Factors Relating to Stunting Prevention Behavior Based on Health Promotion Model (HPM) Theory in Tanah Kali Kedinding Community Health Center Surabaya

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Abstract. Stunting remains a significant nutritional issue for children under two years old, leading to increased morbidity and mortality, reduced learning capacity, higher risk of infections and chronic diseases in adulthood, and decreased productivity and economic capacity. One major contributing factor to high stunting rates is family behavioral patterns related to child-rearing. This study aims to analyze factors associated with stunting prevention behavior based on the health promotion model theory at Puskesmas Tanah Kali Kedinding in Surabaya. Using a cross-sectional research design, the study involved 147 mothers with children aged 6-24 months, selected through purposive sampling. Data was collected via questionnaires and analyzed using the logistic regression test with a significance level of $\alpha < 0.05$. Independent factors significantly related to stunting prevention behavior included prior related behavior (0.000), perceived benefits of action (0.016), perceived barriers to action (0.000), activity-related affect (0.000), personal influences (0.009), and situational influences (0.000). Conversely, factors such as education level (0.589), socio-economic status (0.662), motivation (0.067), and self-efficacy (0.835) showed no significant relationship. The findings of this research can contribute to the development of pediatric nursing knowledge on stunting prevention behaviors in children aged 6-24 months and enhance family nursing knowledge regarding the role of parents in effective child-rearing practices.

Keywords: Behavior, Health Promotion Model, Prevention, Stunting

1　Introduction

Preparing for the golden generation of 2045 is challenging, particularly because stunting remains a significant nutritional issue for infants and children under two years old [1]. Stunting results from chronic malnutrition during the first 1000 days of life, leading to prolonged delays in brain development and physical growth [2]. Affected children are often shorter than the standard height for their age group due to persistent undernutrition [3]. The consequences of stunting are both immediate and long-term, including increased morbidity and mortality, impaired child development and learning capacity,

heightened risk of infections and chronic diseases in adulthood, and reduced productivity and economic potential [4]. Parental behavior, especially that of mothers, plays a crucial role in preventing stunting through the daily food they provide to their children [5]. The Health Promotion Model theory underscores the importance of individuals actively managing their health behaviors to prevent disease [6].

Based on the percentage of stunting prevalence in 2022, Indonesia is at 21.6 % (SSGI Kemenkes RI, 2023). Even though the stunting rate is decreasing, this figure is still considered high considering that WHO targets the stunting rate to be no more than 20 percent [7]. Meanwhile in East Java it was 19.2%, while in Surabaya it was 4.8%, until the end of December 2022 there were 923 stunted toddlers. It is hoped that in 2023, toddlers in Surabaya will receive intervention to escape and be free from stunting, starting from specific interventions and physical interventions (SSGI Kemenkes RI, 2023). One of the health centers with a high prevalence of stunting in Surabaya is the Tanah Kali Kedinding Health Center (Dinas Kesehatan Surabaya, 2022).

The Tanah Kali Kedinding Community Health Center oversees the Tanah Kali Kedinding Village, where the majority of residents who live in the area are ethnic Madurese. The existence of habits or culture that pose a risk for stunting is the existence of dietary restrictions in pregnant women which cause nutritional deficiencies during pregnancy, one of which is limiting consumption of foods containing animal protein, apart from that there is still the practice of removing colostrum, giving prelacteal food to newborns, giving MP-ASI too early, namely before the child is 6 months old, as well as beliefs about the dangers of immunization in children, so that the majority of toddlers do not receive immunization. This is what causes the still high incidence of stunting in the Madurese ethnic community [8] [9].

Stunting is a consequence of chronic energy-protein malnutrition [10]. Apart from that, the problem of stunting is determined by direct and indirect causal factors. Direct causes include food intake (consumption of macro and micro nutrients) such as inadequate nutrition during pregnancy, LBW, lack of exclusive breastfeeding and health conditions (infectious diseases), and incomplete immunization, while indirect causes include household food security. household, parenting patterns, environmental sanitation and use of health services [11].

Stunting prevention can be done in various ways 1) Fulfilling the nutritional needs of pregnant women. Pregnant women must receive food with high nutrition, obtain additional supplements in the form of iron (Fe) and folic acid, carry out hemoglobin (HB) checks, and routinely carry out pregnancy checks [12]; 2) Exclusive breastfeeding until the child is 6 months old without being given any additional food, then after 6 months of age he is given complementary breast milk (MP-ASI) according to his age level by paying attention to the nutritional components contained in the food [13]; 3) Routinely monitor the growth of toddlers at the nearest posyandu as an early detection effort if growth disorders occur; 4) Pay attention to access to clean water and improve sanitation and maintain the cleanliness of the surrounding environment; 5) Providing immunizations to prevent children from being infected with disease [14].

The purpose of the Health Promotion Model (HPM) theory according to Nolla J. Pender is to demonstrate the relationship between humans and their physical and inter-

personal environments in various dimensions [15]. The approach in HPM theory focuses on an individual's ability to maintain their health condition with the belief that the best intervention given is to take action to prevent disease and then try to take action that leads to the improvement of their condition [16]. Stunting prevention behavior is a priority as the main door to zero stunting, in order to create a healthy and quality generation. Therefore, researchers will analyze factors related to stunting prevention behavior based on the health promotion model (HPM) theory in the work area of the Tanah Kali Kedinding Community Health Center, Surabaya.

2   Method

2.1   Research Design

This research uses a cross-sectional design. Conducted to assess factors related to stunting prevention behavior based on the health promotion model (HPM) theory in the work area of the Tanah Kali Kedinding Community Health Center, Surabaya.

2.2   Sample

Participants in this study were mothers who have children aged 6-24 months. The sample taken was 147 people using purposive sampling technique. The inclusion criteria for this study is physically and mentally healthy, can read and write, children aged 6-24 months, willing to be a respondent. The exclusion criteria is the mother is sick or has a mental disorder, children experience pathological abnormalities such as bone abnormalities and chromosomal abnormalities.

2.3   Data Collection

Data was collected using a questionnaire, carried out by purposive sampling. Data collection was carried out for two months, namely from September to November 2023.

2.4   Instrument

The measuring instrument used in this research consists of 2 parts. First, sociodemographic data using a questionnaire includes (education level, socio-economic status, mother's age, number of children, ethnic group, child's gender). Second, questionnaire about stunting prevention behavior based on the Health Promotion Model (HPM) theory, contains questions regarding prior related behavior, personal factors (motivation), perceived benefits to action, perceived barriers to action, perceived self-efficacy, activity related affects, personal influences, situational influences, and stunting prevention behavior using the likert and guttman scale. The results of validity of 0.85 and reliability with a cronbach alpha value of 0.89.

2.5   Analysis

Data analysis used SPSS software (Version 25.0; Chicago IL USA). Descriptive analysis aims to explain or describe the respondent's characteristic data, bivariate analysis was carried out for cross tabulation between each independent variable and the dependent variable using the chi square test, and multivariate analysis aims to find out which independent variables have a big influence on the dependent variable, which independent variables are related to the dependent variable or not, and whether the form of relationship between several independent variables and the dependent variable forms a direct or indirect relationship. The data analysis process in this study used a logistic regression statistical test with a p value < 0.05.

3   Results

Table 1. Distribution of demographic characteristics of respondents in November 2023

No.	Demographic Characteristics of Respondents	Category	Frequency	Percentage
1	Level of education	Elementary school	34	23.1
		Junior High School	16	10.9
		Senior High School	94	63.9
		College	3	2.0
	Total		147	100
2	Socio-economic Status	< 2,000,000	125	85.0
		> 2,000,000	22	25.0
	Total		147	100
3	Mother's Age	< 20 years	12	8.2
		20 – 30 years	63	42.9
		> 30 years	72	48.9
	Total		147	100
4	Number of children	1 child	38	25.8
		Two children	82	55.8
		> 2 children	27	18.4
	Total		147	100
5	Ethnic group	Java	89	60.5
		Madurese	58	39.5
	Total			
6	Child's Gender	Woman	84	57.1
		Man	63	42.9
	Total		147	100

Based on Table 1, it shows that the majority of mothers' education level is high school, 94 (63.9%). Most of the socio-economic status was < 2,000,000 as many as 125 (85%). Most of the mothers' age was > 30 years as many as 72 (48.9%). Most of the children had 2 children, 82 (55.8%). The majority of ethnic groups are Javanese, 89 (60.5%). The gender of the children was mostly female, 84 (57.1%).

Table 2. Distribution of respondents based on previous behavior, personal factors, perceived benefits to action, perceived barrier to action, perceived self-efficacy, activity related affect, personal influences, situational influences, and stunting prevention behavior

No.	Variables measured	Category	Frequency	Percentage
1	Previous behavior	Poor	0	0
		Sufficient	62	42.2
		Good	85	57.8
	Total		147	100
2	Personal factors (motivation)	Poor	0	0
		Sufficient	55	37.4
		Good	92	62.6
	Total		147	100
3	Perceived benefits of action	Poor	0	0
		Sufficient	79	53.7
		Good	68	46.3
	Total		147	100
4	Perceived barrier to action	Poor	0	0
		Sufficient	57	38.8
		Good	90	61.2
	Total		147	100
5	Self-efficacy	Poor	0	0
		Sufficient	67	45.6
		Good	80	54.4
	Total		147	100
6	Activity related affect	Poor	0	0
		Sufficient	92	62.6
		Good	55	37.4
	Total		147	100
7	Personal influences	Poor	0	0
		Sufficient	96	65.3
		Good	51	34.7
	Total		147	100
8	Situational influences	Poor	0	0
		Sufficient	113	76.9
		Good	34	23.1
	Total		147	100
9	Stunting prevention behavior	Negative	93	63.3
		Positive	54	36.7
	Total		147	100

Based on Table 2, it shows that previous behavior was mostly in the good category as much as 85 (57.8%), personal factors (motivation) were mostly in the good category

as much as 92 (62.6%), perceived benefits to action were mostly in the sufficient category as much as 79 (53.7%), perceived barrier to action by the majority of the good category was 90 (61.2%), perceived self-efficacy of the majority of the good category was 80 (54.4%), activity related affect in the majority of the sufficient category was 92 (62.6%), personal influences of the majority of the sufficient category was 96 (65.3%), situational influences are mostly in the moderate category, 113 (76.9%), and stunting prevention behavior is mostly in the negative category 93 (63.3%).

Table 3. Relationship between independent variables and dependent variables

No.	Variables measured	Category	Preventive Behavior		Total
			Negative	Positive	
1	Previous behavior	Poor	0	0	0
		Sufficient	56 (90.3%)	6 (9.7%)	62 (100%)
		Good	37 (43.5%)	48 (56.5%)	85 (100%)
		Total	93 (63.3%)	54 (36.7%)	147 (100%)
		Logistic Regression Test p = 0.000 (significant)			
2	Personal factors (motivation)	Poor	0	0	0
		Sufficient	40 (72.7%)	15 (27.3%)	55 (100%)
		Good	53 (57.6%)	39 (42.4%)	92 (100%)
		Total	93 (63.3%)	54 (36.7%)	147 (100%)
		Logistic Regression Test p = 0.067 (not significant)			
3	Perceived benefits to action	Poor	0	0	0
		Sufficient	57 (72.2%)	22 (27.8%)	79 (100%)
		Good	36 (52.9%)	32 (47.1%)	68 (100%)
		Total	93 (63.3%)	54 (36.7%)	147 (100%)
		Logistic Regression Test p = 0.016 (significant)			
4	Perceived barrier to action	Poor	0	0	0
		Sufficient	54 (94.7%)	3 (5.3%)	57 (100%)
		Good	39 (43.3%)	51 (56.7%)	90 (100%)
		Total	93 (63.3%)	54 (36.7%)	147 (100%)
		Logistic Regression Test p = 0.000 (significant)			
5	Self-efficacy	Poor	0	0	0
		Sufficient	43 (64.2%)	24 (35.8%)	67 (100%)
		Good	50 (62.5%)	30 (37.5%)	80 (100%)
		Total	93 (63.3%)	54 (36.7%)	147 (100%)
		Logistic Regression Test p = 0.835 (not significant)			
6	Activity related affect	Poor	0	0	0
		Sufficient	70 (76.1%)	22 (23.9%)	92 (100%)
		Good	23 (41.8%)	32 (58.2%)	55 (100%)
		Total	93 (63.3%)	54 (36.7%)	147 (100%)
		Logistic Regression Test p = 0.000 (significant)			
7	Personal influences	Poor	0	0	0
		Sufficient	68 (70.8%)	28 (29.2%)	96 (100%)
		Good	25 (49%)	26 (51%)	51 (100%)
		Total	93 (63.3%)	54 (36.7%)	147 (100%)
		Logistic Regression Test p = 0.009 (significant)			
8	Situational influences	Poor	0	0	0
		Sufficient	85 (75.2%)	28 (24.8%)	113 (100%)
		Good	8 (23.5%)	26 (76.5%)	34 (100%)
		Total	93 (63.3%)	54 (36.7%)	147 (100%)

Logistic Regression Test p = 0.000 (significant)					
9	Education level	elementary school	23 (67.6%)	11 (32.4%)	34 (100%)
		Junior High School	9 (56.3%)	7 (43.8%)	16 (100%)
		Senior High School	60 (63.8%)	34 (36.2%)	94 (100%)
		College	1 (33.3%)	2 (66.7%)	3 (100%)
	Total		93 (63.3%)	54 (36.7%)	147 (100%)
Logistic Regression Test p = 0.589 (not significant)					
10	Socio-economic status	< 2 million	80 (64%)	45 (36%)	125 (100%)
		> 2 million	13 (59.1%)	9 (40.9%)	22 (100%)
	Total		93 (63.3%)	54 (36.7%)	147 (100%)
Logistic Regression Test p = 0.662 (not significant)					

4 Discussion

4.1 The relationship between education level and stunting prevention behavior

The results of the analysis show that the majority of mothers who are respondents have a high school education level. The results of the logistic regression test showed that there was no relationship between the mother's education level and stunting prevention behavior. This is in line with the results of research conducted by Rahmah et al (2023) that the level of education was not related to knowledge about stunting in mothers of 55 people with (p-value=0.138) [17]. Mothers who have higher education usually have a job, which will reduce the mother's opportunities to care for children due to more time spent working, lack of attention to what children consume can have an impact on the child's growth and development, so that children are more at risk of experiencing stunting [18].

The incidence of stunting is caused by inadequate nutritional intake in children. Stunting prevention behavior is influenced by mother's knowledge. Knowledge is the result of knowing and this occurs after people sense certain objects. Gestalt concludes that a person is said to learn if he or she gains a new understanding (insight), by learning the individual is expected to be able to explore what is hidden within him by encouraging him to think and develop his personality by freeing himself from his ignorance [19]. Interventions that can be carried out to increase maternal knowledge include providing health education that is tailored to the characteristics of the respondent, especially their level of education [20].

Health education is essentially an activity or effort to convey health messages to the public or individuals, with the hope that with these messages, groups or individuals can gain better knowledge about health. This knowledge is ultimately expected to influence behavior. In other words, with this health promotion, it is hoped that it can have an effect on changing individual behavior [3].

4.2   The relationship between socio-economic status and stunting prevention behavior

The results of the analysis show that the majority of mothers who are respondents have a family income of < IDR 2,000,000. The results of the logistic regression test show that there is no relationship between socio-economic status and stunting prevention behavior. This is not in line with the results of research conducted by Mulyaningsih et al (2022) that there is a significant socio-economic influence of the family on the incidence of stunting in toddlers at the Tilango Community Health Center with a p-value of 0.012 [21]. One of the causes of stunting is due to the employment status where the majority of breadwinners are only fathers and mothers as housewives, plus the burden of the number of children and families who have to be cared for so that income must be able to meet the family's needs [22].

Economic status is one of the root problems that plays a role in the incidence of stunting among toddlers in Indonesia [23]. Family income level will influence food purchasing power, both in terms of quality and quantity. Families with high incomes make it possible for the nutritional needs of their family members to be met, due to the availability of a variety of foods. On the other hand, families with low income also have an impact on the household's low ability to purchase food [8]. According to research conducted by Ayuningtyas et al (2022), it is stated that the percentage of stunted toddlers is greater in families with low income than high income [24].

A family's ability to buy food depends on the size of the family's income and how local resources are managed and the use of the yard. Families with small incomes will most likely experience difficulty in meeting their daily nutritional needs. However, not all families with small incomes are unable to meet the family's food needs, because meeting food needs is also influenced by the number of children and families being cared for. Some families with small incomes can meet their daily food needs because their mothers use the yard which is planted with vegetables and can be consumed every day.

4.3   The relationship between previous behavior and stunting prevention behavior

The results of the analysis showed that the majority of mothers who were respondents had good previous behavior as many as 85 people (57.8%). The results of the logistic regression test show that there is a relationship between previous behavior and stunting prevention behavior. This is in line with the results of research conducted by Sholechah et al (2019) which states that there is a significant relationship between previous behavior and stunting prevention behavior with a p value of 0.032. The results of the analysis on the previous behavior variable show that good previous behavior is 2.81 times better in carrying out preventive behavior with a p value of 0.03. Better previous behavior tends to be better in implementing stunting prevention behavior compared to bad previous behavior [15].

Previous behavior is behavior carried out by the mother in the past that influences current health behavior [25]. Adequate previous behavior such as additional food during pregnancy, consumption of iron and folic acid tablets, prevention of iodine deficiency, consumption of worm medicine, complete immunization, and prevention of diarrhea have a significant relationship to stunting prevention behavior [15].

Previous behavior is behavior that has often been carried out in the past, directly or indirectly, which has an impact on the possibility of behavior that improves health status. The majority of mothers have adequate previous behavior in the form of fulfilling nutrition during pregnancy, overcoming iron and folic acid deficiencies, overcoming iodine deficiencies, providing exclusive breastfeeding, providing MP-ASI according to guidelines, providing complete immunization and deworming. Previous behavior influences stunting prevention behavior by first influencing the perception of benefits. Mothers who have good previous behavior have a good understanding of the benefits of exclusive breastfeeding, blood-boosting tablets during pregnancy, pregnancy nutrition, nutrition after the child is born, and monitoring the growth and development of toddlers.

4.4 The relationship between personal factors (self-motivation) and stunting prevention behavior

The analysis results indicate that the majority of responding mothers have good motivation, totaling 92 individuals (62.6%). Logistic regression test results show no relationship between motivation and stunting prevention behavior. This is contrary to the findings of a study conducted by Suharto et al (2020), which stated that there is an influence between previous behavior and personal factors (biological, psychological, and socio-cultural) on the perception of the benefits of preventing stunting in toddlers in Magetan District, with a T value of 3.18 [26].

Self-motivation is the reason an individual does something. Motivation moves individuals to carry out an attitude or behavior that has been previously planned. Work motivation is the extent to which an individual tries his best for clarity and continuity of business in his environment. This motivation theory can be applied in health motivation, especially in stunting prevention behavior. Mothers who have good motivation mean they are moved to carry out the best health behavior to prevent stunting by first having a good perception of the benefits [27].

Self-motivation is influenced by several things, one of which is the mother's own perception and willingness to change [28]. Perception will determine how a person will choose, collect and arrange and give meaning which will influence the behavior (response) that will emerge from within [29]. Individuals who do not have perception will act without direction or even not act at all even though they are faced with a dangerous stimulus, such as assuming that their child is still fine even though the child's weight and height in the KMS show a position below the red line (BGM).

4.5   The relationship between perceived benefits to action and stunting prevention behavior

The results of the analysis show that the majority of mothers who are respondents have a perception of the benefits of sufficient action as many as 79 people (53.7%). The results of the logistic regression test show that there is a relationship between perceptions of the benefits of action and stunting prevention behavior. This is in line with the results of research conducted by Wardani et al (2022) which states that the perceived benefit variable has a p value of 0.000, which means it has a partial influence on stunting prevention behavior [30].

Perceived benefits are beliefs related to the effectiveness of various behaviors as an effort to reduce the threat of disease or the benefits a person perceives in generating stunting prevention behavior [31]. Action benefits directly motivate behavior and indirectly determine activity plans to achieve benefits as a result. These benefits become a positive mental image or positive reinforcement for behavior. According to the expectancy value theory, motivation is important to realize a person's results from previous experience through observational lessons from other people in behavior [32].

Perceived benefits are perceptions of benefits that have a positive relationship with healthy behavior. Perceived benefits are a person's belief that the benefits of the recommended behavior are greater than all obstacles. Perceived benefit relates to a person's perception of the efficacy of an action suggested to reduce risk. A person's belief in the efforts available to reduce the threat of disease or perceived benefits will increase the positive perception of disease prevention behavior [28].

Someone who has a high perception of benefits will have good behavior in fulfilling nutritional needs so that they can support stunting prevention. A high perception of benefits can increase mothers' confidence in optimizing children's growth and development so that stunting can be prevented.

4.6   The relationship between perceived barriers to action and stunting prevention behavior

The results of the analysis showed that the majority of mothers who were respondents had perceptions of barriers to good action as many as 90 people (61.2%). The results of the logistic regression test show that there is a relationship between perceived barriers to action and stunting prevention behavior. This is in line with the results of research conducted by Wardani et al (2022) which states that the perception of barriers variable has a p value of 0.003, which means it has an influence on stunting prevention behavior [30].

Perceived Barriers are anything that hinders a person from making changes and is one of the most significant perceptions in determining changes in a person's healthy behavior [33]. One of the main reasons people do not change their health behavior is because they think it will cause a lot of difficulties if they make these changes, whether psychological or physical or social. The obstacles they will face when making changes are physical, psychological and financial [34].

Perceived barriers are a person's perception of how big the obstacles are in carrying out a behavior. Perceived barriers will hinder the implementation of behavior recommended by health workers. A person will consider the pros and cons, how effective an action is, the perception that it is expensive, the dangers or side effects that arise, feelings of discomfort, and how time-consuming treatment is [35].

Perceived barriers can include expensive costs, unsatisfactory health services, and lack of support from family. The lower a person's perception of barriers, the more likely a person will carry out stunting prevention behavior because of the large benefits they will receive.

4.7   The relationship between self-efficacy and stunting prevention behavior

The results of the analysis showed that the majority of mothers who were respondents had good self-efficacy as many as 80 people (54.4%). The results of the logistic regression test showed that there was no relationship between self-efficacy and stunting prevention behavior. This is not in line with the results of research conducted by Aulia et al (2021) which states that self-efficacy is related to the incidence of stunting, with a p value = 0.013 [36].

A person's ability to organize and carry out major actions, not only the skills a person has but the decisions a person takes from the skills he or she has. A person's efficacy decision is known from the expected results, namely a person's ability to complete a certain job, where the expected result is a decision with cost-benefit consequences, for example the resulting behavior. Skills and competencies motivate individuals to perform superior actions. Feelings of efficacy and ahi in one's actions will encourage a person to carry out the desired behavior more often than feelings of unworthiness or unskillfulness [37].

Self-efficacy is also an important factor shaping maternal behavior in supporting children's nutrition. Good self-efficacy will support the formation of behavior [38]. The abilities a person has can support high self-efficacy, whereas for someone who thinks their abilities are low, the possibility of their self-efficacy is lower.

The absence of a relationship between self-efficacy and stunting prevention behavior in this study could be due to the support from health workers, cadres and families in carrying out stunting prevention behavior in children, as well as situational support.

4.8   The relationship between activities related attitudes and stunting prevention behavior

The results of the analysis show that the majority of mothers who are respondents have attitudes related to sufficient activity, as many as 92 people (62.6%). The results of the logistic regression test show that there is a relationship between attitudes related to activity and stunting prevention behavior. This is in line with the results of research conducted by Olsa et al (2018) which states that there is a relationship between mothers' attitudes towards the incidence of stunting in Nanggalo Padang [39].

According to Sunaryo, attitude is a predisposition to respond consistently, either positively or negatively, to a particular object or situation. It represents an individual's tendency to react in a specific manner to a given stimulus or object, reflecting the alignment of reactions to stimuli that encompass a person's opinions and emotional factors. Therefore, attitude is not an action or behavior itself, but rather an inclination towards certain actions or roles. Nursalam suggests that various factors such as age, employment, education, and parity can influence a person's attitude. If respondents exhibit a negative attitude, their actions and behaviors are likely to be negative as well, potentially leading to nutritional issues in children.

A person's attitude is influenced by the knowledge they have [40]. Maternal knowledge is part of what determines the ability to implement stunting prevention behavior. Mothers' knowledge about stunting will help ensure adequate nutrition for children. In this study, some respondents had a secondary education (SMA) background which was related to the ability to search for information and understand information.

4.9   The relationship between personal influences on stunting prevention behavior

The results of the analysis show that mothers who are the majority of respondents have sufficient individual influence as many as 96 people (65.3%). The results of the logistic regression test show that there is a relationship between individual influence and stunting prevention behavior. This is in line with the results of research conducted by Azarine et al (2023) which states that there is a significant relationship between maternal knowledge, the role of health workers, and the role of family support on stunting prevention behavior among pregnant women in the Pondok Meja Muaro Jambi Health Center working area [41].

The role of health workers in exposing the community to disease prevention programs is very important to change community behavior in preventing disease in the research area. Strategies and efforts are needed to reduce the prevalence of disease by involving the community through empowerment programs [42]. Family is the closest person in supporting health. Family support can bring a sense of security, satisfaction, comfort and make the person concerned feel that they have received emotional support which will influence a person's well-being, with support it will provide a sense of confidence to face problems such as being sick [41].

According to Potter and Perry, the various roles of health workers (doctors, midwives, nurses, etc.) are as communicators. A communicator is a person who provides information to the person who receives it. Another role of health workers is as a motivator, a motivator is a person who provides motivation to other people. The final role is as a facilitator. A facilitator is a person or body that makes it easy to provide facilities for other people who need them. This role influences a person's knowledge and attitudes. Health workers as educators must be able to educate and teach individuals, families, groups and communities, as well as other health workers in accordance with their responsibilities. Health workers as educators strive to provide education or health counseling to clients with evaluations that can improve learning.

The attitudes and behavior of health workers will influence the family and social environment which will strengthen a person's ability to act. One of the roles of health workers is to carry out monitoring of changes that occur in individuals, families and communities regarding health problems that arise and have an impact on health status through home visits, observation and data collection [43].

This can be demonstrated by health workers by making home visits, and even teaching mothers and their families to behave in a clean and healthy lifestyle. With monitoring from health workers and guidance in the form of providing information, families can also provide support to patients in the form of information or emotional and instrumental support.

4.10 The relationship between situational influences and stunting prevention behavior

The results of the analysis showed that mothers who were the majority of respondents had sufficient situational influence as many as 113 people (76.9%). The results of the logistic regression test show that there is a relationship between situational influences and stunting prevention behavior. This is in line with the results of research conducted by Soeracmad et al (2019) which states that there is a relationship between household environmental sanitation and the incidence of stunting at the Wonomulyo Polewali Mandar Community Health Center [44].

Personal perception and cognition of a situation can facilitate or hinder behavior, for example the available choices, characteristics and features of the aesthetic environment such as a situation or environment that is suitable, safe, peaceful rather than unsafe and threatened [25]. Stunting cannot be completely overcome by improving a child's diet if the child lives in an unhygienic environment. Many research results explain the existence of a relationship between children's linear growth and sanitation practices in the household where the child lives. Children are infected by bacteria through dirty fingers and household items, polluted water conditions, poor sanitation and hygiene, which causes digestive tract infections. This condition can affect children's nutritional status due to reduced appetite, reduced nutrient absorption, and increased nutrient loss [13].

Situations can influence behavior by changing the environment, such as maintaining the sanitation of the household environment. Situational influences may be key to the development of new effective strategies to facilitate and sustain health-promoting behavior in populations.

5   Conclusion

Independent factors related to stunting prevention behavior include prior related behavior (0.000), perceived benefits to action (0.016), perceived barriers to action (0.000), activity-related affect (0.000), personal influences (0.009), and situational influences (0.000). Conversely, factors such as education level (0.589), socio-economic status (0.662), motivation (0.067), and self-efficacy (0.835) show no significant relationship with stunting prevention behavior. The findings of this research can contribute to the

development of pediatric nursing knowledge on stunting prevention behaviors in children aged 6-24 months, and enhance family nursing knowledge regarding the role of parents in effective child-rearing practices.

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