



RESEARCH ARTICLE

PREVENTION OF STUNTING IN MADURA CULTURE

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ABSTRACT

Madura tribe is one of the tribes that have the character as a formidable fighter, hard worker, and has a strong Islamic religious culture. So that requires a good approach to overcome the problem of stunting. Stunting is a chronic malnutrition condition that causes growth disturbance in children. The purpose of this study was to analyze the influence of cultural factors, social structure and child factors on stunting prevention which is moderated by family independence. The study design was observational with a cross sectional approach. Exogenous variables are cultural factors, while endogenous variables are: 1) family health independence, 2) stunting prevention and 3) stunting events. The number of research samples are 230 families. Sampling technique using cluster random sampling method. The instrument uses a questionnaire. Statistical tests using partial least square (PLS) structural model testing with $\alpha > 1.96$. The results of the partial least squares test indicate that the construct variables are cultural factors and social structure, family independence and stunting prevention ($T > 1.96$). All exogenous variables had a significant influence on the incidence of stunting except maternal, educational and child factors (statistic $T < 1.96$). **Finding:** family independence in stunting prevention can be formed through social and cultural structural factors.

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INTRODUCTION

Prevention of stunting in the Madurese is still a serious problem. Various attempts have been made but it has not yet had a better impact on reducing the number of Stunting. Madura tribe is one of thousands of tribes in Indonesia. Located on one island, which is in the East Java Province of Indonesia. Having characteristics as a tough fighter, hard worker, and has a strong Islamic religious culture. So that requires a special and unique approach to overcome the problem of stunting. Stunting is a chronic malnutrition problem which causes growth disturbance in children, namely the child's height is lower or shorter than the standard age (Kemenkes, 2018). Stunting is conditioned with a height Z-score according to age less than -2 standard deviations (WHO, 2010). Indonesia is among the top 5 countries, with a number of children under five years old, experiencing high stunting. The prevalence of stunting children under five in Indonesia reaches 37.2%. (Kemenkes, 2013). Nutrition Status Monitoring Results in 2015 in Indonesia showed the prevalence of stunting children aged 0-23 months was 23.1%.

The toddler's growth and development period is fast and will never be repeated. Because it is often called the golden age or golden period. Growth and development of children is influenced by parenting by parents. If parenting provides poor nutritional status, it will cause stunting (Sodikin, 2012). The high number of children who are stunted if no intervention can endanger the future of the nation, even non-natural disasters can occur (Hery Sumasto, Nurwening Tyas Wisnu, 2018). The results of the Bangkalan District Health Office report showed the highest stunting incidence rate was the Puskesmas Kwanyar 3.4%. The most important factors that cause stunting are nutritional deficiencies (energy, macronutrients and micronutrients), infections (injuries to the gastrointestinal mucosa, systemic effects and immunizations), and mother-child interactions (maternal nutrition and reserve at birth, and interacting behavior) which is influenced by socioeconomic/family education level (Mega Sara, 2016). Other factors that contribute to the incidence of stunting are maternal knowledge, maternal height during pregnancy, diet, health services, and food security (Esa Ratu, 2018). Stunting problems, especially those that occur in infancy, are considered serious because they can result in delays in motor development and a decrease in intelligence (Wisnu, 2018). The short-term impact of cases of malnutrition is that children become apathetic, experience speech disorders and other developmental disorders (Farah, D. R. & Esra, R., 2018).

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Nutrition education for mothers and caregivers is one of Unicef Indonesia's recommendations for alleviating the problem of stunting in Indonesia. Parental behavior has a strong influence on families who experience more risks (Brody, 2006).

The family has a culture that may be different from other families in childcare. Strategy to prevent stunting according to Leininger's (2002) transcultural nursing theory, nurses can help families by maintaining culture (cultur care perservation). But it does not rule out the possibility of cultural negotiations (cultur care accomodation) even the reconstruction of family culture (cultur care restructuring). The advantages of transcultural nursing allow nurses to enter the family to provide care.

MATERIALS AND METHODS

The research design used was observational with Cross Sectional approach that is research conducted by taking a relatively short time and a certain place. Using the cluster random sampling method. The instrument used was a research questionnaire. The statistical test used is partial least square (PLS) structural model testing with $\alpha > 1.96$.

RESULTS AND DISCUSSION

Value of Loading Factors (Cross Loadings) Convergent Validity Results. From the results of the study note that there is a loading factor < 0.5 and T-statistic value < 1.96 , which is an indicator of education and economics. The indicators above measure the latent variables valid and show the criteria of goodness of a measurement model (outer model).

Test Validity With Communality Criteria on each latent construct

The results of the study stated that the construct formed in the model has a communality score of greater than 0.5, which means that all constructs of the latent variable have valid convergent validity in preparing the structural equation modeling.

Composite Reliability Testing

The results of the study state that the results of the composite reliability test for exogenous latent variables produce a value (Pc) of more than 0.8 This means that the indicators used in construct measurement are completely reliable and are able to measure the construct.

Testing Cronbach's Alpha Reliability on each Latent construct

The results of the study stated that all constructs were latent reliable because the Cronbach's Alpha score was more than 0.6. This states that all constructs have strong reliability in measuring the path analysis model that will be formed in the structural equation modeling Structural Equation Modeling

model with the Partial Least Square Path Modeling approach. The results of the study explained that each exogenous variable significantly affected endogenous variables, except the child factor variable.

DISCUSSION

Culture and Social Structure of Family Independence

Culture and social structure have a significant influence on family independence in preventing the occurrence of stunting by the family. The results of the T-test on the structural model analysis, where the T-value factor of 17.992 shows that the role of culture and social structure (the role of family kinship, the value of technological culture, and political role) together influence on family independence (Fitriah, (2016). This is because, Madurese families with cultural characteristics that have existed for generations. However, there are several indicators that do not affect family independence, namely the family's economy and mother's educational status, because with these indicators the community can provide nutritious food even though the food does not vary. The issue of nutrition is a problem in research planning in Indonesia (Khambali; Setiawan; Hery Sumasto, 2020). Based on the results of the study found that as much as 93% of the total family has a sufficient kinship value, the value of the T-test is 123,450. Family kinship system is an action that encourages family management in the form of active actions taken by the family to be seen independently based on their culture and ability to prevent stunting. Attitude is a readiness to respond positively or negatively to an object or situation consistently (Sunaryo, 2017). The attitude shows the suitability of the reaction to the stimulus that already involves a person's opinion and emotions. A person's attitude can be influenced by several factors, namely age, occupation, education, and parity (Hermani Triredjeki, 2020). If some of the respondents have a negative attitude then their actions and behavior will tend to be negative so that nutritional problems in children will occur. The results of this study are in line with research conducted by Talita who found that there was a significant relationship between maternal attitudes and nutritional status (Veny, et al, 2018).

The role of the family, especially the mother is very important related to feeding, in efforts to care for children, such as breastfeeding and feeding children (Supriyanto, Paramashanti, & Astiti, 2017). In daily life, often the pattern of feeding done by a mother is contrary to what should be done, with proper feeding patterns, the child's nutritional status will be better, this is possible because the child will get a good intake of nutrients in accordance with the level of his needs. useful for growth and development (Manggala, Kenwa, Kenwa, Sakti, & Sawitri, 2018). There is no meaningful relationship between education and family independence in preventing stunting with a value of 88.7%. These results are based on the T-test value of the results of the structural model analysis, where the factor of the T-statistic value is 0.019 (Tcount $<$ Tcritical (1.96)). Where is the education of parents, especially mothers in the District

of Kwanyar, Bangkalan, almost all respondents have basic education (Khoeroh, Handayani, & Indriyanti, 2017). Analysis of the Kwanyar people's mindset questionnaire is still old-fashioned which assumes that the nature of women is as a housewife. So they assume why they go to school by spending a large fee if later they only become wives and housewives without having a job. In addition, they did not continue their education because of distance and education costs that they could not reach. This is in line with research by Eko, S & Rizanda, M (2018) which explains that there is no significant relationship between the level of maternal knowledge about nutrition and the incidence of stunting. Just as research has the same results, there is no significant relationship between maternal knowledge about nutrition and the incidence of stunting in children after 1- 2 years (Margawati, et al, (2018). The economy significantly has no effect on family independence to prevent stunting. Based on the results of the study explained that almost all parents earn enough with a percentage of 71.3%. These results are based on the T-test value of the results of the structural model analysis, in which the T-statistic value is 0.007 ($T_{count} < T_{critical} (1.96)$).

The results showed no significant relationship between income levels with the incidence of stunting in children. High income does not always increase the consumption of nutrients needed by the body, but an increase in income will increase the opportunity to choose food ingredients and increase the consumption of substances needed by the body and increase the consumption of preferred foods even though the food is not highly nutritious. There are families with high incomes who are not good at managing family spending, they buy food in small amounts and lack quality, so that it can affect the nutrition of children (Utami, Susilaningrum, Taufiqurrahman, & Nursalam, 2019). Culture according to Leinenger (2002) as beliefs and behaviors passed on or taught by humans to the next generation. The social structure is very closely related to culture. Between culture and structure in a society there is a state of mutual support and justification. This means that if there is a change in culture will also be followed by changes in the structure of society (Wisnu, Wrahatinggih, & Sumasto, 2018). The Kwanyar community's habit is still high, namely in providing prelacteal foods and processed foods that have a bad impact on children's health, this can increase the risk of children becoming infected with infectious diseases. This bad habit can be a risk factor for the emergence of nutritional problems resulting in a high prevalence of stunting (Sumasto, Sulikah, & Wisnu, 2019).

After the first meal is a risk factor for the incidence of stunting in infants (Meilyasari, Innawati, 2014). Newborns who are given prelacteal food means not receiving exclusive breastfeeding. Toddlers who are given MP-ASI early (when babies are not yet 6 months old) have a risk of 7.4 times stunting compared to toddlers who get MP-ASI starting from the age of 6 months (Hariyadi, 2016). Technology is an indicator that can influence the formation of family independence in the prevention of stunting. Almost all of the Kwanyar people have not utilized technology to the

fullest with a percentage of 83.5%. Technology that does not support can influence independence in gaining knowledge for mothers to prevent stunting. This result is based on the T-test value of the results of the analysis of the structural model, where the factor of T- statistic value is 31.277 ($T_{count} < T_{critical} (1.96)$). Health technology is a means that allows people to choose or get offers to solve problems in health services. Health problems are human problems and cover various aspects of human life, the environment and culture, the use of health technology is influenced by the attitude of health workers, the needs and demands of the community (Sudiharto, 2007). Many advantages and benefits that we can get, including information technology can facilitate humans in carrying out their life's tasks and improve the quality of their intake. But on the other hand there are not a few losses in the form of negative things that accompany the use of this information technology (Rahayu, 2018). The results of the study stated that there was a significant relationship between health politics and family independence in preventing stunting with a percentage of 49.6%. This result is based on the T-test value of the results of the structural model analysis, where the factor of the T-statistic value is 2.333 ($T_{count} < T_{critical} (1.96)$).

The political value of the Kwanyar community in the category is sufficient. Based on the Kwanyar community analysis, almost all of the respondents have a good supply of clean water and sewage and have health insurance and can use or participate in the Posyandu every month. National Health Insurance and health services are part of a healthy Indonesia program to facilitate and help improve the well-being of the ability to do family independence with the aim of achieving the expected cure rate. With the power they have, it will give birth to pro- people policies to guarantee the degree of public health itself such as the healthy Indonesia program, including a healthy paradigm, strengthening health services, national health insurance and specific nutrition interventions. The availability of health services is also important for health services to be carried out both promotive, preventive and rehabilitative (Kemenkes RI, 2016).

Conclusion

Based on the research that has been done, the following conclusions can be drawn:

Cultural factors and social structure (kinship, cultural values, information technology, and health politics) influence the prevention of stunting in Kwanyar District Bangkalan District indirectly. Although there is a significant influence of cultural factors and social structure, stunting prevention would be better if done with effective family independence.

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