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The Effect of Toddler Mother Class on Increasing Mother's Knowledge in Preventing Stunting

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Abstract

Background: The World Health Organization (WHO) reports that the prevalence of stunting is around 151 million, accounting for 22.2% of the world's children. Stunting increases the risk of disease and death in children, adversely affects cognitive and motoric development, decreases school achievement, increases the risk of overnutrition and non-communicable diseases, and decrease productivity in adulthood. One reason is the mother's lack of knowledge about nutrition and health before, during, and after pregnancy.
Objective : This study aims to determine The Effect of Toddler Mother Class on Increasing Mother's Knowledge in Preventing Stunting.
Methodology: This study is a quantitative quasi-experiment with a one-group pretest-posttest design approach. Pretest-posttest knowledge measurement was carried out to respondents before and after have given a class of mothers under five about stunting. The sample in this study amount 114 with the total sampling technique. Data analysis using the paired T test.
Results: The results showed that The pretest had a mean knowledge value was 8.91 std. division 2,011, while in the posttest had a mean value was 10.80 std. division 1,242. The value of p-value was 0.000, there is a significant difference in The Effect of Toddler Mother Class on increasing knowledge about stunting prevention.
Conclusions and Suggestions: The results of the study showed a significant Effect of Toddler Mother Class on increasing the knowledge of mothers under five about stunting prevention.

Keywords : Toddler Mother Class, Stunting, Knowledge

Introduction

Stunting is an ongoing problem in many low- and middle-income countries. Stunting is a condition where toddlers have less body length or height compared to age. UNICEF defines stunting as the percentage of children aged 0 to 59 months, with a

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height below minus two (moderate and severe) and minus three (chronic).[1]

UNICEF/WHO and the World Bank indicate that the number of stunted children is around 151 million, accounting for 22.2% of the world's children. In addition, the proportion of short children is concentrated in low-income (16%) and lower-middle-income (47%) countries compared to upper-middle-income (27%) and high-income (10%) countries. About 83.8 million stunted children live in Asia, mainly in South and Southeast Asia.[2]

Indonesia is one of the countries with a high burden of malnutrition, including stunting.[1] Data published by the Ministry of Health in 2018 showed that the incidence of stunting in children aged five years and under was 30.8%.[3.4] The 2021 Indonesian Toddler Nutrition Status Survey (SSGBI) shows that the current prevalence of stunting is 5.33 million toddlers or 24.4% of toddlers in Indonesia.[1] Statistically, the prevalence of stunting in Indonesia has indeed decreased, but this figure is still quite high.[5]

According to the 2021 Indonesia Health Profile, the highest percentage of stunting (very short) is in the Provinces of East Nusa Tenggara (37.8%), West Sulawesi (33.8%), and Aceh (33.2%). While in Java the highest proportion of stunting occurs in West Java Province with (24.5%) (Ministry of Health of the Republic of Indonesia, Bogor Regency is one of the districts in West Java with a stunting prevalence of 9.98%..[5]

Stunting increases the risk of disease and death in children, adversely affects cognitive and motor development, decreases school achievement, increases the risk of overnutrition and non-communicable diseases, and decreases productivity in adulthood.[6] Stunting also results in an increased risk of infection, poor psychomotor development, delayed intellectual intelligence (IQ), the emergence of chronic diseases, and loss of economic growth and social development of countries.[8]

There are many potential causes of stunting in Indonesia, maternal nutritional status, breastfeeding practices, complementary feeding practices, and exposure to infections and related distal determinants such as education, food systems, health care, and sanitation.[9]

Given the high prevalence of stunting and its impact on children's cognitive development, tackling stunting in children remains the government's main commitment, as affirmed in Indonesia's Intermediate Development Goals 2015, 2019 and 2020–2024.[10.11] Various improvement efforts have been made by the government, including

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efforts to prevent and reduce direct disorders (nutrition-specific interventions) and efforts to prevent and reduce indirect disorders (nutrition-sensitive interventions).[12]

The government through the Ministry of Health seeks to overcome nutritional problems in toddlers through the implementation of health programs implemented by the health office. The implementation of the program through Public Health Centers, carried out by health workers and nutrition workers, with the support of the local government and assisted by health cadres. These programs include: Integrated Healthcare Center, Infants and Young Child Feeding training program, and Toddler Mother Class.[13]

The toddler mother class is a means to learn together about toddler health in the form of face-to-face in groups, namely mothers who have children aged between 0-5 years, together discuss and exchange opinions and experiences about toddlers 0-5 years.[13] Toddler Mother Class can be a forum to provide Health Education related to stunting prevention so that mothers' knowledge about stunting prevention can increase. Departing from that, researchers intend to see the influence of Toddler Mother Class on increasing knowledge about stunting prevention.

Based on the description above, researchers are interested in conducting a study entitled " The Effect of Toddler Mother Class on Increasing Knowledge About Stunting Prevention".

Method

This type of research is quantitative. The research design is a quasi-experiment with a one-group pretest-posttest design approach. Pretest of knowledge measurement to respondents was conducted. Conduct classroom interventions with mothers of toddlers. Posttest knowledge measurement after 1 month. The sample in this study is 114 with total sampling technique. Before the intervention, a pretest of knowledge measurement was carried out with respondents. Conduct classroom interventions with mothers of toddlers. In the form of a simulation of processing broccoli food ingredients that are processed into avocado, broccoli juice, and nuggets, then give to pregnant women for consumption, they will be given for 14 days. To see the frequency distribution of dependent and independent variables. A frequency distribution table was created for all variable distributions contained in this study. Quantitative data analyzed the influence

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between independent variables and dependent variables. By using the parametric T test with a meaning level of 95%, it means that if the P value ≤0.05, there is an influence between the dependent variable and the independent variable, and if the *P value* ≥0.05, there is no influence between the dependent variable and the independent variable.

Results

Univariate Analysis

Knowledge in Mothers of Toddlers

Inadequate knowledge and improper practices are obstacles to improved nutrition. The knowledge of mothers before and after given toddler mother class about stunting can be seen in table 1 as follows:

Table 1. Analysis of Differences in Knowledge Before and After Given Toddler Mother Class

Variable	N	Min	Max	Mean	Std. Devition
Pretest	114	4	14	8.91	2.011
Posttest		8	14	10.80	1.242

The results showed that, experiments obtained before given toddler mother class an average value of 8.91 g% and std. division of 2,011 g% and an average after given a class was 10.80%, std. division of 1,242 g%.

Bivariate Analysis

Normality Test

The data normality test is intended to determine the distribution or distribution of data scores from knowledge in mothers of toddlers. The normality test uses the Skewness and Kurtosis test SPSS for Windows version 26.0 with a significance level of 0.05. The normality test can be seen in table 3.2 below.

Table 2. Knowledge Normality Test Results

Class	Skewness		Kurtosis	
	Statistics	Std. Error	Statistics	Std. Error
Pretest	-.422	.226	-.021	.449
Posttest	-.031	.226	.207	.449

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Table 2 From the table above we can see the residual normality that can be calculated from the Skewness value and Kurtosis value contained in the table. The normality test can be obtained from the calculation results:

The normality value of Pretest Skewness is -0.442 : 0.226 = -1.867

The skewness calculated value is -1.86, which is between the range of -3 to 3, this indicates that the data is distributed normally.

Then look at the Kurtosis value from the table is -0.467 and the normality test can be obtained from the calculation results:

The normality value of the Kurtosis pretest is -0.21 : 0.449 = -0.467

The Kurtosis calculated value obtained is -0.46 between the range of -3 to 3, this indicates that the data is distributed normally.

Posttest Skewness normality value is -0.31 : 0.226 = -1.371

The skewness calculated value is obtained -1.37, which is between the range of -3 to 3, this indicates that the data is distributed normally.

Then look at the Kurtosis value from the table is 0.46 and the normality test can be obtained from the calculation results:

The normality value of the KURTOSIS pretest is 0.207: 0.449 = 0.461

The Kurtosis calculated value obtained which is 0.46 is between the range of -3 to 3, this indicates that the data is distributed normally.

Paired T-test Results

The paired T-test is a test used to compare the difference between the mean of two paired samples assuming the data is normally distributed. Paired samples come from the same subject, each variable is taken during different situations and circumstances.

Table 3 Difference Test Results Analysis of Average's Knowledge before and after given the class.

Group	Mean	Difference	Sig
Pretest Knowledge	8.91	1,89	0,000
Posttest *Knowledge*	10.80		

Based on the results of the analysis using paired t-test, knowledge before and after treatment obtained the difference between the average pretest and posttest was

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1.89 g% and the p-value (0.000) < α (0.005), then Ha was accepted and Ho was rejected which means there is a significant difference meaning there is an influence of the Toddler Mother Class on increasing knowledge about stunting prevention.

Discussion

Influence of the Toddler Mother Class to Increase Knowledge about Stunting Prevention

In this study, mothers of toddlers were given education about stunting by providing pretest-posttest questionnaires of knowledge to mothers of toddlers in class activities. The mothers of toddlers proved to have a significant average increase in knowledge, with a difference of 1.89 g%.

Stunting is a disorder of the growth and development of children due to chronic malnutrition and recurrent infections that is characterized by their length or height being below the standard. Furthermore, according to WHO (2020), stunting is short or very short based on length or height according to age that is less than -2 standard deviations (SD) on the WHO growth curve, which occurs due to irreversible conditions due to inadequate nutritional intake and/or repeated or chronic infections that occur in 1000 HPK (WHO, 2015).

Knowledge about the nutrition of parents, especially mothers, is very influential on the level of nutritional adequacy obtained by toddlers. Good maternal nutrition knowledge will convince mothers to provide appropriate actions to meet the nutritional needs of toddlers, especially those related to the content of substances in food, maintaining food hygiene, feeding time, and others, so that good knowledge will help mothers or parents in determining the choice of food quality and quantity (Rahmatillah, 2020).

The sorting of foodstuffs, the availability of sufficient amounts of food, and food diversity are influenced by the level of knowledge of mothers about food and nutrition (Uliyanti, 2019).

In accordance with the results of Lugina's research (2021), parental knowledge is significantly related to stunting in toddlers. Likewise, the results of Sarumaha's research (2018) show that there is a significant relationship between maternal knowledge and the

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nutritional status of toddlers. Dakhi (2018) in Her research explains that there is a significant relationship between maternal knowledge and the incidence of stunting.

Researchers assume knowledge of stunting events, this is because knowledge is an important component in Healthy behavior hurts a person. With good knowledge, someone will be able to take preventive actions well. The level of nutritional knowledge of a person will greatly affect their attitudes and actions when choosing foods that affect nutrition. Lack of maternal knowledge about nutrition can result in nutritional disorders in toddlers, so parental knowledge about nutrition is one of the keys to the success of good or bad nutritional status in toddlers.

Provision of the right ingredients and food menu for toddlers in an effort to improve nutritional status will be realized if the mother has a good level of nutritional knowledge. Ignorance of information about nutrition can cause a lack of quality or nutritional quality of food for families, especially for food consumed by toddlers.

Therefore, it is better for mothers to be more active in seeking information related to nutrition for toddlers and routinely participate in child health check-up activities to monitor child growth and development and ensure children's nutritional status is within normal limits.

Limitation

Data on exposure to risk factors were obtained by relying on memory. Respondents' memory causes recall bias, either due to forgetting or because respondents who experience effects tend to remember exposure to risk factors more than respondents who do not experience effects.

Conclusion

1. Knowledge in mothers of toddlers, average score obtained before given toddler mother class, average score of 8.91 g% and std division 2,011 g% and average after given toddler mother class was 10.80%, std division 1.242 g% and showed an increase of 1.65 g%.
2. There is a significant difference in the knowledge of mothers before and after given education about stunting in toddler mother class.

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3. Toddler mother class has proven influential in increasing knowledge about stunting prevention.

Ethical Considerations

In conducting this research, researchers first submitted a request to the head of PMB R Cibinong District, Bogor Regency, to conduct a preliminary study and obtain data to compile a proposal. After completing the proposal, the researcher will conduct an ethical test at the Health Research Ethics Commission of Universitas Prima Indonesia. After receiving an ethical eligibility letter number of 037/KEPK/UNPRI/I/2023 then begins to conduct research on the sample that has been determined. And to respondents who will be examined by emphasizing ethical issues, which include:

1. Informed consent sheet
2. Anonymous
3. Confidentiality

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References

1. Margawati A, Noer ER, Syauqy A, Fitranti DY, Purwanti R, dan Utami A. Variasi menu balita stunting. Semarang: Fakultas Kedokteran Universitas Diponegoro; 2022.
2. UNICEF/WHO/World Bank Group. Joint Child Malnutrition Estimates; 2018.
3. Mulyaningsih T, Mohanty I, Widyaningsih V, Gebremedhin TA, Miranti R, dan Wiyono VA. Beyond personal factors: Multilevel determinants of childhood stunting in Indonesia. PlosOne. 2021: 16(11).
4. Ministry of Health. Basic health survey. Jakarta; 2018.
5. Kemenkes RI., (2022), *Profil Kesehatan Indonesia Tahun 2019*, Pusdatin Kemenkes RI, Jakarta.

*Corresponding Author: Rukmaini, Midwifery Study Program, Faculty of Health Sciences, Nasional University, Indonesia,email: rukmaini@civitas.unas.ac.id

6. UNICEF, (2021), *Jumlah Balita Stunting di Dunia Menurun, tapi Tak Merata,* Proyeksi *Jumlah Balita Penderita Stunting di Dunia Menurut Kawasan (2000 & 2020).* https://databoks.katadata.co.id/datapublish/2021/09/23/ jumlah-balita-stunting-di-dunia-menurun-tapi-tak-merata. Diakses tanggal 20 Juni 2023.
7. Hail C, Bennet C, Crookston B, Dearden K, Hasan M, Linehan M, et al. Maternal knowledge of stunting in rural Indonesia. International Journal of Child Health and Nutrition. 2018; 7 (4).
8. Mediani HS. Predictors of stunting among children under five year of age in Indonesia: A review of child stunting determinants in Indonesia. Global Journal of Health Science. 2020; 12 (8).
9. Kementrian PPN/ Bappenas. Rencana Pembangunan Menengah Nasional 2015–2020. Kementrian PPN/ Bappenas Indonesia; 2015.
10. Kementrian PPN/ Bappenas. Rencana Pembangunan Menengah Nasional 2020–2024. Kementrian PPN/ Bappenas Indonesia; 2020.
11. Kementerian Kesehatan RI. Situasi balita pendek. Buletin infodatin. 2016.
12. Kostania G dan Rahayu RD. Efektifitas penyelenggaraan kelas ibu balita terhadap Pengetahuan dan perilaku ibu tentang mp-asi usia 6-12 bulan. Jurnal Ilmiah Bidan. 2018; 3(3).
13. Kemenkes RI. Pedoman penyelenggaraan kelas ibu balita, ibu hamil dan ibu menyusui. Jakarta: Ditjen Bina Gizi dan Kesehatan Ibu dan Anak Kemenkes RI. 2011.
14. Alfajri AL, Lubis D, Putri ALW, Herawati R, Fardiansyah FI, Jaya JN, dkk. Upaya pencegahan stunting melalui peningkatan pengetahuan masyarakat mengenai pentingnya gizi dan pola asuh anak di Desa Ngambarsari. Jurnal Pusat Inovasi Masyarat. 2022; 4 (2).
15. Tim Nasional Percepatan Penanggulangan Kemiskinan (TNPPK). 100 kabupaten/kota prioritas untuk intervensi anak kerdil (*stunting*). Jakarta: TNPPK; 2017.
16. Yuliana W dan Hakim BN. Darurat *stunting* dengan melibatkan keluarga. Takalar: Yayasan Ahmar Cendikia Indonesia; 2019.

*Corresponding Author: Rukmaini, Midwifery Study Program, Faculty of Health Sciences, Nasional University, Indonesia,email: rukmaini@civitas.unas.ac.id

17. Yosephin B, et al. Buku penugasan petugas kua sebagai konselor1000 HPK dalam mengedukasi calon pengantin menuju bengkulu bebas *stunting*. Yogyakarta: Deepublish; 2019.
18. Kementerian Kesehatan RI. Cegah *stunting* itu penting. Buletin warta kesmas. 2018;(2).
19. Cuttler, L. 1996. Short Stature. Dalam: Kliegman, R.M., Nieder, M., Super, D.M., editor. Practical Strategies in Pediatric Diagnosis and Therapy. United State of America: W.B. Saunder Company.
20. Batubara, J.R.L., Patria, S.Y., Marzuki, A.N.S. 2010. Pertumbuhan dan Gangguan Pertumbuhan.
21. Stephensen, C.B. 1999. Burden Infection of Growth Failure. Journal Nutrition.
22. ACC/SCN. 4th Report – The World Nutrition Situation. Nutrition throughout the Life Cycle. Geneva: WHO; 2000.
23. Depkes RI. Pedoman pelaksanaan kelas ibu balita. Jakarta: Direktorat Jenderal Bina Kesehatan Masyarakat; 2009.
24. Kementerian Kesehatan RI. Mengenal Apa Itu Stunting. Direktorat Jendaral Pelayanan Kesehatan: 2022.
25. Dakhi, A., (2019), Hubungan Pendapatan Keluarga, Pendidikan dan Pengetahuan Ibu Tentang Gizi dengan Kejadian *Stunting* Pada Anak Umur 6-23 Bulan di Wilayah Kerja Puskesmas Jati Makmur Binjai Utara, *Skripsi, Kementrian Kesehatan Republik Indonesia Politeknik Kesehatan Medan Jurusan Gizi.*
26. Lugina, R., (2021), Analisis Faktor yang Berhubungan dengan Kejadian *Stunting* di Kelurahan Pasirjati. *Skripsi.* Universitas Airlangga Surabaya.
27. Sarumaha, R.M., (2019), Hubungan Pengetahuan Gizi Ibu, Pelaksanaan ASI Eksklusif dan Berat Badan Lahir (BBL) pada Anak Umur 6-24 Bulan dengan Status Gizi di Kelurahan Medan Tenggara Kecamatan Medan Denai, *Skripsi,* Politeknik Kesehatan Medan.
28. Uliyanti., (2019), "Faktor yang Berhubungan dengan Kejadian *Stunting* pada Balita Usia 24-59 Bulan, *Jurnal Vokasi Kesehatan,* 3(2): 1–11.

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