



Level of Community Participation in Efforts to Reduce the Incidence of Diarrhea in Toddlers in Palu Cit

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ABSTRACT

Diarrheal disease remains a significant public health problem, especially in children under five in developing countries with limited access to clean water and proper sanitation. In Indonesia, especially in Palu City, the incidence of diarrhea among children under five is still high and is related to the low knowledge and practice of clean and healthy living in the community. This study aimed to describe the level of community participation in efforts to reduce the incidence of diarrhea in children under five in Palu City. The study used descriptive quantitative method and was conducted from September 2020 to May 2021 in eight health centers representing all areas of Palu City. The sample consisted of 138 mothers of children under five, selected using a multistage random sampling technique. Data were collected through a structured questionnaire and analyzed descriptively. The results showed that most mothers of children under five were rarely involved in diarrhea prevention activities, such as health counseling, giving time and energy, and disseminating education to the community. The level of participation in the eight health centers tends to be quite low, with variations between regions that show inequality. The low involvement of mothers of children under five is thought to be influenced by a lack of awareness, limited time due to multiple roles, and not optimal support and supervision from the Puskesmas. It is concluded that mothers' participation in diarrhea prevention is still not optimal, so it is necessary to strengthen community-based health programs that are participatory and appropriate to the social context in order to increase active involvement in diarrhea prevention efforts in children under five.

Keywords: Participation Level; Diarrhea; Toddlers

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INTRODUCTION

Diarrheal disease remains an unresolved health problem in the world today. Diarrhea is a disease that often arises due to poor sanitation conditions, characterized by an increased frequency of defecation (more than three times per day) and a change in the consistency of the stool to liquid, with or without blood or mucus. Rotavirus is known to be the leading cause of severely dehydrating diarrhea in children under five years of age worldwide (1).

Children under five are highly susceptible to diarrheal disease. Many causes and risk factors contribute to the incidence of diarrhea in children under five (2). *The World Health Organization* (WHO) reports that diarrhea is the cause of death in approximately 525,000 children under five each year, or nearly 1,400 deaths per day. These deaths mostly occur in low- and middle-income countries, which generally face limitations in access to clean water, proper sanitation facilities, and adequate health services (3).

Based on the 2018 Riskesdas data, there is an increasing trend in the *period prevalence* of diarrhea in all age groups in Indonesia, from 7% in 2013 to 8% in 2018. Central Sulawesi Province was recorded as the region with the highest *period prevalence* rate of diarrhea nationally, at 10.3% (4). In Central Sulawesi Province, Palu City was recorded to have 2,183 cases of diarrhea in children under five years old, equivalent to 5.45% from 2017 to 2019. The risk of diarrhea disease in Palu City is still caused by low knowledge and PHBS in the community.

Efforts to prevent diarrhea in children under five are highly dependent on maternal knowledge, either gained through personal experience or from others. Maternal knowledge plays a crucial role in reducing the risk of diarrhea in children under five (5).

Therefore, in addition to the need to take breakthrough steps in efforts to improve diarrhea prevention in children under five years of age by health workers, community

participation in helping to free themselves from existing health problems also needs to be improved. One of them is by applying the community empowerment approach method to increase community participation (6). With the community empowerment activities carried out, the community is taught to be more sensitive in responding to health problems faced, including the problem of diarrhea disease in children under five.

Based on the results of the problem analysis above, researchers are interested in conducting further research to determine the level of community participation in efforts to reduce the incidence of diarrhea in children under five years of age in Palu City.

METHODS

This study used descriptive quantitative research methods. The research was conducted from September 2020 to May 2021 at eight health centers in Palu City. The sampling technique used was multistage random sampling. The first stage involved dividing Palu City into eight sub-districts: West Palu, South Palu, East Palu, North Palu, Mantikulore, Tatanga, Tawaeli, and Ulujadi, each with a different number of Puskesmas. In the second stage, one health center was randomly selected from each sub-district using the lottery technique, resulting in eight health centers as samples for the study. The sample size of mothers with children under five was determined using the Lameshow formula, resulting in 138 respondents.

Data collection was conducted using a questionnaire that has been tested for validity and reliability. The validity test results show that all items have a correlation value above 0.747 ($r_{table} = 0.361$) and are considered valid. Meanwhile, the reliability test results show a Cronbach's Alpha of 0.805, indicating that the instrument is reliable and suitable for use in research.

RESULTS

Characteristics of Respondents

Table 1
Distribution of Respondent Characteristics

Education	n	%
Graduated from elementary school	3	2,2
Junior high school graduate	7	5,1
High school graduate	44	31,9
College graduate	84	60,9
Age	n	%
17-25 years old	20	14,5
26-35 years	85	61,6
36-45 years	20	14,5
>45 years	13	9,4
Occupation	n	%
Housewife/Not Working	65	47,1
Civil	20	14,5
Servant/Teacher/Lecturer		
Private Employee	43	31,2
Self-employed	7	5,1
Others	3	2,2
Total	138	100

Source: Primary Data, 2021

Table 1 shows that the majority of mothers of toddlers' education graduated from college as many as 84 respondents (60.9%). The age of the majority of mothers of toddlers is 26-35 years as many as 85 respondents (61.6%). The majority of mothers of toddlers work as housewives/not working as many as 65 respondents (47.1%).

Level of Community Participation in Efforts to Reduce the Incidence of Diarrhea in Toddlers

Community participation is the active and voluntary participation of mothers of toddlers in efforts to reduce the incidence of diarrhea in toddlers through community

empowerment. An overview of the level of community participation in efforts to reduce the incidence of diarrhea in toddlers at the Palu City Health Center can be seen in Table 2.

Table 2
Level of Community Participation in Efforts to Reduce the Incidence of Diarrhea in Toddlers at the Puskesmas of Palu City in 2021

No.	Level of Community Participation	Never		Rarely		Often	
		n	%	n	%	n	%
1	Participation in counseling about diarrhea in toddlers	46	33,3	80	58	12	8,7
2	Willingness to participate in activities related to diarrhea prevention programs in children under five years old	33	23,9	81	58,7	24	17,4
3	Providing opinions or ideas about activities that support the management of diarrhea in children under five years of age	49	35,3	71	51,4	18	13
4	Provision of personnel assistance for activities related to the diarrhea management program for children under five	50	36,2	75	54,3	13	9,4
5	Providing expanded information/education to family and others regarding diarrhea in children under five years old	26	18,8	74	53,6	38	27,5
6	Participate in inviting family and others to prevent diarrhea in toddlers	27	19,6	54	39,1	57	41,3
7	Participating in voluntary monetary donations for the health of under-fives	81	58,7	40	29	17	12,1
8	Use of ORS in managing diarrhea in children under five	10	7,2	42	30,4	86	62,3

Source: Primary Data, 2021

Based on table 2, it can be seen that the majority of mothers of toddlers tend to answer that they rarely participate in activities related to efforts to reduce the incidence of diarrhea

in toddlers. Community participation which consists of participation in counseling, willingness to provide time, ideas and energy and expansion of education has not gone well.

Table 3
Category Level of Community Participation in Efforts to Reduce the Incidence of Diarrhea in Toddlers at Eight Puskesmas in Palu City in 2021

Health Center	Category of Community Participation Level									
	Low		Quite Low		Moderately High		High		Total	
	n	%	n	%	n	%	n	%	n	%
Kamonji	8	25	8	25	8	25	8	25	32	23,2
Bulili	5	33,3	6	40	3	20	1	6,7	15	10,9
Singgani	10	38,5	5	19,2	6	23,1	5	19,2	26	18,8
Mamboro	1	10	4	40	2	20	3	30	10	7,2
Talise	4	16	12	48	9	36	0	0	25	18,1
Nosarara	6	42,9	5	35,7	0	0	3	21,4	14	10,1
Tawaeli	3	30	4	40	1	10	2	20	10	7,2
Tipo	2	33,3	2	33,3	1	16,7	1	16,7	6	4,3
Total	39	28,3	46	33,3	30	21,7	23	16,7	138	100

Source: Primary Data, 2021

Based on Table 3, it can be seen that the level of participation of mothers of toddlers related to efforts to reduce the incidence of diarrhea in toddlers in eight Puskesmas of Palu City tends to be in the fairly low category, namely 46 people (33.3%). The highest percentage of health centers that have a fairly low level of participation is Talise Health Center (48%) and the lowest percentage is Kamonji Health Center (25%). This means that the contribution of mothers of toddlers in efforts to reduce the incidence of diarrhea in toddlers is still low. This can be caused by the lack of awareness of mothers under five and the lack of Puskesmas supervision of community involvement.

DISCUSSION

Characteristics of Respondents

The results of the study related to the latest education of mothers of toddlers are good, namely most mothers have graduated from college. The higher the level of education, the better the preventive behavior towards diarrheal disease. A high level of education in a person will make that person more oriented towards preventive action, have a better health status and know more about health problems (7).

The results of research related to the age of mothers of toddlers showed that most were in the early adult category with an age range of 26-35 years. At this age, it shows that mothers of toddlers are mature and mature. Someone who has matured will be more adaptable to behavior with their environment (8).

The results of research related to the work of mothers of toddlers are known that most mothers of toddlers are housewives or in other words do not work. Mothers of toddlers who do not work have more than 8 hours to interact with children in providing fulfillment of children's basic needs. The basic needs of children that can be provided with the time available can be in the form of providing stimulus for child development by honing the child's ability continuously so that the child's ability is developing (9).

Level of Community Participation in Efforts to Reduce the Incidence of Diarrhea in Toddlers

Participation is the willingness of the community to voluntarily help the continuity of government programs, which is reflected in their thoughts, attitudes, and actions. Involvement can be in the form of mental, emotional, and physical involvement in using all their abilities (taking the initiative) in all activities carried out and supporting the achievement of goals and responsibilities for all involvement (10).

The level of community participation in efforts to reduce the incidence of diarrhea in eight Puskesmas in Palu City is quite low. The highest percentage of Puskesmas that have a fairly low level of participation is Puskesmas Talise, and the lowest percentage is Puskesmas Kamonji. This low participation is inseparable from the social, cultural, and economic contexts of the community. Palu City, as an area with a diverse ethnic and socioeconomic background, has its dynamics in terms of community involvement, especially among mothers. In Palu's local culture, mothers' roles have traditionally been more focused on domestic responsibilities and childcare, so activities outside the home, including participation in public health programs, are often considered a secondary priority.

Participation of mothers of toddlers in health education activities is one of the important indicators in the success of diarrhea prevention programs at the community level. Based on the data from this study, it was found that most respondents rarely attended counseling activities related to diarrhea prevention. This condition reflects the barriers faced by mothers, both in terms of access to information, time, and motivation.

Barriers to participation can be observed in the low attendance of mothers at Posyandu activities or educational meetings organized by Puskesmas or health cadres. Most mothers cited time constraints due to multiple roles (taking care of the household and earning a living), a lack of spousal or extended family support, and a lack of incentives or direct benefits from the activities as reasons for not attending. Transportation limitations, ineffective announcements, and inflexible timing of activities are also barriers to mothers of children under five actively participating.

The phenomenon of low participation is in line with the results of a study that found that the lack of participation of mothers in health counseling was caused by low interest, lack of understanding of the importance of these activities, and time constraints (11). Other studies have also shown that the success of extension programs is strongly influenced by

the frequency of implementation, interactive delivery methods, and emotional closeness between health workers and the community (12).

Counseling should not only be one-way, but should also involve mothers as active subjects in discussions, sharing experiences, and identifying practical solutions in their household context. The use of alternative media such as educational videos, WhatsApp groups of mothers under five, or home visits by cadres can be an additional approach to increase participation, especially in areas with limited facilities or dense household activities.

The data shows that respondents rarely take the time, provide ideas and energy to be involved in community activities that support efforts to reduce diarrhea in children under five, such as posyandu, nutrition counseling, or environmental sanitation programs. This low level of participation can be caused by various factors, including limited time due to high domestic responsibilities, as well as the dual role of mothers as child caregivers and household managers. In some cases, mothers also play a role as additional breadwinners, resulting in low priority for community activities.

The role of working mothers who have toddlers as a problem in the activeness of maternal visits to the posyandu, because they earn a living to meet the needs that have an impact on the absence of time for mothers of toddlers to be active in visiting the posyandu. The absence of sufficient time from mothers to seek information due to their busy work is also suspected to be one of the causes. This can lead to a low frequency of mothers of children under five to visit the posyandu (13).

The results of this study also show that most mothers of toddlers have not played an active role in disseminating information or education related to diarrhea prevention to their families and surrounding communities. Some of the factors that influence this include the limited knowledge mothers have, lack of confidence to convey information, and the lack of a culture of information sharing in the community.

According to the study, a mother's level of health literacy greatly influences her ability to transfer knowledge to others. In addition, the lack of openness of the social environment can also hinder the flow of health information in the community (14).

In fact, the expansion of informal education (from mothers to families, neighbors, or communities) is instrumental in creating collective behavior change related to environmental health. Therefore, simple health communication training for mothers of children under five and empowering their role as local *health promoters* can be an important strategy to increase the effectiveness of community-based education.

This study has several limitations that need to be observed. The approach used is limited to quantitative methods using a questionnaire instrument, which is not fully capable of describing the dynamics of participation in depth in the socio-cultural context of the community. In addition, the data analysis used is still descriptive, so it has not examined the relationship between variables in more depth. To increase the added value and scientific contribution of this paper, future research is recommended to use a mixed approach and develop the analysis to the bivariate level, to identify the relationship between independent and dependent variables more systematically and provide inspiration for the development of public health programs in various regions.

CONCLUSIONS AND RECOMMENDATIONS

The results of this study indicate that the level of participation of mothers of children under five in efforts to reduce the incidence of diarrhea in Palu City is still quite low, which is reflected in the lack of involvement in counseling activities, contribution of time and energy, and expansion of education to the surrounding community. This low participation is thought to be influenced by a lack of individual awareness, time constraints due to multiple roles, and the suboptimal role of Puskesmas in facilitating and monitoring community involvement. To increase the participation of mothers of children under five in

efforts to reduce the incidence of diarrhea, specific and contextual interventions are needed. First, strengthening the capacity and role of health cadres is very important, especially in building social closeness and becoming a bridge between Puskesmas programs and the community. Second, the utilization of social media such as WhatsApp Group for mothers of children under five can be a means of continuing education that is easily accessible. Third, a health communication training program for mothers of children under five is recommended to increase their confidence in conveying information to the surrounding environment. Finally, integrating educational activities into religious social activities or women's social gatherings can also be a strategy to reach more mothers in an informal yet effective way.

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