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An Explorative Study of Bima City Public Perception of the Risks of Smoking on the Health of Mothers and Children in Bima City

Zahratul Hayati[1], Nurul Qamarya[2], Puput Artika June[3], Jelita Purnama Sari[4]
DIII Midwifery, Surya Mandiri Bima Midwifery Academy, Bima City, Indonesia

Statistics Indonesia Exposure to cigarette smoke in pregnant women is correlated with an increased risk of low birth weight and child morbidity; evidence from the last 5 years in Indonesia also links household cigarette smoke exposure to the risk of stunting. Smoking remains a serious public health problem, especially in developing countries like Indonesia. Exposure to cigarette smoke not only impacts active smokers, but also vulnerable groups, including pregnant women, breastfeeding mothers, and children. The study used a qualitative-exploratory design with in-depth interviews and Focus Group Discussions (FGDs). Informants were selected using purposive-maximum variation, including pregnant and breastfeeding mothers, husbands/family members of smokers, adolescents, health cadres, and religious and community leaders in six sub-districts in Bima City. The number of informants was 45 people, consisting of 21 in-depth interviews and 4 FGDs. The results showed that most people are aware of the dangers of smoking in general, but the perception of the risks to mothers and children is still low. Social norms, patriarchal culture, and the assumption that smoking is an individual right are the main factors influencing high exposure to cigarette smoke in households. The implementation of Bima Mayoral Regulation Number 15 of 2023 concerning Smoke-Free Areas (KTR) is considered positive, but has not been effective at the household level.
Keywords: Public Perception, Cigarette smoke, KIA, KTR.

Corresponding Author:
Zahratul Hayati
Surya Mandiri Bima Midwifery Academy
Jl. Gajah Mada No. 19 Penatoi Mpunda, Bima City
zahratulhayati.fkmuh@gmail.com

1. Introduction

Smoking remains a common daily practice in many Indonesian households and continues to create serious health risks for vulnerable family members, particularly pregnant women and children. In Bima City, West Nusa Tenggara, smoking is frequently observed inside the home, where family members share enclosed living spaces for long periods of time. Cigarettes are often smoked in living rooms, kitchens, or other shared areas, even when pregnant women, infants, or young children are present. This condition places mothers and children in constant contact with secondhand smoke within their own homes.

Although awareness of maternal and child health has increased in recent years, smoking inside the household is still widely perceived as a normal and socially accepted behavior. Many families consider smoking a personal habit rather than a health concern, and restrictions on smoking at home are rarely enforced. Local regulations on Smoke-Free Areas (Kawasan Tanpa Rokok/KTR) have been introduced in Bima City, but their implementation is primarily concentrated in public spaces. As a result, household exposure to cigarette smoke remains largely unregulated and continues to affect mothers and children on a daily basis.

This situation highlights the urgency of examining household smoking practices at this time, particularly in relation to maternal and child health protection. Continuous exposure to cigarette smoke during pregnancy and early childhood represents a preventable risk that may compromise health outcomes. However, efforts to reduce this exposure cannot rely solely on regulations or health messages without

understanding how communities perceive smoking-related risks within the domestic environment. Understanding these perceptions is essential to ensure that health interventions and policies are relevant to actual living conditions in Bima City.

Therefore, this study focuses on community perceptions of the risks of smoking to maternal and child health in Bima City. The scope of the research is limited to describing how individuals and families perceive smoking behavior, secondhand smoke exposure in the household, and the social context that allows smoking to continue in domestic settings.

The objectives of this research are to explore community perceptions regarding smoking-related risks to mothers and children, identify social and environmental contexts that influence smoking practices in households, and formulate practical recommendations to support the strengthening of smoke-free policies and community-based risk communication in Bima City. Smoking remains a serious public health problem, particularly in developing countries like Indonesia. Exposure to cigarette smoke impacts not only active smokers but also vulnerable groups, including pregnant women, breastfeeding mothers, and children [1]. A five-year study.

showed that exposure to cigarette smoke during pregnancy is associated with an increased risk of low birth weight, premature birth, and impaired child development [2].

In Indonesia, household cigarette consumption remains high, and most exposure to cigarette smoke occurs in domestic settings [3]. This condition has a direct impact on maternal and child health, including increasing the risk of stunting and acute respiratory infections in toddlers [4]. Bima City, as part of West Nusa Tenggara Province, has a relatively high prevalence of household smokers, potentially increasing family health risks.

The Bima City Government has enacted Mayoral Regulation No. 15 of 2023 concerning Smoke-Free Areas as an effort to protect public health. However, the effectiveness of this policy's implementation is heavily influenced by public perception and acceptance. Therefore, this research is crucial to understanding how the public perceives the risks of smoking to maternal and child health as a basis for strengthening preventive policies and promotive interventions.

Problem Formulation: How do Bima City residents perceive the risks of smoking for maternal and child health? What social and cultural factors influence exposure to cigarette smoke in households? And What are the implications of the research findings for strengthening the implementation of KTR in Bima City?

The objectives of this study are to explore public perceptions of the risks of smoking to maternal and child health, identify social, cultural, and environmental factors that influence smoking behavior at home, and formulate evidence-based recommendations for strengthening KTR policies and health promotion.

2. Methods

This study used a qualitative-exploratory design to explore community perceptions, experiences, and social norms related to the risks of smoking. This approach aligns with the research objectives, which emphasize an in-depth understanding of the local context. The research was conducted in six sub-districts in Bima City. The informant criteria included: pregnant and breastfeeding women, husbands or family members who smoke, adolescents, health cadres (posyandu/puskesmas), religious leaders, and community leaders.

This study involved 45 informants, consisting of 21 in-depth interviews and 4 focus group discussions (FGDs with 6–8 participants each). Data collection techniques included in-depth interviews, FGDs,

environmental observations, and a review of policy documents (Bima City KTR Mayoral Regulation Number 15 of 2023). Data analysis was conducted thematically using the Braun and Clarke approach, encompassing transcription, coding, theme determination, and data interpretation. Data validity was maintained through source triangulation and member checking.

3. Results And Discussion

Characteristics of Informants

Informants included pregnant/breastfeeding women, smoking husbands, adolescents, health workers, and community leaders with diverse ages, education, and occupations. To maintain informant confidentiality, all quotes are presented using initials. The following table presents brief characteristics of the informants involved in exploring the main research themes.

Table 1. Research Informants Based on Social Role

Informant Code	Informant Category	Method	Amount	Short Description
IH	Pregnant mother	In-depth interview	7	Age 20–35 years, living with a smoking husband
IM	Breastfeeding mothers	In-depth interview	6	Having a baby/toddler, living in a smoking household
SP	Husband smokes	In-depth interview	4	Active smokers at home
K	Health cadres	In-depth interview	4	Integrated health post/community health center cadres
T	Religious/community figures	In-depth interview		Local religious leaders/traditional figures
FGD-1	Pregnant & breastfeeding mothers	FGD	7	Group discussion of sub-districts A–B
FGD-2	Husband/father smoker	FGD	6	C sub-district group discussion
FGD-3	Teenager	FGD	8	D–E sub-district group discussion
FGD-4	Cadres & community leaders	FGD	7	Cross-district group discussions
Total			45 informants	21 in-depth interviews & 4 FGDs

Focus Group Discussions (FGDs) were conducted as a follow-up to in-depth interviews, with the aim of confirming, deepening, and validating the initial themes obtained. All FGDs were conducted between October and November 2025 and involved a total of 24 participants, divided into four discussion groups based on their social characteristics. Each FGD lasted 90–120 minutes and was led directly by the principal investigator with the support of a research assistant as field note taker.

The first focus group discussion (FGD) was held in October 2025, involving pregnant and breastfeeding women. The discussion was dynamic and began with initial questions regarding daily experiences with cigarette smoke at home. Participants openly shared their household situations, including the habit of husbands or other family members smoking inside the house. The group discussion led to a consensus that, despite feeling uncomfortable, most mothers chose to remain silent to maintain household harmony.

The interaction between participants reinforced the interview findings that the risks of cigarette smoke to fetuses and children are not yet fully understood.

The second FGD was held in October 2025 with participants who were husbands or fathers of smokers. The discussion was quite open, especially when participants shared their reasons for smoking at home, such as habit, stress, and peer influence. The forum witnessed a process of shared rationalization, with participants reinforcing the view that smoking at home is considered normal as long as it is not smoked directly near children. The dynamics of the discussion demonstrated how social norms are formed and maintained through group interactions, while also confirming that KTR policies are not yet perceived as relevant to the domestic sphere.

The third and fourth focus groups (FGDs) were held in November 2025, each involving adolescents, health workers, and community leaders. In the youth FGDs, discussions highlighted their position as those most frequently exposed to secondhand smoke at home, lacking the power to refuse. Adolescents tend to accept this as part of everyday life. Meanwhile, the FGDs involving health workers and community leaders emphasized the importance of a persuasive approach based on local and religious values in educating the public. Participants agreed that changing smoking behavior at home is not sufficient through formal regulations alone, but requires role models and the reinforcement of new social norms at the community level.

General Knowledge about the Dangers of Cigarettes

Most informants stated that they were aware that smoking was harmful to health. However, this understanding was still general and not specific to the health risks to pregnant women, fetuses, and children. Cigarettes were more often perceived as causing disease only for active smokers.

A pregnant woman said:

> "*Everyone knows that smoking is dangerous. But I don't really understand how it can cause babies to become sick or develop stunted growth*," (IH-02).
>
> A similar thing was said by the husband of a smoker:
>
> "*I think the ones who are most dangerous are those who smoke directly. If my wife and children are only exposed to the smoke, it might not be as serious*" (SP-04).

These findings indicate a knowledge gap, where knowledge has not yet developed into an understanding of specific risks. This situation can be likened to "knowing that fire is hot, but not realizing that even a spark can burn."

Normalizing Smoking at Home

Smoking indoors is perceived as normal and common behavior. Many informants attributed this habit to culture, inherited habits, and social relations between family members.

> A breastfeeding mother reveals:
>
> "*The men at home have always smoked. It's become a habit, so it's never been considered a problem*" (IM-01).
>
> Community leaders also stated:
>
> "Smoking *is like a conversation partner. If you have guests, it feels strange if there are no cigarettes*" (T-03).

This normalization has led to cigarette smoke being seen as a part of everyday life, like kitchen smoke from cooking. However, unlike kitchen smoke, cigarette smoke contains harmful substances that directly impact the health of mothers and children.

Gender Role Inequality in the Household

Gender role inequality is a statement from most female informants, namely that they do not have the power to prohibit their husbands or male family members from smoking at home.

A pregnant woman said:

> "*I* actually *don't like my husband smoking in the house, but I don't dare forbid him. I'm afraid I'll be called rebellious*" (IH-05).

This view is reinforced by health cadres:

> "Mothers *often complain to us, but they don't dare to talk directly to their husbands*" (K-02).

Which means that women are aware of the risks, but do not have full control to prevent exposure to cigarette smoke.

Response to the Smoke-Free Area (KTR) Policy

Most informants were aware of the Smoke-Free Area policy, but their understanding was limited to public spaces such as offices, schools, and healthcare facilities. Households were not perceived as a space that needed to be smoke-free.

A teenager stated:

> "Smoking *is prohibited at school. But at home, it's a family matter*" (R-01).
> Community leaders added:
> "The *KTR regulation is good, but it doesn't really regulate people's homes*" (T-01).

These findings indicate that the KTR policy has not been fully internalized in people's personal lives. This means that smoking behavior and its regulations are only intended for public spaces; the smoke-free policy ceases when people enter their homes.

Discussion

The results of this study indicate that the perception of the risks of smoking on maternal and child health in Bima City remains relatively low and partial. This finding aligns with recent studies that suggest that general knowledge about the dangers of smoking is not always followed by an understanding of specific risks within a specific group. vulnerable, such as pregnant women and children [5][6]. Society tends to view smoking as a personal risk for active smokers, not as a threat to family health.

The normalization of smoking behavior in households was found to be a dominant theme. This condition is consistent with research in various regions of Indonesia that states that social norms and cultural acceptance of smoking contribute significantly to high levels of exposure to secondhand smoke in the home [7][8]. In the context of Bima City, close social relations and a patriarchal culture reinforce the position of men as the primary decision-makers in the home, leaving mothers and children more vulnerable to exposure to secondhand smoke.

From a maternal and child health perspective, these findings are crucial. Several studies over the past five years have shown that exposure to secondhand smoke during pregnancy increases the risk of low birth weight, prematurity, and impaired respiratory development in children [2][9]. Furthermore, exposure to household secondhand smoke is also significantly associated with stunting and acute respiratory infections in toddlers in Indonesia [3][10][11]. Therefore, the low risk perception found in this study may be a factor reinforcing the cycle of child nutrition and health problems at the local level.

Regarding policy, research results indicate that Bima Mayoral Regulation Number 15 of 2023 concerning Smoke-Free Areas is perceived positively, but its implementation remains limited to public spaces. This

finding aligns with policy research that suggests the effectiveness of smoke-free areas regulations is strongly influenced by public understanding and social support at the community level [12][13]. Without strengthening contextual risk communication, smoke-free areas policies tend to be unable to reach the domestic sphere.

Therefore, this study emphasizes the importance of family- and community-based risk communication strategies. Involving religious leaders, community leaders, and health workers is key to changing social norms related to smoking at home [14][15]. This approach has been shown to be effective in various tobacco control interventions in developing countries, especially when linked to moral values, religion, and child protection [16].

4. Conclusion

The findings align with existing literature indicating that smoking in the household is often normalized and shaped by cultural and gender-related norms. Similar to previous studies, this research shows that awareness alone is insufficient to change behavior when smoking is embedded in daily family life. However, this study contributes a local perspective by highlighting how limited household-level implementation of smoke-free regulations further reinforces continued exposure among mothers and children in Bima City. Overall, the findings suggest that household smoking is not merely an individual choice but a socially embedded practice influenced by authority, comfort, and social acceptance within families. This interpretation helps explain why smoke-free policies focused primarily on public spaces have limited impact on reducing domestic exposure. From a scientific perspective, the study underscores the importance of understanding risk perception and social context in maternal and child health research. The implications of this study include contributions to qualitative approaches for examining health-related behaviors and practical insights for developing community-based risk communication strategies. Interventions that engage families, health cadres, and community leaders may be more effective in promoting smoke-free homes. This study is limited by its qualitative design and purposive sampling, which restrict generalizability. Future research should integrate quantitative assessments and intervention studies to strengthen and expand these findings. 1. Public perception of the risks of smoking for mothers and children is still low. 2. Social and cultural norms are the dominant factors in exposure to cigarette smoke at home. 3. The KTR policy has not optimally protected mothers and children in the home.

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