



## Determining Knowledge of Stunting among Prospective Brides in East Java, Indonesia

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### Abstract

**Background:** Stunting is a condition of nutritional deficiency that has a negative impact on a person's growth and development. The prevalence of stunted toddlers in East Java in 2022 reached (19.2%) while the prevalence at the national level was 21.6%. In 2022, the East Java provincial Health Office said that the highest prevalence of stunting was in Jember District around 35,000 toddlers. One of the early prevention methods is to detect prospective brides's knowledge about stunting with the aim that they will be able to raise their children well.

**Objective:** The purpose of this study is to describe the level of knowledge related to stunting in prospective brides.

**Methods:** Data collection in this study using questionnaires and distributed directly. This study uses descriptive methods with research subjects is a brides who spread across some district in East Java province, Indonesia.

**Results:** The results showed that respondents with good knowledge were 60%, respondents with moderate knowledge were 30% and respondents with less knowledge were 10%.

**Conclusion:** The results of this research showed that the prospectus bridesin average have a good knowledge about stunting. By having knowledge as a basis for raising their children and family to prevent stunting.

**Keywords:-** Stunting, bride and groom, Knowledge.

### Introduction

The bride and groom are targets in efforts to improve the health of the period before pregnancy. Before the wedding, many brides do not have enough knowledge and information about reproductive health, so after marriage pregnancy is often not supported by optimal health status. This of course can cause negative impacts such as the risk of disease transmission, pregnancy complications, stunting, statistics and even death of mother and baby (Oktiningrum, & Harjanti, 2022)

Stunting is a nutritional deficiency that can be seen after the baby is born up to 2 years. This deficiency condition is triggered by the economy, nutrition of pregnant women, babies in pain, and lack of nutritional intake (Kemenkes RI, 2018). Stunting can be referred by measuring height index based on children age (Rahayuwati *et al.*, 2023) There are several programs that can be done to prevent stunting, namely: pregnancy planning program, and premarital planning. The Head of the National Population and Family Planning Agency (BKKBN) Indonesia stated that there should be education about good reproductive health and preparing for a healthy pregnancy. The approach needs to be taken early, including psychological and economic preparation. Based on government regulation, it is used to intervene to overcome the causes of stunting with the hope that the

prevalence rate will decrease to 14% by 2024. According to several studies it was found that the factors that cause stunting is high that low maternal knowledge associated with stunting (Ariati, 2019). Meanwhile, another study said that mothers with low knowledge had a 61.8% higher risk of having stunted toddlers (Basri et al., 2021). Furthermore, education about reproductive health to prospective brides is very necessary to ensure that every bride has sufficient knowledge in preparing for pregnancy and a healthy family (Kemenkes RI, 2018)

**Material and Methods**

This study uses a descriptive method, is a type of research that describes research factually and accurately about all the facts and properties in a particular population and gives a more detailed description (Sugiyono, 2010). In this study, the researcher will identify the level of knowledge about stunting among the prospectus bride in East JavaProvince -Indonesia especially several district randomly such as in Lumajang, Pamekasan , Sampang , Jember. and Lamongan.

The method of data collection used by researchers is a questionnaire. When the respondents answered correctly with a score of 76%-100% then their knowledge was good. If the respondents gets a score 56 %- 75 % then their knowledge is moderate. Meanwhile, if the respondents answers correctly less than 56% of all questions is means Less of knowledge (Notoatmodjo, 2005).

**Ethical Consideration**

The research protocol has been approved by the Research Ethics Committee of Stikes Hang Tuah Surabaya, Indonesia vide reference number PE/112/VIII/2023/KEP/SHT dated 1<sup>st</sup> August 2023.

**Results**

The questionnaire was distributed directly and obtained 100 respondents of brides and grooms spread across East Java. All participants completed and answered all the statements contained in the questionnaire.

**Table 1:** Characteristics of respondents by age among the brides (n=100)

No	Age	Frequency (F)	Percentage (%)
1	23 - 25	83	83
2	25 - 29	17	17
<b>Total</b>		<b>100</b>	<b>100</b>

Based on Table 1, the majority of brides in East Java are aged 23-25 years, namely as many as 83 people (83%), and brides aged 25-29 years as many as 17 people (17%).

**Table 2:** Characteristics of respondents by gender among the bride (n=100)

No	Gender	Frequencies (F)	Percentage (%)
1	Male	0	0
2	Female	100	100
<b>Total</b>		<b>100</b>	<b>100</b>

Based on Table 2 overall bride as many as 100 women (100%).

**Table 3:** Characteristics of respondents based on the types of the bride using drinking water (n=100)

No	Drinking Water Types	Frequency (F)	Percentage (%)
1	Well water	46	46
2	Natural source/mountain	36	26
3	Mineral water	18	18
5	Tap water	0	0
6	River water	0	0
<b>Total</b>		<b>100</b>	<b>100</b>

Based on Table 3 , the types of using drinking water, the majority of brides use well water, namely 46 people (46%), while those who use mineral water are 18 people (18%), brides who use natural source/Mountain are 36 people (36%), and there are no brides who use taps and river water.

**Table 4:** Characteristics of respondents based on the environment around the bride's home (n=100)

No	Environment Characteristics	Frequencies (F)	Percentage(%)
1	air pollution	43	43
2	Near the garbage dump	11	22
3	Near a river	46	46
<b>Total</b>		<b>100</b>	<b>100</b>

Based on Table 4, the majority of the environment around the bride's House there is a flowing river that is used by 46 people (46%), while the home environment that is close to garbage dump is 11 people (11%), and there is air pollution near the bride's House as many as 43 people (43 %).

**Table 5:** Characteristics of respondents based on having received information on marriage preparation for brides and grooms (n=100)

No	Married Preparation Information	Frequencies (F)	Percentage (%)
1	Ever	82	82
2	Never	18	18
<b>Total</b>		<b>100</b>	<b>100</b>

Based on Table 5, the majority of prospective brides have ever received information about marriage preparation, namely 82 people (82%), while prospective brides who have never received information are 18 people (18%).

**Table 6:** Characteristics of respondents based on the selecting health facilities during pregnancy (n=100)

No	Health Facilities	Frequencies (F)	Percentage (%)
1	Hospital/Specialist	91	91
2	Public Health	9	9
<b>Total</b>		<b>100</b>	<b>100</b>

Based on Table 6, the majority of brides selecting hospital for their place to do examination when they are pregnant as many as 91 people (91%) will go to hospital/specialist and brides who selected public health as many as 9 people (9%).

**Table 7:** Characteristics of respondents based on the habit of washing hands and washing their cooking utensils (n=100)

No	The Habit of Washing Hands and Washing Cooking Utensils	Frequencies (F)	Percentage (%)
1	Washing with soap and running water	100	100
<b>Total</b>		<b>100</b>	<b>100</b>

Based on Table 7, all of the of brides have a habit of washing their hands and cooking utensils using soap and running water as many as 100 people (100%).

**Table 8:** Characteristics of respondents based on the estimation age of marriage (n=100)

No	Estimated Age of Marriage	Frequencies (F)	Percentage (%)
1	<25	79	79
2	>25	21	21
<b>Total</b>		<b>100</b>	<b>100</b>

Based on Table 8 the majority of prospective brides have an estimated marriage age <25 years as many as 79 people (79%) and prospective brides who have an estimated marriage age >25 years as many as 21 people (21%).

**Table9:** Characteristics of respondents based on the important things that must be prepared before marriage (n=100)

No	The important things that must be prepared before marriage	Frequencies (F)	Percentage (%)
1	Age, health and finances	100	100
<b>Total</b>		<b>100</b>	<b>100</b>

Based on Table 9, the entire brides have an opinion if the things that must be prepared before marriage are age, health and finances as many as 100 people (100%).

**Table 10** Overview the knowledge level of Stunting among the brides (n=100)

No	Knowledge Level	Frequencies (F)	Percentage (%)
1	Good	60	60
2	Moderate	30	30
3	Less	10	10
<b>Total</b>		<b>100</b>	<b>100</b>

Based on Table 10, the description of the knowledge level of stunting among the brides are majority have good knowledge of stunting as many as 60 people (60%), while respondents who have moderate level as many as 30 people (30%) and respondents who have less knowledge of stunting as many as 10 people (10%).

## Discussion

### *Characteristics Based on Age*

The results showed that the age of the respondents were mostly in the category of 23-25 years as many as 83 respondents (83%). The researchers assumed, age is one of the characteristics of respondents that can affect of their experience. According to Notoadmodjo (2005) and (Rahmawati *et al.*, 2019) states that memory is influenced by age. Therefore, age has the power of Capture the knowledge and setting the mindset of each person. Furthermore, respondents used in this study more in adulthood, according to the Ministry of health of the Republic of Indonesia adult age is 19-44 years. The older the age of the respondents, the experience and information obtained will be more increased, so it will have a better level of knowledge as well.

### *Characteristics Based on Gender*

Based on gender, the total number of respondents used were prospective brides respondents , there were 100 respondents (100%). The role of the prospective bride who will become a mother during the preconception period starts from providing optimal nutrition to their children. Therefore, the role of women will greatly determine the success of implementing stunting management, either through specific interventions or sensitive interventions. Moreover, prospective brides with a high level of knowledge can practice how to provide food to meet their nutritional needs and children's growth and development (Saleh *et al.*, 2021).

### *Characteristics Based on Drinking Water Use*

Based on the results, majority of prospective brides use well water, namely 46 people (46%), while 18 % people use mineral water, and 36 % person use natural water/mountain. On the other hand, there is no respondents use tap water and water from river. According to Otsuka *et al.*, (2019) revealed that households that consume drinking water sourced from tap water can increase the incidence of stunting in children compared to households that use tank and well water. This can happen if the quality of tap water used by households does not meet the physical quality requirements compared to well water. Based on Minister of Health Republic of Indonesia (2017) the physical quality of drinking water must meet health requirements, such as not cloudy, tasteless, odourless, not contaminated with chemicals and free from various microorganisms that can cause children to experience stunting. Beal *et al.*, (2018) also agree that inadequate sanitation and water supply, food insecurity was an important predictor also.

### *Characteristics Based on Having Received Health Information*

Sources of information greatly influence a person's knowledge, especially in the health sector. Based on the data, majority of respondents have obtained information related with stunting. The brides got information from health care facilities as well as from internet or media social. Behaviour change begins with an increase in the person's knowledge of healthy and nutritious foods throughout the life cycle, starting before pregnancy. Nutritional Status of the premarital period or preconception period is the crucial consideration to prevent stunting. Furthermore, nutrition-sensitive interventions really need to change the behaviour of the bride and groom (Saleh *et al.*, 2021). Tadesse *et al.* (2023) showed that maternal education was an important predictor for narrowing the urban rural disparities in childhood stunting. Knowledge of stunted mother need to improve with demonstrations and role plays demonstrated by Akhmadi *et al.*, (2021) .

### *Characteristics Based on The Habit Of Washing Hands And Washing Cooking Utensils*

Based on this study, all of the prospective brides have a habit of washing their hands and cooking utensils using soap and running water as many as 100 people (100%). Research according to Rusdi, P. H. N, (2022) which states that hygiene habits have a significant relationship to the incidence of stunting. Personal hygiene and the environment play an important role in the growth and development of children. Cleanliness of the body, food and the environment plays a major role in maintaining health which will prevent infectious diseases as a factor causing the decline in the nutritional status of their children (Zarmawi & Haryanto, 2023). Good sanitation reduced stunting in children and family with higher household expenditure and children from urban communities significantly (Widyaningsih *et al.*, 2022)

### *Characteristics Based on Important Things That Must Be Prepared Before Marriage*

Based on the results, all prospective brides have an opinion that the things that must be prepared before marriage are age, health and finances as many as 100 people (100%). Research according to Sari *et al.*, (2016) states that there are 8 (Eight) essential factors that are need to considered to determine a person's readiness to marry, such as Marital Life Skills, Financial readiness, Contextual–social readiness, Emotional Readiness, Interpersonal Readiness, Mental Readiness, Physical Readiness and Age Readiness . Knowledge and readiness among those factors must be met to be fulfilled before marriage (Prasadajudio *et al.*, 2023).

### *Overview the level of knowledge of Stunting among the brides.*

Findings in the study obtained the level knowledge of stunting in average is in good category, while moderate level is 30% and 10 % is in less of knowledge. According to Notoatmodjo, (2005) knowledge is the result of knowing, and this happens after people do the sensing of a particular object. Most human knowledge is acquired through the eyes and ears. Knowledge or cognitive is a very important domain in shaping one's actions or their behaviour. Researchers argue that the understanding of stunting measured in this study include understanding, triggers, signs and symptoms, impact, prevention and management efforts undertaken if children experience stunting. This is in line with research according to Rahmawati *et al.*, (2019) knowledge about stunting measured in the study through questionnaires include understanding triggers, signs, symptoms, prevention and factors that affect stunting. Furthermore, knowledge of high nutrition can have an influence on the diet of toddlers which can later have an influence on the nutritional status of toddlers. Moreover, the problem of toddlers with stunting is caused by various factors, one of the main factor is the mother did not give breast milk , non-optimal complementary intake, recurrent infections and micronutrient deficiencies (Subandra, *et al.*, 2018). According to and Rahayu *et al.*, (2022). there was relationship between family characteristics with stunting in toddlers, he explained that the level of knowledge can be affected by several factors, namely intelligence, age, social, cultural, information, environment, experience and education.

## **Conclusion**

In a brief, Averagely the knowledge level of stunting among the prospective brides are in good level. It seems that the brides understand about stunting and expecting that they will do prevention to avoid stunting.

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## **Conflict of Interest:**

The authors declare no conflict of interest.

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