

Relationship between family connectedness and nutritional status among under-five children in Jember Regency of Indonesia

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ABSTRACT The family has an important role to fulfill the nutritional requirements for their children. As changes in the family life cycle develop, every step involved in the tasks of family development is influenced by family interconnectedness. The objective of this study was to identify the correlation between family connectedness and nutritional status among under-five children in Public Health Center of Panti, Jember Regency of Indonesia. A cross-sectional study was conducted among 307 families who have children aged 2-5 years using consecutive sampling. A self-administered questionnaire was used to measure sociodemographics of the parents and their under-five children, while the Parent-Child Relationship Questionnaire was used to assess the quality of family connectedness. Standing scales were used to measure the body weight of the under-five children. A chi-square test was used to analyze the data. The results showed that among 307 parents, the family connectedness of parents and nutritional status of under-five children were in the moderate (63.8%) category and good nutrition (58.6%) status, respectively. There was a significant relationship between family connectedness and nutritional status among <five aged children ($\chi^2=8,679$; p -value = 0.013). These results demonstrate there is a relationship between family connectedness with the nutritional status of children 2-5 years old. Further research is recommended to analyze other variables that can affect the nutritional status of under-five children.

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1. Introduction

Under-five children need balanced nutrition to support their growth and development, but toddlers are vulnerable to the occurrence of nutritional deficit problems, such as stunting.¹ According to the results of the Basic Health Research (Riskesdas), stunting in under-five children in Indonesia dropped to 30.8% (2018) from 37.2% (2013). Even though it has improved, the number does not meet the target set by WHO at 20%.² At present, Indonesia ranks third in the highest prevalence in the South East Asia Regional (SEAR) with average stunting of children under five in 2005-2017 at 36.4%. The high incidence of stunting in infants can increase the risk of various

nutritional problems in the future in the form of reduced muscle strength, decreased bone density, and low work productivity.³ Nutritional problems of stunting can be prevented by various ways, such as providing exclusive breast milk (ASI) to children aged 0-6 months, providing quality complementary foods (MPASI) for children aged 6 months-2 years, and providing sufficient food with adequate quality and maintaining clean and healthy environment in children aged 2-5 years.⁴ Apart from the aspects of fulfilling nutritional requirements for healthy development, prevention of nutritional problems in infants can be done through aspects of the family approach toward the balanced implementation of family functions where each family member has a significant contribution in a state of interdependence.

Family connectedness is a relationship between family members with each other that can affect the

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actions of each family member. Problems in the family are interrelated, so if one family member has a health problem it will affect other family members.⁵ Similar to nutritional problems in infants, families play an important role in overcoming them. Based on research conducted by Soekirman (2000), the incidence of nutritional disorders can be reduced through maternal parenting, feeding, hygiene, affection and understanding of care and protection for children.⁵ Meanwhile, based on research by Syaefudin (2019), the role of fathers is also important because fathers in parenting children are not only concerned about the material provision, but in accordance with the meaning of the word "care", they are also the "loving" leader, manager and guide. Accordingly, the family fathers also have a vital role in parenting children, because their involvement will make children learn many values (such as love, material support, discipline, responsibility, intellectual and moral education) compared to if only mothers are caring for the children alone. The involvement of fathers and mothers in parenting can create a relationship between them, which is seen from a sense of interdependence and a feeling of connection between parents and children.⁶

Based on this perspective, it can be said that preventive actions taken in overcoming health problems are closely related to the active roles of each family member. It is also included in the effective function of the family, where family members must support, respect, and care for one another.⁷ In essence, one family member must maintain a good relationship closely with the other members. The results of a preliminary study that observed the affective function of the family in Panti District showed that each family had a different picture of connectedness, as seen by mothers who often accompanied the child's daily life while the father worked, but some mothers worked at home and let children play in front of the house with peers.

The problems of nutritional status in the Panti District of Jember Regency are remarkably high. Based on data recorded by the Jember Health Office, the number of stunting toddlers in 2018 reached 17,344 toddlers and more than 40% of the malnutrition problems were found in Glagahwero

Village, Panti District, Jember Regency.^{4,8} The matter of nutritional status in infants can be influenced by various factors, one of which is an important role in determining the health condition of its members.¹ The active role of each family member will create a family relationship which is needed as a preventive measure in overcoming the health problems of each family member.⁷ Studies concerning the relationship between family connectedness and nutritional status of under-five children are still very limited. It is necessary to do an assessment and analysis of the relationship between family members and the nutritional status of infants. Family connectedness may influence the family in taking any action. Therefore, this study aimed to analyze the relationship between family connectedness and nutritional status among under-five children in the Public Health Center of Panti, in Jember Regency of Indonesia.

2. Method

Design of this study used a cross sectional-approach by house-to-house visits in Public Health Center of Panti, in Jember Regency. The population in this study were families with under-five children Public Health Center of Panti, in Jember Regency of Indonesia with a total of 4,607 households with under-five children. The sample of this study was a portion of families who have under-five children in Public Health Center of Panti, in Jember Regency of Indonesia. This study used research criteria that included the following inclusion criteria: 1) Nuclear families with family members of toddlers aged 2-5 years. The exclusion criteria were: 1) Families who meet the inclusion criteria but not willing to be respondents; 2) Parents who cannot communicate well or have hearing loss; and 3) Respondents who at the time of data measurement were not in the research location, with sick toddlers, moving toddlers and toddlers who were not registered in Public Health Center of Panti, in Jember Regency.

This study used a respondents' characteristics questionnaire that contains data on parental identity (parental name, toddler's name, parent's age, parent's ethnic / race, parent's occupation and parental income) and toddler's characteristics

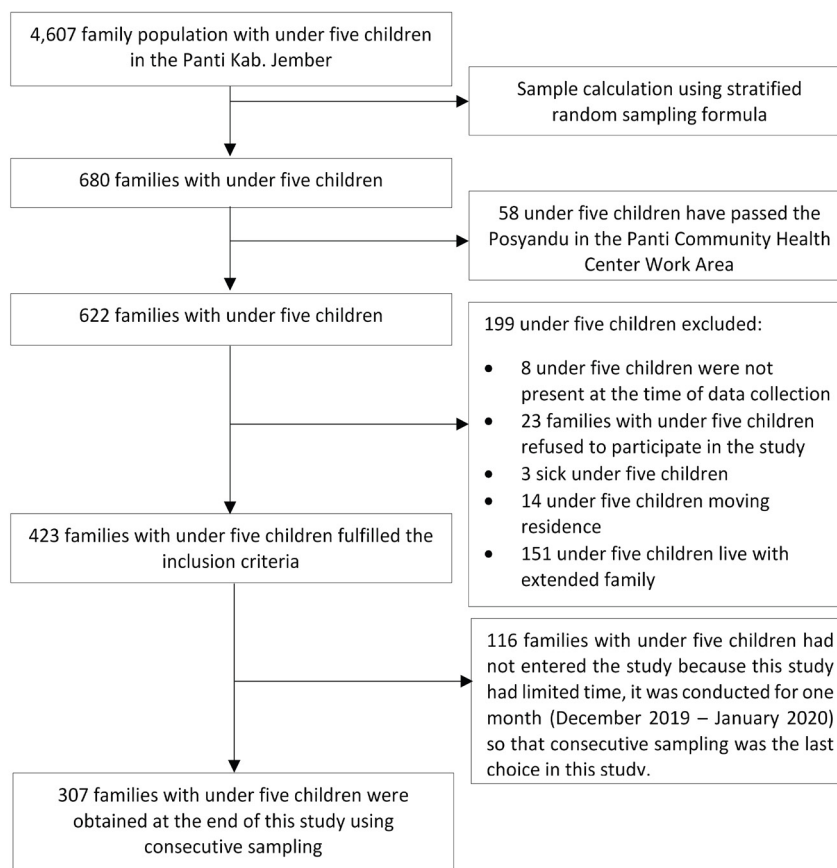


Figure 1. Consecutive sampling techniques.

(toddler's name, date of birth, gender, height, weight body, presence or absence of edema).

The independent variable in this study is family connectedness which is a close and related social relationship as well as parental involvement in the child's life which has the potential to protect against family health deviations.^{9,10} Indicators of family connectedness can be seen from the frequency of communication, the role of children in family tasks, daily activities carried out together, and family behavior in dealing with family members' problems.^{9,11,12,13}

The measurement of the independent variable (family connectedness) used the Parent-Child Relationship Questionnaire (PCRQ). PCRQ was adapted from the research of Senja *et al.* (2017). This questionnaire consists of 29 question items given to parents, with 5 Linkert scales, namely 1

= hardly at all, 2 = not too big, 3 = somewhat, 4 = very large, 5 = very large. So the total score obtained ranges from 29-145. The total score categorization is divided into 3 groups, namely: low, medium and high. This questionnaire has been tested for validity and reliability which produces 29 valid items and has been used in Bantul, Yogyakarta, Indonesia. The PCRQ questionnaire is a questionnaire that assesses family connectedness by looking at the quality of the relationship between parents and children. The PCRQ questionnaire has been tested for validity and reliability with $r > 0.3783$ (r table), and the value of the Cronbach alpha statistical test was 0.928.

Meanwhile, the next step was to measure the dependent variable (nutritional status of under-five children) using a standing weight measuring instrument and then calculating the toddlers weight measurement results and inputted in the WHO 2018 AnthroPlus software. The results later were

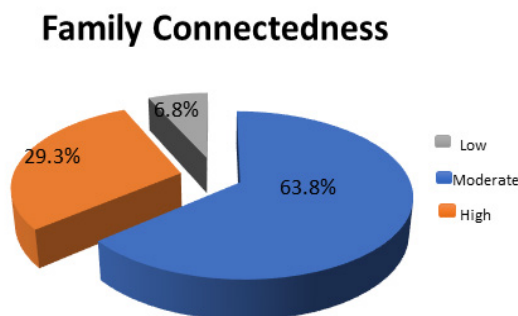


Figure 2. Proportion of family connectedness with toddlers in Public Health Center of Panti, Jember Regency (n = 307).

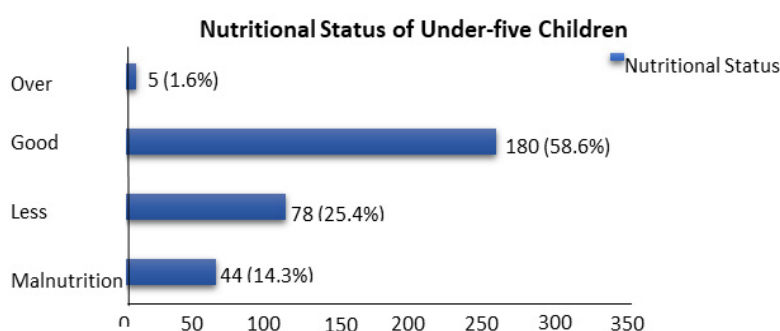


Figure 3. Distribution nutritional status of under-five children (n = 307).

converted based on the standard classification from the Ministry of Health of the Republic of Indonesia based on body weight according to age (BB / U) so that it can be divided into four categories namely poor nutrition, low nutrition, good nutrition and over nutrition. The number of samples obtained in this study were 307 families with toddlers who were determined using consecutive sampling techniques described in the following chart (Figure 1).

Researchers were assisted by a research team in the data collection process. Researchers met the Public Health Center of Panti staff who had data related to toddlers and went to the village midwife to ask the Posyandu schedule to attend their activities. If there were respondents who were not present at the Posyandu, the researcher asked for the respondent's address to contact the cadres of each Posyandu to conduct research by home visits. Questionnaires given to respondents used the online survey method in the form of a Google sheet, and when filling in the forms they were assisted by

researchers.

Univariate data analysis can be presented in the form of numbers and percentages if the type of data is categorical. Meanwhile, the types of numerical data are presented in the form of mean, standard deviation, median, and percentile. Bivariate data analysis was done to identify the correlation of family connectedness with the nutritional status of children under five using the Chi-square statistical test with a significance level ($p < 0.05$). This study was declared to have passed an ethical test at the Komisi Etik Penelitian Kesehatan (KEPK) Faculty of Dentistry, University of Jember No.679/UN25.8/KEPK/DL/2019.

3. Result

The sample in this study included 307 nuclear families who have toddlers aged 2-5 years in the Public Health Center of Panti, Jember Regency of Indonesia. Family characteristics are shown in the

Table 1. Characteristics of respondents in Public Health Center of Panti, Jember (December 2019; n=307)

Characteristics of respondents	Father	Mother	Under-five children
	n (%)	n (%)	n (%)
Age	(year)	(year)	(month)
Md (P ₂₅ -P ₇₅)	32 (28 - 36)	28 (24 - 32)	36 (28 - 47)
Education level			
Did not finish elementary school	6 (2.0)	4 (1.3)	
Elementary school	106 (34.5)	112 (36.5)	
Junior high school	100 (32.6)	115 (37.5)	
Senior high school	85 (27.7)	70 (22.8)	
Bachelor	10 (3.2)	6 (2.0)	
Ethnic			
Java	70 (22.8)	86 (28.0)	
Madurese	231 (75.2)	217 (70.7)	
Mix (java - madurese)	6 (2.0)	4 (1.3)	
Occupation			
Does not work	7 (2.3)	272 (88.6)	
Farmer	92 (30.0)	13 (4.2)	
Government/privat employees	75 (24.4)	8 (2.6)	
Entrepreneur	75 (24.4)	12 (3.9)	
Construction laborers	52 (16.9)	2 (0.7)	
Driver	5 (1.6)		
Dental artisan	1 (0.3)		
Gender of children			
Male			164 (53.4)
Female			143 (46.6)
Weight of children			
Md (P ₂₅ -P ₇₅)			12 (10 - 14)

Description: f (%) = Total of participants (presentase); Md = Median; P₂₅-P₇₅ = Percentiles 25-75.

Table 2. Indicators of under-five children nutrition status in public health center of Panti, Jember (December 2019; n=307)

Indicators	Md(P ₂₅ -P ₇₅), mean±SD	Z	p-value
Age	36 (28-47)	2.031	0.001
Weight	12 (10-14)	1.437	0.032
Z-Score	-1.58 (1.48)	0.953	0.323

Mean = Average; SD = Standard Deviation; Z = Calculated value Kolmogorov – Smirnov Test; p-value = Significant with Kolmogorov – Smirnov Test.

Table 3. Results of the analysis relationship of family connectedness and nutritional status of under-five children in Public Health Center of Panti, Jember (n = 307)

		Nutritional status			X ² (p-value)
		Malnutrition	Less nutrition	Good nutrition	
		n (%)	n (%)	n (%)	
Family connectedness	Moderate	2.031	0.001	120 (55.3)	8.679 (0.013)
	High	0.953	0.323	65 (60.3)	

Description: n (%) = Total respondents (percentage); X²= value Likelihood Ratio Chi-Square.

Table 1. The father's age has a median value of 32 years and mother's age has a median value of 28 years, while toddlers' age has a median value of 36 months. The father's most recent education is elementary (34.5%), while mother's last education the majority are junior high school (37.5%) and the majority of parents are from the Madurese with a percentage of fathers (75.2%) and mothers (70.7%).

Most common types of father's occupations are farmers (30.0%), while the majority of mothers do not work (88.6%). Most of the under-five sexes of the respondents were male (53.4%). The median bodyweight of a toddler was 12 kilograms.

The PCRQ questionnaire was used to measure family connectedness consisting of 29 question items. The mean score of family connectedness is 95.56 and standard deviation is 18.08. Family connectedness can be categorized into three categories: namely $x < 68$ (low family connectedness), $x = 68 \leq x < 106$ (moderate family connectedness), and $x > 106$ (high family connectedness). In this study, it can be seen that the proportion of family connectedness values in Public Health Center of Pantj, Jember of 307 families who were respondents mostly had the moderate family connectedness values (63.8%) which can be seen in Figure 2.

The indicators of nutritional status of children <five using anthropometry z-score (WAZ) can be seen in Table 2. Results showed that the weight of children <five in Public Health Center of Pantj, Jember has an abnormal data distribution (p -value = 0.032) and the middle value of underweight at 12 kg. The second indicator on under-five children shows that the data distribution is not normal (p -value = 0.001) and the median under-five children are aged 36 months. Accordingly, it can be concluded that the weight data of children <five varies from 6.5 kg to 24.2 kg and the age of toddlers also varies from 24 months to 60 months. Furthermore, the distribution of data on the Z-score is normal (p -value = 0.323) and the average Z-score of -1.58 is classified as good nutrition.

Under five nutritional status based on anthropometry Z-score (WAZ) can be categorized into four categories: namely, malnutrition (<-3SD), less nutrition (-3SD to <-2SD, good nutrition (-2SD to 2SD), and over nutrition (> 2SD). The proportion of nutritional status of under-five children is presented in Figure 3.

Bivariate analysis in this study used the Chi-square test. Table 3 shows that there is a relationship between family connectedness and nutritional status among under-five children in Public Health Center of Pantj, Jember from the Chi-square test results ($X^2 = 8.679$; p -value = 0.013).

4. Discussion

This research was conducted on 307 families who have under-five children in Public Health Center of Pantj, Jember. The results of this study indicate that the majority of family connectedness with toddlers is in the category of moderate family connectedness (63.8%). The difference in the quality of parent-child relationships is influenced by a number of factors such as demographic characteristics, parental education level and parental status. For example families with Latin American backgrounds come from cultures that have a strong sense of kinship which implies that family members must be close to each other and support each other, which makes children closer to their fathers and mothers.¹¹ However, these results are not in line with the results of this study where the statistical test results indicate that there is no significant relationship between the ethnic background of the parents with the quality of family connectedness with the results of the father's ethnicity ($X^2 = 3.984$; p -value = 0.408) and the mother's ethnicity ($X^2 = 5.946$; p -value = 0,203).

The family members are a major component in the lives of children and have an important role to reduce toddlers' nutrition problems.¹⁴ Nutrition problems in under-five children are caused by various factors such as low fulfillment of nutrition in infants, lack of family support, and low connectivity between family members or barriers to access health services. Factors influencing the nutritional status of children include parenting practices in feeding, family characteristics (e.g., family type, socio-economic conditions of the family and stages of family development), lack of family knowledge that care for toddlers and poor home environment.^{1,3,4,15}

The role of the family in preventing and improving the nutritional status of family members can be pursued through the family implementation function, one of which is the health care function. If in a family there is one family function that is not running adequately or disrupted then there will be pressure in the family, and as a result, there are health problems and signs of distress from one or more family members.¹⁶ Parental involvement is a strong and positive predictor of children's health problems, so the role of parents in the patterns of

activities and behavior of children who experience nutritional problems is very important.¹⁷ The results of the study conducted by Ackard *et al.* (2006) showed family connectedness can affect the health of children where children who cannot describe their problems to parents and are not cared for by people around them have a prevalence of risky health behaviors (e.g., unhealthy weight control, depressive symptoms, substance use and suicide attempts), which is greater than those who have higher communication and caring parents. The parent-child relationship is a protective factor against indicators of unhealthy behavioral and emotional health, so it is necessary to improve communication between parents and children through open and caring communication.¹² The same results was found in a study conducted by Mannarini *et al.* (2018) that indicated family connectedness can potentially influence the degree of family health, which means that it is possible to influence the fulfillment of nutrition in infants.¹⁰

Based on research from the 307 respondents, the nutritional status of children under five was mostly nutritional with as many as 180 toddlers (58.6%), over nutritional status with as many as 5 toddlers (1.6%), undernutrition in 78 toddlers (25.4%), and poorly undernutrition in 44 toddlers (14.3%). The nutritional status of children <five is known from the results of the z-score measurement of BB/U.

Characteristics in this study indicated the most recent education taken by fathers was elementary school as much as 106 (34.5%) and for mothers, it was junior high school as much as 115 (37.5%). The results of the statistical tests found no significant relationship between the last level of education taken by parents with nutritional status under-five children with the results of the level of father's education ($X^2 = 8.542$; $p\text{-value} = 0.741$) and mother's education level ($X^2 = 11.277$; $p\text{-value} = 0.505$). This is in accordance with the results of research by Rosita (2015) that found no significant relationship between the level of parental education with the nutritional status of children under five. This is possibly due to the mother's knowledge is not only obtained through formal education but can also be obtained from non-formal education (for example: mothers actively bring toddlers to the Maternal & Child Health Center

so that mothers can monitor toddler nutrition, early detection of toddlers' development and health education for toddlers mothers).¹⁸ As a result, even though the level of parental education is low, it does not definitely result in having a toddler with malnutrition if parents can be active in interactions with cadres and health workers during visits to the Maternal & Child Health Center.

Meanwhile, another study stated that maternal education was associated with an increased risk of anthropometric failure in children and a father's lack of education tripled the risk of stunting in toddlers. Other studies have shown that parents with higher education have better knowledge about nutritional care for under-five children.¹⁹ However, this is not in accordance with the results of this study that found the majority of children's nutritional status is good, even though the education of parents is still relatively low. Parents with low levels of education do not necessarily have children with nutritional status problems, because knowledge about caring for toddlers/current parenting can be accessed from anywhere considering the progress of current technological developments.

This study shows that there is a relationship between family income and the nutritional status under-five children with results ($X^2 = 20,774$; $p\text{-value} = 0.014$). This finding agrees with the research conducted by Handayani (2017) that found family income affects the nutritional status under-five children. Results showed that if the family income is large/sufficient it can support the growth and development of children because parents can buy the primary and secondary needs of children and the family needs will be met. However, on the contrary, if the income obtained by the family is low, the quality of purchasing power of the community is low so that the reduced ability to purchase the family food needs will affect the fulfillment of toddler nutrition.

The final results in this study indicate a relationship between family connectedness with nutritional status under-five children as evidenced by the Chi-square test ($X^2 = 8.679$; $p\text{-value} = 0.013$). The results of this study are in line with the study conducted by Foster *et al.* (2017) where family connectedness which is an interrelated relationship between family members

can be used as an intervention in overcoming health problems in the family, such as nutrition problems in under-five children.⁹ Optimal family support can reduce the risk of under-nutrition in toddlers.¹⁴ The family component plays an important role both in the mechanism of prevention and care in children with eating disorders. Parental involvement shows a higher success value in the treatment of eating disorders in children.¹⁰ Low parent-child relationships are believed to contribute to various adverse consequences, such as risky behavior that can damage health and well-being.²⁰

The growth and development of toddlers are influenced by the fulfillment of nutritional status that is inseparable from the environment that nurtures them, in this case, the family is very instrumental in caring for toddlers. The relationship of family connectedness with the nutritional status of toddlers is in accordance with the research results of Hazzard *et al.* (2019) that found the relationship between parents and children will be a potentially protective factor against various symptoms of eating disorders. Increased parent and child connectivity may be an intervention of the problem of eating disorders.²¹ More attention given by parents in fulfilling the nutrition of toddlers has the potential to prevent the occurrence of toddlers' nutritional status problems.

Feeling connected to parents can protect children from engaging in potentially unhealthy or risky behaviors. The quality of a child's parent's relationship is considered high, when displaying an emotional state of warmth, love, caring and parental involvement. Conversely, if the quality of the child's parents' relationships are low, emotional families will form insensitive behaviors, reduced communication and understanding between one another, making the relationship distant and tense.²⁰ Family connectedness is related to various aspects of life which can be seen from various views such as, how often children communicate about the problem with parents or other family members, the role of children in carrying out tasks in the family, daily activities carried out with the family (for example, playing games together, worshiping and sharing stories when gathering at dinner) and by the behavior of a family in dealing with the problems of family members.^{9,11-13}

According to Sidze *et al.* (2014), the connectedness of family members includes all aspects of family internal activities such as communication between family members, giving love and love, material support, behavioral control and monitoring of toddlers' growth and development by overcoming or improving the nutritional status of toddlers.²²

5. Conclusion

Family connectedness is mostly included in the moderate category and the majority of children under-five are in the category of good nutrition. There is a relationship between family connectedness and nutritional status among under-five children in Public Health Center of Panti, Jember Regency of Indonesia. Therefore, families with under-five children and the family members in it are expected to pay more attention to each toddler's needs (physical-psychological), by establishing a loving relationship with each family member. Optimizing family connectedness by supporting each other between family members so that it is expected to prevent family health problems, one of which is nutritional status problems that can occur in under-five children. Further research is recommended to analyze other variables that can affect the nutritional status of under-five children.

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Conflict of interests

There is no conflict of interest in this study.

References

1. Andriyani RA, Setiawan P, Fitriyani. Identifying causal risk factors for stunting in children under five years of age in South Jakarta, Indonesia. *Enfermería Clínica*. 2019;6–11.
2. Kemenkes RI. *Buku Saku Pemantauan Status Gizi (PSG) TAHUN 2017*. 2018. Jakarta. Available from: <https://kesmas.kemkes.go.id/assets/>

- uploads/contents/others/Buku-Saku-Nasional-PSG-2017_975.pdf
3. Syahrul S, Kimura R, Tsuda A. Prevalence of underweight and overweight among school-aged children and its association with children's sociodemographic and lifestyle in Indonesia. *International Journal of Nursing Sciences*. 2016;3(2):169–177.
 4. Rasni H, Susanto T, Nur KRM, Anoeграjekti N. Pengembangan budaya masak abereng dalam peningkatan status gizi balita stunting di desa Glagahwero, Kecamatan Panti, Kabupaten Jember dengan pendekatan agronursing. *J Community Empowerment Health*. 2019;1(2):121–129.
 5. Rasman L, tria permata Sari, dan L. Aini. Efek (fcmnc) family center empowerment medelion nutrition children terhadap peningkatan status gizi balita di desa serut Kecamatan Panti. *The Indonesian Journal of Health Science*. 2018;(9):109–113.
 6. Saefudin W. Mengembalikan Fungsi Keluarga [Internet]. 2019. Yogyakarta. Available from:
 7. Bakri MH. Asuhan Keperawatan Keluarga. Edisi I. 2016. Yogyakarta: Pustaka Mahardika.
 8. Wahyunik S. Dinkes Jember Klaim Angka Balita Stunting Di Jember Capai 11 Persen Tahun 2018 [Internet]. Available from: <https://suryamalang.tribunnews.com/2019/03/01/dinkes-jember-klaim-angka-balita-stunting-di-jember-capai-11-persen-tahun-2018>
 9. Hardway C, Fuligni AJ. Dimensions of family connectedness among adolescents with Mexican, Chinese, and European backgrounds. *Developmental Psychology*. 2016;42(6):1246–1258. Available from: <https://doi.org/10.1037/0012-1649.42.6.1246>
 10. Latifah NY, Susanti, Haryanti D. Hubungan dukungan keluarga dengan status gizi pada balita. *Jurnal Keperawatan Sekolah Tinggi Ilmu Kesehatan Kendal*. 2018;10(1):68–74.
 11. Susanto T, Yunanto RA, Rasny H, Susumaningrum LA, Nur KRM. Promoting children growth and development: a community-based cluster randomized controlled trial in rural areas of Indonesia. *Public Health Nursing*. 2019;(4):514–524.
 12. Friedman MM, Bowden VR, Jones EG. *Buku Ajar Keperawatan Keluarga Riset, Teori & Praktik*. Edisi 5. 2010. Jakarta: EGC.
 13. Fogelholm M, Nuutinen O, Pasanen M, Myöhänen E, Säätelä T. Parent-child relationship of physical activity patterns and obesity. *International Journal of Obesity*. 1999;23(12):1262–1268.
 14. Ackard DM, Neumark-Sztainer D, Story M, Perry C. Parent-child connectedness and behavioral and emotional health among adolescents. *Am J Prev Med*. 2006;30(1):59–66.
 15. Balottin L, Mannarini S, Balottin U, Mensi MM, Chiappedi M. Are family relations connected to the quality of the outcome in adolescent anorexia nervosa? : an observational study with the Lausanne trilogue play. *Clin Psychol Psychther*. 2018 Nov;25(6):785-796.
 16. Rosita SD. Hubungan tingkat pendidikan orang tua dengan status gizi balita berdasarkan antropometri di Posyandu Rukun Asih, Kedung Tungkul, Mojosongo, Jebres, Surakarta. *Maternal*. 2015;12:56–64.
 17. Foster CE, Horwitz A, Thomas A, Gipson P, Burnside A, Stone DM, et al. Connectedness to family, school, peers, and community in socially vulnerable adolescents. *Children and Youth Services Review*. 2017; 1–41.
 18. Brown SL, Teufel J, Birch DA, and Abrams TE. Family meals and adolescent perceptions of parent-child connectedness. *Journal of Family Studies*. 2019;25(1):34–45.
 19. Hazzard VM, Miller AL, Bauer KW, Mukherjee B, Sonnevile KR. Mother-child and father-child connectedness in adolescence and disordered eating symptoms in young adulthood. *Journal of Adolescent Health*. 2019;66(3):1–6.
 20. Goldfarb S, Locher J, Preskitt J, Becker D, Davies S, Sen B. Associations between participation in family activities and adolescent school problems. *Child Care Health Dev* 2016;43(3):361–8.
 21. Sidze EM, Elungata P, Maina BW, Mutua MM. Does the quality of parent – child connectedness matter for adolescents' sexual behaviors in Nairobi informal settlements ? *Arch Sex Behav*. 2015;44(3):631–8.