

Innovation to Control Cigarette Consumption and Stunting Through the Kabar Besti Program (Smoke and Stunting Free Families)

Heni Trisnowati¹, Khoiriyah Isni², Ichtiarini Nurullita Santri², Aini Zahra², Esti Kurniasih^{1,3}, Ardiansyah Jumaedi Nasir¹, Melly Eka Saputri¹, Fajeria¹

¹ Master of Public Health Study Program, Faculty of Public Health, Universitas Ahmad Dahlan, Yogyakarta, D.I. Yogyakarta, Indonesia 55161

² Departement of Public Health, Faculty of Public Health, Universitas Ahmad Dahlan, Yogyakarta, D.I. Yogyakarta, Indonesia 55161

³ Sleman District Health Service, Yogyakarta, D.I. Yogyakarta, Indonesia 55511

✉Email: heni.trisnowati@pascakesmas.uad.ac.id

ABSTRACT

Background: Cigarette consumption causes economic and health losses to smokers and their families. The main determinant of stunting in toddlers in Sleman Regency is cigarette consumption by family members. **Aims:** The research aims to develop innovations to control cigarette consumption and toddler stunting through the Kabar Besti (Keluarga Bebas Asap Rokok dan Bebas Stunting) or the Smoke and Stunting Free Families Program. **Method:** This research uses an action research approach which includes: 1) innovation development, 2) innovation dissemination, 3) program adoption, and 4) program evaluation. The research was conducted in Sumberan Hamlet, Candibinangun Village, Pakem District, Yogyakarta for 6 months, from August 2023 to January 2024. **Result:** The development of the Kabar Besti program was successfully initiated with the following phases: 1) needs assessment, namely gathering support, exposing the program, and looking for opportunities and challenges in implementing the program; 2) dissemination of innovation in the community, namely socialization of the program to hamlet heads, toddler Posyandu, youth groups, and youth and youth communities; measuring lung capacity and collecting data on cigarette consumption patterns in the community of fathers and teenagers; 3) program adoption is proven by a declaration of joint commitment to implementing the Kabar Besti program; 4) program evaluation: there was a decrease in the number of fathers who smoked from 70.1% before the intervention to 68.6% after the intervention. **Conclusion:** The Kabar Besti program has been successfully developed and proven to increase community and stakeholder commitment to controlling cigarette consumption and stunting.

Keywords: Cigarette consumption, Kabar Besti program, Smoking behavior, Stunting

INTRODUCTION

The impact of cigarette consumption is multidimensional, starting from the family economy to the health of smokers and their families, including the incidence of stunting of children under five in smoking parents (Simanjuntak, 2022). Cigarette consumption in poor families causes low access to nutritious food, low intake of vitamins and minerals, and poor food diversity and sources of animal protein. Mothers whose teenage years lack nutrition, even during pregnancy and lactation, will greatly affect the growth of the child's body and brain (Agustina, 2022). Children living in

households with chronic smoking parents as well as those with transient smokers tend to have slower growth in weight and height than those living in households without smoking parents. Children whose parents are chronic smokers have a 5.5% higher probability of experiencing stunting compared to children of non-smoking parents.

Stunting is a condition where a child has a height below the age standard. Stunting is an indicator of failure to thrive in toddlers due to a chronic lack of nutritional intake in the first 1,000 days of life. Stunting is one of the health problems in Indonesia which is a priority for the Indonesian government to reduce

its prevalence (Bayu, 2022). The prevalence of stunting in Indonesia fell from 24.4% in 2021 to 21.6% in 2022 (Indonesian Ministry of Health, n.d.). Thus, almost a quarter of toddlers in the country experience stunting. The government targets the prevalence of stunting in Indonesia to fall below 14% by 2024 (Bayu, 2022).

This stunting condition will cause a decrease in children's intelligence/cognition (Sari & Ni Komang Ayu Resiyanthi, 2020). The father's smoking behavior at home is significantly related to the incidence of stunting ($p < 0.05$) (Muchlis et al., 2023; Zubaidi, 2021). The new findings of this research are support for the implementation of Smoke-Free Zones by implementing tobacco-free living behavior. Early childhood children who live in this environment have better growth (Hasyim et al., 2022; Muchlis et al., 2023).

A preliminary study in March 2023 reported that the main determinant of stunting among under-fives in Sleman Regency was the smoking behavior of family members (64%). Stunting prevention is a strategic issue for the Sleman District Health Service and Candi Binangun Village, Pakem District is one of the stunting locus areas. Previous research explains that programs to reduce exposure to passive smoke at home start with policies at the population level to reduce mortality, and morbidity and widen health disparities (Alwan et al., 2011). Children's health is a major theme in families that implement a smoke-free home policy (Bleakley et al., 2013).

The results of discussions with the promotion sector of the Sleman Regency Health Service (Dinkes) agreed that the Pakem Community Health Center was the technical implementation unit of the Sleman Regency Health Office for the stunting prevention program through the smoke-free family program. This location was chosen as a pilot project for the implementation of the KaBar Besti program, not only because it is a stunting locus but also because it has support from the Community Health Center, community leaders, and local health cadres.

The smoke and stunting-free family innovation (KaBar Besti) is a follow-up program carried out by researchers, namely the smoke-free home program in several areas in Yogyakarta which has

succeeded in changing people's smoking patterns. (H Trisnowati et al., 2020; Henri Trisnowati, 2017). As a further innovation, the KaBar Besti program emphasizes the importance of not smoking in families with stunted children under five years old (toddlers) and diverting cigarette shopping with side dishes or other nutritional needs for toddlers. The innovation in this study is in the form of a community-based model of controlling cigarette consumption and stunting of toddlers with the agreement of the best news movement from the community as one of the program outputs. The Kabar best news movement is a family or household-level movement with several commitments namely: Furthermore, the existence of health promotion media in the form of best news piggy banks, best news posters, and best news leaflets is a tool in educational interventions. This research aims to develop the Kabar Besti program as an innovation to control cigarette consumption and stunting in the Sleman-Yogyakarta Regency.

METHODS

This research uses an action research (AR) approach, namely a type of research that uses a participatory approach to targets (Smith et al., 2010), and carries out interventions for improvement, some activities are educational, focus on the problem, the context is specific, and there is collaboration between researchers and those studied (Montgomery et al., 2015; Morton & Montgomery, 2013), (Coghlan & Brannick, 2014), (Green & Thorogood, 2009). The applied research stage of the Besti News program includes 1) innovation development, 2) innovation dissemination, 3) program adoption, and 4) evaluation of the structured interview program in the community of fathers, mothers of toddlers, and health cadres regarding the implementation of Besti News. The research was conducted in Sumberan Hamlet, Candibinangun Village, Pakem District, Yogyakarta for 6 months, from August 2023 to January 2024. The program targets were mothers of toddlers, the fathers' community, and the youth community. The research team consisted of lecturers, health workers, health cadres, and students. The role of

lecturers is as program initiators, educational resources, and assisting in research implementation. Research data collection through structured interviews was carried out by lecturers and public health students carried out by a team of students. Health promotion staff at the community health center guided before the research took place and opened communication with the hamlet. Health cadres act as field coordinators for the implementation of the Kabar Besti program whose duties include determining the implementation day, inviting targets who will attend, and coordinating with each RT head in their area to prepare the place and prepare for activities. This research protocol has received an ethical certificate from

Ahmad Dahlan University with the number 012308180.

RESULTS AND DISCUSSION

Steps for Innovating the Kabar Besti Program

The Kabar Besti Program has effectively implemented many stages to control cigarette smoking and address stunting, including innovation development, innovation dissemination, program adoption, and program assessment. Table 1 displays the comprehensive study stages, while Figure 1 presents the outcomes of the agreement to execute The Kabar Besti Program in the form of a proclamation.

Table 1. Outlines the Various Stages of the Kabar Besti Innovation Research Conducted In Dusun Sumberan, Desa Candi Binangun, Pakem Sleman In 2023.

No	Stages	Date of Implementation	Results
1	Innovation Development		
	a. Need Assessment: Securing endorsement from relevant parties and delivering a program presentation to the team of Pakem Primary Health Care and stakeholders at Candi Binangun, Pakem.	August 26, 2023	The program received a positive response from PHC and stakeholders at Desa Candibinangun. This presents a favorable occasion for the program to persist.
	b. Need Assessment: secondary data collection from Pakem PHC	August 27-28, 2023	We collected data on clean and healthy living behavior, home smoking behavior, toddler stunting, and water quality at Desa Candibinangun.
	c. Examining program potential and challenges: the enforcement of smoking-free area legislation, the implementation of GERMAS (Healthy Living Movement), and the enhancement of community social capital	August 29-30, 2023	Sleman is currently engaged in the expansion and enhancement of the implementation of GERMAS, with a specific focus on rural populations. One of the methods used is the establishment of No-Smoking Areas at the local level. The community's social capital, including values such as mutual collaboration, openness, regular meetings, and toddler Posyandu, is utilized to implement the program.
	d. A focus group discussion was held with the PHC staff to present secondary data and develop a plan of action for The Kabar Besti program.	2 September 2023	The study site was selected as Dusun Sumberan due to its representation of 25% of the overall population of stunted toddlers, as indicated by the data from The Pakem PHC in 2022.
2.	Dissemination of Innovation		
	a. The Kabar Besti Program in Dusun Sumberan Hamlet is being socialized among the	September 4-9, 2023	Data was acquired regarding the timetable for toddler Posyandu activities, youth

health cadres through advocacy and cooperation.

(karang taruna) activities, and community activities. Analyzing potential avenues and obstacles to the execution of a program: Most males are smokers.

Health cadres are responsible for coordinating operations with the community, including implementing and locating initiatives.

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| <p>b. Integration of The Kabar Besti dissemination and educational initiatives with Posyandu gatherings: Investigating the Impact of Cigarette Smoke on Growth Retardation in Young Children; Assessing Maternal Lung Function with a Spirometer</p> | <p>October 14, 2023</p> | <p>Health education topic: Promoting the integration of the Kabar Besti Program: Substituting cigarette purchases with eggs for toddlers: Empowering moms to become leaders of healthy households</p> <p>Agreement: Prioritise purchasing cigarettes for the dietary requirements of toddlers, refrain from smoking within the house, avoid smoking close to infants and young children, and dispose of cigarette butts responsibly.</p> <p>Health promotion media: Leaflets and Posters (represented by Figure 1 and Figure 2)</p> |
| <p>c. The socialisation of The Kabar Besti and health education programs at youth Posyandu meetings: The significance of healthy teenagers in reducing stunting</p> | <p>October 14, 2023</p> | <p>"Promoting adolescent engagement as proactive youth volunteers; disrupting the cycle of tobacco dependency and educating families on healthy lifestyles."</p> <p>Health promotion media: Leaflets and Posters</p> |
| <p>d. socialization of The Kabar Besti program and providing health education in the father's forum</p> | <p>October 13 -15, 2023</p> | <p>The Kabar Besti program highlighted the significance of fathers' involvement in addressing toddler stunting during socialization.</p> |
| <p>e. Assessment of pulmonary capacity and gathering of data on cigarette usage</p> | <p>Locations: Third, fourth, and fifth neighborhoods</p> | <p>"Promoting Fathers as Kabar Besti Heroes": fostering a robust family unit by cultivating physically and mentally fit family members, devoid of any exposure to tobacco smoke and devoid of any impediments to growth and development." Encouraging fathers to allocate income previously used for purchasing cigarettes towards providing their children with essential nourishment, such as eggs, meat, fish, tofu, tempeh, vegetables, and fruit.</p> |
| <p>f. The dissemination of health promotion media through the distribution of leaflets, posters, and Kabar Besti money boxes.</p> | <p>(toddlers' addresses are spread across these three neighborhoods)</p> | |

3 Program Adoption

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| <p>a. Organising the Kabar Besti declaration in collaboration with the community and</p> | <p>November 2-3, 2023</p> | <p>The outcome of the agreement between the leader of the dusun and health cadres is to</p> |
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stakeholders

pledge a collective dedication to The Kabar besti movement. The Kabar besti movement was endorsed by community representatives and stakeholders.

The Kabar Besti program was well received by the community and stakeholders. All participants have unanimously agreed to execute The Kabar Besti movement.

b. Agreement on The Kabar Besti Movement in Dusun Sumberan November 2023 14-16,

The proclamation event coincided with a social gathering for fathers in each respective neighbourhood, specifically in the third, fourth, and fifth neighbourhoods. The initiative commenced with a presentation of the study's findings, reinforcing the dedication of the community and disseminating health promotion materials in the shape of the "Kabar Besti Money Box" (Figure 3). Fathers should promptly transition to purchasing cigarettes in order to allocate funds towards meeting the nutritional requirements of toddlers. Simultaneously, declarations were made to groups of mothers of toddlers during posyandu exercises for toddlers.

The document contains the details of the Kabar Besti movement agreement.

1. Instead of purchasing cigarettes to meet the dietary requirements of young children
2. Allocate the funds previously spent on cigarettes towards fulfilling the dietary requirements of toddlers.
3. Refrain from smoking within your residence.
4. Avoid smoking in close proximity to infants and young children.

Refrain from carelessly discarding cigarette butts (Figure 4)

4 Program evaluation

a. Evaluation of The Kabar Besti movement program and lung capacity measurements in the fathers community December 9-16, 2023
 Locations: Third, fourth, and fifth neighbourhoods

An assessment of The Kabar Besti movement was conducted by conducting brief interviews with each father simultaneously during the dads' meeting/social gathering.

b. Signing of Implementing Agreement with Pakem PHC	December 14, 2023	An Implementing Agreement was made between the Faculty of Public Health and the Pakem PHC to ensure the continuation of The Kabar Besti program.
	Locations: Third, fourth, and fifth neighborhoods	
c. Evaluation of The Kabar Besti movement at toddler posyandu	December 15-16, 2023	A concurrent focus group discussion will be held for mothers of toddlers and health cadres during the Posyandu event. The purpose of the discussion is to address the implementation of The Kabar Besti

The Kabar Besti program utilizes health promotion media, such as leaflets (figure 1) and posters (figure 2), to facilitate the socialization process and enhance the comprehension of the presented material among the target audience. All attendees at the socialisation event received leaflets, while the leaders of their particular neighbourhoods were handed posters. Subsequently, it should be positioned in a conspicuous area, preferably a patrol post, to provide maximum visibility for the general public.



Figure 1. Leaflet of Stunting dan The Kabar Besti



Figure 2. Poster of The Kabar Besti

The Kabar Besti money box (figure 3) has been delivered to all the fathers in attendance at the socialization event, as well as to mothers of toddlers whose husbands have yet to receive the money box. The provision of health promotion media in the form of a money box is intended to incentivize and facilitate fathers in initiating a shift in their cigarette consumption habits by transitioning to purchasing cigarettes. Instead of purchasing smokes, consider using those funds towards saving or investing in a toddler's nutritional requirements. Figure 4 displays the outcomes of the implementation of The Kabar Besti program, which was agreed upon and documented in the form of a statement.



Figure 3. The Kabar Besti Money Box



Figure 4. Declaration of The Kabar Besti

This declaration serves the purpose of guaranteeing the long-term viability of the program and bolstering the dedication of community leaders to maintain oversight of The Kabar Besti program. Moreover, the announcement of The Kabar Besti program holds significance as it provides a chance to elucidate to all inhabitants that refraining from smoking in the presence of infants and young

children, rather than purchasing cigarettes, is a novel societal standard and a constituent of a communal initiative. It demonstrates that the execution of The Kabar Besti movement is a collaborative strategy that commences at the domestic level.

The declaration is an integral component of the development process for a community-based health program that incorporates an empowerment method, whereby the community is directly engaged in all stages of the program, from planning to evaluation (Heni Trisnowati, 2021). Prior researchers have made declarations about the implementation of a smoke-free household program in the city of Yogyakarta (Padmawati et al., 2018) and the objective is to establish and implement a smoke-free household initiative in rural regions within Bantul Regency, Yogyakarta (H Trisnowati et al., 2019). The smoke-free home declaration encompasses guidelines such as refraining from smoking near pregnant women and children, as well as affixing a smoke-free home sticker on the exterior of the residence (H Trisnowati et al., 2019).

Socio-economic Factors, Cigarette Consumption Patterns, and Acceptance of the Kabar Besti Program

The Kabar Besti Program was introduced and data was collected through social gatherings in the father's community. The study findings indicated that a significant proportion of the participants were smokers, specifically 70.7%. Among these smokers, the majority (32.8%) reported smoking between 11 and 20 cigarettes per day. The respondents unanimously agreed to the implementation of The Kabar Besti program, with a 100% acceptance rate. Additionally, a significant majority of respondents, amounting to 60.3%, expressed their desire to quit smoking. However, a small percentage of respondents, namely 7.0%, still showed reluctance about quitting smoking. For a more comprehensive explanation, please refer to Table 2 below.

Table 2. The Frequency Distribution of Variables Among The Group of Fathers in Dusun Sumberan, Desa Candibinangun Hamlet, Pakem, Sleman (n=58)

Variables	Frequency & Percent.			Total
	3 Neighborhoods (n=24)	4 Neighborhoods (n=12)	5 neighborhoods (n=22)	
Age of fathers (years)				
<50	13(54.1)	8(66.6)	10(45.5)	31(53.4)
=50	1(4.2)	2(16.7)	12(54.5)	15(25.9)
>50	10(41.7)	2(16.7)	0(0)	12(20.7)
Total	24 (100.0)	12 (100.0)	22(100.0)	58(100.0)
Type of occupation				
No/Not yet working	0(0)	1(8.3)	0(0)	1(1.7)
Educational staff	0(0)	1(8.3)	0(0)	1(1.7)
Self-employed	3(12.5)	0	7(31.8)	10(17.2)
Laborer	4(16.7)	3(25.0)	4(18.2)	11(19.0)
Farmers	17(70.8)	7(58.4)	11(50.0)	35(60.4)
Total	24(100.0)	12(100.0)	22(100.0)	58(100.0)
Smoker status				
Yes	16(66.6)	10(83.3)	15(68.2)	41(70.7)
No	7(29.2)	2(16.7)	7(31.8)	16(27.6)
Never tried	1(4.2)	0(0)	0(0)	1(1.7)
Total	24(100.0)	12(100.0)	22(100.0)	58(100.0)
Smoking location				
No smoking	7(29.2)	2(16.7)	7(31.8)	16(27.6)
Outdoor	14(58.3)	1(8.3)	8(36.4)	23(39.6)
Indoor	0(0.0)	1(8.3)	0(0)	1(1.7)
Outdoor & indoor	3(12.5)	8(66.7)	0(0)	11(19.0)
Others	0(0.0)	0(0)	7(0)	7(12.1)
Total	24(100.0)	12(100.0)	22(100.0)	58(100.0)
Total of cigarette consumption				
No smoker	7(29.2)	2(16.7)	7(31.8)	16(27.6)
1-10 stick	9(37.5)	1(8.3)	7(31.6)	17(29.3)
11-20 stick	5(20.8)	6(50.0)	8(36.4)	19(32.8)
21-30 stick	2(8.3)	3(25.0)	0(0)	5(8.6)
>30 stick	1(4.2)	0(0)	0(0)	1(1.7)
Total	24(100.0)	12(100.0)	22(100.0)	58(100.0)
Expenditures for buying cigarettes per day				
No smoker	8(33.3)	2(16.7)	7(31.8)	17(29.3)
<20.000	8(33.3)	4(33.3)	12(54.5)	24(41.4)
20.000-35.000	6(25.0)	5(41.7)	3(13.6)	14(24.1)
>35.000	2(8.3)	1(8.3)	0(0)	3(5.2)
Total	24(100.0)	12(100.0)	22(100.0)	58(100.0)
Toddler ownership				
Yes	10(41.7)	5(41.7)	6(27.3)	21(36.2)
No	14(58.7)	7(58.3)	16(72.7)	37(63.8)
Total	24(100.0)	12(100.0)	22(100.0)	58(100.0)
Acceptance of The Kabar Besti Program				
Agree	24(100.0)	12(100.0)	22(100)	58(100.0)
Disagree	0(0.0)	0(0)	0(0)	0(0.0)
Total	24(100.0)	12(100.0)	22(100.0)	58(100.0)
Intention to stop smoking				
No smoker	8(33.3)	2(16.7)	7(31.8)	17(29.3)
Yes	15(62.5)	9(75.0)	11(50.0)	35(60.3)
No intention	1(4.2)	1(8.3)	0(0)	2(3.4)
doubtful	0(0.0)	0(0)	4(18.2)	4(7.0)
Total	24(100.0)	12(100.0)	22(100.0)	58(100.0)

According to the data in Table 2, the percentage of male smokers at the study location is 70.7%. This prevalence is

higher than The National data, which shows that 62.9% of men in 2018 consumed tobacco (via smoking and

chewing) (*ATLAS TEMBAKAU INDONESIA 2020*, n.d.). Moreover, Indonesian men have the greatest smoking rate among ASEAN countries, namely at 66%, while Singapore has the lowest incidence at 21.1%. The prevalence of smoking among women in Indonesia, Laos, Myanmar, and the Philippines is notably high, ranging from 5.8% to 8.4% (Tan & Dorotheo, 2021). The elevated proportion of male smokers in the study area can be attributed to the prevailing perception among men that smoking is a socially acceptable behavior and a perceived necessity.

Smoking exerts a substantial influence on health due to its correlation with illness, reduced lifespan, and diminished quality of life. Furthermore, smokers incur greater healthcare costs compared to individuals who do not smoke. Smoking not only detrimentally affects personal health, but also harms the household finances (Ginting & Maulana, 2020). Tobacco consumption in low- and middle-income nations is inversely linked to household spending on education and healthcare, underscoring the potential adverse effects of tobacco use on investment in the development of human capital (Chowdhury & Chakraborty, 2019).

In addition, when examining expenditure on cigarettes, it is shown that 41.4% of fathers allocated less than IDR 20,000 for this purpose. This demonstrates that obtaining cigarettes remains very uncomplicated, except for their availability in retail stores. The accessibility of purchasing cigarettes has a significant impact on individuals' smoking habits (Mulyana & Thaha, 2013; Muslim et al., 2023). According to Lawrence Green's concept, the availability of cigarettes is considered one of the elements that can impact smoking behavior (Glanz et al., 2008; H Trisnowati, 2018). The accessibility of cigarettes in society is directly correlated with the price of cigarettes in Indonesia. Unlike Malaysia, Myanmar, Singapore, and Brunei Darussalam, the cost of cigarettes in Indonesia is about 1.6-1.9 USD, making it comparatively inexpensive and within reach for most people (Alliance Southeast Asia Tobacco Control, 2021) As cigarette prices climb, the occurrence of smoking declines (Dartanto et al., 2018). An additional study conducted in Indonesia

indicates that up to 74% of those who smoke would cease purchasing cigarettes if the cost of cigarettes were set at IDR 70,000 or 5 USD (Nurhasana et al., 2022).

The results reveal a noteworthy fact: there is a significant level of public knowledge on the importance of safeguarding infants and young children from the harmful effects of cigarette smoke. This is evidenced by the complete approval of The Kabar Besti program by the public. They exhibit strong support and enthusiasm in actively engaging in all aspects of The Kabar Besti program activities. Aside from the significant contributions of health cadres and community leaders, particularly the leader of Dusun, this is an influential aspect in the success of The Kabar Besti program. In addition, your strong determination to quit smoking presents a favorable occasion to implement diverse interventions aimed at assisting you in quitting or decreasing your cigarette intake.

Evaluation of The Kabar Besti Program

The evaluation of the Kabar Besti program is to assess the program's influence on alterations in the cigarette consumption patterns of parents, with a particular focus on fathers. The evaluation was conducted utilizing quantitative methodologies, specifically through organized interviews with participants, where questionnaires were administered directly. The evaluation was conducted one month following the announcement of the Kabar Besti program. The focus of the assessment is the cohort of dads. A total of 51 father participants took part in the evaluation from all neighborhoods.

The evaluation results indicated that a significant proportion of respondents (82.4%) had undergone socialization regarding the Kabar Besti program. One month after the implementation of the Kabar Besti program, the majority of men, precisely 35 individuals, continued to smoke, accounting for 68.6% of the total. However, among these smokers, 23 people (45.1%) had redirected their cigarette expenses towards meeting their nutritional needs, while 21 people (41.2%) had saved money by refraining from purchasing cigarettes. Additionally, 86.3% of respondents reported not smoking at

home or in the presence of infants or young children. During the implementation of the program evaluation, it was discovered that 19 individuals, accounting for 37.3% of the participants, expressed a wish to quit smoking. The prevalence of paternal smoking fell from 70.1% before the

intervention (August 2023) to 68.1% following the intervention (December 2023). Thus, it can be inferred that the Kabar Besti Program has effectively influenced the smoking habits of dads, particularly those who had infants and/or young children (Table 3).

Table 3. The Evaluation Result of The Kabar Besti Program among fathers (n=51)

Variables	Freq. & Percent.			Total (%)
	3 Neighborhoods (n=24)	4 neighborhoods (n=12)	5 neighborhoods (n=22)	
Age of fathers (years)				
<50	5 (27.8)	4(44.4)	9(37.5)	18(35.3)
=50	2 (11.1)	2(22.2)	15(62.5)	19(37.3)
>50	11 (61.1)	3(33.3)	0(0.0)	14(27.4)
Total	18 (100.0)	9(100.0)	24(100.0)	51(100.0)
Toddlers ownership				
Yes	5 (27.8)	4(44.4)	7(29.2)	16(31.4)
No	13 (72.2)	5(55.6)	17(70.8)	35(68.6)
Total	18 (100.0)	9(100.0)	24(100.0)	51(100.0)
Experience in getting socialization of The Kabar Besti program				
Yes	15 (83.3)	7(77.8)	20(83.3)	42(82.4)
No	3 (16.7)	2(22.2)	4(16.7)	9(17.6)
Total	18 (100.0)	9(100.0)	24(100.0)	51(100.0)
Smoking status after The Kabar Besti program				
Yes	10 (55.6)	8(88.9)	17(70.8)	35(68.6)
No	8 (44.4)	1(11.1)	7(29.2)	16(31.4)
Total	18 (100.0)	9(100.0)	24(100.0)	51(100.0)
Redirect income allocated for purchasing cigarettes				
Yes	7 (38.9)	3(33.3)	13(54.2)	23(45.1)
No	11 (61.1)	6(66.7)	11(45.8)	28(54.9)
Total	18 (100.0)	9(100.0)	24(100.0)	51(100.0)
Refrain from purchasing cigarettes to save money				
Yes	7 (38.9)	3(33.3)	11(45.8)	21(41.2)
No	11 (61.1)	6(66.7)	13(54.8)	30(58.8)
Total	18 (100.0)	9(100.0)	24(100.0)	51(100.0)
No smoking within indoor area				
Yes	15 (83.3)	8(88.8)	21(87.5)	44(86.3)
No	3 (16.7)	1(11.2)	3(12.5)	7(13.7)
Total	18 (100.0)	9(100.0)	24(100.0)	51(100.0)
Avoid smoking close to infants or young children				
Yes	15 (83.3)	8(88.8)	21(87.5)	44(86.3)
No	3 (16.7)	1(11.2)	3(12.5)	7(13.7)
Total	18 (100.0)	9(100.0)	24(100.0)	51(100.0)
Intention to stop smoking				
No skomer	8 (44.4)	1(11.1)	7(29.2)	14(27.4)
Yes	7 (38.9)	7(77.8)	5(20.8)	19(37.3)
No	1 (5.6)	1(11.1)	5(20.8)	7(13.7)
Doubtful	2 (11.1)	0(0.0)	7(29.2)	9(17.6)
Total	18 (100.0)	9(100.0)	24(100.0)	51(100.0)

The KaBar BesTi program is an innovative initiative promoting smoke-free and stunting-free environments within families. It is a continuation of the smoke-free home program implemented by researchers in various parts of Yogyakarta. The program has effectively transformed people's smoking habits. The Kabar Besti program introduces a new approach by highlighting the significance of abstaining from smoking within families that have children under the age of five who are experiencing stunted growth. In the Kabar Besti program, each family is encouraged to establish a commitment to refrain from smoking inside the household. In addition, to mitigate stunting, it is recommended that each household prioritize purchasing nutritious side dishes or other essential nutritional items for young children instead of spending money on cigarettes. The relationship between cigarette usage and stunting is inseparable, as stunting typically affects young children who are exposed to cigarette smoke within their own families. The primary objective of the KaBar Besti program is to diminish the prevalence of those who engage in smoking, deter the initiation of new smokers, minimize exposure to cigarette smoke, and regulate the occurrence of growth impairment in young children. The Kabar Besti program is a grassroots initiative that promotes specific commitments and agreements at the family or household level. These include 1) Redirecting funds that would have been spent on cigarettes towards meeting the nutritional needs of toddlers; 2) Saving money that would have been spent on cigarettes to meet the nutritional needs of toddlers; 3) Prohibiting smoking within the home; 4) Avoiding smoking close to babies and toddlers; 5) Ensuring responsible disposal of cigarette butts.

In December 2023, the monitoring data indicated seven male toddlers, accounting for 36.8% of the total, and 12 female toddlers, accounting for 63.2%. In November 2023, the data from monitoring the nutritional status of toddlers showed that the percentage of toddlers experiencing stunting reduced to 11.11%, which means that 2 out of 18 toddlers were affected. In addition, in the stunting data for 2022 and 2023, there has been a significant decline in the percentage of stunted toddlers, from 25% to 11.11%. The

decline is substantial, amounting to 13.89% over one year. The incidence of stunting in Desa Candibinangun, Pakem, Sleman by the end of 2023 is highly promising as it has successfully reached the national goal of less than 14%. This data aligns with the Indonesian government's objective of decreasing the prevalence of stunting in Indonesia to less than 14% by 2024 (Bayu, 2022; Peraturan Presiden Republik Indonesia & Kementerian PPN/Bappenas, 2019).

The decrease in the prevalence of stunting among toddlers can be attributed to various factors, such as the diligent participation of mothers in toddler posyandu, where the health of toddlers is monitored every month. Additionally, fathers who smoke refrain from doing so at home, thereby minimizing direct exposure of toddlers to cigarette smoke. The Kabar Besti program serves as a means of support and reinforcement for families with toddlers, encouraging them to adopt healthy lifestyles. This includes refraining from smoking in the house and near babies and toddlers, as well as making a shift in cigarette shopping habits. These changes have a positive impact on smoking patterns in society as a whole, particularly among parents of toddlers. The rate of change in cigarette consumption patterns is gradually aligning with the growing consciousness among parents of young children to prioritize the dietary requirements of their sons and daughters who are under the age of five.

CONCLUSION

The Kabar Besti program has been established and demonstrated to enhance community and stakeholder dedication to regulating cigarette consumption and stunting. The Kabar Besti program should be disseminated as a strategic measure to regulate cigarette use habits and address stunting in toddlers. The program's success relies heavily on the collective dedication of the health service, PHC, and stakeholders at the Dusun and Desa.

REFERENCES

Agustina, N. (2022). *Direktorat Jenderal Pelayanan Kesehatan*. Kemenkes RI. https://yankes.kemkes.go.id/view_artikel/1529/faktor-faktor-penyebab-kejadian-stunting-pada-balita

- Alliance Southeast Asia Tobacco Control. (2021). SEATCA Tobacco Tax Index: Implementation of WHO Framework Convention on Tobacco Control Article 6 in ASEAN Countries. *SEATCA Tobacco Tax Index 2019*, 1-28.
- Alwan, N., Siddiqi, K., Thomson, H., Lane, J., & Cameron, I. (2011). Can a community-based "smoke-free homes" intervention persuade families to apply smoking restrictions at homes? *Journal of Public Health*, 33(1), 48-54. <https://doi.org/10.1093/pubmed/fdq073>
- ATLAS TEMBAKAU INDONESIA 2020. (n.d.). Retrieved May 31, 2022, from www.tsc-indonesia.org
- Bayu, D. (2022). *Prevalensi Stunting di Indonesia Capai 24,4% pada 2021*. Data Indonesia. <https://dataindonesia.id/ragam/detail/prevalensi-stunting-di-indonesia-capai-244-pada-2021>
- Bleakley, A., Hennessy, M., Mallya, G., & Romer, D. (2013). *Home smoking policies in urban households with children and smokers*. <https://doi.org/10.1016/j.yjpm.2013.12.015>
- Chowdhury, S., & Chakraborty, P. (2019). Expenditure on health care, tobacco, and alcohol: Evidence from household surveys in rural Puducherry. *Journal of Family Medicine and Primary Care*, 6(2), 169-170. <https://doi.org/10.4103/jfmpc.jfmpc>
- Coghlan, D., & Brannick, T. (2014). *Doing Action Research in Your Own Organization* | SAGE Publications Ltd. SAGE Publications. <https://uk.sagepub.com/en-gb/eur/doing-action-research-in-your-own-organization/book240933>
- Dartanto, T., Nasrudin, R., Hasibuan, J., & Nurhasana, R. (2018). Tingkat Prevalensi Merokok pada Anak di Indonesia : Efek Harga dan Efek Teman Sebaya. *Pkjs Ui*, 1-5.
- Ginting, I. R., & Maulana, R. (2020). Dampak Kebiasaan Merokok pada Pengeluaran Rumah Tangga. *Jurnal Kebijakan Kesehatan Indonesia : JKKI*, 9(2), 77-82. <https://jurnal.ugm.ac.id/jkki/article/view/55879>
- Glanz, K., Rimer, B. k., & Viswanath, K. (2008). *Health Behavior and Health Promotion* (T. C. Orleans (Ed.)). Jossey Bass.
- Green, J., & Thorogood, N. (2009). Qualitative methods for health research. *Choice Reviews Online*, 47(02), 47-0901-47-0901. <https://doi.org/10.5860/choice.47-0901>
- Hasyim, F. A., Pajarianto, H., Ramli, S. A., Umrah, A. S., & Amri, S. R. (2022). Hubungan Perilaku Lifestyle Without Tobacco dengan Pertumbuhan Anak Usia Dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(4), 3314-3325. <https://doi.org/10.31004/obsesi.v6i4.2362>
- Henri Trisnowati. (2021). PEMBERDAYAAN Remaja Dalam Program Pencegahan Dan Pengendalian Perilaku Merokok Di Daerah Perdesaan Bantul Daerah Istimewa Yogyakarta. In *Ugm*. <https://etd.repository.ugm.ac.id/pene-litian/detail/205778>
- Kementerian Kesehatan RI. (n.d.). *Prevalensi Stunting di Indonesia Turun ke 21,6% dari 24,4%*. Kementerian Kesehatan RI.
- Montgomery, A., Doulougeri, K., & Panagopoulou, E. (2015). Implementing action research in hospital settings: a systematic review. In *Journal of Health, Organisation and Management* (Vol. 29, Issue 6, pp. 729-749). <https://doi.org/10.1108/JHOM-09-2013-0203>
- Morton, M. H., & Montgomery, P. (2013). Youth Empowerment Programs for Improving Adolescents' Self-Efficacy and Self-Esteem: A Systematic Review. *Research on Social Work Practice*, 23(1), 22-33. <https://doi.org/10.1177/1049731512459967>
- Muchlis, N., Yusuf, R. A., Rusydi, A. R., Mahmud, N. U., Hikmah, N., Qanitha, A., & Ahsan, A. (2023). *Cigarette Smoke Exposure and Stunting Among Under-five Children in Rural and Poor Families in Indonesia*. December 2022. <https://doi.org/10.1177/11786302231185210>
- Muliyana, D., & Thaha, I. L. M. (2013). Faktor Yang Berhubungan Dengan Tindakan Merokok Pada Mahasiswa Universitas Hasanuddin Makassar. *Media Kesehatan Masyarakat Universitas Hasanuddin*, 9(2), 109-119.
- Muslim, N. A., Adi, S., Ratih, S. P., & Ulfah, N. H. (2023). Determinan Perilaku Merokok Remaja

- SMA/Sederajat di Kecamatan Lowokwaru Kota Malang. *Perilaku Dan Promosi Kesehatan: Indonesian Journal of Health Promotion and Behavior*, 5(1), 20. <https://doi.org/10.47034/ppk.v5i1.6781>
- Nurhasana, R., Ratih, S. P., Dartanto, T., Moeis, F. R., Hartono, R. K., Satrya, A., & Thabrany, H. (2022). Public support for cigarette price increase in Indonesia. *Tobacco Control*, 31(3), 483-486. <https://doi.org/10.1136/TOBACCOCONTROL-2019-055554>
- Padmawati, R., Prabandari, Y., Istiyani, T., Nichter, M., & Nichter, M. (2018). Establishing a community-based smoke-free homes movement in Indonesia. *Tobacco Prevention & Cessation*, 4(November). <https://doi.org/10.18332/tpc/99506>
- Peraturan Presiden Republik Indonesia, & Kementerian PPN/Bappenas. (2019). Rencana Pembangunan Jangka Menengah Nasional. In *Peraturan Presiden Republik Indonesia Nomor 18 Tahun 2020*.
- Sari, N. A. M. E., & Ni Komang Ayu Resiyanthi. (2020). Kejadian Stunting Berkaitan Dengan Perilaku Merokok Orang Tua mengetahui “ Kejadian Stunting Berkaitan kuantitatif yang menggunakan desain orangtua balita di Wilayah kerja Puskesmas 57 orang . Penelitian ini menggunakan univariat data yang diperoleh dari. *Jurnal Ilmu Keperawatan Anak*, 3(2), 24-30.
- Simanjuntak, J. (2022). *Jackson Simanjuntak*. Prohealth.
- Smith, L., Rosenzweig, L., & Schmidt, M. (2010). Best Practices in the Reporting of Participatory Action Research: Embracing Both the Forest and the Trees. *The Counseling Psychologist*, 38(8), 1115-1138. <https://doi.org/10.1177/0011000010376416>
- Tan, Y. L., & Dorotheo, U. (2021). The Tobacco Control Atlas ASEAN Region, Fifth Edition. In *Southeast Asia Tobacco Control Alliance* (Issue December).
- Trisnowati, H. (2018). *Perencanaan Program Promosi Kesehatan* (1st ed.). Penerbit Andi.
- Trisnowati, H, Ismail, D., Padmawati, R. S., & Utarini, A. (2020). Developing a framework for youth empowerment to prevent smoking behavior in a rural setting: study protocol for a participatory action research. *Health Education, ahead-of-p*(ahead-of-print). <https://doi.org/10.1108/HE-06-2020-0045>
- Trisnowati, H, Kusuma, D., Ahsan, A., Kurniasih, D., & Padmawati, R. (2019). Smoke-free home initiative in Bantul, Indonesia: Development and preliminary evaluation. *Tobacco Prevention & Cessation*, 5(November), 1-5. <https://doi.org/10.18332/tpc/113357>
- Trisnowati, Heni. (2017). *Pengembangan rumah bebas asap rokok sebagai upaya perlindungan terhadap perokok pasif di kutu dukuh kabupaten sleman yogyakarta*. May.
- Zubaidi, H. A. K. (2021). Tinggi Badan dan Perilaku Merokok Orangtua Berpotensi Terjadinya Stunting pada Balita. *Jurnal Penelitian Perawat Profesional*, 3(2), 279-286. <https://doi.org/10.37287/jppp.v3i2.414>