Relationships of Mother's Characteristics, Frequency of Children Attendance in Posyandu with Nutritional Status of Children under Five Years at Puskesmas Kelurahan Kebagusan Kecamatan Pasar Minggu 2019

Rani Ariyani, Vitria Melani, Rachmanida Nuzrina, Lintang Purwara and Laras Sitoayu
Department of Nutrition, Faculty of Health and Sciences, Universitas Esa Unggul, DKI Jakarta, 11510, Indonesia

Keywords: Children under Five Years, Education, Knowledge, Nutritional Status, Occupation, Posyandu.

Abstract: The important thing that must known in the children under five years nutritional status is each parent needs to pay attention to child growth because malnutrition causes negative effects such as slow growth, susceptibility to disease. According to data 2017, community participation coming to the Posyandu at Puskesmas Kelurahan Kebagusan by 62.26%. This shows community participation in bringing children to posyandu is still lacking. The aim of this study is determine the relationships of mother's characteristics, frequency of children attendance in posyandu to nutritional status. The type of research with cross-sectional approach. The sampling technique used was the proportionate stratified random sampling with a sample of 88 people. Data analysis using chi-square. The results showed there was relationship between mother's education (p = 0,0001), mother's knowledge (p = 0,0001), frequency of attendance to posyandu (p = 0,0001) with nutritional status. There was no relationship between the mother's occupation (p = 0,196) with nutritional status. The conclusion of this research was the characteristics of mothers and the attendance of children under five years to the posyandu are indirect factors that affect the nutritional status. Therefore, children under five years need to active in attending to the posyandu.

1 INTRODUCTION

The availability of quality human resources will determine the success of development in a nation. One factor that is very influential on the quality of human resources, especially related to intelligence productivity and creativity, namely nutritional status. Therefore, at the child under five which is the golden age as the next generation of the nation is expected to become a quality human resources in the future (Adriani and Wirjatmadi, 2012).

Based on Riskesdas data, nationally the prevalence of children under five years in Indonesia who experienced u malnutrition in 2013 was 19.6% and decreased in 2018 by 17.7%. Although the data showed a decrease in the incidence of malnutrition compared to the previous year, but the figure is still quite high. The prevalence is still above the 2019 National Medium Term Development Plan target of 17% (Kemenkes RI, 2018).

The most important thing that must be known in the nutritional status of a child under five is that every parent needs attention for their children's growth and development because if malnutrition can cause some negative effects such as slow growth, susceptibility to disease, decreased level of intelligence (Widjaja, 2009). Factors that affect the nutritional status of child consist of direct causes include food intake and infectious diseases, as well as indirect causes, include the availability of food in this case by knowing the work, income of parents, parenting children, health services and environmental health (Adisasminto, 2007).

Each region has different potential causes of malnutrition, so it is necessary to know the main problem. The government in this is trying to combat malnutrition, among others through posyandu revitalization in increasing the coverage of under-fives weighing, counseling, supplementary feeding, increasing access and health service, prevention of infectious diseases and community empowerment

through nutrition-conscious families (Kemenkes RI, 2011). Posyandu is held for benefit of the community so that its formation, organization and utilization require community participation in the form of participation weighing every month so as to improve the nutritional status of the child (Sumiasih and Ulvie, 2016).

The attendance of children in Posyandu is an indicator of the reach of basic health services for posyandu which includes monitoring of development and growth. The level of attendance at an active posyandu has a major influence on monitoring nutritional status, and mothers of a child under five who come to posyandu will get the latest information about health that is useful in determining healthy lifestyles on a daily basis. Children under five who come to the posyandu and weigh regularly will be monitored for their nutritional and health status (Welasasih and Wirjatmadi, 2012).

One of the objectives of implementing the posyandu program is to maintain posyandu and improve the nutritional status of health for mothers and children, so the community is expected to participate in posyandu activities. Increased community participation is marked by the arrival of mothers to the posyandu regularly every month. In posyandu activities, the level of community participation in an area can be measured by looking at the comparison between the total number of children under five in the Posyandu work area (S) and the number of a child under five who come weighed on each specified schedule (D). D/S figures illustrate the coverage of children under five who are weighed. This figure is also an indicator of the level of community participation (Aprianti et al, 2014).

The results of a study in the working area of the Puskesmas Kecamatan North Jakarta in 2014, Kelurahan Rorotan is the lowest kelurahan in terms of weighing. In Rorotan Village only 76.9% of children under five want to weigh in the Posyandu (D/S). Children under five who are weighed were only 55.4% who have increased weight on the weighing scope (N/D) (Hasanah, 2015). This problem if not addressed will have an impact on nutritional problems in children, namely not knowing the child's growth.

Based on preliminary data obtained from Puskesmas Pasar Minggu in 2017, the utilization of posyandu services at Puskesmas Pasar Minggu District found that out of 181 posyandu in Puskesmas for the level of achieving a weighing program (N/D) only reached 59.16% of the target of 87%. The level of community participation (D/S) to come to posyandu is only 73.37% of the target of 87%. The

working area of the Puskesmas Pasar Minggu is in charge of 7 villages namely Jati Padang, West Pejaten, East Pejaten, Kebagusan, Pasar Minggu, East Cilandak and Ragunan. According to the data from the Puskesmas Kecamatan Pasar Minggu in 2017, Kebagusan Village has 28 posyandu with the lowest community participation coming to other Posyandu, which is 62.26%. In this village, the achievement of the weighing program was only 51.85%. This shows that community participation is still lacking to bring their children to the posyandu. The purpose of this study was determine the relationship between mother's characteristics, frequency of children's attendance to posyandu with nutritional status children under five years in the Puskesmas Kelurahan Kebagusan Kecamatan Pasar Minggu.

2 RESEARCH METHODS

This research was conducted in June-July 2019 in 28 posyandu working areas of the Puskesmas Kebagusan. This study uses an observational analytic design with a cross-sectional approach. The population in this study was child under five aged 8-59 months. The sample was 88 children under five years with a proportionate stratified random sampling technique. This research has only been tested by the Ethics Committee of Esa Unggul University and has been approved by No: 0168-19/ 149/ DPKE-KEP/FINAL EA/UEU/VI/2019.

The initial stage of data collection is to visit the posyandu based on a schedule and then interview the posyandu cadres to obtain data on mothers carrying children under five in each posyandu activity. Then measure the weight at the posyandu with the weighing scales aided by the cadre. Data analysis includes univariate analysis and bivariate analysis using tools in the form of Statistical Product and Service Solution (SPSS) 22 software. Bivariate analysis of maternal characteristics (education, occupation, knowledge), frequency of attendance of children to posyandu with nutritional status of children can use the chi-square test.

3 RESEARCH RESULT

3.1 Univariate Analysis Results

Age according to the Ministry of Health (2009) is categorized into late teens (17-25 years), early adult (26-35 years) and late adult (36-45 years). In table 1

the age of most mothers aged 26-35 years was 64.8%. Mother's education is categorized as low education, including completing elementary school/equivalent, completing junior high school/equivalent, and higher education including completing senior high school/equivalent, completing Diploma/Bachelor's degree. Mother's education more with higher education by 85.2%. Mother's occupation is categorized as mothers who do not work and mothers who work. Mothers do not work more (89.8%) compared to those who work (10.2%). Mother's knowledge is said to be less knowledge if ≤ 80% and good knowledge > 80%. Mothers who are knowledgeable both more numerous (73.9%) than mothers with less knowledgeable (26.1%).

Table 1: Characteristics of respondents.

Mothers characteristic	n (%)
Age	
17-25 years	10 (11,3)
26-35 years	57 (64,8)
36-45years	21 (23,9)
Education	
Low education	13 (14,8)
High education	75 (85,2)
Occupation	
Not work	79 (89,8)
Work	9 (10,2)
Knowledge	
Less (≤ 80%)	23 (26,1)
Good (> 80%)	65 (73,9)
Children under five characteristic	
Age	
0-23 months	31 (35,2)
24-59 months	57 (64,8)
Gender	
Men	43 (48,9)
Women	45 (51,1)
Children's attendance	
Inactive (<8 times/years)	31 (35,2)
Active (≥8 times/years)	57 (64,8)
Nutritional status	
Underweight (< -2 SD)	19 (21,6)
Good (≥ -2 SD)	69 (78,4)

Based on table 1, children under five years are categorized as 0-23 months and 24-59 months. In this study samples taken age 8-59 months. The results in this study were more than half aged 24-59 months at 64.8%. The number of children under five in this study was more women by 51.1%. The frequency of attendance of children to posyandu is categorized into

the category is inactive if it is less than 8 times in one year and the category is active more than or 8 times in one year. The attendance of children to posyandu with active categories (64.8%) is greater than those who are not active (35.2%). Nutritional status according to BB/U is categorized into two, underweight nutritional status (<-2 SD) and good nutritional status (≥ -2 SD). Table 1 it can be seen that the nutritional status of children under five according to BB/U is more with a good nutritional status of 78.4% compared to the underweight status of 21.6%.

3.2 Bivariate Analysis Results

The results of statistical test in table 2 show that the education of mothers with good nutritional status is more in mothers with high education as many as 65 people (86.7%). While the education of mothers with nutritional status less occurred in mothers with low education (69.2%). These results indicate the p-value of 0.0001 (p<0.05), it is concluded that is a relationship between maternal education with nutritional status of children under five years. The result of the statistical test shows that the occupation of mothers with good nutritional status is more in mothers who do not work as many as 60 people (75.9%). These results indicate the p-value of 0.196 (p> 0.05), it is concluded that is no relationship between mother's occupation with the nutritional status of children under five years. As well as the knowledge of mothers with good nutritional status is more in mothers with good knowledge as many as 65 people (100%). These results indicate the p-value of 0.0001 (p <0.05), it is concluded that is a relationship between mothers' knowledge with the nutritional status of children under five years.

Table 2: Relationship of mother characteristics with nutritional status children under five years.

Variable	Nutritional status						p-Value
	Less		Good		Total		
	n	(%)	n	(%)	n	(%)	
Education							
Low	9	69,2	4	30,8	13	100,0	0,0001
High	10	13,3	65	86,7	75	100,0	
Occupation							
Not work	19	24,1	60	75,9	79	100,0	0,196
Work	0	0,0	9	100,0	9	100,0	
Knowledge							
Less	19	82,6	4	17,4	23	100,0	0,0001
Good	0	0,0	65	100,0	65	100,0	

Table 3: Relationship of frequency of child's attendance to posyandu with nutritional status children under five years.

Frequency Attendance to Posyandu	Nutritional Status						p-Value
	Less		Good		Total		
	n	(%)	n	(%)	n	(%)	
Inactive (<8 times/years)	17	54,8	14	45,2	31	100,0	0,0001
Active (≥8 times/years)	2	3,5	55	96,5	57	100,0	

The results statistical test in table 3 show the frequency of attendance of children to posyandu with good nutritional status is more frequently in children who are active in attending posyandu as much 55 people (96.5%). These results indicate the p-value of 0.0001 (p<0.05), it is concluded that is a relationship frequency attendance children into posyandu with nutritional status of children under five years.

4 DISCUSSION

4.1 Characteristics of Mother

Mother's education contributes importantly to the growth of children ranging from food consumed every day, foods that are liked, eating habits and how children eat according to balanced nutrition. The results showed that mother's education with the largest percentage in the higher education group was 75 people (85.2%). The higher a person's education the easier it is to receive information, education is needed to get information, for example in supporting health so as to improve the quality of life.

Mothers who do not work have more time to pay attention and interact with their children, this will affect the growth and development of children properly (Anida *et al*, 2016). While working mothers can be directly and assisted with other family members in caring for children so that the nutritional status of children can be monitored properly (Purwoastuti and Walyani, 2015). The results showed that the occupation of mothers with the largest percentage was 79 mothers, not work (89.8%). Furthermore, in this study, there were 9 people work (10.2%), mother's work including as a teacher and private employee. Mother's knowledge is indispensable in an effort to improve the nutritional status of children under five, the higher the mother's knowledge the more that is done in regulating food to be more useful for the body of the children under five (Susanti *et al*, 2018). The results of this study indicate the knowledge of mothers with the largest percentage

are mothers with good knowledge of 65 people (73.9%). Good knowledge about nutrition, people will know and try to regulate food consumption patterns in such away.

4.2 Frequency of Children's Attendance to Posyandu

From this study, most of the mothers bring their children to the posyandu because mothers of children under five do not work. So that mother of a child under five who is not working allows more time to come to the posyandu. This shows that the mother already has an awareness of the importance of attending posyandu activities for their children so that mothers routinely bring their children to posyandu (Indriati and Lidyawati, 2017). Mothers who are active in visiting the posyandu will affect the nutritional status of their children, so that if abnormalities are found in the growth chart then it will be immediately detected and will easily make improvements to the nutritional status of children (Susanti *et al*, 2018). Mothers who are not active in bringing their children to the posyandu can be caused by busy mothers at home that have not been resolved, mothers forget the posyandu schedule and working mothers. Several factors that can influence the behavior of mothers of children under five in weighing their children to posyandu include the age of children, number of children, level of education, mother's knowledge (Aswadi et al, 2015). The results of this study are mothers who are not active to the posyandu because they have less knowledge and education, the age of under five is over two years.

4.3 Nutritional Status

Based on the results of the frequency distribution of children with good nutritional status as many as 69 people (78.4%) and less nutritional status of 19 people (21.6%). From these data, it can be seen that most children have good nutritional status. Characteristics of mothers associated with parenting include education and knowledge of the mother. As in this study shows that a high level of maternal education (85.2%) and good maternal knowledge (73.9%), as evidenced by the higher education of mothers then it is likely to have good knowledge about nutrition in children, this can be a supporting factor so that most children in this study have good nutritional status. In this study the nutritional status was lacking because the mother did not actively bring her children to the posyandu, the mother had low knowledge and education.

4.4 Characteristics of Mothers with Nutritional Status Children under Five Years

The results of this study indicate that is a relationship between mothers education with nutritional status (p<0.05). Mothers with a good education will be more receptive to information so they can increase their knowledge and be able to apply it in their daily lives. A mother has an important role in the health and growth of children. This is in line with the research of Jannah and Maesaroh (2015) finding that is a relationship between the level of mother's education with nutritional status of children under five, where the p-value 0.001 (p<0.05). Education is one of the important points in life that are very necessary to form positive behavior. Educated housewives will tend to choose foods that are better in quality and quantity compared to mothers with lower education (Jannah and Maesaroh, 2015).

Occupation of mothers with good nutritional status is more in mothers who do not work as many as 60 people (75.9%). The results show that is no relationship between mother's occupation with nutritional status (p>0.05). Working and non-working mothers have children under five with good nutritional status. Most mothers who do not work have children under five with good nutritional status. Mothers who do not work have more free time to take care and pay attention to the nutritional needs of children so that the child's growth and development can be controlled properly. Mothers who do not work to have children under five with malnutrition can be caused by lack of education and knowledge of mothers, education can affect mothers' knowledge in caring for their children. In addition, mothers who do not work and those mothers who do not actively bring children to the posyandu indirectly affect the nutritional status of children, whereas by bringing their children to the posyandu, the mother will know the nutritional status of her child through growth charts. Working mothers who have a child under five with good nutrition can be caused because working mothers can increase family income so that it affects families in meeting food needs especially the nutritional needs of the child and their families. This is in line with Labada's research (2015) which states that is no relationship between mother's work with the nutritional status of children under five, where the p-value is 0.432 (p>0.05).

Knowledge of mothers with good nutritional status of children under five years is more in mothers who have good knowledge of 65 people. The results of this study indicate that is a relationship between

mothers knowledge with nutritional status (p<0.05). The level of knowledge of mother's nutrition is very necessary especially for mothers who have children under five, where the adequacy and nutritional needs of children depend on the consumption of food provided by the mother. Lack of a mother's nutritional knowledge will result in reduced mother's ability to apply information in daily life and be one of the causes of nutritional disorders. This is in line with the research of Susilowati and Himawati (2017) which states that is a relationship between the level of mothers knowledge about nutrition with nutritional status of children under five, where the p-value is 0.006 (p<0.05). The togetherness of the mother with her child is greater compared to that of other family members so that she understands better the needs of the child. Mother's knowledge of nutritional needs that are well understood will be accompanied by nutritious feeding behavior for chid under five (Susilowati and Himawati, 2017).

4.5 Frequency of Children's Attendance to Posyandu with Nutritional Status Children under Five Years

In this study, the majority of children who actively attended posyandu with good nutritional status were 57 people (96.5%). These results indicate p-value of 0.0001 (p <0.05), it is concluded that is a relationship the frequency attendance of children into posyandu with nutritional status. This proves the more active the presence of children to the posyandu, the better the nutritional status of children. From the results of this study the presence of children who are active to posyandu with good nutritional status is caused by mothers of children under five who are mostly housewives. Mothers who do not work allow more time to come to the posyandu and also mother has an awareness of the importance of attending posyandu activities for her child so that they routinely bring their children to the posyandu. As for children under five years who have less nutritional status but are actively present in posyandu activities, this can be influenced by children's psychological, health, and social conditions.

The presence of a child who is not active in the posyandu but good nutritional status from the results of the study due to working mothers and high mothers education. Mother worked in this study as many as nine people. Working mothers do not have free time to bring their child to the posyandu because the posyandu is organized on working days and hours. But working mothers can increase family income so

that they can meet their child's food needs, especially nutritional needs. The level of education also determines whether or not easy to absorb and receive information. A high level of education will increase the knowledge of mothers about good nutrition for their children so that mothers can provide nutritious food.

The results of this study where the attendance of children who are not active but the nutritional status is less due to the age of a child under five where age can affect the level of attendance to the posyandu. This can be seen from mother who do not bring their children to the posyandu that have a child aged two years and older, actually, it is important to be active in attendance the posyandu to monitor the growth and development of their child so that mothers will find out whether their children are experiencing growth disorders or not. In addition, mothers with low education and knowledge indirectly influence the presence of children to the posyandu. This is in line with research conducted by Lanoh et al., (2015) the p-value 0.012 (p<0.05), so it is concluded that is a relationship between the use of posyandu with nutritional status of children under five in the work area Puskesmas Ranotana Weru.

Posyandu has various types of services provided including weight weighing, immunization, supplementary feeding, nutrition counseling, and health. Therefore, the effort mothers of a child under five to bring children into the posyandu is a positive activity so that awareness bring children to health services can prevent the occurrence of nutrition and health problems for child under five. The existence of weighing at Posyandu allows mothers to monitor the growth and development of child under five, which can be seen from the results of each weight measurement recorded in the Card Towards Health or Mothers and Child Health Book, from these results it will be seen whether the child has a growth disorder or not. If there is growth disturbance then efforts should be made in the form of counseling, supplementary feeding, nutritional supplementation, and referral to prevent worsening nutritional conditions in the community. Growth disorders in this case such as twice coming to the posyandu weight not rising or below the red line can be referred to the health center so that it can be overcome earlier and already handled before the occurrence of malnutrition. The level of attendance at an active posyandu has a major influence on monitoring nutritional status and mothers of children under five who come to posyandu will get the latest information about health that is useful in determining healthy lifestyles every day (Destiadi *et al*, 2015).

5 CONCLUSIONS

The characteristics of mothers and the attendance of children under five to the posyandu are indirect factors that affect the nutritional status. Therefore, children under five need to active in attending to the posyandu.

ACKNOWLEDGMENTS

REFERENCES

Adriani, M & Wirjatmadi. Peranan Gizi dalam Siklus Kehidupan. Jakarta: Kencana;2012.

Kemenkes RI. 2018. Riset Kesehatan Dasar.http://depkes.go.id (Diakses 01 Mei 2019).

Widjaja, M. Gizi Tepat untuk Perkembangan Otak dan Kesehatan Balita. Jakarta: Kawan Pustaka;2009.

Adisasminto, W. Sistem Kesehatan. Jakarta: Raja Grafindo Persada;2007.

Kemenkes RI. 2011. Pedomanan Umum Pengelolaan Posyandu. http://depkes.go.id (Diakses 05 Mei 2019).

Sumiasih & Ulvie. Kajian Tingkat Partisipasi Ibu Balita di Pos Pelayanan Terpadu (POSYANDU). RAKERNAS AIPKEMA. 2016; 392-398.

Welasasih, D & Wirjatmadi. Beberapa Faktor yang Berhubungan dengan Status Balita Stunting. The Indonesian Journal of Public Health. 2012; 8(3), 99-104.

Aprianti., Farhat., & Rijanti. Faktor-faktor yang Berhubungan dengan Tingkat Kehadiran Ibu Menimbang Anak Balita di Posyandu Wilayah Kerja Puskesmas Alalak Tengah dan Puskesmas S. Parman Kota Banjarmasin. Jurnal Skala Kesehatan. 2014; 5 (1).

Hasanah, I, J. 2015. Faktor-faktor yang Berhubungan dengan Perilaku Ibu Balita dalam Menimbang Anaknya ke Posyandu di Wilayah Kerja Puskesmas Kelurahan Rorotan Kecamatan Cilincing Jakarta Utara Tahun 2015 [Skripsi]. Jakarta: UIN Syarif Hidayatullah.

Anida, M., Zuraida, R., Aditya, M. Hubungan Pengetahuan Ibu, Sikap dan Perilaku terhadap Status Gizi Balita pada Komunitas Nelayan di Kota Karang Raya Teluk Betung Timur Bandar Lampung. Majority. 2016; 4(8), 167-175.

Purwoastuti dan Walyani. Ilmu Kesehatan Masyarakat dalam Kebidanan, Konsep Teori dan Aplikasi. Yogyakarta: Pustaka Baru Press;2015.

Susanti, IY., Lestari, SWP & Rufaida, Z. Keteraturan Penimbangan dengan Pertumbuhan Anak Balita di

Desa Gayaman Kecamatan Mojoanyar Kabupaten Mojokerto. Hospital Majapahit. 2018; 10(2), 69-80.

Indriati, R & Lidyawati, C. Hubungan Tingkat Partisipasi Ibu Mengikuti Posyandu dengan Status Gizi Balita di Desa Mulur Rt 03/VI Bendosari Sukoharjo. Kosala. 2017; 5(1), 1-9.

Aswadi, Syahrir, S & Adha, AS. Perilaku Ibu Terhadap Pemanfaatan Posyandu Balita di Wilayah Kerja Puskesmas Tarakan Kecamatan Wajo Kota Makassar. Public Health Science Journal. 2018; 10(1), 12-25.

Jannah, M & Maesaroh,S. Hubungan Tingkat Pendidikan Ibu dengan Status Gizi Balita di Posyandu Bangunsari Semin Gunung Kidul Tahun 2014. Journal of Indonesia Midwifery.2015; 6(1), 42-52.

Labada, A. Hubungan Karakteristik Ibu dengan Status Gizi Balita yang Berkunjung di Puskesmas Bahu Manado. eJournal Keperawatan. 2016;4 (1).

Susilowati, E & Himawati, A. Hubungan Tingkat Pengetahuan Ibu tentang Gizi Balita dengan Status Gizi Balita di Wilayah Kerja Puskesmas Gajah 1 Demak. Jurnal Kebidanan. 2017; 6(13), 21-25.

Lanoh, M., Sarimin, S & Karundeng, M. Hubungan Pemanfaatan Posyandu dengan Status Gizi Balita di Wilayah Kerja Puskesmas Ranotana Weru Kota Manado. eJournal Keperawatan. 2015; 3(2), 1-7.

Destiadi, A., Nindya, TS & Sumarmi, S. Frekuensi Kunjungan Posyandu dan Riwayat Kenaikan Berat Badan Sebagai Faktor Risiko Kejadian Stunting Pada Anak Usia 3 – 5 Tahun. Media Gizi Indonesia. 2015; 10(1), 71-75.