

Themes Innovation for Making Educational Game Module to Prevent Stunting at Family Level in Surabaya: A Qualitative Study

Annas Buanasita^{1*}, Taufiqurrahman¹, Heni Hendriyani², Inne Soesanti¹

¹Nutrition Department, Surabaya Health Polytechnic, Surabaya, Indonesia

²Nutrition Department, Semarang Health Polytechnic, Semarang, Indonesia

*Email Correspondence: anasita@poltekkes-surabaya.ac.id

ARTICLE INFO

Article History:

Received September 9th, 2025

Accepted February 21st, 2026

Published online February 28th, 2026

Keywords:

educational;
innovation;
stunting;
toddler;
module

ABSTRACT

Introduction: Approximately 66.6% of programs providing information, education and communication have been carried out to prevent stunting, but need to improve according to the need of target audience. After the covid-19 pandemic, there are challenges for outreach the IEC activities with an approach that directly reaches the family level. **Aims:** This study aims to find methods and themes of the IEC module that are more desirable by the community in preventing stunting. **Methods:** Qualitative research method with FGD (Focus Group Discussion) in 2 urban village locations in the city of Surabaya, followed by In-depth Interviews on several key informants. The descriptive analysis was divided into three stages, namely reduction, data presentation, and thematic conclusion drawing. Results: Based on the results of the FGD, 3 desired module topics were obtained, namely (1) early detection of stunting independently at the family level (2) the dangers of stunting for the growth and development of children's intelligence and (3) good eating behavior to prevent stunting. The method chosen is an interactive emo demo method with games while learning. Study showed that the emo demo approach was better at the family level considering that many mothers with stunting children often did not come to the posyandu. **Conclusion:** The early detection, the cognitive dangers and the diet in preventing stunting were three themes chosen by community with emo demo method to deliver in the family level. The strength of this approach is to invite mothers to learn through playing and raising awareness in preventing stunting.

INTRODUCTION

The prevalence of stunting in Indonesia in 2018 is still quite high, at 30.8% and there are still gaps between regions in Indonesia. There are two provinces in Indonesia that have a very high prevalence of stunting and 18 provinces with a fairly high prevalence of stunting including East Java¹. Results from Nutritional Status Survey for Children in 2021 showed that the stunting prevalence had been reduced at 24,4% in Indonesia and at 23,5% in East Java Province, but Surabaya showed had higher prevalence at 27,4%². This prevalence requires a fairly hard effort in reducing the prevalence of stunting. This is remain that the target for reducing the prevalence of stunting in Indonesia in 2024 is to decrease to 14%³.

Existing studies have primarily focused on the factors affecting stunting in several area and province in Indonesia to address the direct and indirect causes of stunting, leaving a significant

information, education and communication on stunting prevention according to the needs of the target audience, especially post-covid-19. Information, Education and Communication (IEC) related stunting reduction as part of stunting convergence action has run and give benefit in every level of health facilities from district to villages and posyandu (growth monitoring post)⁴. IEC activities which are carried out in conjunction with posyandu activities are held every month. The forms of activities at the posyandu are weighing and measuring toddlers' height, recording at KMS (growth monitoring chart) , counseling and providing simple treatment⁵, but what are the specific topics or themes needed by community related to stunting counseling are limited especially in the pasca covid-19.

The Covid-19 pandemic has had a serious impact on various fields. One of them is related to the implementation of the convergence program for the acceleration of stunting prevention. Several stunting intervention programs, both specific and sensitive interventions, did not work properly due to budget diversion and splitting of resources for handling Covid-19⁶. Some programs including IEC in the posyandu activities cannot run well. As we know, posyandu is the place in the community that take part as growth monitoring place including weight and height of the children. Therefore, if the posyandu are closed during pandemic, the early detection of stunting children also hampered⁷.

During the Covid-19 pandemic for approximately 2 years, the posyandu (growth monitoring post) activities were not running, so a closer approach to stunting prevention was needed, especially in a family level⁸. Currently, toddlers who come to the posyandu was very low, it was below 80% according to target and getting lower under 50% during pasca pandemic⁸. Consequently more toddler and family did not got proper information related to stunting. Therefore, a more interesting and interactive IEC approach to providing information related to stunting prevention is needed at the family level^{9,10}. This study aims to find the right IEC themes and method to prevent stunting with educational that are needed and desired by the community.

MATERIALS AND METHODS

Study Design

The research method is descriptive analytic with a qualitative approach. The approach with FGD (Focus Group Discussion) in 2 urban village locations in the city of Surabaya, followed by In-depth Interviews on several key informants. Surabaya was chosen because it is a stunting locus area with the stunting prevalence is higher than East Java Province¹². The research location was chosen in one of the Puskesmas areas where the achievement of the stunting prevention program target has been well fulfilled, namely at the Keputih Health Center. Research design must be well-defined.

The research was conducted in January – July 2022. There are 2 types of data collected, namely primary data and secondary data. For primary data, the Focus Group Discussion (FGD) method was used to obtain data on characteristics, understanding of stunting and the caused it as well as method

and the theme of the stunting prevention module that the community and stakeholders want to apply. Meanwhile, secondary data was obtained from the Puskesmas locus data related to stunting prevention programs such as the coverage of pregnant women with PEM (Protein Energy Malnutrition) who received additional food, coverage of pregnant women who received iron tablets, coverage stunting children with additional complementary feeding, coverage of exclusive breastfeeding, complementary feeding and others. This research has approved by the Health Research Ethics Committee of the Surabaya Health Polytechnic, Ministry of Health no EA/827/KEPK-Poltekkes-Sby/V/2022. Each participant signed a letter of informed consent. The participants were informed on the aims of the study. They knew that their voices were recorded. They were also assured that their names and wordings would not be revealed to anybody.

Samples and Sampling

The FGDs were conducted in 2 subdistricts locations in the area of the Keputih Health Center, Sukolilo District, Surabaya City. In each subdistrict, 2 types of FGDs were conducted, namely FGDs where the participants were from stakeholders and FGDs from community representatives. The stakeholders referred to in this study consisted of the Head of the Community Health Center, the Village Head, Head of Welfare Section, the Village Midwife, Nutritionist at Primary Health Centre, Subdistricts staff and the Chairperson of the Village PKK mover. Meanwhile, the second group is from cadres and the community consisting of posyandu cadres, health cadres, mothers of underfive children and community leaders such as RT and RW heads. The number of FGD participants was 7-14 people who were selected as key persons in the stunting program in the study area. The selection of FGD participants was based on the role of each participant attached to him in his day-to-day work and stunting prevention tasks at the research site.

Data collection

The FGD was conducted in a circular condition led by a moderator and a note taker. The discussion process was recorded and recorded using a tape recorder that was approved by all FGD participants. The moderator used FGD guidelines that were structured according to the research objectives.

The guideline and questionnaires used in Focus Group Discussions (FGD) and in-depth interviews have been tested for validity and reliability through several stages, including review by an expert panel to ensure content validity, as well as testing with a small group of respondents to obtain feedback and ensure clarity and relevance of the questions. The total number of questions asked was 10 questions, including those asked to the informants "According to you, what is stunting, what are the signs of stunting, what are the causes of stunting, how to prevent stunting, what activities or programs already exist?" and how they feel about preventing stunting in their area, what obstacles

are encountered in the stunting prevention program, and what themes are really needed so that the community is aware of preventing stunting. Next, a reliability test was carried out by calculating the Cronbach's Alpha coefficient with a value of 0.82 to measure internal consistency, and the results showed that the questionnaire had an adequate level of reliability. Item-total correlations were also analysed to ensure that each question made a consistent contribution to the construct being measured, ensuring that the instruments used in this research were valid and reliable in collecting qualitative data and supporting quantitative data for stunting prevention programs that already exist and are running in the study area.

After completing the FGD process, the moderator summarizes and concludes the discussion and checked that all discussion topics have been discussed properly. If there are unanswered discussion topics, the moderator can ask the FGD participants again. Pictures related to the discussion process can be seen in Figure 1.



Figure 1. FGD process in 2 subdistricts

Data analysis

Analysis of FGD results was carried out in 3 stages, namely transcribing, coding and summarizing. The process of transcribing verbatim is by listening to the recording of the FGD, then it is poured into narrative writing in MS Word. Then after the narrative process of the FGD results was completed, coding began for each of the same themes generated from 2 different FGD sources. For the process of drawing conclusions (summarizing), the researchers concluded that the most common themes emerged from the two FGDs and with the help of experts in the field of stunting prevention in the city of Surabaya. Figure 2 showed the process of transcribing and coding. There are 4 steps to develop the deductive thematic analysis in this study, which are 1) Theory driven to learn the stunting theory 2) Sensing and grouping the transcribe according to theory, 3) Coding manually the same theme and 4). Conclude the theme (Boyatzia, 1998). Triangulation of data using triangulation of sources is carried out by presenting data from informants or FGD participants from stakeholders related to the stunting prevention program and from FGD representatives of the community, as well as interviews with experts¹¹.

Ibu – Is ibu balita : “Bisa tersampaikan, soalnya kan jadi lebih tau”
 Bu Inne : “Ohhhh”
 Ibu – Intan Kader : “Lebih menerima lah istilahnya, **hha** itu tadi di **hha demo** kan ada peragaan kan mulai usia 0 bayi, perturnya bayi seberapa seberapa seberapa, sangat mendukung lah istilahnya, ada alat peraga”
 Bu Inne : “Itu ibu – ibu balitanya diberikan itu?”
 Ibu – Ibu Kader : “Iya, jadi kita **ngumpul**kan ibu balita kita sosialisasikan demo, nanti ibu balitanya yang menarik lagi, jadi setelah kita demokan, ibu – ibu balitanya itu menanggapi atau sekedar lewat aja, jadi per balita itu kita menyaranakan (*ayo bu magis, ayo bu apakah tadi paham atau tidak?*) jadi kan, bisa tau gitu bu”
 Bu Inne : “Tapi, memang bisa dipahami ya, mereka bisa memahaminya ya?”
 Ibu – Wati Kader : “Iya, kalau dari sekedar cerita, omongan, bawa leaflet gitu, insyaallah cuma lewat aja hehehe, jadi mereka itu ikut, ikut apa ya?.....”
 Bu Inne : “Terlambat...., Ohhhhh....”
 Ibu – Jeannie Kader : “Menarik gitu senang, isi dari **hha demo** sendiri itu kan keadaan mulai hamil, gizinya itu kan gizi seimbang isi dari modul **hha demo**”
 Bu Inne : “Jadi media yang bisa digunakan seperti itu ya? Ada contohnya, kemudian peraganya, kemudian ibu – ibu apakah yang dilihat apakah paham dan bisa memberikan respon gitu ya. Kemudian, kalau selain itu menurut ibu – ibu lebih baik kalau begini kalau buku bergambar bagaimana? Buku bergambar, kemudian ada materi **bermain** itu bagaimana? Kita – kita lebih masak yang masak, lebih milih yang masak”
 Ibu – Sis Kader : “Sama kan, kalau ada bergambar sama **bermain** eraga itu kan sama isinya **hha demo** itu”

Figure 2. Process of transcribing and thematic coding

RESULTS

In this study, primary data from the FGD results will be displayed which have been analyzed with themes and triangulated with different sources. Sources of FGDs were from 2 groups, namely stakeholder FGD groups and community representatives FGD groups. The list of participants who attended the 2 FGDs, namely the Medoan Semampir Village as FGD 1 and the Keputih Village as FGD2, Surabaya City can be seen in detail in table 1 below. In general, all participants were relatively homogeneous in terms of age and education level for each FGD group, however, female FGD participants were more dominant. The education level of the stake holder FGD participants was relatively higher than that of the community representatives. For health cadres mostly are person who had moderate educational level such as Senior High School. This is related to their presence in the midst of the community and can represent their own community, although with middle education, they are able to carry out their functions to deliver growth monitoring activities at the posyandu. Most of the posyandu cadres and health cadres who attended this FGD had high school education, but most were able to express their opinions well regarding stunting and prevention program

Table 1. Informant Characteristics

Characteristics		FGD 1		FGD 2	
		Stake Holder n=6	Community R n=11	Stake Holder n=	Community R n=9
Age (Years)	Early adult (26-35 th)	2 (33.2%)	1 (9,8%)	1 (20.0%)	1 (11.0%)
	Late adult (36-45 th)	1 (16.6%)	4 (36,3%)	3 (60.0%)	2 (22.2%)
	Early elderly (46-55 th)	2 (33,2%)	5 (45,5%)	1 (20.0%)	4 (44.4%)
	Late elderly (56-65 th)	1 (16,5%)	1 (9,1%)	0	2 (44.4%)
Sex	Men	1 (16.6%)	0	0	0
	Women	5 (83.4%)	11 (100.0%)	5 (100.0%)	9 (100.0%)
Educationa l level	Senior High School	0	5 (45,5%)	0	4 (44,4%)
	Bachelor	1 (16.6%)	4 (36,3%)	1 (20.0%)	3 (33.3%)
	Undergraduate	4 (66.8%)	2 (18.2%)	3 (60.0%)	2 (22.3%)

Postgraduate	1 (16.6%)	0 (0.0%)	1 (20.0%)	0 (0.0%)
--------------	-----------	----------	-----------	----------

The themes of Educational Game on Preventing Stunting are the main findings of this research which are:

Table 2. Key findings of FGD on Module Themes of Educational Game (EG) on Preventing Stunting

No	Category	Themes
1	Stunting Detection	FGD stake holders said that many mothers have not been able to measure themselves how to detect signs of stunting so the mother does aware about stunting
2	The dangerous of stunting	Most of FGD participants said that mothers did not understand the dangers of stunting for intelligence, they know that stunting is just a short performance
3	Stunting prevention	All FGD participant believed that stunting to be due to inadequate eating behavior in 1000 days early life, therefore they wanted a module on how to prevent stunting from a dietary point of view

Theme 1 Stunting Detection

Both FGD stake holders and community representatives said that many mothers have not been able to measure themselves how to detect stunting, especially during the Covid-19 pandemic. This is evident from the answers of several community leaders and the health office staff who stated that it is necessary to socialize on how to carry out early detection of stunting toddlers at the family level independently. Based on the opinions expressed by health cadres and posyandu cadres, they said that many mothers do not use or even know how to read a child growth chart which shows whether a child is at risk of stunting or not. This finding is the same finding with Anditri research findings¹⁴. Posyandu cadres themselves admit that the results of measurements of height or length are only conveyed to mothers without dots on the growth chart. Likewise, the socialization of how to read growth chart to mothers is still minimal so that many mothers do not realize whether their child is stunted or not. Some of the excerpts below are opinions that strengthen the conclusions above

“Mothers of toddlers do not realize that their toddlers are stunted because they have never learned how to read child growth charts for stunting detection” (Mrs. E, stakeholder, 47 years old)

This is reinforced by the opinion of one of the health workers namely

“Mothers are only informed about the results of measuring their body length or height without ever having time to teach how to detect it independently by the mother or family, especially during covid-19 pandemic where the posyandu were not open” (Mrs. N, midwife, 35 years)

Theme 2 The Dangers of Stunting

Based on the results of the discussion, it was found that many mothers did not understand the dangers of stunting for intelligence in the future. They think that only a short stature is more due to lack of food and heredity from their parents.

“You know that if a child is short or stunted it is because of heredity if the father and mother are also short and will grow up on their own when the time is right” (Ms. Y, 38 years old, cadre)

One of the community representatives FGD also said

“O...I just know that stunting can interfere their intelligence...I think it's only her body that is getting short (Mrs. I, 32 years old, mother)

Theme 3 Stunting prevention

It was found from the FGD results the cause of stunting is believed to be due to inadequate eating behavior during pregnancy and in early life children, therefore most of the FGD participants wanted a module on how to prevent stunting with appropriate food practice during under five children.

“Belong to my experience as health cadre, there was information at the posyandu in how to feed the children well, but sometimes the mothers rushed to go home immediately so the material could not understand properly” (Ms. J, 45 years old, health cadre)

“Maybe mothers need to be given an example of how to provide care and diet for their children in a simple way so that it can be practiced” (Mrs. S, 42 years old, stakeholder)

Table 3. Key findings of FGD on the method and level of delivering EG on preventing stunting

No	Category	Themes
1	Method	At the beginning, all participant agreed that IEC in stunting prevention should be more interactive, fun and interesting. Then, several of participant remember about emo demo method. And they agreed that emo demo is one of best method to deliver the module
2	Level	Family level is the most wanted by FGD participant to reach the target closer

Theme 4 Method and level of delivering EG on preventing stunting

Almost all (89.9%) FGD participants agreed that the prevention of stunting and growth disorders module was carried out using an interactive emo demo (emotional demonstration) method by playing. Mothers of children under five, especially posyandu cadres, said that in emo demo they just playing without realizing that they are learning something meaning in preventing stunting. The desired method is an interactive, participatory method and introduces something by making mothers aware of their current behavior and trying new, better behaviors on their own voluntarily.

Some of the mothers who participated in the FGD gave their opinions regarding the emo demos they had known so far, which incidentally came from the Behavioral Centred Design theory, including

"The term is more acceptable, after all, in the emo demo, there was a demonstration, the term is very supportive, fun and learning something" (Ms I, 53 years old,)

Mothers of toddlers and cadres who have experience in getting emo demo activities added their opinions, including from these 2 informans

"Before that ,the health information only talk, bring a leaflet like that, God willing, the emo demo came... "Interesting, so happy, the content of the emo demo itself is interactive" (Mrs. T, 27 years old, mother of underfive children)

"Yes, the response was good because the term is not directly providing education, but we play it together to know that the practice is like this, but we are learning while playing and it was fun and happy all of us in the game" (Ms. J, 55 years old, health cadre)

Several health workers including midwives and nutritionists in stakeholder FGD also expressed the same opinion regarding the advantages of the emo demo method which was introduced by the Surabaya City Health Office, Surabaya City PKK and GAIN (Global Alliance for Improved Nutrition) which initiated this emo demo method.

"In my opinion, we can't take the approach in general, the emo demo is very good in my opinion, but maybe when stunting hasn't happened yet"(E, 49 years, Health Office)

DISCUSSION

To our knowledge, this study is the first qualitative study on the innovation of educational game in preventing stunting in the family level with the themes and method that is wanted by community post covid-19 pandemic. Talking about FGD participants, the education level of the stake holder FGD participants was relatively higher than that of the community representative's participants. But it follows a normal distribution, generally FGDs which represent the role of informants in achieving the research objectives¹⁵. Most of the community representatives who attended this FGD had high school education, but most were able to express their opinions well regarding stunting and prevention

programs because on average they were close to the elderly so they had a lot of experience in this stunting and growth monitoring activity¹⁶. FGD results showed that most of posyandu cadres which represent the community said that the stunting prevention should be start from children's home. Because during covid-19 pandemic, posyandu are closed, that's why mothers should be educated in how to know about stunting in their home⁹. Posyandu cadres who are now changing their names to health cadres are people in the community who are appointed by the apparatus in the community. The task of health cadres is not only to monitor the growth of children under five in the area where they live, but also to check for mosquito larvae to reduce the incidence of dengue fever, organize posyandu for the elderly, collect data on pregnant women and also family planning⁵.

Several stunting preventing programs in study area were running well and achieved according to the target. The health and nutrition services are able to reduce the severity and prevention of illness in children. Acute Respiratory Infection and diarrhea are often affecting children under five. If children often get sick with this infection, then the risk of experiencing stunting will be greater when compared to healthy children. The provision of growth monitoring activities includes vitamin A supplementation, food supplementation as well as immunization to children are closed related with the increment of nutrition and health status¹⁷. Meanwhile Fe supplement tablets given since teenagers and also pregnant women aim to increase hemoglobin levels in the blood of women so they don't suffer from anemia, and the risk of giving birth to children with conditions of growth disorders, especially stunting since infancy can be suppressed¹⁸. Health and nutrition care to children who are already stunted and wasted also important to reduce the severity of the condition. Parenting education regarding stunting in posyandu, pre-schools by the Ministry of National Education is also a sensitive program that must be implemented in order to reduce the prevalence of stunting in Indonesia⁵¹⁹. Posyandu is the first gate in implementing the stunting prevention.

All of FGD participant have known about definition of stunting. It is reinforced by result from the in-depth interview also that concluded the socialization of stunting in various ways in Surabaya city. Information and education in health center, posyandu as well as in an electronic media such as television is well known by the community. The existence of a stunting children assistance program in the city of Surabaya by the community, especially health cadres, is one effort that can increase public understanding of the definition of stunting. This is in line with a study conducted by Fahmida et.al, which was published in the journal of Nutrients in 2020 which states that Posyandu have shown their function and potential as a place to get explanations about stunting in East Java. From the results of the "Randomized Control Trial" experimental study for 2 years, Posyandu is an appropriate place to use in providing outreach about stunting in the community²⁰. Some urban communities, such as

Surabaya and Sidoarjo, also use electronic media and social media to find out what stunting is. This is in line with a study conducted by White, Sian in East Java showing that the use of local TV such as JTV in East Java as a mass communication medium in the socialization of stunting and proper eating behavior for toddlers is quite effective in imparting knowledge to the community, especially mothers regarding health. toddlers and stunting with its program called the Healthy Talk program which has been carried out since 2016²¹.

However, since the outbreak of the Covid 19 pandemic in Indonesia, almost all information and educational activities related to nutrition, health and stunting which are usually carried out at posyandu cannot take place as usual. The activity of measuring the nutritional status of children also cannot take place optimally. Even though several activities of measuring nutritional status were carried out door-to-door by posyandu cadres, mothers of children still did not know the interpretation of the results of their children's measurements as well as how to prevent and deal with their children from nutritional problems, especially stunting. Therefore, the initiative to provide more appropriate post-covid-19 education was carried out by researchers in the hope of getting the right form, material themes and level in rolling out knowledge about stunting prevention. Based on the results of the analysis and generalization of the FGD, there are 3 themes materials for the education game module for preventing stunting which are: stunting early detection at home with simple tools, the dangers of stunting and preventing stunting by appropriate food practice.

Nutrition education about early detection of stunting and the dangers of stunting are themes that are needed by community especially mothers and it could provide a better knowledge output for mothers in preventing stunting. It is hoped that if the mother has good knowledge about the detection of stunting, then the mother will also try to practice how to prevent it by providing appropriate food for their children ²²⁹. If these themes are delivered well to community with better method and system could optimally reduce the occurrence of new stunting in the community ⁵²³. Some study showed the combination between nutrition education with small fat food supplementation, appropriate infant and young child feeding and washing hand could give better output in weight for length z-score (WLZ), arms circumference, food diversity and morbidity²⁴.

The selection of the emo demo (emotion demonstration) method in making the module in this study was the result of most mentioned by the FGD participants. They mentioned and concluded emo demo method based on the experience of the people who had received the method in the Baduta Gain program in 2017-2019. The emo demo method was considered interesting, interactive, and educational fun¹⁸. Besides that, this method has also been scientifically proven to be able to increase output on several indicators of increased stunting prevention programs, including being able to

increase IMD (early initiation of breastfeeding) coverage, exclusive breastfeeding coverage, increasing coverage of high-iron feeding for pregnant women and toddlers, increasing complementary feeding behavior in the intervention group who had been given an emo demo at the posyandu during 2018-2019²⁰¹⁸. The nutritional intervention approach with the emo demo method in an effort to change people's behavior for the better in preventing stunting has also been recognized at the regional, national and international levels.¹⁸²⁵. Several reports written by WHO mention that this emo demo method is one of the success story method models that can be developed in other regions and provinces in Indonesia.⁵. Emo Demo is based from Behavioral Centred Design theory. Behavioral Centred Design theory is a new and radically different approach to the problem of changing behavior. Using an evolutionary framework, it unites the latest findings about how brains learn with a practical set of steps and tools to design successful behavior change programs.

STRENGTH AND WEAKNESS OF THE STUDY

The major strengths of our study include the themes and educational game methods related to preventing stunting at the household level which are still rarely explored by other researchers. Nonetheless, some limitations were also observed, the scale of the research which is still at the sub-district level and the research design which needs to be supported by quantitative primary data will greatly complement and increase the level of replication of the results of this research

CONCLUSION

Three themes module is considered important to deliver to community in preventing stunting which are (1) Stunting early detection (2) The dangers of stunting (3) Preventing stunting by appropriate food practice. It was agreed that the method chosen was the emo demo method which is interactive with games while learning. Emo demo is an application of BCD (Behavior Centered Design) theory which has been proven to be able to centered people behave for the better in several recent studies in preventing stunting in under five children. Emo Demo is a behavior change approach method that can raise the target's attention, emotions and awareness in correcting their current behavior and improving better behavior in the future. Further studies analyzing the effectiveness of emo demo games with the 3 themes above at the toddler home level in reducing the risk of stunting need to be carried out and can be replicated on a larger scale.

BIBLIOGRAPHY

1. Indonesian Health Ministry. Indonesia Basic Health Reserach 2018. Indones Minist Heal. 2018;53(9):1689–99.

2. Ruxton C. The role of micronutrients in healthy ageing. *Nutr Food Sci.* 2021;41(6):420–9.
3. Indonesian Government. Presidential Decree of Republic Indonesia No 72/2021 about Accelerating Stunting Reduction. *Indones Gov.* 2021;(1):23.
4. Sulistyaningsih S, Aprillia R, Annisa L, Febrianti CP. The Effectiveness of Interprofessional Collaboration Practice to Reduce The Risk of Stunting: An Integrative Review. *J Aisyah J Ilmu Kesehat.* 2023;8(2):43–54.
5. World Bank. *Moving Forward : How Indonesia Districts reduce Stunting.* 2021;
6. Sugianti, Elya et al. KAJIAN PELAKSANAAN PROGRAM KONVERGENSI PENCEGAHAN STUNTING DI DAERAH LOKUS STUNTING. *Res Report, East Java Prov Res Dev Off* 2021. 2021;
7. Buanasita, Annas, et.al 2021. Coping Strategies Among Communities in East Java during Covid-19 Pandemic. *Southeast Asian J Trop Med Public Heal Introd.* 2021;52(1):131–40.
8. Fore HH, Dongyu Q, Beasley DM, Ghebreyesus TA. Child malnutrition and COVID-19: the time to act is now. *Lancet.* 2020;396(10250):517–8.
9. Gayatri, Maria et. a. Pencegahan Stunting dengan Pendekatan Keluarga: Sebuah Tinjauan Literatur. 2022;(February).
10. Aunger, R. and Curtis V. *Behaviour Centred Design Resources.* 2019;(April 2015):1–85.
11. Eaton SE. *Research Assistant Training Manual: Focus Groups.* Online Submiss. 2017;30.
12. Qurniyawati E, Syahrul F. Correlation Study Coverage of Exclusive Breastfeeding and Risk Factors in Indonesia. *Indones J Public Heal.* 2022;17(1):157–70.
13. Beal T, Tumilowicz A, Sutrisna A, Izwardy D, Neufeld LM. A review of child stunting determinants in Indonesia. *Matern Child Nutr.* 2018;14(4):1–10.
14. J RF, Huljannah N, Rochmah TN. Stunting Prevention Program in Indonesia: A SYSTEMATIC REVIEW. *Media Gizi Indones.* 2022;17(3):281–92.
15. Creswell JW. *Penelitian Kualitatif & Desain Riset.* *Mycol Res.* 2015;94(4):522.
16. Mediani HS, Hendrawati S, Pahria T, Mediawati AS, Suryani M. Factors Affecting the Knowledge and Motivation of Health Cadres in Stunting Prevention Among Children in Indonesia. *J Multidiscip Healthc.* 2022;15(May):1069–82.
17. Alene M, Yismaw L, Berelie Y, Kassie B. Health care utilization for common childhood illnesses in rural parts of Ethiopia: Evidence from the 2016 Ethiopian demographic and health survey. *BMC Public Health.* 2019;19(1):1–12.
18. Dibley MJ, Alam A, Fahmida U, Ariawan I, Titaley CR, Htet MK, et al. Evaluation of a package of behaviour change interventions (baduta program) to improve maternal and child nutrition in east Java, Indonesia: Protocol for an impact study. *JMIR Res Protoc.* 2020;9(9).

19. Feleke FW, Adole AA, Bezabih AM. Utilization of growth monitoring and promotion services and associated factors among under two years of age children in Southern Ethiopia. *PLoS One*. 2017;12(5):1–9.
20. Fahmida U, Htet MK, Ferguson E, Do TT, Buanasita A, Titaley C, et al. Effect of an integrated package of nutrition behavior change interventions on infant and young child feeding practices and child growth from birth to 18 months: Cohort evaluation of the baduta cluster randomized controlled trial in east Java, Indonesia. *Nutrients*. 2020;12(12):1–16.
21. White S, Schmidt W, Sahanggamu D, Fatmaningrum D, van Liere M, Curtis V. Can gossip change nutrition behaviour? Results of a mass media and community-based intervention trial in East Java, Indonesia. *Trop Med Int Heal*. 2016;21(3):348–64.
22. Handarini K, Madyowati SO. Penyuluhan Gizi Seimbang dan Olahan Pangan Lokal Pencegah Stunting Pada Ibu Paud Di Surabaya. *J Karya Abadi*. 2021;5(3):507–14.
23. Alfitri KN, Februhartanty J, Nurwidya F. Feeding Practices of School-aged Children during COVID-19 Pandemic: A Qualitative Study. *Amerta Nutr*. 2022;6(2):155–63.
24. Dewey KG. Reducing child stunting: Moving forward on evaluating effectiveness of programs. *J Nutr*. 2020;150(11):2843–5.
25. Kusumawati E, Rahardjo S, Sari HP. Model Pengendalian Faktor Risiko Stunting pada Anak Bawah Tiga Tahun. *Kesmas Natl Public Heal J*. 2015;
26. Singh V, Ahmed S, Dreyfuss ML, Kiran U, Chaudhery DN, Srivastava VK, et al. An integrated nutrition and health program package on IYCN improves breastfeeding but not complementary feeding and nutritional status in rural northern India: A quasi-experimental randomized longitudinal study. van Wouwe JP, editor. *PLoS One*. 2017 Sep;12(9):e0185030.