








The Perspective of Community Health Center Workers toward Stunting Prevention Program during the COVID-19 Pandemic

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Abstract

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BACKGROUND: Since the COVID-19 outbreak occurred, the stunting prevention program in Indonesia has faced many challenges. Integrated Health Posts as the places where mothers can have their baby's growth measured were closed and restricted.

AIM: The purpose of this study is to describe stunting prevention program during the COVID-19 pandemic from the perspective of the Community Health Center workers.

METHODS: This research used the qualitative research method. Its primary and secondary data were collected through semi-structured open-ended questionnaire and in-depth interviews with 20 Community Health Center workers and officials of the Health Office of Surakarta City. This study was conducted on April 12, 2021 at Universitas Sebelas Maret, Indonesia. The data of the research were manually analyzed to categorize the thematic analysis based on its objectives. Purposive sampling was used determine the participants for its in-depth interviews. They consisted of 20 health care workers.

RESULTS: During the pandemic, the implementation of stunting prevention activities was hampered due to the government's focus on the COVID-19 prevention program, the lack of commitment and participation of social workers, the invalid measurement from social workers, the social restrictions, and the fear of community gathering. The health cadres reported the findings using text messages rather than book measurements to follow the social restriction regulation. Some also did home visits to measure the toddlers' growth. A commitment to tackle stunting and a workflow is therefore in demand so that stunting-related activities are not affected by the pandemic.

CONCLUSION: Obstacles in the stunting prevention program during the pandemic were felt by cadres, health centers, and mothers of toddlers where they could not do the regular weighing. Thus, coordination and collaboration of various sectors are required to handle the stunting management.

Introduction

According to the 2018 Global Nutrition, 150.8 million children are stunted globally [1]. However, Indonesia reported the stunting number as among the highest in Southeast Asia, as 10.2% of children in Indonesia were wasted, and 30.8% were stunted [2]. During the COVID-19 Pandemic, the problem of stunting has been caused by many factors. First, poverty and undernourished people weaken the immune system, in which the virus can be tackled. However, in the long-term, the COVID-19 has higher odds for becoming severe for children who previously had malnutrition [3]. There is a larger gap between the COVID-19 outcomes among adults between 18 and 78 years than in older patients. However, it is indicated that there is an opportunity to improve the outcomes of nutrition between younger people or even children [3]. Second, the COVID-19 leads to an increase in the number of wasted children globally by approximately 15% as the

UNICEF estimated and even worse in Indonesia [4]. It is reported that there is an increasing number of stunted children in some parts of Indonesia [5], [6]. The recent model of potential impact during pandemic has been made with the result in 253,500 additional child deaths and 12,200 additional maternal deaths [7]. The factors that might influence are food insecurity and poor-quality diets, reduced income and limited financial resources, limited care and restricted health services, and interrupted education for children and adults, as well as an unhealthy household environment [8].

As of September 2021, there have been 2,032 health workers in Indonesia including doctors, nurses, midwives, and other health professionals who died due to COVID-19 [9]. On one hand, the heavy workload leads to physical and psychological exhaustion that leads to burnout, lower immune system, higher risk of infection, and lower responsibility to contribute to other public health challenges [10]. On the other hand, the primary health care on many outpatient visits has

been cancelled and postponed due to the shortages of healthcare resources, and they have been altered to telemedicine to reduce the risk of infection [11]. In general, the COVID-19 impacts on many aspects such as disruption in essential health services, declining purchasing power, increasing unemployment, and budget reallocation to cover the COVID responses [2], creating a heavy burden for the community health centers. Some of the challenges extend to bottom levels, which then deflects the services at the community level.

Unfortunately, one of the target interventions that can help to increase nutritional health through the Community Health Center Program is also affected. Although the governing program implementation between 2018 and 2020 at the village level was to prioritize the 1,000-day household at village level through technical assistance on convergence at village level [12], it may be impacted due to some reasons. 1,000-day household is the target of a specific nutritional intervention program in handling stunting in Indonesia, including pregnant women, breastfeeding mothers, children aged 0–6 months, and children aged 7–23 months. For example, the disparities of health workers in Indonesia are not equal, adding more workload to health workers combating the virus. The target program which was set in the Global Nutrition Targets 2025 reported that the stunting prevalence in Indonesia increased from 8.5% to 11.5% during 2016–2018 [13], [14]. Even though regular nutritional-improvement initiatives such as the Hope Family Program (*Program Keluarga Harapan*), food vouchers and supplementary food programs have produced notable results by reducing the cases by 20% and improving nutritional quality in certain areas, the nationwide stunting cases has not declined [14], [15]. Based on the importance of addressing the health workforce, neglected programs due to COVID-19, and the importance of 1000 days for children, this study aims to evaluate stunting prevention programs including the challenges and opportunities that they may encounter.

Methods

This qualitative study was conducted on April 12, 2021 at Universitas Sebelas Maret, Indonesia. The objective of this study is to determine the challenges encountered by healthcare workers in stunting prevention during the pandemic. An in-depth interview was used, allowing the respondents to describe the situation that they encountered. The inclusion criteria were all healthcare workers responsible for stunting prevention programs in ten Community Health Centers (*Puskesmas*) in Surakarta. The participants were nutritionists and Heads of *Puskesmas*. The exclusion criteria were health workers who did not meet the study

inclusion criteria and who were not willing to participate in the in-depth interview.

Purposive sampling was used to determine the participants for in-depth interviews. There were 20 health care workers who became participants. A semi-structured open-ended questionnaire was used in this study. The questionnaire was validated by two experts in the qualitative study. The participants who met the inclusion criteria signed a consent form. The place of the in-depth interview was chosen by the researchers. One participant sat with one interviewee in a private room in Universitas Sebelas Maret. The questions were in the Indonesian language so that participants could talk freely without any restrictions.

Both audio recording and notes were used. The interview began informally with greetings and instructions of the interview, regarding the safety of the data and the outcomes of the interview. When all participants were settled, the researcher began to ask about their role in the community health center. Each interview had an average of 45–60 min.

Questions were as follows:

Program stunting

1. How was the stunting program before the pandemic?
2. What are the challenges of the stunting program in the community, experienced by mothers, health cadres, and health workers on duty?
3. How is the workflow after the health cadres found stunting children?
4. How is the evaluation of all stunting program?
5. What is your hope for a better stunting prevention program?

The interview in the digital recordings was transcribed in Indonesian Language and a mix of Javanese Language (local language). The transcription was translated into English. The data were analyzed manually to categorize the thematic analysis based on the study objectives. To ensure a reliable method for triangulating the data analysis process, five other researchers were invited to analyze the data. The notes from the interview process were kept as supporting data. This study obtained a permit from the Health Office of Surakarta City.

Results

Theme 1: The challenges of stunting prevention program

One of the participants said that the COVID-19 pandemic created more people to fall into poverty.

Thus, it led to less ability to buy nutritious food for their children. Moreover, the pandemic changed the behavior of most people where they are afraid of going to a hospital or health center due to the risk of infection. The pandemic also decreased the access to information; some health centers were closed, because the health workers were doing the quarantine, and health education where people get the information was delayed due to the social restrictions. Health education activities for the parents such as supplementary feeding demonstrations were also delayed.

“Moreover, yesterday’s pandemic was all related to economic problems, so if we emphasize balanced nutrition like this, the contents of my plate must be like this, you know, if you want to eat it, the side dish must not be one pair of animal-vegetables. that’s a bit difficult.”

“Actually, if you can, it’s really good, madam, that all children are screened one by one by health workers, but yes, there are limited human resources, Ms.... We recommend them to go to Puskesmas but they did not want because they are afraid of the pandemic.”

“Continuously educating reproductive health workers on sexual and reproductive infections in young women and their reproductive age is also somewhat hampered during this pandemic.”

The cadre faced various challenges such as invalid tools to measure weight and height. Moreover, due to social restrictions, they could not visit the toddlers in their homes. Another issue was that the other disease and abnormality detection on toddlers were unperformed. As a result, undetected stunting occurred even in the Integrated Health Post (Posyandu).

“During the pandemic, posyandu was not carried out, so health cadres made home visits. However, a posyandu only had one measuring tool. It was used in turns by many cadres; one tool automatically became non-standard because some of them are damaged. The tools are not standard.”

“But because of the pandemic we didn’t access the posyandu so the report was too late, a child with down syndrome and stunting was reported by the health cadres to the puskesmas already almost 3-months-old (too late).”

In terms of health workers’ situation, several programs including stunting prevention and health reproductive education for teenagers were also delayed. However, pre-marriage pregnancy increased as well as adolescent marriage. Other health care including toddlers’ immunization was not optimal because most of the health workers were focusing on the COVID-19 prevention.

“Yes, because the time when they started menstruating was actually productive and aa. it can be seen in the pandemic data that early marriage has actually gone up. Oh yeah yeah.”

“Pre-marriage pregnancy was also increasing. Everything was going up. Well, it’s not by plan at all for that (kind of) pregnancy, wasn’t it.”

“The complete immunization would have to be seen later in the pandemic season, everyone was afraid of going to health facilities. Services were much reduced. Many services were reduced but prioritized on the COVID. Although the Indonesian Pediatrician Association emphasized that immunization coverage had to be achieved, Universal Child Immunization had to be achieved. So, it might be necessary to investigate later in every health center whether this immunization coverage was achieved or not. It seems that it might still have an effect during this pandemic, the number would decrease, although how big the decline was needed to be seen again.”

Theme 2: The opportunity of stunting prevention program

Despite facing many challenges in the field, growth monitoring was carried out by midwives, nutritionists, health promotion workers, and other extension workers. Social restrictions and technological advances have open up opportunities for health workers to work together with cadres to use the internet to collect data on stunting children without having to visit their homes.

“Health cadres fill in the online form, then after the data is received, I sort it out by posyandu.”

“The children were weighed then reported in the online form, but the cadre preferred to use the manual, only half of it could be entered to the system and then returned to the manual so that we sent a monthly report. And that’s not all posyandu, so only those who did the weighing during the pandemic.”

Coordination was also carried out through group chats to monitor the development of infants and toddlers in their respective areas. If stunting data were found, the regional stunting coordinator would confirm by visiting the babies or toddlers directly and measuring their growth and development. If the data matched the measurements from health workers, then the stunting data would be entered into the application from the Ministry of Health. The person in charge of each stunting program was the nutritionist and Head of the Puskesmas. Referrals from below were still carried out if one of the cadres found stunting. Stunting that was not treated would be referred to a pediatrician for more intensive treatment.

“If the family really wanted us to visit, we (would) visit, we also have a cadre meeting, so if there was a case we ask for a referral to the Puskesmas, so later the measurement tool would be more valid than we have to bring the tool to the field, it’s more difficult.”

“The data were from the cadres, they weighed around, right after that they were entered and inputted

via online, then we confirmed for fear of measurement bias and then we repeated with the cadres, so we just confirmed the measurements.”

“So every month the cadres entered their BB and TB, we confirmed it, then we entered it into the application from the Ministry of Health.”

Theme 3: Hope for the better program

Several participants complained about the unfairness in handling stunting. It was because several stunting factors were caused by non-medical factors that should not be the responsibility of health workers, such as poverty, poor sanitation, and low purchasing power of people for nutritious food. For this reason, participants hoped that the stunting prevention program should need more collaboration and strict regulation, especially on how to treat the poor family. Assistance such as nutritious food or family empowerment might help to reduce the number of stunting cases.

“For example, if we could cooperate with the relevant agencies, sis, because I had visited toddlers, there were those who have a low economy, so I hoped that the fisheries service could facilitate the cultivation of catfish seeds, they could use simple tools such as buckets. So I proposed collaboration between sectors. Because we also see that stunting is caused by economic factors, but we from the health department cannot help.”

Although counseling on stunting is intensively carried out, obstacles such as the behavior of parents who still do not prioritize the needs of their children could create new nutritional problems. Comprehensive screening of toddlers had to be carried out immediately by always paying attention to safety and COVID-19 regulations.

“Meanwhile, from the health promotion section, we have made outreach to the public. The themes we provide were different; we made topics around stunting and nutrition. Parents who are cooperative and care about their children would check their growth and development regularly and proactively, but not many parents volunteer came to the Puskesmas for counseling on nutritional problems for their children.”

Discussion

Based on the interview with participants, the difficulties and opportunities of stunting prevention programs have been exposed. Supporting the result of the previous study, the current findings report that during the pandemic, the stunting prevention program at the community level faces many challenges. When household incomes are low, the parents will purchase

less healthful foods rather than people who have sufficient income [16]. It is influenced by educational background and dietary knowledge where some people perceive healthy food is not affordable, thus creating a behavior to buy food that contains more sugar, salt, and high calories [17]. Unsurprisingly, a previous study in Indonesia also showed that insufficient purchasing power was strongly associated with child stunting [18]. Therefore, a national strategy to improve high-quality intake to vulnerable groups is required. For example, a randomized and experimental study in the United States such as Supplemental Nutrition Assistance Program increased the nutritional quality by giving the respondents an incentive and restriction to purchase healthy food only [19]. It seems that such a program is probably suitable for lower-income households in this current situation in Indonesia.

A systematic review of 20 countries' data found evidence that there was 37% reduction of healthcare visits during the pandemic up to May 2020 [20]. It was followed by our findings that the behavior of parents assisting their children's examination was changed due to fear of infection and social restrictions. Moreover, the health workers shortage closed the health care facilities. Various initiatives have been taken in some countries such as repurposing and mobilizing existing personnel, reactivating inactive or retiring health professionals, enlisting volunteers, altering work patterns, and mobilizing non-profit, military, and private sector workforce capacity [21]. Adoption of those strategies in stunting prevention programs at the community level seems to promise a better result, especially when the outbreak hits while a quick response should be taken. Collaboration and coordination with an interdisciplinary team are needed to prevent the longer-term effects of the pandemic in health care access and utilization. Home-based parenting programs using telehealth have demonstrated that child health screening by the parents is successful, so it opens the opportunity to be adopted in stunting prevention in the family [22]. Moreover, in situation, where the cadres and healthcare workers might be in shortages or underperformed growth and development measurement, encouraging parents, or family members to understand how to measure their children's growth and development is beneficial.

Community programs to prevent stunting since pre-conception have been performed to prevent the adolescent marriage. The study shows that children born to adolescent mothers are at risk of being undernourished through poor maternal nutritional status, poor complementary feeding practices, less health care services access, lower education, and poverty [23]. To prevent this, several community health centers have made a pre-marriage class, in which one of the topic is to focus on pre-conception nutrition, since maternal nutrition is a leading cause of pregnancy and childbirth abnormalities [24], [25]. However, the program was delayed due to COVID-19 prevention. It exposes a fragile system of outbreak mitigation which

leads to unperformed programs and other disease prevention, where community program temporarily was shutdown, leading to severe cases of another disease and morbidities. Even though Puskesmas as primary health care do not perform the COVID-19 treatment, the COVID-19 related activities such as testing and tracing have been implemented in Puskesmas.

In terms of cadre's challenges, training and workshops to elevate the knowledge and skill should be implemented in stunting prevention [26]. Therefore, any misperception and misuse of measurement tools can be eliminated by enhancing their knowledge on how to examine properly. The participant said that the technology-based application for stunting reports was sometimes used by the cadres. This digitalization has shortened the time for collecting the data and prevented the COVID-19 exposure by following the social restriction. Evidence shows that although the transformation of health care digitalization has been unfamiliar for health care workers, it shows that several low and middle-income countries have begun to utilize the health technology system since the pandemic [27]. Age, education level, years of cadre experience, and technical proficiency levels all have an impact on the willingness to adapt [27]. A study showed that technology literacy and technological tools ownership influence the attitude to readiness of digitalization in the health care system [28]. As the opposite, people who have low literacy on technology would not be ready for new digital intervention. Hence, for stunting monitoring and reporting, and as a response to pandemic preparedness, user-friendly digital health technologies should be created and incorporated into cadre's workflow [29].

The present study shows that health workers in primary health care re-visit the stunting toddlers after they have been reported by the cadres. It shows that the responsibility for stunting report is on community health centers. Although several factors of stunting are non-health related, the prevention seems to be on health aspects. The participants clearly stated that they hope other government sectors which are present on stunting prevention. In fact, the pandemic opens a weak system. If stunting was only prevented by health views, poverty as a major nutritional problem would still cause malnourishment. Therefore, the government needs to ensure that all poor and vulnerable households can have either access to nutritional food (supplementary foods) or an incentive for nutritional food, provide affordable healthful food, or empower the family with home agriculture. An example of that recommendation was a study which reports a successful program on community diet by encouraging households to build their Homestead Food Production (HFP). The study proved that HFP could increase their nutritional intake and give additional income to the family. The review from the HFP program proved that dietary diversification including animal food consumption, and anemia among children decreased after the intervention [30]. In four

Asia-Pacific nations, the HFP program is successful in increasing the availability, production, and consumption of micronutrient-rich foods including poultry growing, animal husbandry, and domestic gardening, along with nutrition education [30]. Therefore, it could be implemented in the vulnerable population which needs more income, while they still have a nutritional problem.

In setting such as Indonesia, coordination and alignment between various sectors to handle stunting programs are needed at the community level, where community health workers, cadres, and parents dominate the growth and development of the children. An initiative program to unite the commitment between them is required along with behavioral changing of community eating practice, especially to promote and enhance maternal nutritional status.

Conclusion

The study exposed and illustrated the challenging situations of health workers during stunting prevention programs such as declining household incomes and social restrictions that hit the primary health care system and health volunteers. Therefore, the need for interdisciplinary collaboration, handling of stunting by multiple sectors, and community interventions such as incentives and restrictions, changes in eating practice behavior, continued use of technology-based applications for health cadres, and routine monitoring by families should be reinforced. Further studies to explore the experiences and perspectives of cadres and parents also need to be done by involving more people from various regions in Indonesia.

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