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Analysis of mother's knowledge level in special location areas for stunting prevention: Preliminary study of mother's knowledge in one of the special stunting location areas

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Abstract---This research aims to analyze more deeply the knowledge that mothers have about stunting and pregnancy in areas with special locations for stunting prevention.. This research was designed by compiling a structured questionnaire consisting of 2 groups of questions, namely knowledge questions about stunting consisting of 14 questions and questions about pregnancy consisting of 21 questions. Each question is given a score and then formulated to get

the final scoring for each respondent. The research results show that the average value of respondents' knowledge about stunting was 3.36 and the average value of respondents' knowledge about pregnancy was 13.70. After being categorized based on the average value, the average knowledge of respondents regarding stunting was 52% in the sufficient category, and respondents' knowledge about pregnancy was 66% in the sufficient category. However, increasing maternal knowledge about stunting and pregnancy needs to be increased to 100% to be the basis for preventing stunting in the future.

Keywords---knowledge, stunting, antenatal care, government programs, education.

Introduction

Stunting (dwarf) is a condition where a toddler has less length or height compared to age. This condition is measured by body length or height that is more than minus two standard deviations from the median of WHO child growth standards. Stunted toddlers are a chronic nutritional problem caused by many factors such as socio-economic conditions, maternal nutrition during pregnancy, pain in babies, and lack of nutritional intake in babies.. Stunted toddlers in the future will experience difficulties in achieving optimal physical and cognitive development (Pendek (Stunting) Di Indonesia, Masalah Dan Solusinya, 2015)

The incidence of stunted (short) toddlers is the main nutritional problem facing Indonesia to date. Based on nutritional status monitoring (PSG) data for the last three years, stunting has the highest prevalence compared to other problems such as malnutrition, thinness and obesity. The prevalence of short toddlers has increased from 2016, namely 27.5% to 29.6% in 2017 (Kemenkes RI, 2018). The results of the 2018 Basic Health Research show that the prevalence of stunting under five is 19.3% (Kemenkes RI, 2018) . Stunting children in West Sulawesi province in 2015 was 38.4%, the second largest after NTT, in 2016 it was 39.7%, the highest percentage of all provinces. In 2017, the percentage increased again to 40.1% and was in second place after NTT and in 2018 the prevalence of stunting in West Sulawesi was in the second highest position nationally after NTT.(Kemenkes RI, 2018).

Nutritional problems in Indonesia are still quite high, both for toddlers and pregnant women. The results of the 2022 Indonesian Nutritional Status Survey (SSGI) show that the prevalence of wasting toddlers is 7.7% and stunting toddlers is 21.6%. Meanwhile, Riskesdas data (2018) shows that the prevalence of risk of chronic energy deficiency in women of childbearing age (WUS) is 14.1%, and in pregnant women it is 17.3%. Apart from that, anemia in pregnant women is still high, at 48.9% (Badan Kebijakan Pembangunan Kesehatan (BKPK) Kemenkes, 2023).

Central Mamuju Regency is one of 6 regencies in West Sulawesi where there are still areas/villages with the Stunting Locus Category. In 2020, Sibatta Village is 1 of 10 villages categorized as Locus Stunting by the Central Mamuju Regency

Government. Stunting is an important health problem that needs attention because stunting or short toddlers is a serious condition that occurs when a person does not get the right amount of nutritious food for a long time. There are various reasons why stunting needs serious attention, including because children do not get various important nutrients for growth, their immune system is reduced, their brain growth is not optimal. Stunting contributes to 15-17% of all child deaths in the world, due to lack of achievement in school so that when adults become unproductive, income as an adult decreases so that they will continue to be below the poverty line, will reduce lifetime income by 20% and ultimately less contribute to the economic growth of the family and nation (Direktorat Jenderal Informasi dan Komunikasi Publik, 2019). One of the closest prevention efforts to prevent stunting is through coaching families to avoid the risk factors that cause stunting. Therefore, it is necessary to provide maximum assistance to families in order to achieve maximum efforts in avoiding the risk of the emergence of stunted children in the future.

One of the causes of stunting is the mother's lack of knowledge, whether starting from teenagers regarding reproductive health, lack of knowledge about the importance of nutritional intake during pregnancy to the mother's lack of knowledge in providing nutritional intake and care to her baby. The results of analysis and follow-up studies of the 2010 Population Census (SP) show that the largest proportion of maternal deaths occurred during childbirth and the first 48 hours afterward. Deaths that occur during pregnancy mostly occur when the mother's pregnancy is less than 20 weeks old (Cholishotin, 2023). 77% of maternal deaths occurred in hospitals, 15.6% at home, 4.1% on the way to hospitals/health facilities, and 2.5% in other health service facilities. Basic Health Research Results (Riskesdas) 2013 (Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan RI, 2013) and 2018 showed an increase in coverage of maternal health indicators as reflected in the indicators of four ANC visits (K4) and birth assistance provided by health workers. (Ketut Suarayasa, 2020)

The proportion of K4 pregnancy checks has shown an increase from 70% in 2013 (Riskesdas 2013) to 74.1% in 2018 (Riskesdas 2018). Coverage of childbirth in health care facilities also increased from 66.7% in 2013 (Riskesdas 2013) to 79.3% in 2018 (Riskesdas 2018). The number of mothers who checked their wombs up to 4 times during pregnancy only reached 74%, not yet meeting the target of 76%. Many factors contribute to the accessibility of health services, including the distribution and location of health facilities, distance traveled, transportation and costs (Dessy Elvira, 2019)

According to WHO reports, 75% of maternal deaths are caused by bleeding, infection and high blood pressure in mothers during pregnancy. This happens due to the mother's non-compliance in carrying out antenatal care checks so that the mother does not receive enough information about the health of the mother and baby during pregnancy, and one of the things that is also influenced by the mother's level of knowledge about the danger signs of pregnancy is still lacking so she does not have motivation and self-awareness. to carry out antenatal care checks (World Health Organization, 2023)

Data on the use of antenatal care in Indonesia is shown by K1 and K4 coverage data, in 2015 K1 was 95.75% and K4 was 87.48%, and in 2016 it decreased to K1 of 92.16% and K4 of 85.06 %. Based on the Directorate General of Public Health's report in 2019, coverage of health services for pregnant women by province in 2018 shows that West Sulawesi province experienced very low K1 coverage compared to other provinces, namely 63.51% and K4 at 77.87%. (Direktorat Jenderal Kesehatan, n.d.)

The results of the Directorate General of Public Health's report in 2020 for coverage of health services for pregnant women by province in 2019 showed that in Maluku province coverage for K1 was very low, namely 55.1% and K4 at 68.7%. Some pregnant women do not take advantage of antenatal care due to the lack of access to health facilities, some pregnant women who live far away to carry out examinations, and mothers' lack of knowledge and attitudes regarding the high risks of pregnancy and the importance of carrying out antenatal care examinations (Direktorat Jenderal Kesehatan, n.d.)

Antenatal Care is a pregnancy health service that mothers receive during pregnancy. ANC visits are one of the important things to reduce maternal and child mortality rates (Riskesdas, 2018). WHO recommends visiting antenatal care at least eight times. The first visit in the first trimester is 0-12 weeks of gestation, the second trimester visit is 20 and 26 weeks of gestation, and the third trimester visit is 30, 34, 36, 38, 40 weeks of gestation. (Indrastuti & Mardiana, 2019). This research aims to analyze the depth of respondents' knowledge regarding stunting and pregnancy in one of the special locations for stunting prevention, so that in the future it can become the basis for implementing government programs in implementing health programs so that they are more targeted.

Material and Method

This research is an analytical observational study with a cross sectional study approach. This research analyzes the level of knowledge of mothers who are respondents by analyzing knowledge scoring based on the questionnaire that has been given. The sample in this study was 50 mothers who were randomly selected based on purposive sampling technique. The research area is Tabolang village, where this village is one of the villages with a special location for stunting. Special stunting location villages are villages designated as special stunting handling areas by the local government.

Table 1
Characteristics of Research Respondents

Characteristics Variables	n	%
Grouping Of Age		
20-35 Years	42	84
< 20 Years	1	2
> 20 Years	7	14
Level of education		
No School	1	2
Not completed in primary	1	2

school		
Finished elementary school	20	40
Completed high school/equivalent	4	8
Completed high school/equivalent	17	34
College	7	14
Occupation		
Housewife	48	96
Private sector employee	2	4

Result And Discussions

This study analyzes respondents' knowledge scoring by separating maternal knowledge about pregnancy and maternal knowledge about stunting. Maternal knowledge about pregnancy was measured by asking 21 questions compiled by researchers and 14 questions to measure maternal knowledge about stunting. The list of questions asked in this research can be seen in the following table:

Table 2
Knowledge Questionnaire

Knowledge Questions about Stunting	Knowledge Questions about Pregnant
Have you ever heard of stunting?	What causes maternal weight gain during pregnancy?
What is the meaning of stunting?	What things should pregnant women do regarding weight gain during pregnancy?
What nutrients are needed for the growth of stunted children?	what is breast care like?
What is the food source needed for bone growth?	what is the purpose of breast care
At what age is a child's golden growth period?	When to do breast care?
What is the risk of stunting children in the future?	What happens if the mother doesn't take care of her breasts?
What are the government's efforts to prevent stunting?	At what gestational age can breast massage be performed?
What genetic (hereditary) factors can influence the occurrence of stunting in children under five?	The daily diet of pregnant women should consist of:
What are the problems associated with stunting in toddlers?	What happens if you lack nutritional intake during pregnancy?
What is the worst impact of stunting?	What happens if you have excess nutritional intake during pregnancy?
What are the basic things that can increase nutritional intake in toddlers?	During early pregnancy, pregnant women may experience a lack of appetite due to nausea and vomiting. What can be done to ensure that pregnant women's nutritional needs are met?

Which of the following can directly affect a baby's nutritional status?	What is the purpose of giving Fe tablets to pregnant women?
What vitamins are good for bone growth?	What immunizations do pregnant women need?
What are the benefits of iron for pregnant women?	How to prevent tetanus?
	What is meant by tetanus immunization?
	What are the benefits of tetanus immunization during pregnancy?
	In your opinion, below is the definition of a pregnancy check:
	The purpose of pregnancy checks or Antenatal Care is
	How many times should you have a pregnancy check during pregnancy?
	When is the best time to have a pregnancy test?
	What is done during a pregnancy check-up?

The scoring of respondents' knowledge results based on the 2 categories of knowledge measured can be seen in table 3 below:

Table 3
Analysis of Respondents' Knowledge Scoring based on Question Categories

Question Categories	Mean	Standar Deviasi	Range	Minimum	Maksimum
Knowledge Questions about Stunting	6,36	1,746	6	3	9
Knowledge Questions about Pregnant	13,70	4,273	16	3	19

Table 3 shows that the average value of respondents' knowledge in the question category about stunting is 6.36 with a standard deviation of 1.764, a maximum value of 9 and a drinking value of 3. Meanwhile, the average value of respondents' knowledge in the question category about pregnancy is 13.7 with a standard deviation of 4,273, a maximum value of 19 and a minimum value of 3. Based on these results, it can be seen that knowledge about stunting by respondents based on the 14 questions asked by researchers is still lacking. Meanwhile, questions about pregnancy knowledge had a higher score with a maximum score of 19 out of a total of 21 questions asked by researchers. To see the grouping of knowledge categories, researchers try to create categories of knowledge data with a standard of comparison, namely the average value, by categorizing knowledge into sufficient and insufficient. This information can be seen in table 4 below:

Table 4
Grouping analysis of respondents' knowledge based on question categories

Grouping of Knowledge	Knowledge Questions about Stunting		Knowledge Questions about Pregnant	
	n	%	n	%
Enough	26	52	33	66
No Enough	24	48	17	34
Total	50	100	59	100

Table 4 shows the grouping of knowledge based on sufficient and insufficient categories. The grouping of categories for the stunting knowledge question provides an overview of respondents' knowledge with the sufficient category being 52% and insufficient at 48%. Meanwhile, the grouping of categories for knowledge questions about pregnancy provides an overview of respondents' knowledge in the sufficient category at 66% and less at 34%. In general, knowledge in the sufficient category is higher than the insufficient category based on 2 types of questions, however, these results provide important information that there are still many respondents who have insufficient knowledge about stunting and pregnancy. It is hoped that all respondents who are mothers will know and understand the basic knowledge of pregnancy and stunting.

Theoretically, education has an important role in the development of knowledge, because education is fundamental in developing the knowledge and experience of teenagers. The older they are, the better their mental processes are, and they can learn things well. (Suryani et al., 2023). According to Notoatmodjo, as stated in the research results of Sari, et al (2023), knowledge is produced from knowing, which happens after a person feels an object. Sensing occurs through the five human senses, namely the senses of hearing, sight, smell, feeling and touch. (Sari & Wulandatika, 2023).

Several research results that support the implementation of knowledge include research conducted by Firdausia, et al (2021) which found that knowledge about self-care before pregnant women after receiving edutainment (Mean= 40.54; SD= 2.18) was better than not receiving edutainment (Mean= 39.32; SD= 2.26), and the difference is statistically significant ($p < 0.001$) (et al., 2021). This means that knowledge requires special treatment to be improved. The treatment given depends on the intended target. Knowledge provides an overview of the attitudes that a person can carry out. One study found that study participants followed many self-care management strategies to deal with their minor discomforts during pregnancy. (et al., 2020).

Pregnancy is a woman's nature, therefore a woman must have provisions for the pregnancy she faces. Research carried out (Wekesa, 2022) in Kenya explained that there was a significant relationship between late ANC visits and the respondent's education level with a p-value of $0.001 < 0.05$, mothers with no education were four times more late than mothers with secondary or tertiary education. In line with Wekesa, research conducted by (Asmalia, Resy; Makmun, 2019) conducted at the Nagaswidak Palembang Community Health Center showed a significant relationship between education and ANC visits with a p-

value of 0.009. Low levels of education result in mothers' limited understanding of caring for their pregnancies and lack of motivation to visit health facilities and most still adhere to myths or culture.

Research (Shrestha et al., 2018) conducted in Nepal also shows the results that a higher level of maternal education increases the opportunity to utilize ANC services compared to mothers who have low education. The higher the education of pregnant women, the higher their contribution to using ANC services. right.

Health education must be sought to increase pregnant women's knowledge regarding the importance of attending antenatal care visits during pregnancy as a form of early prevention of risky pregnancies. Health education is carried out through health promotion by trained health workers as a form of early prevention and can be assisted by local community leaders, targeting mothers of productive age, both those who are not yet pregnant and those who have given birth. This effort is expected to be able to increase mothers' knowledge about antenatal care even though they are at a low educational level. Health education is carried out through health promotion by trained health workers as a form of early prevention and can be assisted by local community leaders targeting mothers of productive age, both those who are not yet pregnant and those who have given birth. This effort is expected to be able to increase mothers' knowledge about antenatal care even though they are at a low educational level. With health education, it is hoped that maternal knowledge can increase so that it can become a door to changing maternal behavior in a better direction in efforts to prevent stunting in the future.

Conclusion

The research results show that the average value of respondents' knowledge about stunting is 3.36 and the average value of respondents' knowledge about pregnancy is 13.70. After being categorized based on the average value, the average knowledge of respondents regarding stunting was 52% in the sufficient category, and respondents' knowledge about pregnancy was 66% in the sufficient category. The results of this research can be a reference for implementing educational programs by local governments as an effort to prevent stunting in the future.

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