

Exploratory study of the implementation of the stunting prevention program as a basis for developing the “genting” prevention of stunting in adolescent program in gunungkidul Yogyakarta

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Abstract. Poor nutritional status among adolescents is an important factor that determines poor health outcomes. If the nutritional needs of adolescent female are not met, they are at high risk of death due to pregnancy and childbirth and are more likely to give birth to babies with low birth weight. There is a need for good nutritional knowledge about stunting and its prevention in adolescents as one way to reduce stunting rates in the future. This study was conducted as a basis for developing a community-based stunting prevention program called "GENTING" (Gerakan Enyahkan Stunting) as an effort to prevent stunting in adolescents. The study was conducted using a qualitative method with a phenomenological approach. This study was conducted in Gunungkidul Regency, Yogyakarta. The sample in this study were adolescent female aged 13-15 years. Participants in the study were selected by purposive sampling, with the following criteria: adolescent female aged 13-15 years and adolescents who actively use social media. Data collection was carried out through in-depth interviews and Focus Group Discussions (FGD), after that, the interview and FGD recordings were transcribed and then codes and categories were identified. The results of the study showed that stunting prevention programs were not routinely carried out in schools. The program was only carried out when health workers needed data for their screening or research. The counseling that was conducted was not followed up with follow-up, thus creating a negative impression of the program. Interactive and technology-based approaches are very relevant for adolescence who tend to be more familiar with digital devices. Interactive programs such as using audiovisual media that are distributed through social media are more attractive to adolescence.

1 Introduction

Adolescents play an important role in the future of a country. Adolescents are the future generation who will continue the development of the nation in the future, so it is important to prepare them as quality human resources. Adolescence is a transition period between childhood and adulthood, where significant growth and development occur. Inadequate nutrition during this period can cause growth disorders in the future (Sutadarma, 2022). The number of teenage female in the Special Region of Yogyakarta (DIY) in 2022 was recorded at 6.8% of the total population of DIY (Central Statistics Agency of the Province of D.I Yogyakarta, 2023).

Adolescents in Indonesia experience three nutritional burdens, that about a quarter of them are short, about 8% are too thin, about 15% are overweight or obese and 23% of adolescent female suffer from anemia (UNICEF Indonesia, 2021). Riset Kesehatan Dasar (Riskesdas) data in 2018 showed that 25.7% of adolescents in Indonesia aged 13-15 years and 26.9% aged 16-18 years were short and very short. In addition, there were 8.7% of adolescents aged 13-15 years and 8.1% of adolescents aged 16-18 years who were thin and very thin (Ministry of Health of the Republic of Indonesia, 2020).

Malnutrition among adolescents is a major determinant of poor health outcomes. Nutritional problems in adolescents can begin at a very early age. Malnutrition in adolescent female has far-reaching consequences. If adolescents' nutritional needs are not met, they are at high risk of pregnancy and childbirth-related deaths and are more likely to give birth to low birth weight babies (Millward, 2017). In addition, children born to adolescent mothers are eight times more likely to experience stunting than children of mothers of healthy reproductive age (Haque et al., 2022).

Stunting begins with the health and nutritional conditions of the mother before and during pregnancy and after giving birth. Pregnant women who experience malnutrition (undernutrition) due to chronic energy deficiency or anemia will give birth to babies with LBW (low birth weight), children with LBW conditions will experience growth disorders in the childhood period. WHO recommends the need to strengthen interventions to improve maternal nutrition and health, starting from adolescence (WHO, 2018).

Reducing the incidence of stunting is the first of six goals in the global nutrition target. The World Health Organization targets a 40% reduction in stunting rates by 2025 (WHO, 2018). The results of the 2022 Indonesian Nutrition Status Study (SSGI) showed that the prevalence of national toddler nutritional status was 21.6% stunting, 7.7% wasted and 17.1% underweight (Ministry of Health, 2023).

The prevalence of stunting in Indonesia is currently still far from the target of the 2020-2024 RPJMN Indicator which by the end of 2024 it will be 14% with a target of reducing stunting by 2.7% per year (Ministry of Health of the Republic of Indonesia, 2020). Based on the results of the 2022 Indonesian Nutritional Status Survey (SSGI), the number of stunting in the Special Region of Yogyakarta was 16.4% and Gunungkidul contributed the highest stunting rate. The prevalence of stunting in toddlers in Gunungkidul Regency increased in 2021 by 20.6% to 23.5% in 2022, wasting 6.6% and underweight 20.2% (Ministry of Health, 2023). In addition, the number of deliveries at an adolescent age in Gunungkidul Regency is the second highest in DIY. Data from 2022 shows that there were 58 adolescent deliveries (Gunungkidul Regency Government, 2023). In 2020, the Gunungkidul Regency Government held a Stunting Discussion by determining 10 villages as locus for accelerating stunting reduction. The campaign is a form of media in the context of socialization, information and education in order to increase knowledge and invite the community to behave healthily in order to overcome existing health problems. In addition, it is necessary to raise commitments at the Regency level to the hamlet level, from all leading sectors to the community. Therefore, the Gunungkidul Regency Health Office in early 2020 held a Campaign and Declaration to

accelerate stunting reduction through the signing of a joint commitment "GARDU BUNGA PUSPA" (Integrated Movement to Care for Children's Growth and Development, Stunting Reduction and Family Strengthening). The Declaration was carried out in April 2020 by the District Government and stakeholders.

The data shows that stunting needs to be addressed since adolescence. Education about healthy eating patterns and the importance of balanced nutrition must start early. Adolescents need to understand the importance of adequate nutritional intake to support their own growth and to prepare for future pregnancies. Lack of knowledge about nutrition can lead to poor eating habits, such as inappropriate diets or ignoring vegetable and fruit consumption (Wuryandari et al., 2024). Stunting prevention programs that actively involve adolescents in preventing stunting are needed. Through activities such as training and counseling, adolescents can learn about the importance of nutrition in the First 1000 Days of Life and how to implement a healthy lifestyle (Rokhmayanti et al., 2023; Wuryandari et al., 2024). Their involvement in these programs not only increases knowledge but also builds a sense of responsibility for public health.

In addition, One of the reasons why stunting prevention programs do not run well and have an impact on their targets is the lack of support from various parties, including the government and the community. Research shows that the success of the program is highly dependent on collaboration between health workers, the government, and the community. Without a strong commitment from all parties, these programs tend not to run well (Suhartina & Novita, 2023; Utari et al., 2023). Therefore, this study was conducted to explore stunting prevention programs that are in accordance with the needs and preferences of adolescents so that adolescents have the willingness to actively support and participate. This study was conducted as a basis for developing a community-based stunting prevention program called "GENTING" (Gerakan Enyahkan Stunting) as an effort to prevent stunting in adolescents. The results of this study can be the basis for developing appropriate efforts to prevent stunting in adolescents according to the conditions and needs of adolescents in Gunungkidul Regency, Yogyakarta.

2 Method

The study was conducted using a qualitative method with a phenomenological approach. This study was conducted in Gunungkidul Regency, Yogyakarta. The sample in this study were adolescent female aged 13-15 years. Participants in the study were selected by purposive sampling, with the following criteria: adolescent female aged 13-15 years and adolescents who actively use social media. Data collection was carried out through in-depth interviews and Focus Group Discussions (FGD). The FGD activity involved 12 adolescent female and the in-depth interview activity involved 2 adolescent female in grade VIII at the Karangmojo District Junior High School, Gunungkidul Regency, Yogyakarta. In carrying out data collection, researchers coordinate and collaborate with teachers and administrators of Karangmojo District Junior High School, Gunungkidul Regency. In the data collection process, the researcher acted as a facilitator to guide the discussion process and assisted by research assistant that take note of the discussion. The FGD was carried out in the hall of SMP Negeri 2 Karangmojo and the in-depth interview activity was carried out in the Guidance and Counseling room on 22nd July, 2024. The FGD and in-depth interviews were conducted using a semi-structured interview guide using open-ended questions to explore the experiences and views of adolescents about teenagers' experiences and perspectives regarding the stunting prevention programs they have received so far and what they think an appropriate stunting prevention program should be. In addition to the FGD guide and in-depth interviews, researchers also used a recorder, laptop, camera, and field notes to document the data collection process. The recordings of the FGDs and in-depth interviews

were then transcribed and analyzed by the research team. Opencode is used to help researchers identify codes and themes. Data analysis was conducted simultaneously with data collection. Peer debriefing was conducted to ensure the validity of the research data. Peer debriefing is carried out by discussing the findings (codes) with the research team.

3 Results

As shown in Figure 1, in general the results of this study indicate that there is a stunting prevention program that has been implemented. However, the program is not implemented sustainably so it is considered only a formality program. In addition, the results of the study show that adolescents need motivation to carry out healthy behavior. Adolescents eat breakfast if motivated by their boyfriends. They are also reluctant to wash their hands if their hands still look clean. The results of the study also show that the health program that adolescents prefer is using interactive methods and media such as using social media. According to informants, the program should be implemented for 1 - 3 months.

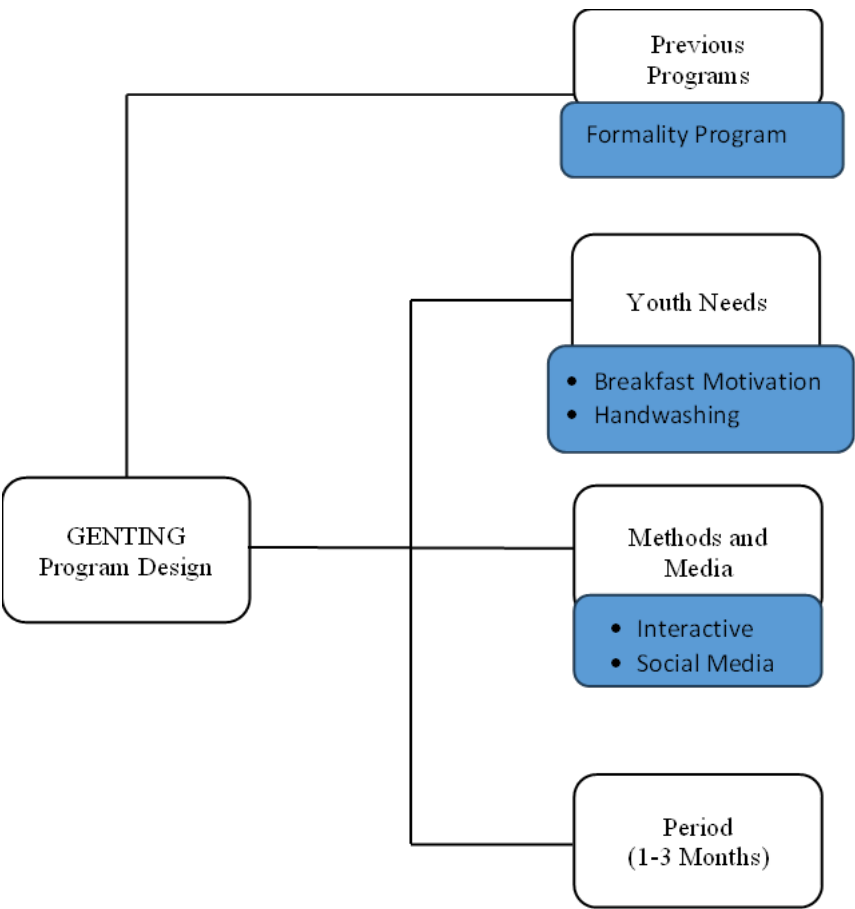


Figure 1. Research findings

1. Implementation of previous programs
Based on information from adolescence, it is said that there is already a program implemented by the Health Center, but the program does not run regularly. In addition,

adolescents also consider that the program is only attended by a few student representatives, so that not all adolescents feel the impact of the program organized by the Puskesmas.

I: "Yes, but how much do you take per class?" (FGD, J, 14 year old female).

In: "Not routinely, if possible, the puskesmas needs data if the puskesmas needs data." (FGD, J, 14 year old female)

2. Youth needs

The design of the program needs adolescents in fulfilling balanced nutrition can be met with strong motivation. In this context, the informant said that one of the necessary motivations is support from the girlfriend. This is considered to be able to have a positive influence on them by reminding each other to eat breakfast and maintain a regular diet. Then adolescence also need to implement clean and healthy living behaviors, one of which is washing hands before and after eating.

a. Have a boyfriend to remind you to eat

In this study, the informants stated that by having a boyfriend, they feel more helped in maintaining their diet, because their partner is often a reminder to eat regularly, so that they can support a more consistent healthy lifestyle.

"I have a boyfriend..". (FGD, J, Female, 14 years)

"Reminder to eat, don't forget to eat, dear haha..". (FGD, J, Female, 14 years)

b. Handwashing behavior

Adolescents also need to implement healthy living behaviors, one of which is by getting used to washing their hands before and after eating, as a simple but important step to maintain hygiene and prevent the transmission of diseases that can affect their nutritional status and health.

"Wash your hands if you want to eat if you run out of dirty hands..". (Z, Female 14 years old).

"Usually when you write, your hands are exposed to ink, so you wash your hands when you run out, and if you take a break after eating, you also wash your hands..". (S, Female 14 years old).

3. Methods and media

The design of the GENTING program requires a method of delivering material that is interactive with adolescence, so that information can be easier to understand and receive. The method desired by adolescents is to involve the active participation of adolescents through discussions, educational games, or simulations, in order to increase their understanding and involvement in the program.

".. The question and answer continues to be discussed, it is explained that it is a question and answer..". (Z, female, 14 years old).

"yes, it's like games". (S, female 14 years old).

In addition to interactive methods, media is also needed to convey material to adolescence . Most adolescence want material delivered through video or through social media. One of the media conveyed by adolescence is Tiktok media. This media

is considered the most relevant and effective for reaching adolescence, in accordance with the development of the times and the current digital communication pattern.

"Using video media". (J, Female, 14 years old).

B: "oh use your cellphone alone, what's your favorite application? Watch the video?".

A: "TikTok". (J, female 14 years old).

4. Period

The effective period according to adolescents to implement the stunting prevention program is for 1 to 3 months and is carried out once every 1 week. This activity includes the provision of materials that are provided on a regular, scheduled and sustainable basis. At the end of the program, it is hoped that there will be a thorough evaluation before the program is implemented more widely.

"Yes, the problem is that the school is provided every week". (Z, Female 14 years old).

"1 to 3 months". (K, Female 14 years old).

4 Discussion

Stunting is a growth disorder experienced by children due to inadequate nutrition, repeated infections, and inadequate psychosocial stimulation (Akbar & Huriah, 2022; Triatmaja et al., 2023). The problem of stunting is very complex and requires a multi-sectoral approach to overcome it (Akbar & Huriah, 2022).

The results of the study showed that stunting prevention programs were not carried out routinely in schools. The program was only carried out when health workers needed data for their screening or research. The counseling that was carried out was not followed up, thus creating a negative impression of the program. Informants also felt that the program that had been running was not interesting because the educational media used was not interesting. This made informants have less motivation to participate in stunting prevention programs (Triatmaja et al., 2023).

The main mistake in stunting prevention programs is the lack of consistency and effectiveness. Program that is not followed up cannot significantly improve adolescent knowledge and behavior. In addition, unattractive educational media can also reduce adolescent motivation to participate in the program (Akbar & Huriah, 2022). Therefore, to increase the effectiveness of stunting prevention programs, a more consistent and interactive strategy is needed. For example, the program can be carried out routinely and not only when health workers need data. In addition, interesting and interactive educational media such as manuals, educational applications, and face-to-face meetings can increase adolescent motivation to participate in the program (Akbar & Huriah, 2022; Atho'llah & Nadhiroh, 2023).

Based on research, the habit of not eating breakfast regularly among adolescents is often caused by reasons such as laziness and not feeling hungry. This contributes to broader nutritional problems, including stunting. Research shows that breakfast plays an important role in supporting academic performance and overall health. Adolescents who eat breakfast regularly tend to have better academic results than those who do not (Adolphus et al., 2016; Jeong, 2019). This association suggests that poor breakfast habits can have a negative impact on the physical and mental development of adolescents.

The finding that informants did not wash their hands because they felt their hands were clean if there were no stains indicates low awareness of the importance of cleanliness. The habit of washing hands is a simple but effective step in preventing diseases and infections that can worsen nutritional conditions (Sumual & Soputan, 2023). Research shows that education about healthy living behaviors, including washing hands, can improve adolescents' knowledge and attitudes towards health, which in turn can help prevent stunting (Marlinawati et al., 2023a; Sri Wulandari et al., 2021)

Research shows that interactive and technology-based approaches are very relevant for adolescents who tend to be more familiar with digital devices. Interactive programs such as using audiovisual media distributed through social media are more attractive to adolescents. This can increase the interest and attraction of adolescents to participate in stunting prevention programs and learn the material. Research shows that media interactivity can increase knowledge from 50.9% to 76.6% compared to videos without explanation (Marlinawati et al., 2023b; Suryanto et al., 2022).

Social media can be used as a medium to engage adolescents (Alatorre et al., 2023). Social media promises to be an effective health communication tool; however, the information must be reliable and consist of engaging messages tailored to meet the diverse needs of adolescents (Plaisime et al., 2020). Social media content has been shown to influence adolescent behaviour (Al-Ansi et al., 2023; Buda et al., 2021; Morningstar et al., 2023; Purba et al., 2023). This shows that adolescents trust health information found on social media. Adolescents trust health information on social media considering trust in the social media platform/service, trust in other users, and trust in the content (Freeman et al., 2023; Montgomery et al., 2020). In addition, adolescents use social media to interact with friends, family or other people who are fellow social media users (Freeman et al., 2023)

adolescents who tend to be more familiar with digital devices. Interactive programs such as using audiovisual media distributed through social media are more attractive to adolescents. This can increase the interest and attraction of adolescents to participate in stunting prevention programs and learn the material. Research shows that media interactivity can increase knowledge from 50.9% to 76.6% compared to videos without explanation (Marlinawati et al., 2023b; Suryanto et al., 2022). Social media such as TikTok are considered interesting to use to share educational videos (Alatorre et al., 2023). Social media such as TikTok, Instagram, Twitter, YouTube, and Facebook have been proven effective in improving adolescent knowledge, attitudes, and behavior in preventing stunting. Research shows that the use of social media can increase adolescent knowledge by a significant percentage, such as TikTok (36.75%), Instagram (22.29%), Twitter (20.25%), YouTube (16.66%), and Facebook (12.61%) (Handayani & Ariyanto, 2023; Marlinawati et al., 2023; Suryanto et al., 2022). These findings highlight the need for more effective interventions in increasing awareness and healthy behavior among adolescents. Educational programs targeting healthy behaviors should be strengthened with approaches that are interesting and relevant to adolescents, such as the use of social media and digital applications to disseminate information about the importance of breakfast and hygiene (Marlinawati et al., 2023a; Sri Wulandari et al., 2021). By increasing knowledge and awareness, it is hoped that healthy behavior can be formed and contribute to stunting prevention.

The appropriate program implementation period is between 1 week to 3 months. This allows adolescents to understand and apply the information provided effectively. Research shows that programs carried out for 4 months can improve adolescent knowledge, attitudes, and behavior in preventing stunting (Marlinawati et al., 2023b; Suryanto et al., 2022)

5 Conclusion

Stunting is a growth disorder experienced by children due to inadequate nutrition, repeated infections, and inadequate psychosocial stimulation. The problem of stunting is very complex and requires a multi-sectoral approach to overcome. To increase the effectiveness of stunting prevention programs, a more consistent and interactive strategy is needed. Programs can be carried out routinely and not only when health workers need data. Interesting and interactive educational media such as manuals, educational applications, and direct activities can increase adolescent motivation to participate in the program.

Thus, the conclusion of the study shows that to increase the effectiveness of stunting prevention programs, more consistent and interactive strategies are needed, the use of interesting educational media, and effective interventions in increasing awareness and healthy behavior among adolescents.

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