### The Impact of Parental Smoking Behavior and Cigarette Expenditure on Toddler Well-Being and Family Mental Health: A Qualitative Study Post Kabar Besti Program

Heni Trisnowati⊠¹), Aini Zahra¹), Muhammad Syamsu Hidayat¹), Septian Emma Dwi Jatmika¹)²)

<sup>1</sup> Faculty of Public Health, Ahmad Dahlan University, Yogyakarta 55154

⊠Email: <a href="mailto:heni.trisnowati@pascakesmas.uad.ac.id">heni.trisnowati@pascakesmas.uad.ac.id</a>

### **ABSTRACT**

Background: Parental smoking behavior has complex impacts, including economic pressures and adverse effects on toddler health, such as increased risk of stunting. The Kabar Besti program was introduced as a health promotion intervention aimed at reducing smoking among families with toddlers. However, its effects on family mental health have not been extensively studied. Objective: This qualitative study explores changes in parental smoking patterns, shifts in cigarette expenditures, and their impacts on toddler well-being and family mental health following the implementation of the Kabar Besti program in Sleman, Yogyakarta. Methods: Using the Rapid Assessment Procedure (RAP), a qualitative research approach, seven participants were involved: three key informants (parents) and four triangulation informants, including health workers and community leaders. Participants were selected via purposive sampling. Data collection involved interviews and observations. Results: The program contributed to reduced cigarette consumption and increased health awareness. Fathers with toddlers redirected spending toward nutrition and savings and reduced smoking at home and near children. Despite these positive changes, some parents experienced psychological burdens related to nicotine dependence, financial stress, and interpersonal conflicts. Parental mental health significantly influenced parenting practices and toddlers' psychological well-being. Emotional and economic support emerged as protective factors, helping stabilize family dynamics post-intervention.

**Keywords:** Cigarette Purchases, Family Mental Health, Kabar Besti Program, Parental Smoking Patterns, Toddler Health

### INTRODUCTION

Parental smoking behavior is a major factor negatively impacting the health and well-being of families, especially toddlers. In Sleman Regency, tobacco consumption family members is a among determinant of stunting—an important with health problem long-term consequences for children's growth and development (Trisnowati et al., 2024). Beyond its effects on physical health, smoking habits also burden families economically due to expenses cigarettes, which can ultimately influence mental health.

Early childhood is a critical period of human development. Toddlers grow and develop much faster than adults, requiring increased nutritional intake to support optimal physical and cognitive maturation. One indicator of a region's human resource quality is the achievement of optimal child

growth and development, which reflects the population's nutritional and health status. The nutritional status of toddlers serves as a sensitive indicator for assessing community health (Mashar, Suhartono and Budiono, 2021).

According to the 2022 National Nutrition Status Survey (SSGI), the prevalence of stunting in Indonesia is 21.6%, with Yogyakarta (DIY) at 16.4%, and Sleman at 15.0%. Indonesia aims to reduce stunting to 14% by 2024, aligning with the WHO standard target of below 20% (Ministry of Health, 2023).

Stunting is a serious public health problem and has an impact on the quality of life in the future. Stunting is not only characterized by short stature, but also reflects a condition of chronic malnutrition that persists, which interferes with physical growth, brain development, and metabolic function (Nasriyah and Ediyono, 2023).



© 2025. Jurnal Promkes: The Indonesian Journal of Health Promotion and Health Education. **Open Access under CC BY-NC-SA License**.

<sup>&</sup>lt;sup>2</sup> International Health program, Institute of Public Health, College of Medicine, National Yang-Ming University, Taipei, Taiwan, ROC, 11221

Socioeconomic status, which is heavily influenced by parental education levels, is one of the main indirect factors contributing to the incidence of stunting. Education determines an individual's knowledge of nutrition and influences the types of food consumed by the family. Low economic status significantly increases the risk of stunting due to limited dietary diversity and inadequate nutritional intake (Nugroho, Sasongko and Kristiawan, 2021)yan. Families with low economic status tend to consume less diverse foods and pay less attention to proper nutritional intake.

In 2023, the Central Statistics Agency (BPS) reported that 28.62% of Indonesia's population aged 15 and over were smokers, with Yogyakarta (DIY) recording a slightly lower prevalence of 24.82%. These statistics indicate that smoking remains widespread in society (BPS Indonesia, 2023). Exposure to cigarette smoke increases the risk of stunting in children through three mechanisms: elevating the incidence of respiratory infections (a known risk factor for stunting), disrupting the absorption of essential minerals and vitamins, and diverting household expenditure away from nutritional needs (HM, Susaldi and Munawaroh, 2024).

A preliminary study at Pakem Health Center, Sleman, found that as of October 2023, 8.69% of toddlers experienced stunting, with prevalence rates of 9.56% in Candibinangun Village and 11.11% in Sumberan Hamlet. Sumberan Hamlet, designated as a stunting hotspot, initiated a program called "Smoke-Free and Stunting-Free Families" (Kabar Besti).

The Kabar Besti initiative promotes smoke-free households by targeting parental smoking behaviors—especially among fathers—and encourages redirecting spending toward fulfilling cigarette toddlers' nutritional needs. This community-based movement aims to create a healthier environment for child growth development. and However, program although the has been implemented, a deeper understanding of how parental smoking behavior and cigarette expenditure impact toddler wellbeing and family mental health remains limited and warrants further qualitative investigation.

This study aims to explore the impact of parental smoking and cigarette

spending on toddler well-being and family mental health following the Kabar Besti program.

#### **METHODS**

This study employs a qualitative approach with a Rapid Assessment Procedure (RAP) design. Qualitative research is used to describe and explain specific events, phenomena, symptoms, and social situations through narratives or descriptive language (Waruwu, 2023). The RAP design is a rapid assessment method aimed at obtaining in-depth information about the underlying factors influencing public health behaviors. It is a quick and efficient way to gather comprehensive data on socio-cultural factors (Fitria et al., 2024).

The research was conducted in Dusun Sumberan, Candibinangun Village, Pakem District, Sleman Regency. A total of seven informants participated, consisting three key informants and four triangulation informants, selected through purposive sampling. Data were collected in-depth through interviews observations. Ethical approval for this study was granted by Ahmad Dahlan with certificate University, number 012308180.

### **RESULTS AND DISCUSSION**

### **Respondent Characteristics**

This study involved seven informants, comprising key informants and triangulation informants. The informants included toddler parents and health promotion officers at Pakem Health Center. The characteristics of the informants are detailed in Table 1 below:

Table 1. Respondent Characteristics

No	Inisial Informan	Usia (Tahun)	Pekerjaan
1	TP-IK, L	30	Buruh tani
2	TU-IT, P	29	lbu rumah tangga
3	M-IK, L	52	Petani
4	DW-IT, P	30	Ibu rumah tangga
5	C-IK, L	29	Petani
6	NB-IT, P	40	Ibu rumah tangga
7	SH-IT, P	29	Petugas promosi kesehatan Puskesmas Pakem



© 2025. Jurnal Promkes: The Indonesian Journal of Health Promotion and Health Education. **Open Access under CC BY-NC-SA License**.

## Reallocation of Cigarette Spending and Saving for Toddler Nutritional Needs

The behavior of switching between spending and saving cigarette money was obtained from interviews. To facilitate understanding of the interview results regarding this switching behavior, the data are presented in Table 2.

Table 2. Coding and Categories of Switching Spending on Cigarettes and Saving for Toddler Nutritional Needs

### **Bivariate Analysis**

This analysis was conducted to determine the relationship between variables. Bivariate analysis was performed on two variables that were related to each other, using the chi-square statistical test at a 95% confidence interval.

Coding	Category	Core category
Key Informant	Catcago	core category
a. 6th grade elementary school	Long time as an active smoker	
b. 18 years c. Since the age of 16		
a. 20,000 rupiah b. 30,000 rupiah	Cigarette expenditure before the Kabar Besti	
c. 10,000 rupiah	Program	
a. 10,000 rupiah b. 15,000 rupiah	Cigarette expenditure after the Kabar Besti Program	
c. Still the same 10,000 rupiah		
a. There is no intention to reduce	Difficulty setting aside cigarette money to meet	
b. It's normal, the ratio of income and	toddler's nutritional needs	
expenses is the same c. Nothing, just saving a little bit at a time		
<ul> <li>a. Still doing to set aside money</li> </ul>	Sustainability in setting aside cigarette money	
b. Yes, I saved it in a piggy bank.		
c. Still to be put in the piggy bank		Reallocation of Cigarette Spending and
a. Everyday life becomes smooth	The positive impact of setting aside cigarette	Saving for Toddler Nutritional Needs
<ul> <li>b. Increasing children's needs</li> </ul>	money to fulfill toddlers' nutritional needs	
c. Reduce spending on cigarettes and money		
for children's snacks		
Triangulation Informar		
a. Good b. Maintaining the health of your children and yourself	Opinion on the existence of the Best News Program	
<ul> <li>c. It depends on each individual</li> </ul>		
a. Reduced by a few bars	Husband's cigarette	
<ul> <li>b. Don't know because of husband's business</li> </ul>	expenditure after the Kabar Besti Program	
c. Reduced, less than 15,000 rupiah		
a. Occasionally used	Use of the piggy bank of the	
<ul> <li>b. Don't know and don't get a piggy bank</li> </ul>	Kabar Besti Program	
<ul> <li>Still in use and saved for other needs</li> </ul>		

The behavior of switching between spending and saving cigarette money was exhibited by the toddler's father, who continued smoking. Although he had not quit smoking, he stated that his spending on purchasing cigarettes had occasionally decreased. The following is an excerpt from the researcher's interview with the informant:

".yes, reducing it from 20,000 now to 10,000... the money is used for my

little brother's needs or other needs..." - Informant TP

In an effort to set aside cigarette money, the informants stated that they did not experience any difficulty, as they believed that reducing cigarette purchases would allow the money to be diverted to other needs. As one informant stated:

"... I'm just normal. It's possible that income and expenses are the same, there's no change, but it's better to have a little piggy bank to buy side dishes" - Informant M

The Kabar Besti program brought about changes in the informants' cigarette purchasing behavior. The informants learned that by reducing cigarette purchases, they could better meet their children's needs.

Shifting cigarette spending toward toddlers' nutritional needs is an important step in improving children's health and growth. Malnutrition in toddlers can impact cognitive development, lead to less-than-optimal educational performance, and even increase the risk of chronic nutritional diseases in adulthood (Ambarita et al., 2023). By reducing expenditure on cigarettes, families can allocate more resources to meet the nutritional requirements essential for optimal child development. Households that continue to consume cigarettes may experience worsening conditions because they lose resources that could help escape the cycle of poverty. In Indonesia, smokers spend approximately 8.25% of their average income annually on buying ten cigarettes daily (Nizamie and Kautsar, 2021).

This study shows that after the implementation of the Smoke-Free Family and Stunting-Free Family (Kabar Besti) programs, informants' spending on cigarettes decreased, with the money previously used for cigarettes being redirected toward toddlers' nutritional needs.

Expenditure on cigarette consumption impacts the household budget in two ways. The first is the direct effect, where spending on cigarettes reduces spending on other essential items such as food, education, and housing. This reduction also affects household members who do not consume tobacco; therefore,



households that consume cigarettes often have different budgets compared to households that do not.

Based on information from triangulated informants, cigarette expenditure is sufficient to increase overall household spending. With the Kabar Besti program, mothers of toddlers stated that the program was very beneficial. Two out of three mothers of toddlers reported that, thanks to the Kabar Besti program, their husbands' or fathers' cigarette expenses had decreased. This indicates a direct effect of reduced cigarette expenditure, which in turn enhances children's nutritional needs.

The second effect, or indirect effect, of tobacco consumption is increased health costs. Smoking has significant health impacts, including associations with disease, shortened life expectancy, and reduced quality of life. Smokers tend to spend more on health care than non-smokers. Smoking negatively affects personal health and household budgets (Ginting and Maulana, 2020).

Households with smoking parents face an increased risk of child stunting. In addition to exposure to cigarette smoke, the family's economic capacity to meet children's nutritional needs also influences children's growth and development. These findings highlight the negative impact of parental smoking habits on children's growth, reinforcing the importance of reducing smoking prevalence through strategies such as implementing smokefree home policies in stunting prevention efforts (Muchlis et al., 2023).

Socioeconomic status influences spending behaviors among active and former smokers. The results show that active smokers tend to spend less on food, education, and insurance than former smokers, who tend to prioritize health, education, and nutrition (Lal et al., 2022). Families that allocate significant resources to cigarette purchases may experience financial stress, which can reduce spending on children's basic needs, such as health and education (Alosoufe et al., 2023).

The findings of this study indicate that transitioning from cigarette purchasing to purchasing items for toddlers or other needs is quite challenging due to nicotine dependence and established smoking habits. Additionally, smoking is often viewed as a coping mechanism for

stress or financial pressure, making it difficult for individuals to quit.

# Description of smoking behavior of parents after the implementation of the Kabar Besti program

The results of interviews with key informants and triangulation informants regarding parents' smoking behavior after the Kabar Besti program indicate that parental smoking behavior can be categorized into three groups: a) not smoking inside the house, b) not smoking near pregnant women, babies, and toddlers, and c) not discarding cigarette butts carelessly (Table 3).

Table 3. Coding and Categories of Non-Smoking Behavior in the Home

Coding	Category	Theme
Key Informant		
a. Evening in the house b. Often at home c. Often but in the kitchen	Smoking behavior in the home before the Kabar Besti Program	
Reduced, when people at home are sleeping     Reduced by moving to the back of the house c. Reduced, more frequent when in the goat pen	Smoking behavior in the home after the Kabar Besti Program	
a. Cleaner     b. The air is cooler because it is in the village, the changes are not really felt.     c. When breathing is better, you don't smell cigarette smoke.	Changes in environmental conditions around the house	No Smoking in the
The house doesn't smell of smoke     Children are protected from cigarette smoke     The house is quite free from cigarette smoke and clean	Benefits of non-smoking behavior in the home	nouse
Triangulation Informants		
a. Still smoking but rarely does it anymore b. If you are alone, move back, but if you have friends who are still in the house     c. Still at home but only in the kitchen	Husband's smoking behavior at home after participating in the Kabar Besti program	

According to the informants' opinions on efforts to avoid smoking inside the house, the intensity of smoking activity within the home has decreased. However, some informants still occasionally smoke indoors, either when other family members are sleeping or by choosing to smoke in the kitchen. The following is an excerpt from an interview with an informant regarding smoking behavior in the house:

"Yes, sometimes I still do, sis... at night... When everyone is asleep, I smoke inside" - Informant TP

The informant said further about reducing smoking activity inside the home:

"Yes, away, sis, sometimes to the back" - Informant M



"Yes, at most it's reduced, sis, sometimes outside like that" - Informant C

Based on the results of the interview with the triangulation informant who is the informant's wife, she also said that the intensity of smoking at home has decreased so far.

"Yes, sometimes if there are many friends, I still do... if I'm alone, sometimes I go to the back and stay away like that" - Triangulation Informant DW

Furthermore, it is related to smoking behavior when near pregnant women, babies, and toddlers. Further explained in table 4.

Table 4. Coding and Categories for No Smoking Near Pregnant Women, Babies, and Toddlers

	Coding	Category	Core category
Key Informant			
b.	Not good for health You know, it's dangerous Can cause stunting	Knowledge of the dangers caused by cigarette smoke	
	Always stay away	Smoking behavior	
b.	Never because it's dangerous	before the Kabar Besti program	
c.	Know the dangers from the start, never smoke near them		No Smoking Near
a.	Already understand so stay away	Smoking behavior after the Kabar	Pregnant Women, Babies, and
b.	Avoid, pity	Besti program	Toddlers
c.	Until now still far away		loddiers
Triangulation Informant			
a.	Get away from them	Husband's	
b.	Understanding should not	smoking behavior	
	become distant	near pregnant	
c.	No, because I already understand that it is not allowed.	women, babies and toddlers	

Table 4 indicates that both husbands and wives informants have good behavior regarding not smoking near pregnant women, babies, and toddlers. The informants are aware of the dangers caused by cigarette smoke inhalation by pregnant women, babies, and toddlers. The following is an excerpt from an interview with an informant: "You know, it can cause stunting" - Informant C

"Not at all because if we keep smoking, the smoke that comes out will get on the baby or toddler or the mother who is carrying them, that is more dangerous than what we inhale" - Informant M "Stay away, ma'am, you already know, you just don't change your

clothes, ma'am" - Triangulation Informant TU

Based on the interview results, it is evident that the behavior of not smoking near pregnant women, babies, and toddlers among the informants is quite good. The informants are aware of the health dangers posed by cigarettes or cigarette smoke to pregnant women, babies, and toddlers.

Next, regarding the behavior of not discarding cigarette butts carelessly: cigarette butts are often underestimated, but they pose a significant risk when toddlers find and ingest them due to the residual cigarette content left in the butts. These findings are explained in Table 5.

Table 5. Coding and Categories for Not Throwing Cigarette Butts Carelessly

Coding	Category	Core category
Key Informant		
a. Throw it in the incinerator     b. Just throw it away,     sometimes collect it     c. Thrown directly onto the     ground	Behavior of throwing cigarette butts before the Kabar Besti program	
a. Throw it in the trash     b. Collected for spraying     pests     c. It's the same as throwing     it in the trash	Behavior of throwing away cigarette butts after the Kabar Besti program	
a. Throw it in a burning place and keep it out of reach of children.     b. Collected in bottles and provide education to children about cigarette	Cigarette butt disposal areas are regulated	Not Disposing of
butts being dirty. c. Just outside and tell the child not to touch it		Cigarette Butts Carelessly
Ashtray     Collected to be used as a pest spray     Throw it straight out	Provision and special place for butts	
No obstacles     Sometimes forget     Nothing, just throw the butt outside	Behavioral barriers to throwing away cigarette butts	
riangulation Informant		
a. At home there is an ashtray, outside it goes straight to the fire place     b. Collected then thrown	Changes in husband's behavior in throwing away cigarette butts	
away c. Thrown directly onto the ground		

The informants stated that when discarding cigarette butts, they try to throw them out of reach of children whenever possible. Triangulation informants also mentioned that they sometimes throw cigarette butts directly into the trash or collect them first and then dispose of them. The following is an excerpt from an interview with an informant regarding the behavior of disposing of cigarette butts after the Kabar Besti program:

...Yes, sometimes I just throw it away, but more often I throw it in the trash bin near the goat pen" - Informant TP



©2025. Jurnal Promkes: The Indonesian Journal of Health Promotion and Health Education. **Open Access under CC BY-NC-SA License**.

"I collect the cigarette butts, sis. I actually look for the cigarette butts, I collect them, then I put water in them, I close them, I filter the water to spray pests in the rice fields" - Informant M
"... at most in the trash bin, if not, I throw it on the ground" - Informant

Smoking behavior, especially within households, can affect stunting in toddlers. Toddlers exposed to cigarette smoke at home have a higher risk of experiencing health and growth disorders, including stunting. The Kabar Besti program encourages parents, particularly fathers, to recognize the importance of avoiding cigarette use in families with children under the age of 5, as it can interfere with their development and growth.

One important factor in preventing stunting is increasing public awareness of the issue. A lack of knowledge and understanding about stunting contributes to the need for greater public awareness of its risks in early childhood. Public education is essential to raise awareness of stunting (Irfan, Handayani and Pujiyanti, 2024).

Because secondhand smoke has more severe effects than smoking cigarettes directly, inhaling it is especially dangerous for children. Children are exposed to tobacco smoke from family members who smoke at home. They inhale cigarette smoke produced by active smokers. Compared to tar and nicotine, this cigarette smoke contains five times more carbon monoxide (Wulandari *et al.*, 2023).

In this study, the description of parental smoking behavior is divided into three categories:

- Non-smoking behavior in the house: All informants reported that, after the Kabar Besti program, the frequency of smoking inside the house had decreased.
- 2. Non-smoking behavior near pregnant women, babies, and toddlers: All informants stated that they did not smoke when near pregnant women, babies, or toddlers, and would move away if they encountered them. They also understood the dangers of cigarette smoke to the health of

- pregnant women, infants, and toddlers.
- 3. Behavior of not carelessly throwing cigarette butts: All informants disposed of cigarette butts away from the reach of toddlers at home.

Smoking behavior inside the house is also referred to as thirdhand smoke, which originates from smokers in enclosed spaces. For toddlers, the home is a highrisk environment for exposure to cigarette smoke, which can lead to various health issues (Anwar et al., 2021). In Indonesia, the habit of parents smoking indoors is a significant concern. However, the results of the study indicate that the changes in smoking behavior within the home environment among the informants have not yet resulted in significant behavioral improvements following the Kabar Besti program.

The family environment is the closest setting for influencing smoking habits, especially smoking at home. Since passive smokers—other family members—are most affected by smoking behavior, the role of the family in continuously reminding and educating members about the harmful effects of cigarette smoke on stunting is very important (Ediana and Sari, 2021).

Many smokers may not realize the impact of cigarette butts. Cigarette butts are small waste items often regarded as trivial. However, many people, especially active smokers, are unaware of the environmental dangers posed by cigarette butt waste. These dangers include their inability to decompose naturally, toxicity, fire hazards, and environmental pollution (Hadiansyah and Muchtar, 2022).

Several studies, such as the literature review by (Humaira *et al.*, 2022), identify risk factors like maternal height and cigarette smoke from parental smoking behavior as contributing to the likelihood of stunting in toddlers. The results of this study indicate that fathers' smoking behavior at home has a significant correlation with the incidence of stunting in toddlers.

Based on research related to parental smoking behavior, particularly among fathers of toddlers, it appears that the efforts carried out through the Kabar Besti Program have not yet fully achieved their intended impact. However, all informants are aware of the dangers



associated with smoking behavior in the home environment.

## Overview of toddler health after implementing the Kabar Besti program

In an effort to prevent an increase in stunting rates, the Kabar Besti Program collaborates with the Pakem Health Center to provide education about the dangers of cigarette smoke on stunting. Activities were conducted through several meetings involving fathers and teenagers from different RTs, as well as integrated health post activities in the form of counseling on the impact of exposure to cigarette smoke on stunting in toddlers.

Interviews triangulation with informants, specifically health promotion officers at the Pakem Health Center, such as Mrs. S., revealed that Sumberan Hamlet has a relatively high stunting rate. The presence of the Kabar Besti Program has been quite helpful in reducing the risk of stunting in the area. According to informants, the program is effective; however, because the cycle of stunting is long, the condition remains unchanged in some cases, with no increase in new stunting cases.

Toddlerhood is a critical period of human development, characterized by rapid growth and sensitive to growth disorders and their associated risks. This age is often referred to as the "golden age," during which foundational abilities, thinking, speech, and intellectual growth develop, alongside the beginning of moral development (Rosidah and Harsiwi, 2017). Nutritional status plays a vital role in a child's growth and development. Malnutrition during this period negatively impacts both physical and mental growth, which can hinder learning achievement (Timur, Irianto and Rahavu, 2023).

Based on interviews with Puskesmas staff, it was reported that the health status of toddlers in Dusun Sumberan has been quite good following the Kabar Besti Program. Apart from stunting cases, no other serious illnesses have been observed in the toddlers of Sumberan.

Child health problems can interfere with growth and development due to decreased food intake and impaired nutrient absorption, leading to nutrient deficiencies essential for growth (Yuwanti, Mulyaningrum and Susanti, 2021). Persistent health issues can also weaken the immune system, making children more

susceptible to diseases and infections. This can result in chronic nutritional disorders that cause growth disturbances such as stunting (Nuryanti, Novita and Nency, 2024).

As the primary environment of a child, the family's main task is to maintain a healthy home atmosphere conducive to child's health and personality development by avoiding smoking (Hasyim 2022). Theoretically al., practically, smoking behavior can hinder a child's growth and development. One major source of indoor air pollution is cigarette smoke, which can adversely affect the respiratory system, especially in toddlers. Many toddlers are passive smokers, constantly exposed to cigarette smoke because their parents often smoke at home (Aryani and Syapitri, 2018).

Homes where parents smoke can increase the incidence of Acute Respiratory Infections (ARI) in toddlers by 7.83 times compared to homes where parents do not smoke. Cigarettes contain toxic substances that are dangerous not only for smokers but also for passive smokers, particularly toddlers who are inadvertently exposed to cigarette smoke. Nicotine and thousands of other chemicals in cigarettes pose additional toxic risks that can enter the respiratory tract, increasing the likelihood of ARI (Astuti and Siswanto, 2022).

Efforts to improve child nutrition from pregnancy through the first two years life are essential for stunting prevention. These include exclusive breastfeeding for the first six months, healthy complementary foods, access to clean water, nutrition education, maternal and child health care, and improved sanitation. It is also crucial to avoid exposure to cigarette smoke, both actively and passively (Hizriyani, 2021).

Public awareness can be increased regarding the importance of a smoke-free environment for healthy child growth and development through education and awareness campaigns about the dangers of smoking and its impact on children's health (Irfan, Handayani and Pujiyanti, 2024).

These findings confirm that parental smoking remains a significant risk factor for toddler health, especially in contributing to stunting. This aligns with previous research in Sleman District, where cigarette consumption by family members was identified as a major



determinant of stunting. Children with parents who are chronic smokers are 5.5% more likely to experience stunting compared to those whose parents do not smoke. This issue affects not only physical growth but also cognitive development, highlighting the multidimensional impact of tobacco use within families (Trisnowati et al., 2024).

The program has also positively impacted family mental health by reducing stress related to financial pressures and health problems caused by smoking. The decrease in cigarette consumption and subsequent financial savings likely contributed to improvements in family dynamics and mental well-being, although further research is needed to explore these mental health outcomes in detail.

Exposure to secondhand smoke significantly increases the risk of neurobehavioral disorders in children, such as Attention Deficit Hyperactivity Disorder (ADHD) and learning disabilities, with a 50% higher risk observed in affected populations (Rasheed, Imran and Younus, 2024). Additionally, managing health impacts related to child tobacco exposure can lead to increased anxiety and parents, depression in which can complicate family dynamics (Blackburn et al., 2005). Parents often face challenges in communicating about smoking accessing health services, which can exacerbate feelings of helplessness and frustration (Alosoufe et al., 2023).

### CONCLUSION

Following the implementation of the Kabar Besti program, parental smoking behavior was categorized into three main changes: 1) reducing smoking habits in the which indicates increased awareness and education stemming from the program; 2) refraining from smoking near pregnant women, babies, and toddlers, reflecting a conscious effort to protect children's health; improvements in the methods of disposing of cigarette butts, although this practice has not yet been fully optimized in all households.

The health conditions of toddlers in Sumberan Hamlet showed signs of improvement, with no significant increase in stunting cases. Although some cases of stunting are still present, the Kabar Besti initiative has effectively contributed to

preventing new cases and encouraging healthy living behaviors among parents, especially fathers. This community-based approach demonstrates promising potential in reducing child stunting rates through behavior change interventions.

This study indicates that parental smoking behavior and expenditure on cigarettes negatively impact toddler wellbeing and family mental health. The Kabar Besti program serves as an effective community-based innovation to mitigate these impacts by promoting smoking cessation, reducing cigarette spending, and enhancing nutrition and health outcomes for toddlers. These findings support the expansion of similar interventions to improve family health and reduce stunting rates in Indonesia and facing regions comparable other challenges.

#### **REFERENCES**

Ambarita, M. B. *et al.* (2023) 'Strategi penurunan angka stunting melalui penyadaran bahaya asap rokok di tenjolaya, bogor jawa barat', *Media Bina Ilmiah*, 17(6), pp. 1045-1050.

Anwar, N. M. et al. (2021) 'Risiko Terkait Perilaku Merokok di Dalam Rumah Selama Masa Pandemi', Jurnal Pengabdian Kesehatan Masyarakat (Pengmaskesmas), 1(2).

Aryani, N. and Syapitri, H. (2018) 'Hubungan kebiasaan merokok anggota keluarga di dalam rumah dengan ISPA pada balita di Puskesmas Helvetia Tahun 2016', *Jurnal Kesehatan Masyarakat Dan Lingkungan Hidup*, 3(1), pp. 29-37.

Astuti, W. T. and Siswanto, S. (2022) 'Kebiasaan Merokok Anggota Keluarga dengan Kejadian Infeksi Saluran Pernafasan Akut (ISPA) pada Balita Usia 1-5 Tahun', *Jurnal Keperawatan Karya Bhakti*, 8(2), pp. 57-63.

Blackburn, C. M. et al. (2005) 'Parental smoking and passive smoking in infants: fathers matter too', *Health Education Research*, 20(2), pp. 185-194.

Ediana, D. and Sari, N. (2021) 'Faktor-Faktor Yang Berhubungan Dengan Kebiasaan Merokok Dalam Rumah', *Jurnal Endurance: Kajian Ilmiah Problema Kesehatan*, 6(1), pp. 150-161.

Fitria, R. et al. (2024) 'PENGARUH SENAM LANSIA TERHADAP PENURUNAN HOT FLASHES PADA WANITA MENOPAUSE', Al-Insyirah Midwifery: Jurnal Ilmu Kebidanan



(Journal of Midwifery Sciences), 13(2), pp. 99-104.

Ginting, I. R. and Maulana, R. (2020) 'Dampak kebiasaan merokok pada pengeluaran rumah tangga', *Jurnal Kebijakan Kesehatan Indonesia: JKKI*, 9(2), pp. 77-82.

Hadiansyah, H. and Muchtar, K. K. (2022) 'Sosialisasi Bahaya Puntung Rokok Bagi Lingkungan di Taman Lansia Kota Bandung', *Jurnal Desain Komunikasi Visual*, 1(1), pp. 24-30.

Hasyim, F. A. et al. (2022) 'Hubungan Perilaku Lifestyle Without Tobacco dengan Pertumbuhan Anak Usia Dini', Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini, 6(4), pp. 3314-3325.

Hizriyani, R. (2021) 'Pemberian asi ekslusif sebagai pencegahan stunting', *Jurnal Jendela Bunda Program Studi PG-PAUD Universitas Muhammadiyah Cirebon*, 8(2), pp. 55-62.

HM, K. D., Susaldi, S. and Munawaroh, M. (2024) 'Hubungan Paparan Asap Rokok, Pola Makan Dan Faktor Riwayat Penyakit Dengan Kejadian Stunting', SENTRI: Jurnal Riset Ilmiah, 3(4), pp. 2033-2039.

Humaira, R. Z. et al. (2022) 'FAKTOR DETERMINAN YANG MEMPENGARUHI STUNTING PADA BALITA: SCOPING REVIEW', Avicenna: Journal of Health Research, 5(2).

Irfan, I., Handayani, F. and Pujiyanti, R. (2024) 'Pendampingan Pemberian Makanan Tambahan Anak Stunting dan Optimalisasi Peran Keluarga Dalam Pencegahan Stunting Melalui Gerakan Bebas Asap Rokok Di Penfui Kota Kupang', Jurnal Kreativitas Pengabdian Kepada Masyarakat (PKM), 7(7), pp. 2996-3009.

Lal, A. et al. (2022) 'Household expenditure of smokers and ex-smokers across socioeconomic groups: results from a large nationwide Australian longitudinal survey', BMC Public Health, 22(1), p. 1706. Mashar, S. A., Suhartono, S. and Budiono, B. (2021) 'Faktor-faktor yang mempengaruhi kejadian stunting pada anak: Studi literatur', Jurnal Serambi Engineering, 6(3), pp. 2076-2084.

Muchlis, N. et al. (2023) 'Cigarette smoke exposure and stunting among under-five children in rural and poor families in Indonesia', Environmental health insights, 17, p. 11786302231185210.

Nasriyah, N. and Ediyono, S. (2023) 'Dampak kurangnya nutrisi pada ibu hamil terhadap risiko stunting pada bayi yang dilahirkan', *Jurnal Ilmu Keperawatan Dan* 

Kebidanan, 14(1), pp. 161-170.

Nizamie, G. V. and Kautsar, A. (2021) 'Analisis faktor-faktor yang mempengaruhi konsumsi rokok di Indonesia', *Kajian Ekonomi Dan Keuangan*, 5(2), pp. 158-170. Nugroho, M. R., Sasongko, R. N. and Kristiawan, M. (2021) 'Faktor-faktor yang mempengaruhi kejadian stunting pada anak usia dini di Indonesia', *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 5(2), pp. 2269-2276.

Nuryanti, E., Novita, A. and Nency, A. (2024) 'Hubungan Pola Sanitasi Air Bersih, Tindakan dan Perilaku Merokok Orang Tua Terhadap Stunting Pada Balita Usia 12-59 Bulan Di Wilayah Kerja Puskesmas Sukanagara Tahun 2024', Innovative: Journal Of Social Science Research, 4(3), pp. 10965-10980.

Rasheed, M. S., Imran, S. M. and Younus, J. (2024) 'The price of addiction: Pakistani children paying the cost of tobacco use with their temperament.', *JPMA*. The *Journal of the Pakistan Medical Association*, 74(1), p. 204.

Rosidah, L. K. and Harsiwi, S. (2017) 'Hubungan Status Gizi Dengan Perkembangan Balita Usia 1-3 Tahun', *Jurnal kebidanan dharma husada kediri*, 6(2), pp. 24-37.

Timur, C. J., Irianto, S. E. and Rahayu, D. (2023) 'Analisis faktor yang mempengaruhi status gizi pada balita di Kabupaten Lampung Utara', *JPKM: Jurnal Profesi Kesehatan Masyarakat*, 4(2), pp. 85-93.

Trisnowati, H. *et al.* (2024) 'Innovation to Control Cigarette Consumption and Stunting Through the Kabar Besti Program (Smoke and Stunting Free Families)'.

Waruwu, M. (2023) 'Pendekatan penelitian pendidikan: metode penelitian kualitatif, metode penelitian kuantitatif dan metode penelitian kombinasi (Mixed Method)', *Jurnal pendidikan tambusai*, 7(1), pp. 2896-2910.

Wulandari, F. C. et al. (2023) 'HUBUNGAN PAPARAN ASAP ROKOK DENGAN KEJADIAN STUNTING PADA BALITA USIA 2-5 TAHUN DI DESA KALIKUNING KECAMATAN KALIKAJAR KABUPATEN WONOSOBO', The Shine Cahaya Dunia Ners, 8(02), pp. 93-99.

Yuwanti, Y., Mulyaningrum, F. M. and Susanti, M. M. (2021) 'Faktor-faktor yang mempengaruhi stunting pada balita di Kabupaten Grobogan', Jurnal Keperawatan Dan Kesehatan Masyarakat Cendekia Utama, 10(1), pp. 74-84.

