



MATERNAL SELF-EFFICACY IN STUNTING PREVENTION AMONG TODDLERS: A STUDY IN THE DENPASAR PRIMARY HEALTH CARE AREA (Study in the Denpasar Primary Health Care Work Area)

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Abstract

According to The Indonesia Nutrition Status Survey (SSGI) in 2023, Denpasar City has the highest stunting rate among the 9 districts in Bali Province, which is almost double from the previous year (10.8%). Maternal self efficacy in preventing stunting is an important factor that need to be considered. The aim of this research was to analyze maternal self efficacy in preventing stunting in Denpasar City. The research was done in quantitative and qualitative, with a cross-sectional design. The research population consisted of mothers with toddlers aged 6-24 months in the North Denpasar Primary Health Care I, II, and III work areas. The total sample was 203 mothers of toddlers. Quantitative data were collected using questionnaires, while qualitative data were collected through in-depth interviews. The qualitative data analysis process was carried out using the manual coding method by entering the answers of each respondent, using Spearman rank and content analysis. Characteristics of mothers of toddlers: average age 31 years, number of children 2, tertiary education (49.7%), occupation as a housewife (48.8%), income above minimum wage (54.7%), permanent residence status for more than 6 months (86.7%), high self-efficacy (89.9%). The strength of the relationship is moderate with a correlation coefficient of 0.258. The results of the correlation test showed that there is a relationship between self-efficacy towards stunting prevention (p-value 0.08). Mothers who have good self-efficacy will later carry out sufficient stunting prevention. The mother's confidence in ensuring her child's growth and development according to the stages will be able to prevent stunting.

Keywords: *Self-Efficacy, Stunting, Babies, Toddler*

1. Introduction (Book Antiqua 10pt Bold)

Stunting is a growth disorder that indicates a child's growth potential is not being achieved due to less than optimal health or nutritional status of the child. This is indicated by measurements of height or body length that are less than 2 standard deviations compared to the population average (Helmyati, 2020). Stunting is a public health problem that needs joint handling because it impacts the quality of

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resources for a generation. United Nations Children's Fund reported that in 2020 the number of stunting incidents in this world in toddlers was 22%.

The incidence of stunting is higher in Asia at 53%(UNICEF, 2021). In a study in North Africa, the prevalence of stunting was 41%. Stunting is significantly higher in children with characteristics 1 year old, in boys, in mothers with low birth weight, in shorter pregnancy intervals, in mothers with low education, and in food insecure households. Maternal education, feeding practices, and environmental factors (e.g. climate change) are important risk factors (Quamme & Iversen, 2022).

Indonesia is ranked 29th in the world in terms of the number of stunting incidents mostly in toddlers. Based on the SSGI results in 2022, it was found that stunting in children under five had decreased from 24.4% in 2021 to 21.6%, underweight 17.1%, and wasting 7.7%(Kemenkes RI., 2021). In Bali Province, the stunting incidence rate is in the low category, namely 8%. Bali Province consists of 8 districts and 1 city with the highest stunting rate in 2022 being in Jembrana Regency at 14.2% and the lowest in Denpasar City at 5.5%. From the 2023 Indonesian Health Survey, Denpasar City has the highest stunting rate, almost doubling from the previous year to 10.8%(BKPK kemenkes RI,2023). If broken down from each region, the highest number of stunting cases is in North Denpasar, where the cases are 50 stunting toddlers and 59 underweight toddlers, East Denpasar 45 stunting toddlers and 57 underweight toddlers. Even though the trend of stunting cases is decreasing, we need to be careful, so that new cases do not occur, so prevention efforts are needed by paying attention to the factors that influence it (Bali Provincial Health Service, 2023).

The growth and development process begins during pregnancy and this is a very important process, because during this period the growth and development process determines the baby's future physically, mentally, and behaviourally. Growth and development at each age stage are not always the same, depending on hereditary factors, nutritional consumption, treatment by parents and adults, and the environment (Sugeng et al., 2019). The role of parents in caring for and monitoring children's growth and development are important. The knowledge and skills possessed by the mother will influence her confidence in carrying out her role as a parent to her child, which is called maternal self-efficacy(Arini et al., 2022).

Stunting prevention can be done through the role of parents in educating and caring for their children well. Providing specific nutritious food and communicating the importance of social and behavioural changes to prevent stunting in children under 2 years old during the first 1000 days of life are effective in reducing and preventing stunting(Soofi et al., 2024). Mother's belief that their children can grow up healthy and intelligent is one of the things that has a positive impact on preventing stunting. Previous research suggests there is a relationship between self-efficacy in mothers with cognitive development of toddlers. It is important for a mother to have a level of self-confidence or self-efficacy high in caring for children, especially in stimulating growth and development. Mother's beliefs about how well she is capable of being a mother is an important component for understanding her beliefs, actual parenting behaviour, and interactions between mother and child because the impact of these parenting beliefs has an impact on the child's health, growth and development(Arini et al., 2022). Another study states that there is an influence of knowledge on mother's self-efficacy in providing complementary foods for breast milk to prevent stunting (Rezky, D., 2023). Education with the eNutrila model significantly improves eating behaviour and self-efficacy for mothers in providing nutrition to children but does not affect the child's growth and development status (Sari et al., 2025). In other research on maternal self-efficacy giving breast milk complementary foods and incidents of stunting in toddlers aged 6-23 months the high category was 52% and the low 48% (Putri et al., 2023). Based on these problems, the aim of this research is to analyze the self-efficacy for mothers of toddlers in preventing stunting in the Denpasar Primary Health Care Work Area.

2. Method

This type of research is quantitative and qualitative, with cross-sectional design. The population of this study was 2483 mothers with toddlers aged 6-24 months in the North Denpasar Primary Health Care I, II, and III work areas. The sampling technique was simple random sampling, with a random number in the Puskesmas area according to the inclusion and exclusion criteria. The sample size was set at an estimated proportion of 203 mothers of toddlers. Data collection for quantitative data about

respondent characteristics and self-efficacy using questionnaires. Before using the questionnaire, validity and reliability tests were conducted on 20 mothers of toddlers in the East Denpasar Health Center area. Cut off point for self-efficacy using the average value of the total score of each respondent, good if the score > 9, and less if the score < 10.

Meanwhile, the qualitative data was used to analyze policies to support mothers of toddlers in preventing stunting through in-depth interviews with the Head of North Denpasar Primary Health Care I (R1), the Head of North Denpasar Primary Health Care II (R2), the Head of North Denpasar Primary Health Care III (R3), 3 coordinator midwives (R4, R5, R6) and 3 cadres (R7, R8, R9). The qualitative data analysis process was carried out using the manual coding method by entering the answers of each respondent. Data analysis using chi square method and content analysis. This research received ethical permission from Poltekkes Kemenkes Denpasar Research Ethics Commission Number DP.04.02/F.XXXII.25/0806/2024.

3. Results and Discussion

a. Respondent Characteristics

Table 1. Mother's Characteristics

Variable	Category	
Mother's age	Mean	: 31 years old
Number of children	Mean	: 2
Education	Elementary School	: 9 (4.4%)
	Junior High School	: 18 (8.9%)
	Senior High School	: 75 (37%)
	University	: 101 (49.7%)
Work	State Civil Apparatus	: 20 (9.9%)
	Private employees	: 72 (35.5%)
	Self-employed	: 12 (5.9%)
	Housewives	: 99 (48.8%)
Income	< Regional Minimum Wage	: 48 (23.6%)
	Regional Minimum Wage	: 44 (21.7%)
	> Regional Minimum Wage	: 111 (54.7%)
Residence Status	Less than 6 months	: 27 (13.3%)
	Staying > 6 months	: 176 (86.7%)

Table 1 below shows that most of the characteristics of the respondents are mothers of toddlers with an average age of 31 years, this shows that the mothers are in a healthy state of reproductive health. Average number of children 2, education mostly tertiary (49.7%), occupation as housewife (48.8%), income above the regional minimum wage for Bali Province (54.7%), permanent residence status for more than 6 months (86.7%).

Table 2. Relationships *Self-Efficacy* with Stunting Prevention

Table 1: Relationships Self-Efficacy with Stunting Prevention							
Self-Efficacy	Stunting Prevention				Total		P Value
	Good		Less				
	n	%	n	%	n	%	
High	159	89.8	18	9.6	177	100	0.008
Low	18	69.2	8	27.8	26	100	
Total	177	87.2	26	12.8	203	100	

Table 2 shows respondents who have stunting prevention in the good category, and high self-efficacy 89.8% greater than those with less stunting prevention, low perception of barriers (27.8%). The chi-square test results obtained p value $0.008 < 0.05$, which means there is a relationship between self-efficacy and preventing stunting. The strength of the relationship is moderate with a correlation coefficient of 0.258.

Results of in-depth interview analysis with the Head of the Primary Health Care, Coordinating Midwife, and Cadre regarding maternal self-efficacy of toddlers in preventing stunting as follows:

"I believe that stunting can be prevented and reduced with good cooperation from all sides." (R1)

"For mothers of babies and toddlers in the North Denpasar Primary Health Care II work area, I am sure that they can avoid stunting if they take part in Posyandu activities. Although there are still some parents who find it difficult to be asked to attend Posyandu, this can be overcome with methods door to door." (R9)

"For toddlers, it is very difficult to come to the Posyandu with their working mothers." (R5)

From the statements of the informants, most of them believe that stunting can be prevented and reduced with good cooperation from all parties, including the community, health centers, families and others. Utilizing the Posyandu regularly every month can monitor the health, growth and development of children. Although there are still toddlers who do not attend Posyandu activities because their parents are busy, this is a challenge in itself to make people aware of the importance of visiting Posyandu. Apart from that, Posyandu also has programs door to door to ensure that toddlers receive services even though they cannot attend the Posyandu.

The perceptions of the Head of the North Denpasar Primary Health Care, Coordinating Midwives, and Cadres in efforts to prevent stunting by mothers of toddlers in Denpasar City from the results of in-depth interviews were obtained as follows:

"With the differences in existing operational definitions, if it is not resolved, stunting status will continue to occur. With high population mobility, stunting management also becomes a problem, because the population moves without confirmation." (R2)

"How to respond if the population is affluent, if their children tend to be stunted, because the pediatrician who can diagnose stunting is the one who can diagnose stunting. The cadres do not call the child stunted, but the child will be asked to be assessed by a pediatrician, and if the child is stunted, they will be referred when necessary." (R6)

"The prevention efforts carried out include scheduled Posyandu in each area under the supervision of the North Denpasar Primary Health Care II. Then it is also done by preventing anemia in young women (by providing blood supplement tablets and socialization). Intensive monitoring has also been carried out on toddlers with indications of stunting." (R4)

"In the future, I hope there will be a central government policy regarding community data collection in areas with high mobility" (R7)

Respondents statements during in-depth interviews show that efforts to prevent stunting can be carried out by collecting data on pregnant women from an early age, so that their health conditions are monitored and the hope is that they will give birth to healthy babies. There is a local government policy regarding data collection on new residents so that families with pregnant mothers, babies, or toddlers will be monitored. Another obstacle that occurs in the process of preventing stunting is the feeling of shame among the community if their toddler is declared stunted, resulting in resistance from the family for further examination processes. To overcome this problem, the community health center is trying to carry out persuasive communication with families without mentioning the term stunting in the mentoring process. The role of the first thousand days is very important to monitor and carry out early detection of pregnancy. Previous research stated that there was a positive and statistically significant effect of health education on mothers of stunted toddlers who had been provided with assistance. Mother's self-efficacy influences toddler development (Utami & Rahmadhena, 2019).

In this study, of 203 mothers of toddlers, the average age was 31 years and the number of children was

2. In terms of age, the mothers of toddlers were adults who were ready to care for and care for children. From experience, the average toddler is the second child, so they have sufficient experience in monitoring their child's growth and development. Moreover, it is supported by mostly college-educated mothers, making it possible to absorb information more quickly. Previous research states that the higher the mother's education level, the better the knowledge produced so that it can reduce deviations in children's growth and development (Rica Anjayani, Sri Rahayu, 2024).

The majority of mothers' jobs are housewives at 48.8% and their family income is above the minimum wage for Bali Province. This is one of the potential supporting factors for families in optimizing children's growth and development, so that the incidence of stunting can be further reduced in the city of Denpasar. If we look at the period of stay, most of them stay for more than 6 months, meaning that family mobility is minimal, although there are still 13.3% of mothers of toddlers who have a stay of less than 6 months. Denpasar City is the economic center of Bali Province, population mobility needs to be a concern, especially for families with children under five who need to monitor their growth and development.

Self-efficacy is a person's belief in their ability to do something. In this research self-efficacy mother is related to preventing stunting. Previous research states that there is a negative influence between self-efficacy towards preventing stunting in toddlers, which means if there is a decline in self-efficacy it will have a negative effect on increasing efforts to prevent stunting in toddlers (Nenobais, 2021). Other research states that the majority of mothers with stunted toddlers agree that they are unsure about detecting children who are stunted. Fulfilling nutrition for children requires the mother's knowledge of nutrition for children (Noor et al., 2023). Self-efficacy refers to an individual's belief in their ability to perform the behaviours necessary to achieve certain performance outcomes, whereas outcome expectancy indicates the belief that a particular action will produce a desired outcome of particular significance (Chen and Chien, 2022). The results of this study are supported by previous studies, that shown maternal confidence in detecting the growth and development of infants under five can prevent stunting. Fulfillment of the needs of care, love and nurture in toddlers is important in preventing stunting.

Mother's self-efficacy in parenting lies in increasing the mother's self-confidence in her ability to care for her child. Mothers with high self-efficacy have broad insight into the problem of stunting as a challenge, so they encourage themselves and find a way to overcome this problem by acquiring learning and stress management skills to overcome difficulties (Krisnana et al., 2020). The results of this research in qualitative analysis of interviews with cadres show the importance of family involvement in supporting Posyandu activities by bringing their toddlers to Posyandu. Cadres also have an important role in supporting and ensuring that no toddlers in their area experience problems with their growth and development. It is necessary to periodically increase or refresh cadres. Previous research stated that there was an increase in knowledge and self-efficacy about education and educational media about nutrition (Nadhiroh et al., 2024). From results of these studies indicate that maternal confidence will appear by trust and management of stressors that arise both from within and outside factors. Good self-efficacy will support mothers in early detection of deviations in growth and development of toddlers. Prevention of stunting is not only the responsibility of health workers, but the role of parents is very important in supervising their toddlers.

One way to prevent and overcome stunting is to apply behaviour change theory, especially the belief in providing good nutrition for toddlers by providing knowledge to mothers and families to empower the surrounding natural resources to meet the nutritional needs of families, especially stunting toddlers.

4. Conclusions and Suggestions

Efforts to prevent stunting are important, high maternal self-efficacy is related to achieving sustainable stunting prevention. The support of all relevant components, including the head of the primary health care, health workers, Posyandu, cadres, community and family as well as other cross-sectors, will be successful in overcoming and preventing problems with the growth and development of children under five, so that the incidence of stunting can be prevented. The importance of supervision in the first thousand days of life starting from pregnancy will contribute to preventing stunting. There are still differences in perception in translating the definition of stunting, making it something that needs attention. Primary health cares and local village governments should carry out prevention efforts in a sustainable manner and not only focus on toddlers, but need to pay attention from the preparation period for pregnancy to toddlers. The

importance of cross-program and cross-sector collaboration in efforts to prevent stunting, having the same perception in describing or identifying stunting in babies under five.

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