

Gender-responsive Health Communication Model as Stunting Mitigation in Indonesia

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ABSTRACT

East Nusa Tenggara is one of the provinces in Indonesia with the highest prevalence of child stunting cases at 35.3%. The contributing factor to this condition is the absence of partners in family healthcare. Therefore, this research aimed to develop a gender-responsive health communication model as a form of stunting mitigation in rural communities. This research used a constructivist paradigm with a case study method. Data collection techniques included in-depth interviews and participant observation, and analysis followed the Miles and Huberman interactive model of data analysis. The findings show that increasing stunting cases were triggered by improper parenting practices, unbalanced nutrition, inadequate environmental sanitation, and the lack of husbands' inclusion in supporting family health. Gender imbalances in family roles also affected the compliance of mothers in accessing health checks in proper parenting practices. Gender-responsive health information literacy is therefore one of the solutions to reducing stunting. In a society with a patriarchal culture, providing health information to husbands has a major impact on family decisions to combat stunting. This study implies that involving husbands in monitoring and ensuring the health status of mothers and children is a must to reduce stunting in rural areas.

Keywords: Gender-responsive, health communication, health literacy, stunting mitigation

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INTRODUCTION

Stunting is a health issue currently affecting the Indonesian population. According to Indonesia's Nutritional Status Survey (SSGI) by the Ministry of Health, the prevalence reached 21.6% in 2022. Among the 34 provinces, East Nusa Tenggara ranks first nationally with a stunting rate of 35.3% (Kemenkes, 2023).

In East Nusa Tenggara province, the South Central Timor Regency ranks first among several other regencies in terms of stunting prevalence. According to data e-PPGM Results on Stunted Children for South Central Timor Regency, East Nusa Tenggara Province, August 2022, Kesatnana Village has the highest stunting cases among the villages in South Central Timor Regency, with a percentage of 50.9% (Dinas Kesehatan Timor Tengah Selatan, 2022).

Based on this data, stunting is a very serious issue in South Central Timor Regency. This problem is increased by the dominance of patriarchal culture and gender role inequality within families. As an indicator, women bear an excessive double workload, both in domestic and outside-of-home work, which results in a lack of time to pay attention to children's health. The preliminary research shows that the understanding of married couples, primarily concerning efforts to prevent stunting, is still very limited. Furthermore, Law of the Republic of Indonesia No. 36 Year 2009 on Health emphasises that providing health information to the public is a necessity to ensure effective health efforts (Pemerintah Republik Indonesia, 2009).

LITERATURE REVIEW

Research on stunting mitigation has been conducted in various countries, including Pakistan, Nigeria, several African nations, and Indonesia. A study in Pakistan emphasized that one effective method for preventing and addressing stunting is the provision of food supplements to children

under five years old (Zaidi et al., 2020). However, the study primarily focused on health interventions, particularly the distribution of these supplements, and did not address other critical aspects, such as the importance of health information literacy for parents and the broader community. This gap suggests that while nutritional support is essential, a more comprehensive approach that includes educating parents and communities about stunting is necessary for sustainable mitigation.

Research in Nigeria identified that one of the primary factors contributing to stunting in children is poverty, alongside other factors such as low parental education, being a male child, having a short-statured mother, low maternal education, frequent diarrhea, and being the fourth or later child in a family with a birth interval of less than two years (Ezech et al., 2021). The study concluded that stunting mitigation efforts should include providing social security to communities through cash assistance, enhancing school feeding programmes, and offering special relief during the lean season or drought. However, this research did not address the involvement of fathers in monitoring the health of family members as part of the stunting mitigation strategy, leaving a crucial aspect of family health management unexamined.

A study on the prevalence of child stunting across 36 Sub-Saharan African countries and its associated risk factors highlights that stunting is significantly more prevalent among children over one year old, boys, those with low birth weight,

shorter inter-pregnancy intervals, and children of mothers with low education, as well as in poor and food-insecure households (Quamme & Iversen, 2022). To combat stunting, the study emphasises the importance of policies and interventions focused on improving women's education and child feeding practices. However, the research overlooks non-medical factors that contribute to stunting, such as the unequal gender roles in society, which place a disproportionate burden on mothers, thereby exacerbating the issue.

Interestingly, a study conducted in Indonesia examined stunting from a gender perspective and concluded that gender inequality significantly contributes to the high prevalence of stunting. The strong patriarchal culture placed women or mothers in a powerless position regarding the right health choices (Tinaningsih et al., 2022). The study's findings confirm that the dominance of men as husbands in such societies can negatively impact maternal health during pregnancy, further exacerbating the risk of stunting. However, the study did not explore potential solutions to mitigate stunting through gender-responsive health communication between husbands and wives within the household.

Based on previous research, adequate health information literacy is crucial for mothers as well as partners or husbands. Correct health literacy plays a pivotal role in improving the overall health status of families. In the context of stunting, gender equality—particularly as reflected in a husband's support for his wife—significantly

impacts efforts to eradicate stunting within the family. However, previous studies have not specifically investigated gender-based health communication models aimed at enhancing health outcomes, including the prevention of stunting. This gap is particularly important in communities with deeply entrenched patriarchal cultures, where decisions about accessing health services are predominantly controlled by husbands, even when wives have sufficient exposure to health information. Therefore, this research offers novel insights by proposing a gender-responsive health communication model to combat stunting within such communities.

Health literacy is an individual's ability to manage and improve their quality of life (Schulenkorf et al., 2022). Health literacy is also defined as the ability to find, understand, and use health information and services to make informed decisions and take appropriate actions (Meier et al., 2022). Therefore, health information literacy is the ability and competence of an individual to seek, find, understand, and interpret various information.

Before analysing gender-responsive communication, it is important to discuss the concept of gender. The term refers to socially constructed differences in roles, responsibilities, and opportunities between women and men (Prosen, 2022). Gender terminology differs from the term sex, which refers to the biological, physiological, functional, and anatomical differences that distinguish between males and females. Conversely, gender refers

to the characteristics attributed to men and women by society and culture. It is a socio-cultural phenomenon resulting from social and cultural constructs within society (Komilova, 2022). Gender equality in society is crucial for improving the health status, especially of women and children, and promoting social change within the community (García et al., 2022). Gender-responsive communication is an interactive process that promotes equality and fairness in decision-making between women and men across communities, families, and organizations, ensuring equal access to resources, opportunities, and roles for both genders (Tüzel et al., 2021). In this study, gender-responsive health communication is defined as a fair and balanced exchange of health-related information between husbands and wives within the household, ensuring mutual involvement in health decision-making, and promoting justice and equality in health improvement.

This study, therefore, aims to develop a gender-responsive health communication model as a form of stunting mitigation. The research focused on the efforts made by the government of South Central Timor Regency to address stunting cases.

Theoretical Framework

This study uses the Health Belief Model (HBM), developed in the 1950s by Irwin M. Rosenstock, Godfrey M. Hochbaum, and their research team during tuberculosis screening studies, as a theoretical framework used to analyze and predict individuals' beliefs, behavioral tendencies, responses,

and attitudes toward specific health issues (Chin & Mansori, 2018). Initially, the Health Belief Model was founded on the principle of disseminating information to raise public awareness and concern regarding the significant health risks posed by certain preventable diseases, particularly those that could be effectively treated if detected early. Health educators aimed to convey that individuals could actively reduce these risks by adopting specific preventative measures (Green et al., 2020).

The Health Belief Model (HBM) suggests that an individual's engagement in health-related behaviors is contingent upon the presence of three critical factors. Firstly, there must be a heightened sense of motivation or concern, whereby health matters are perceived as personally significant. Secondly, the individual must recognize their own susceptibility to serious health issues and the potential consequences thereof. Lastly, they must hold the belief that adhering to specific health recommendations will effectively mitigate the perceived risks, with the benefits of such actions outweighing any associated costs. Collectively, these factors shape the likelihood of an individual adopting health-promoting behaviors (Rosenstock et al., 1988).

In this study, the Health Belief Model (HBM) is employed to analyze the behaviors and actions of villagers concerning stunting. The model elucidates that the villagers' perceptions, beliefs, and awareness regarding the threats and implications of stunting will significantly influence their

behavioral responses. Their understanding of these risks will determine the specific measures they are likely to implement to address the issue.

The novelty of this research from a theoretical perspective lies in the integration of gender perspectives. The Health Belief Model traditionally focuses on the individual as a rational decision maker, without considering broader social and cultural influences. In this context, the model is adapted to include the influence of gender norms on individuals' understanding and beliefs about child health, particularly in relation to stunting mitigation.

METHODS

This research used a constructivist paradigm, viewing reality as a construct of human beings. Reality shows a dual nature, offering the potential for malleability and ultimately embodying a fundamental unity. This qualitative analysis was based on the constructivist paradigm, which considered knowledge as a result of experiences with facts and the product of the subject's thinking (Iskandar, 2022).

Using a case study method, the research was conducted in Kesetnana Village, South Mollo Subdistrict, South Central Timor Regency, East Nusa Tenggara Province, Indonesia, which had the highest stunting cases. The informants included 11 individuals, consisting of married couples (families) with stunting cases, government officials (from the South Central Timor Regency Health Office), village officials, and community members. The informants

were selected using a purposive sampling technique with certain considerations and criteria. Family informants met the criteria of being a married couple whose child was stunted. While government and community leaders were selected with the criteria of having dealt with stunting cases in the village. The selection of informants deliberately considered gender balance, ensuring an equal representation of male and female participants to capture a wide range of perspectives.

To ensure data saturation, several critical aspects were considered. Information saturation was reached after interviewing the eleventh informant, as no new results or patterns were reported. In addition, maximum variation was ensured since the data collection process included a diverse range of contexts and perspectives in the community. The viewpoints from various groups were represented, including considerations of gender, age, social position, educational level, and occupation. The relevance of the collected data to the research objectives was important, with all gathered information comprehensively addressing the questions posed.

The data collection techniques used in this research include in-depth interviews and participant observation. In-depth interviews were conducted using an interview guide. The process began with an explanation of the research purpose and the rationale for selecting the informants. Following consent, each interview lasted approximately 60 minutes. Participants were assured that their names would remain confidential and not

appear in the research report or published manuscript. The primary research questions addressed were: 1) What is understood about stunting, including its causes and risks? 2) What measures are taken within the family to mitigate the risk of stunting? 3) How are roles divided between husband and wife in both domestic tasks and ensuring family health? 4) How is health information exchanged between husbands and wives, and with health workers, to prevent stunting? Participant observation was used to closely observe how gender relations evolved in the daily lives of the villagers.

Data analysis was carried out using the Miles and Huberman interactive model, which involves the stages of data collection, data condensation, data display, and conclusions (Miles et al., 2014). During the data collection phase, all information from sources was meticulously recorded using a recording device. In the data condensation phase, the recorded interviews were carefully reviewed, and the informants' responses were transcribed into non-verbatim transcripts. Any information that was irrelevant to the research context or topic was systematically filtered out. In the third phase, data presentation was conducted using NVivo 12 software, where open coding was applied to identify themes emerging from the field data. Axial coding was then employed to establish connections between these themes in alignment with the research objectives. Finally, conclusions were drawn based on the comprehensive mind mapping conducted throughout the

analysis. These four interactive models are illustrated in Figure 1.

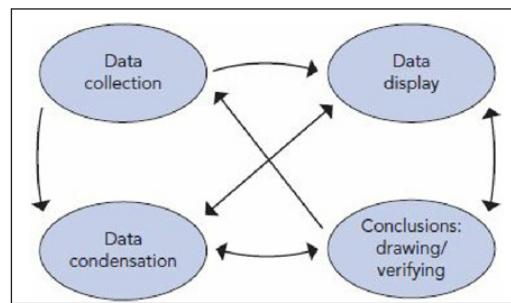


Figure 1. Interactive model of data analysis (Miles et al., 2014).

To ensure the validity of this qualitative study, the researchers applied 7 strategies suggested by Creswell such as triangulation, member checking, the use of rich and thick descriptions, revealing the biases that the researcher brings to the study, presenting negative or contradictory information that goes against the themes of the qualitative research, spending extended time in the field, and using peer debriefing (Creswell, 2009). In order to avoid bias in data collection, two types of triangulation were carried out, namely source triangulation and method triangulation. Source triangulation was carried out by comparing data obtained from one informant with another. Data are considered valid if there is mutual confirmation between informants. Method triangulation is carried out by comparing information obtained through the in-depth interview method with information collected through participant observation.

This study was conducted in accordance with the Declaration of Helsinki and

approved by the Ethical Committee on Social Studies and Humanities, National Research and Innovation Agency, Indonesia, with decree number 157/KE.01/SK/02/2024 on 26 February 2024. All guidelines and regulations stipulated by both the committee and the Declaration of Helsinki were complied with. Before each interview, written informed consent was obtained from all participants after verbally explaining the purpose of the study.

RESULTS AND DISCUSSION

The high prevalence of stunting cases in South Central Timor Regency is attributed to several factors as follows.

Inadequate Parenting Practices

A significant trigger for stunting cases is closely related to inadequate parenting practices. Parents often lack a proper understanding of how to raise their children correctly. Health literacy concerning the importance of providing nutritious food is very limited. The most at-risk children, commonly found to be suffering from stunting, are usually the firstborn. This is closely connected to the limited health information literacy regarding parenting practices and knowledge of child nutrition.

As explained by informant A, the increase in stunting is not solely due to poverty but more to the low understanding of the community about proper and healthy parenting practices.

I see that it is not just poverty, but more about the community's understanding.

Furthermore, stunting in Kesetnana Village is mostly due to parenting practices (interview with Informant A).

Informant B, who is an official at the South Central Timor Regency Health Office, expressed a similar opinion, stating that many children in the regency experience stunting due to ineffective parenting practices. Parents often lack a proper understanding of how to provide their children with good food and drinks. Moreover, parenting is often entrusted to other family members, especially grandparents.

...this is because of eating habits, irregular parenting, and inadequate food provision. Sometimes, when parents are absent, children are entrusted to their grandparents (interview with Informant B).

Imbalanced Nutrition

The second contributing factor is an issue of imbalanced nutrition. Informant C, a Health Cadre in Kesetnana Village, explained that imbalanced nutrition was a significant concern in the community. During pregnancy, pregnant women do not consume a nutritionally balanced diet, which also affects the fetus. According to Informant C, most children suffering from stunting are from families where parents do not pay attention to providing nutritionally balanced meals.

Pregnant women tend not to pay attention to nutritious food intake, and this affects the fetus's growth. The provision of a nutritionally balanced

diet often fails to take precedence, contributing significantly to the increased risk of stunting cases in children (interview with Informant C)

Informant D, a healthcare worker, also expressed a similar view that the eating habits of pregnant mothers were poor and lacked balanced nutrition, leading to an increase in stunting cases. The excerpt observed from the interview is as follows: "*...because pregnant mothers have poor eating habits, this leads to many stunting cases*" (interview with Informant D)

The behavior of providing nutrition is closely related to the socioeconomic status of the community. The highest stunting cases have a background in low-income farming, and this condition affects the community's ability and purchasing power to meet nutritional needs adequately.

These parenting practices are further increased by incorrect health-related myths in the community. As stated by Informant E, some rural communities practice rituals related to a child's illness and do not immediately seek healthcare services despite their availability.

...When the children are sick, parents often believe that their children are affected by evil spirits. The actions comprise applying wooden concoctions and traditional remedies like papaya leaves or stems mixed with betel leaf (interview with Informant E).

The information from the Village Head was confirmed by a mother who carried out a *naketi* ritual (a river worship ceremony

as a form of confession because the family was suffering) when the children were sick. The children were not immediately taken to a health service center but were given traditional herbal medicines.

When the children are sick, we also often perform the '*naketi*' ritual, which means seeing our mistakes with the ancestors. Before being taken to the Community Health Center, children are first given traditional medicines (interview with Informant F).

Poor Sanitation

Another factor is poor sanitation, and according to Informant C, the community in Kesetnana Village, where many stunting cases are found, generally does not pay adequate attention to environmental sanitation. For example, the drinking water consumed is often not clean, and the cleanliness of children is rarely considered.

Apart from inadequate parenting practices, a lack of attention to sanitation was reported, especially the personal hygiene of children. The drinking water consumed was unhygienic, and children became unhealthy (interview with Informant C).

Concerning this, another healthcare worker in Kesetnana Village stated that various campaigns and socializations regarding the importance of healthy environmental sanitation have been intensively carried out. However, the behavior of the community has not significantly changed.

Healthcare cadres conduct monthly socialisation about the importance of healthy environmental sanitation, with the advocacy for clean and safe drinking water. Some individuals do not adhere to these principles of healthy living (interview with Informant C)

Responding to this situation, the South Central Timor Regency Health Office is making strong efforts to improve environmental health. This is achieved by constructing proper toilets and providing clean water, as well as sanitation support through collaborative efforts with other departments such as the Department of Education and Culture, the Department of Women's Empowerment, and the Department of Population and Family Planning (P2KB).

Lack of Husband's Role in Supporting the Health of Mothers and Children

The findings indicate that various health information literacy efforts, especially regarding children's health, are mostly received by women or wives. Meanwhile, husbands often lack adequate knowledge about health information. Decision-making regarding children and environmental health is made by men or husbands. In this context, gender roles in family health, including child health, are imbalanced. Men or husbands are found to be less actively involved in supporting the health of mothers and children. According to Informant J:

... Ideally, husbands should play a role and jointly monitor and maintain the

health of the mother from pregnancy to raising the children. But in reality... many husbands are apathetic and indifferent (interview with Informant J).

Informant B, an official at the South Central Timor Regency Health Office, expressed a similar view. He stated that the initiative to seek healthcare services is generally taken by wives. Husbands, due to their lack of understanding and busy schedules, are less involved in ensuring the good health of their families.

Gender-responsive Health Communication as One of the Stunting Mitigation Efforts

Gender-inclusive health communication is a solution to slow down the rate of stunting cases in South Central Timor Regency. The local government, through the Health Office, has launched a programme known as GASELOR, or the Father as a Counselor Movement. Through this programme, maximum support can be provided to their wives and children. The programme maximises the role of fathers in escorting their wives to integrate health posts and healthcare facilities during pregnancy. Below is a quote from an interview with Informant B, who is an official at the South Central Timor Regency Health Office:

There is a programme called 'Gaselor, the Father as a Counselor' born from the observations in the field that fathers have a limited role in supporting their wives and families. Initially, it was about nutrition, but when it comes

to stunting, the focus is on the first 1,000 days of life, from pregnancy to the child's second birthday. Therefore, the role of fathers was maximised in escorting their wives to health posts and healthcare facilities to monitor the development of the mother and child. The idea was launched on National Nutrition Day, February 17, 2022 (interview with Informant B)

According to Informant B, the frontline in implementing this programme is health promotion personnel who coordinate with the cadres. Through various approaches and communication instruments, awareness was raised to maximise the inclusion of husbands in monitoring the development of their wives and children. Husbands are given the role of monitoring their health and facilitating visits to the nearest healthcare facilities.

Informant B mentioned that this programme is still in the pilot phase at one Community Health Center, specifically the Tetaf Health Center in Kesetnana Subdistrict, covering 2 or 3 villages. The South Central Timor Regency Health Office will expand the pilot programme to all health centers when effective. The results of the Gaselor Programme at the Tetaf Health Center have been quite significant. During health check-ups in February and August 2023, fathers generally knew their baby's height, weight, and nutritional status.

In the context of health communication, the programme known as GASELOR can be understood as a form of gender-responsive health communication. The maximum

inclusion of men as fathers can be promoted by monitoring, accompanying their wives to healthcare facilities, and providing financial support for nutritious family meals. Gender-responsive communication, exemplified by the Father as a Counselor Movement, can help eliminate gender role inequality between husbands and wives in farming households in the village. Therefore, gender-responsive health communication is one of the mitigation efforts to combat stunting cases. Health prevention behaviors and actions are positively affected when husbands and wives share the same information literacy, starting from accessing facilities to maintaining clean and healthy living within the family.

Fathers can become actively involved in monitoring the health of the mother and the fetus through Gaselor. They accompany their wives to healthcare services to receive valuable advice and guidance from healthcare professionals.

In every village in South Central Timor Regency, several cadres have been assigned roles in promoting health, including stunting prevention. These cadres become friends and discussion partners for husband-and-wife couples regarding health issues faced in farming households. The gender-equal communication approach is an alternative to shaping the responsibilities of husbands and wives in striving for good health within their households, as shown in Figure 2.

Figure 2 shows a gender-responsive health communication model for reducing stunting in rural areas. The arrows indicate the direction of health communication. This

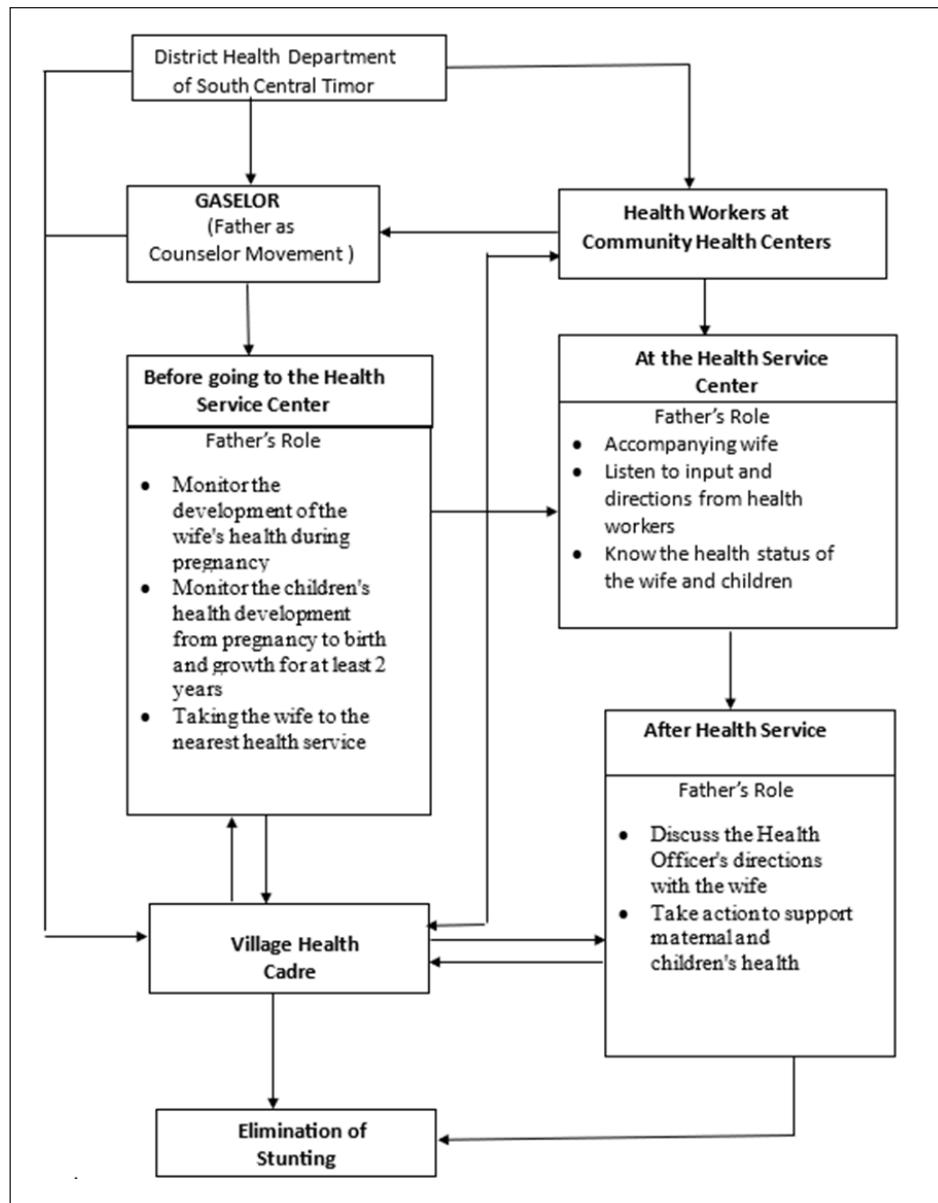


Figure 2. Gender-responsive health communication model for stunting mitigation

model emphasises the role of the government, particularly through the Ministry of Health, in promoting the involvement of husbands as health counsellors and supporters of their wives. Before accessing health services,

husbands are encouraged to monitor and ensure the health of their wives during pregnancy and to contribute to the healthy development of the child. During health care visits to health facilities, husbands

should accompany their wives to receive balanced health information and enable joint decision-making. After accessing health services, husbands continue to play a crucial role by following up on the health information provided by health workers.

In their role as health counsellors, husbands are encouraged to engage in discussions with village health cadres to promote a collaborative approach to maternal and child health. The Government of South Central Timor, through its Department of Health, is responsible for facilitating and overseeing the implementation of the Father as Health Counsellor initiative. This gender-responsive communication model aims to ensure the active involvement of husbands in maternal and child health, thereby sharing the responsibility for preventing stunting between both parents. By promoting an equitable exchange of health information between husbands and wives, this model enables quick and informed decision-making, ultimately contributing to stunting prevention efforts within the community.

DISCUSSION

The study's findings indicate that the rise in stunting cases within the community of Kesetnana Village, South Central Timor Regency, Indonesia, is primarily driven by a lack of health information literacy. The community members are largely unaware that stunting poses a significant threat from the onset of pregnancy through to the toddler years. Stunting often begins to develop even before birth, making it essential to provide comprehensive information that enhances

both mothers' and fathers' understanding during pregnancy. This early intervention is crucial in preventing the onset of stunting in children and ensuring their healthy development from the very beginning (Namirembe et al., 2022). The findings from South Central Timor Regency provide a microcosm of the broader national stunting situation in Indonesia. The challenges and gaps identified in this region reflect similar issues across the country and highlight the low level of public awareness of healthy lifestyles (Zaleha & Idris, 2022).

The results of this study highlight the importance of intensifying health communication efforts by health professionals, especially those targeting married couples. Continuous and sustained education through various health information campaigns is essential to increasing health awareness within the community. The role of health communication is essential and closely related to the process of delivering health information in influencing the appropriate behaviors, actions, or decisions of the community regarding health maintenance (Putri et al., 2022). Effective health communication can have a positive impact on people's behaviour with regard to access to health care services (Jena et al., 2022; Sichel & Elkington, 2023).

The cases of stunting experienced in South Central Timor Regency were found to be in line with several other previous studies that showed a strong relationship between poor nutritional status and inadequate sanitation and children's vulnerability to stunting (Ekholuenetale et al., 2022;

Quamme & Iversen, 2022; Widyaningsih et al., 2022). People living in rural areas are more susceptible to this condition due to limited economic support, which also results in insufficient balanced nutrition and the ability to achieve healthy environmental sanitation. Children experiencing stunting in South Central Timor Regency largely come from families with low economic status. Financial constraints make it difficult for these families to provide balanced nutrition for their members. Additionally, the remote locations of these communities exacerbate the problem, as the significant distance from healthcare facilities results in additional transportation costs, further limiting access to essential health services.

Beyond economic constraints, the high incidence of stunting in South Central Timor Regency is also driven by limited human resources. This is evident in the low levels of knowledge and awareness regarding the benefits of balanced nutrition, the critical importance of accessing healthcare services, and the adoption of healthy living practices. Several studies affirm that unhealthy behaviors are commonly observed among individuals with lower levels of education (Masquillier et al., 2023; Meier et al., 2022).

Therefore, to reduce the prevalence of stunting, a strategy that focuses on strengthening human capacities and resources, starting with the family environment, is essential. Health communication efforts should be balanced and equally targeted at men and women to ensure that husbands and wives are equally informed and involved in stunting

elimination. Involving men or husbands in the fight against stunting should be prioritised for the following reasons. Firstly, the role of husbands in providing attention, emotional support, and active monitoring of their wives' health can significantly influence their wives' adherence to health check-ups (Maesaroh, 2023). Secondly, partner support has a significant role in managing health and facilitating necessary behaviors or actions (Gil et al., 2022). Thirdly, the inclusion of fathers in ensuring family health also benefits the improvement of the members and promotes gender equality in society, as well as the importance of shared responsibility (Allotey et al., 2022; Mhango & Nyondo-Mipando, 2023). Lastly, in most societies with strong patriarchal cultures, the cultural construction of masculinity is still highly gender-biased, assuming that domestic duties, including childcare, are primarily a woman's responsibility (Farnworth et al., 2023). This situation leads to a double burden on women, affecting their ability and flexibility to provide balanced nutrition and care (Mkandawire et al., 2022).

In addition to the active involvement of husbands in enhancing the health status of family members, the engagement of the entire community is crucial for eradicating stunting in rural areas. A movement to promote health literacy by emphasizing the role of the community collectively, as well as optimizing social networks, is needed (Upreti et al., 2023). Increasing the active role of the community can also be done by adapting health communication messages to the social and cultural characteristics of

the local community (Ramírez et al., 2023). To improve the health information literacy of the community, it can maximise the use of various communication channels that are available and accessible to the community (Ruck et al., 2017).

From the perspective of the Health Belief Model Theory, the findings of this study suggest that the prevalence of stunting is primarily due to the community's inadequate understanding of the risks and implications associated with stunting. In Kesetnana Village, South Central Timor Regency, Indonesia, residents do not recognize the increasing threat of stunting and its potential consequences. This lack of awareness results in indifferent behaviors within the community. The indifference is evidenced by the insufficient community efforts to implement preventive measures against stunting. Moreover, there is a pervasive lack of awareness regarding the impact of stunting on the health and future well-being of their children.

According to the Health Belief Model (HBM) Theory, effective action towards addressing health needs depends on three crucial factors: a strong motivation and concern for health, an awareness of vulnerability to health issues, and the belief that adhering to health recommendations will reduce perceived risks (Rosenstock et al., 1988). In previous studies of health behaviour, the HBM has been widely used to understand health-related decisions, particularly regarding vaccination and preventive health measures. For example, the work of (Grinberg & Sela, 2021)

showed that mothers' perceptions of disease severity and the benefits of vaccination significantly influenced their decision to vaccinate their children, highlighting the predictive power of HBM elements such as perceived susceptibility and severity in health decisions. Similarly, HBM was used to explain the uptake of the COVID-19 vaccine in Indonesia, where perceived benefits and barriers played a critical role in determining individuals' vaccination intentions (Adiyoso et al., 2023).

However, the use of HBM extends beyond individual perceptions and is increasingly being used to examine the impact of gender dynamics on health decisions. In low-resource settings, gender inequality can exacerbate health problems such as stunting, as unequal power relations between men and women often lead to suboptimal health decisions (Tinaningsih et al., 2022). The role of gender in shaping health behaviours has been widely recognised in studies of immunisation and child health interventions, where both maternal and paternal involvement are critical to improving health outcomes (Gerend et al., 2008; Grinberg & Sela, 2021). These findings suggest that while HBM has traditionally focused on individual decision making, the inclusion of gendered communication can enhance the model by addressing the broader social influences on health behaviour.

This study builds on these findings by incorporating gender-responsive communication into the HBM framework, suggesting that when both partners

are equally involved in health-related decisions, such as monitoring maternal and child health, the likelihood of successful stunting prevention increases. The inclusion of gender-responsive communication recognises that in patriarchal communities, health-related decisions are predominantly made by the head of the household, typically the husband, who is often not exposed to relevant information about child health (Andung et al., 2025). Thus, this research extends the HBM by showing that the likelihood of individuals adopting health-promoting behaviours is influenced not only by their health concerns, sense of vulnerability, and trust in health advice, but also by prevailing gender norms in society. These norms play a crucial role in shaping how health risks, such as stunting, are perceived and acted upon within families and communities.

By embedding the Health Belief Model within a gender-responsive health communication framework, this study emphasises the need for joint, gender-balanced decision-making on health issues. The findings highlight the importance of involving both partners, especially husbands, in health decision-making, which can increase the effectiveness of stunting prevention interventions. Therefore, this research contributes to existing HBM theory by extending its scope to include gender norms, providing a more holistic understanding of health behaviour in patriarchal societies where decision-making is often gendered.

CONCLUSION

In conclusion, the causes of stunting cases in the community in South Central Timor Regency, East Nusa Tenggara Province, Indonesia were due to health factors such as malnutrition and poor sanitation, as well as traditional beliefs in the form of myths affecting the delay in decisions and actions to access available health services. Furthermore, the low inclusion of fathers or husbands in ensuring family health was a social factor contributing to inadequate parenting practices. Gender imbalances in family roles also affected the compliance of wives or mothers in accessing health checks in proper parenting practices. Gender-responsive health information literacy is therefore one of the solutions to reducing stunting. In a society with a patriarchal culture, providing health information to husbands has a major impact on family decisions to combat stunting.

Implications of the Study

This study shows how, in societies with a strong and dominant patriarchal culture, women often remain marginalized in their ability to influence their health status. The prevailing societal and cultural norms designate men or husbands as primary breadwinners, allocating their time, attention, and energy to fulfill the family's economic needs. Consequently, the responsibility for family health falls disproportionately on women. The findings underscore the urgent need to promote gender equality awareness, especially within households, to ensure that responsibilities for family

health are equitably shared between men and women. Involving husbands in monitoring and ensuring the health status of mothers and children is a must to reduce stunting in rural areas.

Limitations and Recommendations for Future Research

This study was conducted in only one of the villages with the highest levels of stunting in South Central Timor Regency, East Nusa Tenggara Province, Indonesia. However, if this research were to be extended to more villages, it would be possible to obtain data with a high level of diversity. Therefore, it is recommended that further research be conducted with at least 3 comparison villages, namely those with high, medium, and low stunting cases. Another limitation of this study is the relatively short observation period for monitoring gender relations in rural farming households. It is recommended that future research should extend the observation period in order to obtain a more comprehensive perspective of gender relations as they occur in farming households. This is important to understand how gender communication plays a role in supporting health communication in the household.

It is therefore recommended that the South Central Timor Regency Government extend the Fathers as Counsellors Movement Programmem to other rural areas with high stunting rates. In addition, the local government, in collaboration with non-governmental organisations, needs to conduct advocacy to raise awareness of the

importance of gender equality in addressing health issues and programmemes, starting from the family environment to the wider community.

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