

RESEARCH ARTICLE

THE ROLE OF HEALTH CARE WORKERS OF KEDUNGREJO PUBLIC HEALTH CENTER IN STUNTING REDUCTION STRATEGY

Ristya Widi Endah Yani¹, Isa Ma'Rufi², Ulva Hari Andini³

¹Department of Dental Public Health, Faculty of Dentistry, University of Jember, East Java, INDONESIA

²Department of Environment and Occupational Safety Health, Faculty of Public Health Science, University of Jember, East Java, INDONESIA

³Kedungrejo Public Health Centre, Banyuwangi, East Java, INDONESIA

Corresponding Author: Ristya Widi Endah Yani, Department of Dental Public Health, Faculty of Dentistry, University of Jember, East Java, INDONESIA, **Email:** ristya_widi@unej.ac.id

ABSTRACT

Introduction: Banyuwangi Regency experienced the increase of stunting number as many as 8,2% from 2019. Stunting is not only affecting toddlers' health, but also obstructing the development and the progress of a nation in the future. This case relates to the role of the health human resources in solving stunting. The role of health human resources towards stunting reduction strategy is crucial, in which using specific and sensitive nutritional intervention strategies. The current study aims to analyse the role of health human resources towards stunting reduction strategy.

Methods: The study performed an analytical observational research with a cross sectional approach. The sample was 55 mothers possessing 0-23-month toddlers taken by clustered random sampling. The research variable was the basic role of the health human resources with some indicators applying specific and sensitive nutritional intervention. The data were analyzed using descriptive method and logistic regression test.

Results: The role of the communicator was mostly in a good category (61.8%), the motivator was mostly in good category (80%), the facilitator was mostly in not really good category (54.4%), the counselor was mostly in good category (76.4%). The communicator and the motivator influenced the specific nutritional intervention. The motivator and the facilitator influenced the sensitive nutritional intervention.

Conclusion: The role of the communicator and motivator influenced the specific nutritional intervention as the stunting reduction strategy. Also, the motivator and facilitator influenced sensitive nutritional intervention.

KEYWORDS: Health Human Resources, Reduction, Role, Strategy, Stunting

INTRODUCTION

In 2019, the stunting prevalence data reached the percentage of 22.2% or approximately 150.8 million toddlers all over the world. According to Global National Report stated by WHO in 2019, stunting always ranks first at malnutrition issue in Indonesia (27.7%) compared to underweight (10.4%) and undernutrition (18.6%).[1] In Southeast Asian context, stunting in Indonesia is in the second place after Cambodia. Stunting prevalence in East Java is also high (32.8%). In Banyuwangi regency, the number of stunting prevalence increased as many as 8.2%.[2,3]

Stunting is a multidimensional issue. The management of nutrition problem needs an integrated multisector approach. As one of the health problems, the attempt to solve stunting cannot be separated from the role of health human resources. Health human resources are health workers and supporting health workers who are involved and devote themselves to health efforts and management.[4] Health human resources include all of the health workers offering health services to society. According to the Minister of Health Regulation of the Republic of Indonesia Number 1231/Menkes/Per/XI/2007, the health services provided

by the health human resources include the service of disease prevention, health improvement, disease medication, and health recovery by the government and or society.[5] Human resource roles as a health communicator, motivator, facilitator, and counselor affect the stunting reduction strategy.[2] The target of decreasing stunting prevalence was up to 19% in 2024. The programs that have been performed by the government in a national scale are specific nutritional intervention and sensitive nutritional intervention.[6] Specific nutritional intervention is addressed to the toddlers within their first one hundred days. Then it contributes as many 30% on stunting reduction in Indonesia. Moreover, sensitive nutritional intervention has been performed by initiating development activities outside the health sector and results 70% of stunting decrease.[6]

The impact of stunting is vital. It is not only affecting toddlers' health, but also obstructing the development and the progress of a nation in the future. The short term impact of stunting is disruption of brain, intelligence, physics, and body metabolism. While the long term impacts of stunting are cognitive decline, decreased immunity, and vulnerability to the diseases such as diabetes, obesity, heart attack, cancer, stroke, disability in old age, and non-optimal work quality that has consequences on the low of economy.[7] The losses caused by stunting that is borne by the government is getting worse, particularly in national health insurance sector.[7]

The study aims to identify and to analyse the correlation between the role of the health human resources and the stunting reduction strategy.

METHODS

Study Design

The study applied an observational analytical research with a cross-sectional approach. The research variable was the basic role of the health human resources with some indicators; the role of communicator, motivator, facilitator, and counselor towards stunting reduction strategy. The stunting reduction strategies include specific nutritional intervention (protection against the deficiency of iron, folic acid, energy, chronic protein, exclusive

breastfeeding, weaning food, immunisation, and nutrition, also the protection against malaria) and sensitive nutritional intervention (supply of clean water and sanitation, food security, Community Health Insurance, and Delivery Insurance).

Setting

The study was conducted at Kedungrejo Public Health Center, Banyuwangi Regency on 11th July-29th August 2021.

Sample Size

The population was 712 mothers having 0-23 month toddlers in the area of Kedungrejo Public Health Center. The sample was 55 mothers taken by clustered random sampling in five villages, namely Krajan, Muncar Baru, Muncar Lama, Palurejo, and Kedungrejo.

Data Collection and Analysis

The data were generated by the interview utilizing a questionnaire and were analysed using a descriptive analysis and displayed in the table of frequency distribution. The questionnaire contained 10 questions which could indicate two levels of health human resources roles that then classified as the good category and the poor category. It was classified into the good category if it reached score of 60-100. It was classified into the poor category if it reached score of 0-59.

The test was performed by a logistic regression test to analyse the effect of the health human resources' role on the stunting reduction strategy.

Ethical Considerations

Before conducting research, the researchers have obtained ethical clearance from Health Research Ethics Commission of Faculty of Dentistry, University of Jember on 5th of July 2021 with the number of No.1746/UN25.8/KEPK/DL/2021.

RESULTS

The analysis result of the health human resources' role towards stunting reduction strategy at Kedungrejo Public Health Centre, Banyuwangi regency is shown in the tables.

TABLE 1- Distribution of Respondents' Characteristics at Kedungrejo Public Health Center

Respondents' Characteristics	n	%
Mothers' Recent Formal Education Level		
Primary School	4	7.3
Junior High School	6	10.9
Senior High School	33	60.0
College	12	21.8
Mothers' Working Status		
Working	39	70.9
Not Working	16	29.1
Average Monthly Household Wage		
Under Regional Minimum Wage	36	65.5
Over Regional Minimum Wage	19	34.5
Total	55	100

Table 1 shows the majority of the respondents at Mothers' Recent Formal Education Level category were in senior high school as many as 33 mothers (60%). At the category of Mothers' Working Status, the most respondents as many as 39 mothers were working

(70.9%). At the category of Average Monthly Household Wage, the most respondents as many as 36 mothers had income under the regional minimum wage (65.5%). The monthly regional minimum wage of Banyuwangi is Rp2.328.899 (154 USD).

TABLE 2- Frequency Distribution of Health Human Resources' Role at Kedungrejo Public Health Center

Independent Variable	n	%
Communicators' Role		
Poor	21	38.2
Good	34	61.8
Motivators' Role		
Poor	11	20
Good	44	80
Facilitators' Role		
Poor	30	54.5
Good	25	45.5
Counselors' Role		
Poor	13	23.6
Good	42	76.4

The distribution of the health human resources' role can be seen in Table 2. Table 2 shows the role of the communicator was mostly in good category (61.8%), the motivator was mostly in good category (80%), the

facilitator was mostly in not really good category (54.4%), the counselor was mostly in good category (76.4%).

TABLE 3- Frequency Distribution of Stunting Reduction Strategy

Category	Specific Nutritional Intervention		Sensitive Nutritional Intervention	
	n	%	n	%
Poor	14	25.5	17	30.9
Good	41	74.5	38	69.1
Total	55	100	55	100

The two strategies of stunting reduction is performed in Table 3. Table 3 shows that the specific nutritional intervention was mostly in good category (74.5%) and the

sensitive nutritional intervention were also mostly in good category (69.1%).

TABLE 4- The Influence of the Health Human Resources' Role towards Stunting Reduction Strategy

Variable	Specific Nutritional Intervention		Sensitive Nutritional Intervention		Confidence Interval (95%)
	P- value	OR	P- value	OR	
Communicator	0,020	3,323	0,960	1,046	57.102 - 63.880
Motivator	0,003	16,017	0,010	23,917	63.62591 - 68.774
Facilitator	0,801	0,811	0,008	32,277	53.792 - 60.281
Counselor	0,684	0,702	0,942	1,083	62.477 - 67.843

The influence of the health human resources' role towards stunting reduction strategy is shown in Table 4. The health human resources' role towards specific nutritional intervention was in the value of $p=0,020$ at the communicators' role, the value of $p=0,003$ at the motivators' role, the value of $p=0,801$ at the facilitators' role, the value of $p=0,684$ at the counselors' role. The communicator and the motivator influenced the specific nutritional intervention. Based on Table 4, the health human resources' role towards sensitive nutritional intervention was in the value of $p=0,960$ at the communicators' role, the value of $p=0,010$ at the motivators' role, the value of $p=0,008$ at the facilitators' role, the value of $p=0,942$ at the counselors' role. The motivator and the facilitator took a role in influencing the sensitive nutritional intervention. The confidence interval of this research was 95%.

DISCUSSION

The mothers' recent formal education level influences health level of society. This occurs since mothers have dominant role in building toddlers' eating habits such as deciding the menu, preparing and distributing the food.[8] The mothers' recent formal education level is also related to the access of mothers in receiving information regarding nutritional issue, particularly regarding stunting. The mothers who have good awareness on nutritional knowledge have healthy and well-grown children.[8]

Occupation is important factor in determining the quality and quantity of food because occupation has a close correlation with the income.[9] Low income constitutes one of the factors of stunting case on the toddlers aged 6-24 months.[10] The toddlers in a low-income family have a higher risk of stunting than the toddlers in a high-income family.[11] Furthermore, the family with a strong

economy will gain better public services, such as education and health. Thus it affects the status of children's nutrition.[12]

The role as a communicator has to be possessed by all of the health professionals. They have to be able to deliver the information, educate, and teach the individuals, the families, and societies based on their duty and responsibility.[13] The role of the health professional as a motivator is also crucial. They should be able to give encouragement, direction, and guide for enhancing the individuals or societies' awareness by developing their potentials and solving problems.[14] The role of the health professional as a facilitator should be improved. The facilitators need to guide technically and to perform health service. In addition, the facilitators have to interpret three key aspects, namely facility optimisation, provision of time, and optimisation of society's participation. Then the role of the health professional as a counselor is also necessary. The counselors have to be able to make approach, give training, follow public issues, and make a decision.[15]

The role of the health workers in specific nutritional intervention constitutes a program that is addressed to the toddlers and the pregnant women. The program commonly leads to health sectors as the support of breastfeeding, the information regarding children dietary, the treatment for undernutrition toddlers, and infection medication.[6] The role of the health workers in specific nutritional intervention is performed to the toddlers aged 0-23 months. [16] The effect of food intake such as energy, protein, fat, carbohydrate, calcium, and zinc on stunting occurs to the 6-35 month toddlers.[17] The distribution of the information by the health workers concerning food intake that should be received by the society are type of food and awareness of nutrition. This

helps the mothers fulfill their needs of nutrition in the process of children growth.[18]

The role of the midwives in giving information and support of breastfeeding is necessary to make the society understand that breastmilk is needed by the infants since it is biological fluid containing all of the nutrients needed for physical and brain development. The toddlers who were not given breastmilk tend to risk stunting approximately 16.5 times bigger than those who were given breastmilk.[19] The role of the health workers is giving information concerning the danger of smoking that can cause stunting, the nicotine that can cause health problems, the lead exposure that harms pregnant women and their fetus, and all of the substances in a cigarette that can affect the infant's weight.[20]

The role of the health workers in sensitive nutritional intervention constitutes the indirect prevention of nutritional problems.[6] There are various factors of stunting that are affecting each other.[21] Besides the factor of malnutrition, the poor water and environmental sanitation also become the biggest cause of stunting toddlers in Indonesia.[22] Moreover, the toddlers who live in a contaminated area of poor sanitation have 40% risk of experiencing stunting.[23] The roles of the health professionals are such as encouraging society to consume drink water and habituating defecation in water closet. Additionally, the health professionals cooperate with other sectors in facilitating the society to make a well or other clean water sources utilizing the village fund.

The health professional, particularly a midwife, was less optimal in the indicator of giving information, facility, and consultation in the specific nutritional intervention. This case was caused by the lack of information given by the midwives to the pregnant women concerning the importance of consuming folic acid and iron. Many pregnant women did not consume folic acid and iron due to their weird taste that leads nausea and vomiting. The lack of communication, information, and education concerning nutritious food carries a risk of chronic energy deficiency that causes the pregnant women bear a stunting toddler.

The role of the sanitary and public health workers in the sensitive nutritional intervention was also less optimal in giving information and counseling regarding clean water consumption, food security, health assistance such as community health and delivery insurance for poor society. There were still many poor families that did not utilize

their health facility due to lack of information from the health workers. This case led the poor family reluctantly go to the health service due to cost limitation. The absence of women empowerment led early-age marriage that also caused having stunting toddlers.

The stunting reduction by repairing environment sanitation and building water closet is to avoid fecal transmission as the disease carrier, thus it can break the chain of diarrhea, helminthiasis, and stunting.[24] The program of Family Planning aims to avoid stunting cases through the National Population and Family Planning Board.[25] The factor of low economy status often obstructs the women to obtain the health service access.[26]

CONCLUSION

The role of the communicator and the motivator influenced the specific nutritional intervention as the stunting reduction strategy. Also, the motivator and the facilitator took a role in sensitive nutritional intervention. The role of health professionals in giving information, support, facilitation, and woman empowerment for mothers is essential to cope with stunting.

ACKNOWLEDGMENTS

We express our greatest appreciation to all of the respondents who have participated in this research project. We also thank the head of Kedungrejo Public Health Center for allowing us conducting research in his working area.

Conflict of Interest

There is no conflict of interest for this research.

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