional status above the red line of 66,725 times more. bigger than mothers whose education level and behavior are low and do not share exclusive breastfeeding.

The results of this study support the hypothesis that the level of mother's learning about breastfeeding and exclusive breastfeeding has a statistically significant association with the nutritional status of infants aged 6-24 months and these results do not vary with the results of several other studies but there are other studies whose results are not, in line with this research. This research also shows the nutritional status of babies at the base of the red line in Kayu Raja Village by 10.3%. The discovery of the incidence of infants suffering from malnutrition and malnutrition is one of the images of weak health, food and nutrition infrastructure and the formation of socio-economic and political inequalities, in which the problem of malnutrition that arises is one that requires serious action.

Based on the results of hypothesis testing with, it was found that there was a significant relationship between the mother's learning level and the baby's nutritional status where $p &lt; 0.05$ ($p = 0.011$). The findings of this study are consistent with the theoretical review, namely the level of education of mothers about breastfeeding ensures the nutritional status of infants aged 6-24 months. Some research results show that mothers' learning levels are significantly related to breastfeeding methods. Continue to improve the learning level and nutritional behavior of mothers until the provision of a diet for their babies continues to be good and so does the nutritional status of their toddlers (Harahap, 2021). The low level of mother's learning about breastfeeding causes mothers not to share exclusive breastfeeding with their babies, this is to affect the nutritional status of their toddlers (Sulistiyowati & Siswantara, 2014).
In his research, (Yudi, 2008) stated that there was a statistical significance with a value of 𝑝 = 0.025 by testing the hypothesis that there was a relationship between mother's knowledge and nutritional status of babies aged 6-24 months in her research conducted in 2017 entitled "The ties of socio-cultural aspects with status nutrition of babies aged 6-24 months in Medan Zona Subdistrict, Medan City." The socio-cultural aspects studied in this research are learning, work and knowledge of mothers and fathers and family income and family traditions.

(Rahayu, 2017) research in 2017, entitled Characteristics of mothers who distribute exclusive breastfeeding with the nutritional status of their toddlers, found that there was a significant relationship between the mother's level of knowledge and the nutritional status of her toddler with p value 0.019 (p < 0.05). In this research it was concluded that mothers with low levels of knowledge so that mothers do not share exclusive breastfeeding and have babies with poor nutritional status as much as 15.1%.

(Rachmadewi & Khomsan, 2009) in her research in 2019 in her research, Knowledge, behavior, and exclusive breastfeeding practice and nutritional status of children aged 4-12 months in rural and urban areas, it is concluded that the knowledge of mother's nutrition has a positive relationship with the nutritional behavior of mothers in rural or urban areas. Aspects that are significantly related to the knowledge of nutrition for mothers in rural areas are the mother's age, work status, and previous breastfeeding experience. An aspect that is significantly related to the nutritional behavior of mothers in rural areas is work status. In urban areas, only the mother's level of learning is significantly related to the mother's level of knowledge and nutritional behavior. The comparison of this research with this research is not only from the objectives that describe the condition of urban and rural areas and the use of information analysis techniques is the difference test is tried using the independent t-test, chi-square test, and Fishers exact test. The bond between variables were analyzed using the Spearman correlation test. All tests were tried at the 5% real level (α). In this research, the bond between knowledge and behavior affecting breast milk was analyzed and a significant bond was obtained (p = 0.004), whereas in this study the bond was not analyzed.

This research is also in line with the results of research entitled "Effect of mother's education on children's nutritional status in the slums of Nairobi" by (Abuya, Ciera, & Kimani-Murage, 2012), conclusions were obtained through binomial and multiple logistic regression tests where a significant relationship was obtained if Mother's knowledge is a strong predictor of the nutritional status of her toddler (p = 0.001). For (Istiono, Suryadi, & Haris, 2009), in his research entitled Analysis of the factors that influence the nutritional status of infants where the independent variables are the mother's job, father's job, infant disease, food expenditure, non-food expenditure, parenting, access to health, hygiene and area sanitation and knowledge, behavior and attitudes of mothers, it was concluded that there was no significant relationship between all aspects of these effects and the nutritional status of children. The insignificance of the research results was caused by errors in illustration taking and could also be caused by misuse of information analysis.

The results of this research are not in line with the results of research by Mashal in 2018 entitled "Factors associated with the health and nutritional status of children under 5 years of age in Afghanistan: family behavior related to women and past experience of war-related hardships" if the mother's low level of knowledge, marriage at an early age, low expertise of the mother, the reduction in the amount of supply needed by the family every day, and displacement have a significant negative relationship with the health status and nutritional status of children in this country who are facing a period of conflict in a long
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time long. The aspect of minimum basic needs was related to the incidence of diarrhea (odds-ratio = 1.35; 95% CI = 1. 08. 1. 68); displacement was associated with poor nutritional status (odds-ratio = 2.48; 95% CI 95% = 1.13, 5.44).

Based on the results of the logistic regression hypothesis test, it was found that there was a significant relationship between the mother's behavior and the nutritional status of the baby where p < 0.05 (p = 0.044). Rahma Dewi in her research entitled Knowledge, behavior and practice of exclusive breastfeeding and nutritional status of children aged 4-12 months in rural and urban areas, it is concluded that mother's nutritional knowledge is positively related to women's nutritional behavior in rural or urban areas. Aspects that are significantly related to the knowledge of nutrition for mothers in rural areas are the mother's age, work status, and previous breastfeeding experience. An aspect that is significantly related to the nutritional behavior of mothers in rural areas is work status. In urban areas, only the mother's level of learning is significantly related to the mother's level of knowledge and nutritional behavior.

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The results of this research are not in line with Istiono's comments in 2016 in his research entitled Analysis of factors that affect the nutritional status of infants, where the independent variables are the mother's job, father's job, infant disease, food expenditure, non-food expenditure, parenting style. In terms of access to health, hygiene and sanitation areas and knowledge, behavior and attitudes of mothers, it was concluded that there was no significant relationship between all aspects of these effects and the nutritional status of children under five.

Moelina in 2016 in her research on the relationship between mothers' assumptions and nutritional status of their toddlers in Brazil and (Abubakar, Holding, Mwangome, & Maitland, 2011) with the same research title in rural Africa, formulated that mothers' assumptions about the state of their children's nutritional status were significantly related to their children's nutritional status. (Aries Dian Pertiwi & Wirawan, 2006) in her research "Mother's Characteristics Bond with exclusive breastfeeding with inflammatory diseases and nutritional status in infants held in Semarang" in 2016, found that there was a link between age, occupation, previous breastfeeding experience and mother's learning level with the baby's nutritional status with significant ties. statistical p = 0.017 was found in the hypothesis testing that there was a relationship between the length of exclusive breastfeeding and the nutritional status of the baby.

This research is not in line with research by Basit in 2017 where through his research "Risk factors for under-nutrition among children aged one to five years in Udupi taluk of Karnataka, India" results showed that malnutrition in infants is associated with illness throughout the year. In the last 1 month [OR – 4. 78 (CI: 1. 83–12. 45)], diluted prescription milk was given [OR – 14. 26 (CI: 4. 65– 43. 68)] and have children more than 2 with a distance of children less than 2 years [OR – 4. 93 (CI: 1. 78–13. 61)]. There was no link between nutritional status and low exclusive breastfeeding, mother's knowledge and area sanitation. The association of knowledge and behavior of mothers regarding breastfeeding and exclusive breastfeeding with the nutritional status of infants aged 6-24 months.
This study has independent variables that were not examined in Yu's study in 2015, entitled "Status of malnutrition and its influencing factors in children under 5 years of age in poor areas of China in 2015" where the results of the study were obtained. Other things related to the nutritional status of children under five, such as low birth weight (OR = 1.975, 95% CI = 1.515-2.575), per capita income less than 2000 yuan (OR = 1.813, 95% CI = 1.364-2.409), parenting styles father and mother (OR = 1.190, 95% CI = 1.022-1.387) and poor water sanitation (OR = 1.282, 95% CI = 1.120-1.46), professionals, cadres, odd jobs, and farmers (OR = 5.384, 95% CI = 2,490-11,642), (OR = 4,244, 95% CI 1,953-9,222), self-employed women and craftsmen (OR = 4.872, 95% CI = 2,169-10,947), housewives (OR = 5,331, 95% CI = 2,438-11,654).

CONCLUSION

From the results of research and discussion, it can be concluded that the job descriptions variable does not have a partial effect on Employee Performance in Case Resolution at PTUN Bandung. Job specifications variable give a partially significant influence on Employee Performance in Case Resolution at PTUN Bandung. Job descriptions and job specifications variables have a significant effect simultaneously (simultaneously) on Employee Performance in Case Resolution at PTUN Bandung. Implementation of job descriptions and job specifications can optimize employee performance so that it can realize case resolution at PTUN Bandung as mandated by SEMA Number 2 of 2014.

REFERENCES

Relationship on education level and mother's attitudes about exclusive association with nutritional status of children