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IMMUNIZATION STATUS AND MATERNAL KNOWLEDGE REGARDING COMPLEMENTARY FEEDING RELATED NUTRITIONAL STATUS IN TODDLER-AGED

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Abstrak

Latar Belakang: Penelitian ini dilakukan karena masih tingginya jumlah pasien dengan diagnosa malnutrisi di RS Swasta Kuningan tahun 2022 dan hasil wawancara kepada ibu sebagian besar menjawab kurang tepat ketika ditanya mengenai MPASI serta sebagian besar anak belum mendapatkan imunisasi dasar yang lengkap. Tujuan penelitian adalah mengidentifikasi hubungan antara status imunisasi dan pengetahuan ibu tentang MPASI dengan status gizi pada anak toddler di RS Swasta Kuningan. **Metode**: Metode penelitian kuantitatif dengan desain asosiatif melalui pendekatan cross sectional. Jumlah sampel adalah 120 responden menggunakan teknik purposive sampling. Pengumpulan data yaitu dengan mengukur berat badan, tinggi badan anak serta pengisian kuesioner pada ibu. Analisis univariat menggunakan deskriptif untuk status imunisasi dan status gizi, sedangkan untuk tingkat pengetahuan menggunakan tendency central. Analisa bivariat menggunakan Spearman Rank. **Hasil**: Hasil analisa univariat didapatkan sebagian besar anak mendapatkan imunisasi lengkap dan berstatus gizi normal dan rata rata pengetahuan ibu adalah 9,7. Hasil analisa bivariat yaitu p value=0,825 untuk hubungan status imunisasi dengan status gizi dan p value=0,012 untuk hubungan pengetahuan ibu dan status gizi. **Kesimpulan**: Simpulan bahwa terdapat hubungan pengetahuan ibu mengenai MPASI dengan status gizi anak toddler, sehingga disarankan agar ibu semakin meningkatkan pengetahuan mengenai MPASI dan Rumah Sakit dapat memfasilitasinya seperti membuat media informasi secara online atau membuat grup Whatsapp bagi ibu ibu untuk saling berbagi informasi dan memantau keadaan anak.

Kata kunci: *Imunisasi, MPASI, Pengetahuan Ibu, Status Gizi, Toddler*

Abstract

***Background**: This research was conducted because there is still a high number of patients diagnosed with malnutrition at the Kuningan Private Hospital in 2022 and the results of interviews with mothers mostly answered incorrectly when asked about complementary feeding and most children had not received complete basic immunization. The research aimed to identify the relationship between immunization status and maternal knowledge about complementary feeding with the nutritional status of toddlers at the Kuningan Private Hospital. **Method**: Quantitative research method with associative design through a cross sectional approach. The total sample was 120 respondents and used purposive sampling technique. Data collection is by measuring the child's weight, height and completion of questionnaires by the mothers. Univariate analysis used descriptive analysis for immunization status and nutritional status, while for level of knowledge uses central tendency. Bivariate analysis used Spearman Rank. **Results**: The results of univariate analysis showed that most children received complete immunization and had normal nutritional status and the average knowledge of mothers was 9.7. The*

results of the bivariate analysis were p value=0.825 for the relationship between immunization status and nutritional status and p value=0.012 for the relationship between maternal knowledge and nutritional status. ***Conclusion****: The conclusion is that there is a relationship between mothers' knowledge about complementary feeding and the nutritional status of toddlers, so it is recommended that mothers increase their knowledge about complementary feeding and hospitals can facilitate this, such as creating online information media or creating WhatsApp groups for mothers to share information with each other and monitor the child's condition*.

Keywords : *Complementary Feeding, Immunization, Maternal Knowledge, Nutritional Status, Toddlers*

INTRODUCTION

Toddler age is the golden age period for a child. In this golden period, children's growth and development occurs very rapidly. If a child experiences nutritional deficiencies, especially during the golden period, it does not rule out the possibility that there will be health problems or other growth and development disorders that can be permanent. Nutrition is one of the factors that can determine the success or failure of a child in carrying out optimal growth and development (Rahmi, 2020) .

According to the results of the 2022 Indonesian Nutrition Status Survey (SSGI), the incidence of stunting in Indonesia in 2022 has decreased, namely from 24.4% to 21.6%. The incidence of wasting has increased, namely from 7.1% to 7.7% and the incidence of underweight has increased from 17.0% to 17.1%. The incidence of stunting in West Java Province in 2022 is 20.2% (Liza Munira, 2023). The number of toddlers with stunting in the city of Kuningan is 3,665 toddlers, which is around 5.37% (West Java Health Service, 2019) .

According to Supariasa (2012) in (Kartiningrum, 2019) states that nutritional problems are a public health problem, but overcoming them cannot be done only through a medical approach and health services. Addressing nutritional problems must be carried out with a comprehensive approach, involving all parties such as family, community, government and economic actors. Factors that influence nutritional status are infectious diseases, social status, provision of breast milk (ASI) and early initiation of breastfeeding (IMD), knowledge and completeness of immunization.

Based on the results of the preliminary study, data showed that the number of visits by children to children's clinics in 2022 with a diagnosis of malnutrition was 149 patients, children diagnosed with severe malnutrition were 81 patients, and children diagnosed with obesity were 13 patients. The results of interviews with 10 mothers who had toddler- aged children found that 4 mothers answered incorrectly when asked what complementary feeding was, apart from that, 5 children had been given immunizations but they were incomplete for the reason that the children were sick, afraid, missed, and others.

Based on the explanation above, the researcher can conclude that maternal knowledge is a basic thing that must first be improved. It is hoped that with increasing maternal knowledge regarding complementary

feeding, factors that directly influence nutritional status, such as infectious diseases, can decrease so that children's nutritional status can improve. It is also hoped that providing immunizations can reduce the number of infectious diseases in children, therefore researchers are interested in conducting research on "The Relationship Between Immunization Status And Maternal Knowledge About Complementary Feeding With Nutritional Status In Toddler-Aged At Kuningan Private Hospital".

METHODS

This research was carried out at the children's clinic at the Kuningan Private Hospital and was carried out in September 2023. This is a quantitative study with an associative research design, with a crosssectional approach. Determination of sample size using the Slovin formula. The sample collection technique was purposive sampling with a sample size of 120 respondents. The inclusion criteria in this study were mothers who brought toddler- aged children , mothers who were willing to be respondents, children whose mothers were the main caregiver, new patients seeking treatment at a children's clinic or existing patients who had never been respondents before. This research has received ethical approval from Santo Borromeus University with letter number 076/USTB/Ethics/Has/VIII/2023. Data on maternal knowledge and immunization status were obtained through interviews with respondents with questionnaires, nutritional status was measured using the BB/TB Index (Z score formula), body weight was measured using digital scales and height using a stature meter. Rank-Spearman analysis was carried out to see the relationship between immunization status and maternal knowledge and nutritional status in toddler- aged children.

RESULTS

1. Demographic Characteristics of Respondents

Table 1. Demographic Characteristics of Respondents

No	Characteristics	f	%
1	Mother's job		
	Housewife	83	69.2
	Private sector employee	33	27.5
	Midwife	1	0.8
	Teacher	3	2.5
2	Mother's education		
	Elementary school	13	10.8
	Junior high school	16	13.3
	Senior high school	54	45.0
	Diploma Three	21	17.5
	Bachelor	16	13.3
3	Child's gender		
	Boy	63	52.5
	Girl	57	47.5
4	Child's age		
	12 months	5	4.2

No	Characteristics	f	%
	13 months	6	5.0
	14 months	3	2.5
	15 months	7	5.8
	16 months	6	5.0
	17 months	2	1.7
	18 months	4	3.3
	19 months	3	2.5
	20 months	4	3.3
	21 months	6	5.0
	22 months	1	0.8
	23 months	3	2.5
	24 months	5	4.2
	25 months	10	8.3
	26 months	5	4.2
	27 months	3	2.5
	28 months	6	5.0
	29 months	4	3.3
	30 months	4	3.3
	31 months	2	1.7
	32 months	2	1.7
	33 months	8	6,7
	34 months	8	6,7
	35 months	7	5.8
	36 months	6	5.0

Based on the analysis results in table l it can be seen that :

a. More than half (69.2%) of mothers who took their children for treatment to private hospital children's clinics were housewives.
b. Less than half (45 %) of mothers who take their children for treatment to a private hospital's children's clinic have a high school education.
c. More than half (52.5%) of toddlers who seek treatment at private hospital children's clinics are male.
d. A small percentage (8.3%) of toddlers who seek treatment at private hospital children's clinics are aged 25 months.

2. Univariate Analysis

Table 2. Frequency distribution of immunization status and nutritional status in toddler children

No	Characteristics	f	%
1	Immunization Status		
	Incomplete	15	12.5
	Complete	105	87.5
2	Children's nutritional status		
	Malnutrition	13	10.8
	Normal	104	86.7
	More nutrition	3	2.5

Based on results analysis on table 2 can be seen that:

a. The majority (87.5%) of toddler- aged children who seek treatment at the Private Hospital Children's Clinic have received complete basic immunization
b. The majority (86.7%) of toddler- aged children who seek treatment at private hospital children's clinics have normal

nutritional status.

Table 3. Central Tendency Mother's knowledge about Complementary Feeding

Characteristics	Mean	elementary school	Min	Max
Mother's knowledge about Complementary Feeding	9.7	2,015	6	14

Based on the analysis results in table 3, it can be seen that the average value of mothers' knowledge about Complementary Feeding is 9.7 (SD 2.015) with the lowest value being 6 and the highest being 14.

3. Bivariate Analysis

Table 4. Relationship between Immunization Status and maternal knowledge about complementary feeding and Nutritional Status in Toddler Children

Variable		Nutritional status
Immunization status	r	-0.020
	p	0.825
	N	120
Mother's knowledge	r	0.226
	p	0.012
	N	120

Based on the table above, the data shows that:

a. The relationship between immunization status and nutritional status in children was obtained by a p value of 0.825, which means there is no relationship. The correlation coefficient (r) value is -0.020, which means that the correlation is negative and the level of strength of the relationship (correlation) is very weak.

b. The relationship between mother's knowledge about complementary feeding and children's nutritional status was found to have a p value of 0.012, which means there is a relationship. The correlation coefficient (r) value is 0.226, which means the correlation is in a positive direction with the level of strength of the relationship (correlation) being very weak.

DISCUSSION

1. Description of Immunization Status for Toddler Children

Based on the research results in table 2, it was found that the number of children who had been given complete basic immunization was 105 children and who had not received complete basic immunization was 15 children. Reasons for not giving basic immunizations to children include the child being sick when the immunization schedule was due so it was missed and then the mother forgot to give the immunization, the experience of previous children who were

not given immunizations did not get sick so other children were not immunized, the mother did not dare to take the child to health centers to provide immunizations during the Covid-19 outbreak.

Based on research conducted by Rahmawati, (2014) stated that the factors that have an influence on incomplete basic immunization in babies are tradition and family support. Factors that do not really influence the completeness of immunization are the respondent's age, income level, education level, employment status, knowledge and beliefs about immunization, as well as the presence of health workers, immunization location, and the attitude of the staff.

According to researchers, the high level of immunization for children is because most of the areas in Kuningan Regency are not classified as remote areas, so health services and access are wide open and immunization coverage is high. The increasing amount of information and programs from the government regarding immunization through community health centers or posyandu has a lot of influence on this so that people can also consider the disadvantages and advantages of immunization for themselves so they can take steps to immunize or not immunize their children.

2. **Description of mother's knowledge about Complementary Feeding**

Based on table 3 of the 16 questions, it was found that the average of mothers' knowledge was 9.7 with the lowest scores being 6 and 14. The results of the questionnaire showed that there were mothers who did not know about the purpose of giving complementary feeding, the correct strategy for giving complementary feeding, the impact if there was a lack of one the ingredients in complementary feeding and also the benefits of each substance contained in complementary feeding.

These results are in line with research conducted by Anisa, (2021) which states that there are still many mothers who are not correct in giving complementary feeding to their children, where many mothers are still inaccurate in answering the frequency of complementary feeding, types and nutrients in complementary feeding.

3. **Description of nutritional status in toddler children**

Based on the research results, it can be seen in table 2 that of the 120 respondents, the majority (86.7%) of children had normal nutritional status based on (BB/TB) at the Kuningan Private Hospital Children's Clinic, while 13 respondents (10.8%) had under nourished and 3 respondents (2.5%) had more nutritional status. These results are supported by research conducted by Zona et al., (2021) which said that the majority of children's nutritional status was good,

namely 68 out of 90 children (76%). There were 22 children with poor nutritional status (24%).

According to researchers, there are still many nutritional statuses in the normal category based on the anthropometric index (BB/TB) at the Kuningan Private Hospital Children's Clinic, apart from indirect factors, it is also influenced by direct factors, namely food intake. Providing adequate complementary feeding will have a good impact on the nutritional status of children, however, indirect factors can also influence the nutritional status of toddlers, including the mother's good level of knowledge which can influence the implementation of providing complementary feeding. A way to overcome the problem of abnormal nutritional status apart from food intake can be done by mothers routinely taking their children to Posyandu so that they can see and monitor the child's growth and development, so that if it is discovered early that there is something wrong with the child's growth, it will be handled quickly.

4. Relationship between immunization status and nutritional status in toddler children

Based on statistical tests, the p value was 0.825, which shows that there is no relationship between immunization status and nutritional status in toddler children . The results of this study are not in line with research conducted by Hanifah & Novita, (2021) which states that there is a relationship between the completeness of basic immunization and the nutritional status of toddlers with a p value of 0.000. In this research, it is said that babies with complete basic immunization usually produce good growth, where a baby is very susceptible to dangerous diseases, therefore babies who do not have immunity will easily be exposed to certain infectious diseases which can affect the baby's growth.

In research conducted by researchers, they stated that there is no relationship between immunization status and nutritional status, this is because based on medical record analysis carried out by researchers, data was found that the five most common diagnoses in children who were used as respondents in children's clinics in September 2023 were not included. on diseases that can be prevented by immunization (VPD), especially basic immunization. This is in line with research conducted by Hayyudini et al., (2017) that there is no relationship between basic immunization status and children's nutritional status. Hayyudini said that infectious diseases are closely related to increasing the body's immune system, that is, even though they have received complete basic immunization, if there are factors that are not given optimally, it will disrupt the toddler's immunity and body resistance, so that the toddler is susceptible to disease

which can affect the toddler's nutritional status.

5. **Relationship between maternal knowledge about complementary feeding and nutritional status**

Based on table 4, the p value is 0.013, which means there is a relationship between mother's knowledge about complementary feeding and the nutritional status of toddler children . These results are in line with research conducted by Nurul in Almushawwir (2016) which states that there is a relationship between maternal nutritional knowledge and the nutritional status of children under five, where mothers who have good knowledge will have better nutritional status for their toddlers, while mothers who have less knowledge will have an effect. regarding eating patterns and food choices that will affect nutritional status. One of the causes of nutritional disorders is a lack of nutritional knowledge or willingness to apply information about nutrition in everyday life.

There are still many children with normal nutritional status among toddlers at the Kuningan Private Hospital children's clinic, possibly caused by direct factors, namely food intake. However, indirect factors also influence the nutritional status of children, such as the mother's level of knowledge about complementary feeding which will influence the implementation of feeding children. Implementing the wrong food choices and the low levels of nutrition contained in these foods will cause the child's nutritional status to become abnormal (thin and fat). There is also the possibility that knowledge about good complementary feeding also depends on the mother's application in feeding children. It is possible that mothers with good knowledge have children with abnormal nutritional status (thin and fat) because the mother does not apply the knowledge she has.

CONCLUSIONS AND SUGGESTIONS

Conclusion

1. The majority (87.5%) of toddler children's immunization status showed complete basic immunization.
2. More than half (65.5%) of respondents (mothers) have good knowledge about complementary feeding.
3. The majority (86.7%) of toddlers' nutritional status had normal nutritional status
4. There is no relationship between immunization status and nutritional status of toddler children with a p value of 0.825.
5. There is a relationship between mother's knowledge about complementary feeding and the nutritional status of toddler children with a p value of 0.013.

Suggestion

1. For Hospitals

   Should consider revising educational strategies, such as using posters, via online

(web or hospital social media), in providing education regarding the importance of providing immunizations and providing complementary feeding in accordance with recommendations according to both IDAI and WHO.

2. For mothers who have toddler children

   Mothers can play an active role, increasing their curiosity to detect children's nutritional status regularly, such as routinely weighing and examining children at posyandu. It is hoped that mothers can apply the knowledge they already have regarding child immunization, giving complementary feeding and the importance of measuring children's nutritional status regularly to determine children's development.

DAFTAR PUSTAKA

Almushawwir, M. D. (2016). Faktor-faktor yang Berhubungan dengan Status Gizi Pada Anak Baliya di Wilayah Kerja Puskesmas Bontomarannu. III, 2016.

Anisa, B. N. (2021). Hubungan Pengetahuan Ibu Tentang Pemberian Makanan Pendamping Air Susu Ibu (Mp-Asi) Dengan Status Gizi Bayi Pada Usia 6-12 Bulan Di Wilayah Kerja Puskesmas Kandang Kota Bengkulu. Journal Unilak.

Arikunto. (2013). Prosedur Penelitian Suatu Pendekatan Praktik. Rineka Cipta

Devriany, A., & Wulandari, D. A. (2021). Hubungan Pengetahuan Ibu Tentang "Isi Piringku" dengan Kejadian Stunting Anak Balita Usia 12-59 Bulan. Jurnal Kesehatan, 12(1).

Dinas Kesehatan Jawa Barat. (2019). Jumlah Balita Kurang Gizi dengan Indeks Bb/U Berdasarkan Kabupaten/Kota di Jawa Barat. Open Data Jabar.

Direktorat Kesehatan Departemen Kesehatan Keluarga. (2016). Pedoman Pelaksanaan Stimulasi, Deteksi dan Intervensi Dini Tumbuh Kembang Anak. Bakti Husada, 59.

Hanifah, L., & Novita Sari, A. (2021). Analisis Kelengkapan Imunisasi Dasar Terhadap Status Gizi Balita. Avicenna : Journal of Health Research, 4(1), 128–134.

Hanindita, M. (2020). Mommyclopedia 78 Resep MPASI. PT. Gramedia Pustaka Utama.

Hayyudini, D., Suyatno, & Yudhy Dharmawan. (2017). Hubungan Karakteristik Ibu, Pola Asuh Dan Pemberian Imunisasi Dasar Terhadap Status Gizi Anak Usia 12-24 Bulan (Studi Di Wilayah Kerja Puskesmas Kedungmundu Kota Semarang Tahun 2017). Jurnal Kesehatan Masyarakat (Undip), 5(4), 788–800.

Kartiningrum, E. D. (2019). Faktor Risiko Kejadian Gizi Kurang Pada Balita Di Desa Gayaman Kecamatan Mojoanyar Mojokerto. Hospital Majapahit (Jurnal Ilmiah Kesehatan Politeknik Kesehatan Majapahit Mojokerto), 7(2), 67–80.

Liza Munira, S. (2023). Survei Status Gizi Indonesia (SSGI) 2022. 77–77.

Rahmawati, A. I. (2014). Faktor Yang Mempengaruhi Kelengkapan Imunisasi Dasar Di Kelurahan Krembangan Utara Kota Surabaya Sebagai Pencegahan Penyakit Pd3I. Universitas Airlangga, Surabaya, September, 1–21.

Rahmi, P. (2020). Peran Nutrisi Bagi Tumbuh dan Kembang Anak Usia Dini. Pusat

Jurnal UIN Ar-Raniry (Universitas Islam Negeri), 15, 274–282.

Zona, P., Mulyani, S., & Raudhoh, S. (2021). Hubungan Pengetahuan Ibu Tentang MP-ASI dengan Status Gizi pada Bayi Umur 6-24 Bulan. Jurnal Ilmiah Ners Indonesia, 2(1), 33–40.