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Factors Influencing the Feeding Pattern of Under-Five Children in Coastal Areas

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Abstract. Malnutrition is a condition of chronic lack of nutrition. The cause of malnutrition among Madurese children live in coastal area can be caused by poor habit maternal feeding practices. Feeding patterns is important for optimizing growth and development on toddler. The purpose of this study is to analyze the cultural factors of ethnic Madura which influence feeding pattern on toddler on Transcultural Theory. The design of the study was descriptive analytic with cross sectional approach. The population were mothers with under-five children who suffered malnutrition as many as 34 people from 11 villages. Sample was chosen by using random sampling technique as much as 24 respondents. The independent variables in this study were education consisting of the level of education and knowledge of diet, and the cultural value of the efficacy, norms, and lifestyle. The dependent variable was feeding pattern. The data were collected by using questionnaire and analysed by using multiple linear regression test with a degree of significance $p < 0.05$. The result showed a significant correlation of efficacy of fulfilment nutrition ($p = 0.039$) and lifestyle ($p = 0.000$), the most influential factor between the two factors is the lifestyle. The factor of cultural values particularly efficacy of fulfilment nutrition and lifestyle have a significant correlation with feeding pattern of Madurese, while the level of education, knowledge, and norms show not significant results. Further research was suggested to enhance and support feeding pattern with an effective health Education in a coastal setting.

1. Introduction

Nowadays under-five children with malnutrition are still a problem. Social, economic and cultural are factors that can have a large influence on the emergence of these problems. UNICEF has released the number of malnourished children around the world in 2012, data shows that 162 million children under five are short, 99 million are underweight, 51 million are underweight and 44 million are overweight [1]. Basic Health Research Results in 2013 in Indonesia the prevalence rate of underweight was 19.6% consisting of 5.7% severe malnutrition and 13.9% malnutrition. East Java region based on body weight compared to age, there are 2.35% malnutrition and 10.28 malnutrition [2]. The incidence of malnutrition and severe malnutrition for the Madurese is above the national number of 8.6% of the incidence of severe malnutrition and 20.9% of malnutrition. This situation will make a poor immune system, often sick and fail to growth therefore efforts to overcome the problem of malnutrition in infants and toddlers through the provision of good and correct baby and child feeding, become an important agenda for saving future generations [3]. One of the factors that causes



malnutrition in children is the inappropriate feeding pattern [4]. The pattern of feeding mothers to toddlers will affect the process of growth and development of children under five [5].

The feeding pattern of mothers in children is strongly influenced by the interaction between individuals with families, socio-economic, cultural [6][7][8] and education factors [9]. This is in line with the Transcultural Nursing Theory which explains that the culture, values, beliefs, and practices of individual or cultural groups will influence the practice of care for the health and welfare of the individual or group of cultures [10]. Cultural views can affect the feeding of children, this has an impact on the attitudes, behaviors, and responses given by the mother to her child [11].

Mothers as important mediators between their children's cultural values and feeding because eating habits in parents allow parents to do the same for their children [8]. Cultural norms can be used as a reference for parents in feeding patterns for children [12]. One of the behaviors that is influenced by tradition in Indonesia is to think that a healthy child is a fat child. One of their habits is to provide additional food to babies who are less than 6 months old with a food called *lotek* (rice crushed by bananas) to become a fat child, this results in damage to the baby's digestive tract and triggers an infection that results in children suffering from severe malnutrition [13]. Some literature from previous research shows that eating patterns and parental behavior such as monitoring nutritional intake, limiting the amount of food, response to diet, and paying attention to the nutritional status of children contribute significantly to the nutritional status of children [8]. The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) state that more than 50% of deaths of children under five are related to malnutrition, and two-thirds of these deaths are related to inappropriate feeding practices in infants and children [1].

There are two factors that influence nutritional status in children under five, namely the direct factor consisting of nutrient intake and infectious diseases, while indirect factors include food availability, parenting, health services, and environmental sanitation. [14]. Inappropriate feeding is one of the reasons for the high rates of malnutrition in Madurese ethnic groups, from the results of the study, 50% of respondents stated that they never used health technology, 90% did not understand the treatment method, 60% had negative perceptions, 20% had the habit of giving priority eat parents, 90% still maintain culture and 60% sometimes until they never change the culture because it is contrary to health [15]. The highest cause of malnutrition in East Java is inappropriate feeding patterns [16].

Efforts to identify the influence of culture on feeding patterns of Madurese children can use Transcultural Care which emphasizes the significant role of nursing in implementing nursing interventions with culture-based in promoting a good pattern of feeding according to age and nutritional needs to solve problems holistic. Appropriate health promotion is based on needs and factors that can influence a society's behavior. The purpose of this study was to identify cultural factors based on the feeding pattern of Madurese mothers living in coastal areas.

2. Research Method

The design of this study uses descriptive analytic design with a cross sectional approach and uses probability sampling techniques of simple random sampling. The population in this study were mothers with Madurese tribes who lived in coastal areas and had children under five with Malnutrition. The sample size in this study was 24 people. The independent variables in this study are educational factors and cultural values, the education factor consists of the level of education and knowledge of the mother, while the cultural value factor consists of nutritional fulfillment, lifestyle and norms in the community. The dependent variable in this study is the feeding pattern.

The instrument used in this study on the independent variables of educational factors is the level of education and knowledge about diet while the cultural value factor using nutritional fulfillment questionnaire is a modification of the Weigh Efficacy and Lifestyle Questionnaire (WEL) questionnaire [17], questionnaire lifestyle, norm questionnaire in the community. The dependent variable of feeding pattern are measured using a questionnaire based on Child Feeding Questionnaire (CFQ) [18] which has been modified. The questionnaire has been modified using Indonesian language

and adapted to Indonesian culture. The questionnaire in this study has been tested for validity and reliability and shows valid results on all questionnaires. The method of retrieving data in this study is from the name and address of the mother with children under five in the community-based integrated health care services (Posyandu), then the researchers collected data at the home of each respondent. The data that has been obtained is then tabulated and analyzed using multiple linear regression statistical tests with a significant level of $p < 0.05$.

3. Results

Table 1 concerning the characteristics of respondents shows that more than respondents are <25 years old (58.3%, $n = 14$), while the number of respondents aged between 35-45 years is only 3 people (12.5%). The majority of respondents in this study did not work (91.6%, $n = 22$ people). The income of respondents in this study showed that more than half of the respondents were low income (58.3%, $n = 14$). The highest number of respondent's family forms is the nuclear family which is 16 people (66.67%). The number of family members shows more than half the respondents ≥ 5 people (58.3%, $n = 14$ people). The role of community leaders according to respondents mostly stated that they were very influential as many as 18 people (75%) and in terms of regularity came to the Posyandu most of the respondents stated that there were as many as 20 people (83.3%).

Table 1. Characteristics of Respondents ($n=24$)

Category	N	%
Age :		
<25 years old	14	58.3
25-34 years old	7	29.1
35-45 years old	3	12.5
Occupation:		
Housewife	22	91.6
Working mother	2	8.33
Family income :		
Low	14	58.3
Middle	8	33.3
High	2	8.3
Family type :		
Nuclear family	16	66.6
Extended family	8	33.3
Number of family members		
3 people	7	29.1
4 people	3	12.5
≥ 5 people	14	58.3
Number of children :		
1 child	14	58.3
2 children	2	8.3
>2 children	8	33.3
Roles of community leaders :		
Strong	18	75
Less	6	25

Table 2 shows the results that the majority of education levels of mothers living in coastal areas are at the level of basic education as many as 20 respondents (83.3%) consisting of 11 (45.8%) respondents who have a good feeding pattern and 9 (37.5%) respondents with a pattern bad meal. Mothers who live in coastal areas have the most knowledge about good eating patterns as many as 19 respondents (79.2%), half of the respondents have a good level of knowledge in the category of good feeding patterns (50%, $n = 12$).

Cultural value factors that have a significant effect are nutritional fulfillment beliefs ($p = 0.039$) and lifestyle ($p = 0.000$) but not on the norm in the community ($p = 0.487$). Most of the mothers did not have confidence in the fulfillment of nutrition for children under five (58.3%, $n = 14$) consisting of 9 (37.5%) respondents with poor feeding patterns and 5 (20.8%) respondents with good feeding patterns but overall have a good feeding pattern as many as 13 respondents (54.2%). More than half of mothers had a healthy lifestyle as many as 14 respondents (58.3%) consisting of 12 (50%) respondents who had a good feeding pattern and 2 (8.3%) respondents with a poor feeding pattern and most respondents as a whole have a good feeding pattern as many as 13 respondents (54.2%).

Most mothers have appropriate norms in the community as many as 15 respondents (62.5%) consisting of 8 respondents who have a good feeding pattern and 7 respondents who have a bad feeding pattern while most respondents have a good feeding pattern as many as 13 respondents (54.2%).

Tabel 2. Influence of cultural factors on maternal feeding patterns ($n=24$)

Cultural factors	Feeding pattern				Total		B	Sig. (p)
	Less		Good		n	%		
	n	%	n	%				
Education factor								
Education								
Basic	9	37.5	11	45.8	20	83.3	0.320	0.962
Middle	2	8.3	1	4.2	3	12.5		
High	0	0	1	4.2	1	4.2		
Knowledge								
Less	1	4.2	1	4.2	2	8.3	0.007	0.460
Enough	3	12.5	0	0	3	12.5		
Good	7	29.2	12	50	19	79.2		
Culture Value								
Nutrition fulfillment beliefs								
Not sure	9	37.5	5	20.8	14	58.3	-0.093	0.039
Sure	2	8.3	8	33.3	10	41.7		
Lifestyle								
Not healthy	9	37.5	1	4.2	10	41.7	0.717	0.000
Healthy	2	8.3	12	50	14	58.3		
Society norms								
Not Appropriate	4	16.7	5	20.8	9	37.5	-0.118	0.487
Appropriate	7	29.2	8	33.3	15	62.5		

4. Discussion

4.1. Influence of education factors with feeding patterns of Madurese mothers in under-five children with malnutrition in coastal areas

The level of education shows the results of multiple linear regression statistical tests obtained p value > 0.05 , which means that there is no significant influence between the factors of education (level of education) and the pattern of feeding. Education provides knowledge about nutrition in health, concern for children's body weight and risk factors that arise as well as understanding how to provide healthy food [19]. Information obtained from respondents is health education related to the correct feeding pattern obtained from Posyandu. This can be seen from the demographic data of respondents that most respondents regularly bring their children to the Posyandu and state that community leaders such as Posyandu cadres play a significant role in feeding children. Most of the respondents had a basic education level of 20 people with 11 of them having a good feeding pattern and 9 respondents had a poor feeding pattern.

Low education does not make respondents ignore the correct pattern of feeding children. One factor that influences one's knowledge is the level of education, the level of education can increase knowledge about health. External influences such as counselling for mothers of Posyandu cadres as providers of health information to the community are quite effective as a means to increase knowledge to the community [20]. In line with the results of the study which states that the activity of mothers in visiting Posyandu every month can reduce the number of under-five children with malnutrition because mothers who are active in Posyandu contribute to the development of children's nutritional status that can be monitored by health workers and Posyandu cadres monitor the nutritional status of toddlers [21]. The level of education cannot be used as a reference in determining the pattern of feeding the child, this is because there are several factors that influence a person in taking health actions namely internal and external factors. Internal factors include the motivation of the mother to bring the child to the place of health care and good acceptance of health information. External factors that influence respondents include the role of a nutritionist at the health center who regularly visits homes of mothers who have children with malnutrition by coordinating with each child health cadre so that this results in increased knowledge about the health of the respondents even though most of the levels low education.

The results of the analysis of research data show that of all respondents there were only 2 of 24 respondents who had poor knowledge, namely respondents number 11 and 21. Respondents 11 based on demographic data had income at the level of low families income with the number of children 4 people and the number of family members are 6 people in one house while in respondents 21 have the same income as the number of children 3 people and the number of family members is 5 people so this is in accordance with the results of research which shows that income influences parents' feeding patterns [22], the main cause of the lack of food and ignorance of caring for the baby and child properly is economic factor [23]. Some respondents have good knowledge of feeding patterns. Even though the education of the majority of Madurese mothers is low, if supported by health services that are active in the form of preventive and promotive activities, good knowledge will be formed [24] among the Madurese mothers. The activities such as counselling every month, mentoring malnourished children under-five years of cooperation with the health department, monitoring the nutritional status of children, and giving a food supplement.

4.2. Effect of cultural value factors on feeding patterns of Madurese with malnourished under-five children in coastal areas

Nutrition fulfillment beliefs show that most research respondents have nutritional fulfillment uncertainty. There is a significant influence between cultural value factors (nutritional fulfillment beliefs) on feeding patterns of Madurese mothers and malnourished children in coastal areas. Most respondents who do not have the confidence to fulfill nutrition still carry the belief of Madurese like fish that cause worms, chickens that cause itching, *lotek* (crushed bananas) are believed to make

children grow healthy and strong, eggs that cause ulcers, lots of rice and little vegetables and side dishes are good for children, believe in certain restrictions, coconut water that can make children fast big and strong, formula milk that can replace the role of breastmilk and the belief that children who grow short and thin are descent from parents. Some respondents stated that giving a *lotek* is a culture carried out by their families for generations. Giving a *lotek* is not permitted in health because it can increase the risk of digestive disorders in children but this can occur due to strong family influences on respondents who are <15 years old who are not physiologically and psychologically ready to marry and have children.

This cultural construction causes most of the respondents still adhering to the old beliefs that come from their place such as when parents have a thin and short body so this trait will decrease in their children. According to the theory of Transcultural Nursing explains that culture is the life view of an individual or group by referring to the values, beliefs, norms, patterns, and practices that are learned, shared, and passed on between generations [25]. The results of multiple linear regression statistical tests obtained p value <0.05 which means that there is a significant influence between cultural value factors; nutritional fulfillment beliefs on feeding patterns in the Madurese tribe. Cultural value factors (nutritional fulfillment beliefs) affect the pattern of Madurese mothers' feeding on under-five children, nutritional fulfillment uncertainty will form the poor feeding pattern while nutritional fulfillment beliefs can form the correct feeding pattern. Confidence in the fulfillment of food plays an important role in maintaining behavior in controlling one's diet [17]. This hereditary belief that is not in accordance with health is what must be stopped to reduce the number of children with malnutrition in the Madurese tribe.

Lifestyle shows that most research respondents have a healthy lifestyle there is a significant influence between cultural value factors; lifestyles on feeding patterns in the Madurese, respondents stated that they held a very tight lifestyle that had been passed down through generations in the family so that they still retained the *lotek* culture to their children. The results of the data analysis showed that most of the respondents who had a healthy lifestyle stated that they provided balanced food for toddler nutrition needs. This is similar to what was stated by Madelaine Leininger which emphasizes that culture, values of beliefs, and individual practices will affect a person or group [10]. Respondents with unhealthy lifestyles as much as most have a poor feeding pattern that is rarely giving food according to toddler needs, giving *lotek* at the beginning of birth, heating food repeatedly, never making special food for toddler and letting the child consume any food without ban. Respondents with a healthy lifestyle tend to pay attention to how to fulfil toddler nutrition, while respondents who have an unhealthy lifestyle do not pay attention to how to meet the nutritional needs of toddlers. Culture will shape a person's lifestyle that directly affects and controls a person in behaving, habits, and behaving [26]. The results of multiple linear regression statistical tests obtained p <0.05 which means that there is a significant influence between cultural value factors; lifestyles on feeding patterns in the Madurese, respondents stated that they held a very tight lifestyle that had been passed down through generations in the family so that they still retained the *lotek* culture to their children. The results of the data analysis showed that most of the respondents who had a healthy lifestyle stated that they provided balanced food for toddler nutrition needs.

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unhealthy lifestyle do not pay attention to how to meet the nutritional needs of toddlers. Culture will shape a person's lifestyle that directly affects and controls a person in behaving, habits, and behaving [26]. The results of multiple linear regression statistical tests obtained $p < 0.05$ which means that there is a significant influence between cultural value factors; lifestyles on feeding patterns in the Madurese, respondents stated that they held a very tight lifestyle that had been passed down through generations in the family so that they still retained the *lotek* culture to their children. The results of the data analysis showed that most of the respondents who had a healthy lifestyle stated that they provided balanced food for toddler nutrition needs.

The results of this study indicate that most respondents have appropriate norms in the community. Appropriate norms in the community related to feeding patterns include prioritizing food for children and giving the same food between boys and girls while norms in society that are not appropriate include prioritizing male parents when taking food, children getting enough food the rest after being taken by parents, and the influence of the family in the arrangement of feeding to children for generations using Madura culture. Respondents who conform to the norm tend to use the norm that is appropriate for toddler nutrition needs and leave norms that are not suitable for health while respondents who use inappropriate norms tend to maintain an adverse norm for toddler nutritional needs. Most respondents still involve families in childcare, a situation like this causes the role of the family to become dominant, because the family becomes a role model in childcare which results in Madura culture brought by the family to be passed on to the respondent. The view of life of an individual or group is strongly influenced by the values, beliefs, norms, patterns, and practices that are learned, shared and passed on between generations [25].

5. Conclusion

Madurese who live in coastal areas show good feeding patterns. Educational factors which consist of education level and knowledge about diet do not affect the feeding pattern of Madurese mothers to toddlers, because there are external and internal factors that influence a person in taking health actions, namely the mother's motivation in using health care facilities and the role of health workers and Posyandu cadres in providing health education. The cultural factor that most influences Madurese mothers to the pattern of feeding toddlers is a partial lifestyle

Large respondents hold a tight lifestyle that has been passed down from generation to generation. Cultural-based health promotion efforts need to be developed and implemented in the Public Health Centre (Puskesmas) area in Madurese tribes in coastal areas by optimizing the role of cadres as a trained group in the community and direct targets that can be given to the community in the coastal areas in terms of cultural lifestyle.

References

- [1] UNICEF, "Joint UNICEF-WHO-The World Bank Child Malnutrition Database: Estimates for 2012 nd Launch of Interactive Data Dashboards.," 2012. .
- [2] Kementerian Kesehatan RI, "Riset Kesehatan Dasar Dalam Angka-Riskesdas 2013," 2015.
- [3] Kementerian Kesehatan - Ministry of Health/Indonesia, *Profil Kesehatan Indonesia Tahun 2013*. Jakarta: Kementerian Kesehatan - Ministry of Health/Indonesia, 2014.
- [4] R. E. Black *et al.*, "Maternal and child undernutrition: global and regional exposures and health consequences," *Lancet*, vol. 371, no. 9608, pp. 243–260, Jan. 2008.
- [5] T. Subarkah, N. Nursalam, and P. D. Rachmawati, "Feeding pattern toward the increasing of nutritional status in children aged 1-3 years," *Indones. Nurs. J. Educ. Clin.*, vol. 1, no. 2, p. 146, Feb. 2017.
- [6] M. A. Beydoun and Y. Wang, "Do nutrition knowledge and beliefs modify the association of socio-economic factors and diet quality among US adults?," *Prev. Med. (Baltim.)*, vol. 46, no. 2, pp. 145–153, Feb. 2008.
- [7] L. C. A. Craig, G. McNeill, J. I. Macdiarmid, L. F. Masson, and B. A. Holmes, "Dietary patterns of school-age children in Scotland: association with socio-economic indicators,

- physical activity and obesity,” *Br. J. Nutr.*, vol. 103, no. 3, p. 319, Feb. 2010.
- [8] S. M. Karp, K. M. Barry, S. B. Gesell, E. K. Po’e, M. S. Dietrich, and S. L. Barkin, “Parental feeding patterns and child weight status for Latino preschoolers,” *Obes. Res. Clin. Pract.*, vol. 8, no. 1, pp. e88–e97, Jan. 2014.
- [9] H. B. Urke, T. Bull, and M. B. Mittelmark, “Socioeconomic status and chronic child malnutrition: wealth and maternal education matter more in the Peruvian Andes than nationally,” *Nutr. Res.*, vol. 31, no. 10, pp. 741–747, Oct. 2011.
- [10] M. Leininger, “Culture Care Theory: A Major Contribution to Advance Transcultural Nursing Knowledge and Practices,” *J. Transcult. Nurs.*, vol. 13, no. 3, pp. 189–192, Jul. 2002.
- [11] S. M. Martinez, K. Rhee, E. Blanco, and K. Boutelle, “Maternal Attitudes and Behaviors Regarding Feeding Practices in Elementary School-Aged Latino Children: A Pilot Qualitative Study on the Impact of the Cultural Role of Mothers in the US–Mexican Border Region of San Diego, California,” *J. Acad. Nutr. Diet.*, vol. 114, no. 2, pp. 230–237, Feb. 2014.
- [12] D. R. Musher-Eizenman, B. de Lauzon-Guillain, S. C. Holub, E. Leporc, and M. A. Charles, “Child and parent characteristics related to parental feeding practices. A cross-cultural examination in the US and France,” *Appetite*, vol. 52, no. 1, pp. 89–95, Feb. 2009.
- [13] Maulina, “Interaksi Pemerintah dan Masyarakat Dalam Implementasi Program Penanggulangan Gizi Buruk di Kota Surabaya : Kajian Biopolitik,” *J. Polit. muda*, vol. 2, no. 1, pp. 147–157, 2012.
- [14] D. K. K. Surabaya, *Profil Dinas Kesehatan Kota Surabaya*, Dinas Kesehatan Kota Surabaya, Surabaya. Surabaya: Dinas Kesehatan Kota Surabaya, 2012.
- [15] Hidayat, “Pengembangan Model Keperawatan Berbasis Budaya (Etnonursing) pada Keluarga Etnis Madura dengan Masalah Balita Gizi Kurang di Kabupetan Sumenep,” in *Prosiding Konferensi Nasional Ppni Jawa Tengah*, 2013, pp. 233–239.
- [16] Dinas Kesehatan Propinsi Jawa Timur, “Waspada Balita Gizi Buruk,” 2013. [Online]. Available: http://dinkes.jatimprov.go.id/userfile/dokumen/ppid_dinkes_provjatim_waspada_gizi_buruk.pdf.
- [17] G. E. Ames, M. G. Heckman, K. B. Grothe, and M. M. Clark, “Eating self-efficacy: Development of a short-form WEL,” *Eat. Behav.*, vol. 13, no. 4, pp. 375–378, Dec. 2012.
- [18] L. . Birch, J. . Fisher, K. Grimm-Thomas, C. . Markey, R. Sawyer, and S. . Johnson, “Confirmatory factor analysis of the Child Feeding Questionnaire: a measure of parental attitudes, beliefs and practices about child feeding and obesity proneness,” *Appetite*, vol. 36, no. 3, pp. 201–210, Jun. 2001.
- [19] J. Saxton, S. Carnell, C. H. M. van Jaarsveld, and J. Wardle, “Maternal Education Is Associated with Feeding Style,” *J. Am. Diet. Assoc.*, vol. 109, no. 5, pp. 894–898, May 2009.
- [20] Notoadmodjo, *Promosi Kesehatan dan Perilaku Kesehatan*. Jakarta: Rineka Cipta, 2013.
- [21] F. Anwar, A. Khomsan, D. Sukandar, H. Riyadi, and E. S. Mudjajanto, “High participation in the Posyandu nutrition program improved children nutritional status,” *Nutr. Res. Pract.*, vol. 4, no. 3, p. 208, 2010.
- [22] S. Sud, N. C. Tamayo, M. S. Faith, and K. L. Keller, “Increased restrictive feeding practices are associated with reduced energy density in 4–6-year-old, multi-ethnic children at ad libitum laboratory test-meals,” *Appetite*, vol. 55, no. 2, pp. 201–207, Oct. 2010.
- [23] Arisman, *Buku Ajar Ilmu Gizi, Gizi dalam Daur Kehidupan*. Jakarta: EGC, 2010.
- [24] D. L. Katz *et al.*, “Teaching Healthful Food Choices to Elementary School Students and Their Parents: The Nutrition Detectives™ Program*,” *J. Sch. Health*, vol. 81, no. 1, pp. 21–28, Jan. 2011.
- [25] M. Leininger, “Culture Care Theory: A Major Contribution to Advance Transcultural Nursing Knowledge and Practices,” *J. Transcult. Nurs.*, vol. 13, no. 3, pp. 189–192, Jul. 2002.
- [26] D. A. Booth and P. Booth, “Targeting cultural changes supportive of the healthiest lifestyle patterns. A biosocial evidence-base for prevention of obesity,” *Appetite*, vol. 56, no. 1, pp.

210–221, Feb. 2011.