Using Digital Literacy as form of Health Activism in Crisis Situations: Challenging Stunting Trough Family Communication

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ABSTRACT

This study explores digital literacy as a form of health activism in crisis situations, specifically examining its role in addressing stunting through family communication patterns. Employing a phenomenological approach, the research investigates the experiences of 13 families in Wanayasa, Indonesia, who are confronting stunting challenges. The findings reveal that families with higher levels of digital literacy demonstrate improved access to accurate and reliable health information, enhanced communication effectiveness with healthcare workers, and stronger development of social support networks. These digital competencies enable families to actively participate in health decision-making and challenge misinformation surrounding child nutrition and development. However, the study also identifies persistent structural barriers and cultural gaps that continue to impede widespread digital literacy adoption among vulnerable populations. Structural constraints include limited internet infrastructure and technological access, while cultural factors encompass traditional beliefs about child-rearing and healthcare-seeking behaviors. The research highlights the dual nature of digital literacy as both an empowerment tool and a potential source of inequality in health activism. Based on these findings, the study recommends implementing structured, culturally-sensitive digital literacy programs specifically designed for families dealing with stunting, alongside policy interventions to address infrastructure and accessibility challenges.

Keywords: digital literacy, stunting, stigma, family communication, health crisis

INTRODUCTION

Stunting, or the condition of growth failure in children due to chronic malnutrition, remains a serious challenge in Indonesia's public health development. Based on the Indonesian Health Survey (SKI) 2024, the national stunting prevalence reached 19.8 % or approximately 4.48 million toddlers experiencing this condition (Kementerian Kesehatan RI, 2025). Despite significant national reductions, disparities in stunting rates between regions remain very high. Based on data from the Indonesian Nutritional Status Survey (SSGI) 2024, Central Java is among the six provinces with the highest number of stunted toddlers in Indonesia. SSGI data for 2024 shows that Central Java has 485.893 stunted toddlers (Tim Percepatan Penurunan Stunting, 2025).

Stunting cases have continued to rise and spread across various regions in Indonesia, leading communities to view it as a crisis that threatens the quality of future generations. In this situation, social stigma has also emerged and become attached to families with stunted children. Many people, both within the immediate environment and the broader community, develop negative perceptions, such as assuming that these families are negligent about their children's health, incapable of providing proper care, or lacking adequate nutritional knowledge (Li & Walker, 2017). Amid this crisis, the uneven distribution of information and the diverse public understanding of stunting often give rise to stigma that further burdens affected families (Fitzpatrick, 2023). This stigma often manifests in the form of negative views, blame, and marginalization of parents who are considered to have failed

in child rearing (Corrigan, Rao, 2012). Such social stigma can hinder stunting prevention and treatment efforts, as families tend to hide their children's condition and are reluctant to seek health assistance. The psychological impact of this stigma not only affects parents' mental health, but can also worsen stunting conditions in children due to lack of social support and access to appropriate health information (Hatzenbuehler et al., 2013). This situation indicates that addressing stunting requires not only medical interventions but also communication approaches that are more equitable and socially sensitive.

In the digital era, this health crisis is exacerbated by misinformation and gaps in digital literacy, causing families with limited access to become trapped in streams of inaccurate information (Bejaković & Mrnjavac, 2024). However, on the other hand, the development of digital technology also opens opportunities for families to access more accurate information, interact with health workers, and build a more constructive understanding of the stunting issue. Digital literacy, defined as an individual's ability to access, understand, evaluate, and effectively use digital information, becomes key in utilizing technology to support family health communication (Restianty, 2018). In the context of stunting, digital literacy has great potential to become a communication strategy that can change public perceptions, increase understanding of stunting, and reduce stigma that has been hindering prevention and treatment efforts (Tsatsou, 2021; Wulandari et al., 2025). Social media platforms, health applications, educational websites, and various other digital channels can serve as effective means to disseminate accurate information, support affected families, and build supportive communities (Rusdin et al., 2023).

However, the field reality shows significant digital gaps in family health information access in Indonesia. This disparity is not only related to the availability of technological infrastructure, but also to the still diverse levels of digital literacy in society (Algifari et al., 2024; Wasir et al., 2025). Families in rural areas, low economic groups, and communities with limited education levels often face barriers in accessing and utilizing digital health information. This gap has the potential to widen information gaps and worsen stunting conditions in the most vulnerable groups (Xaviera & Ainy, 2025). Additionally, the proliferation of unverified information and health hoaxes in digital media also presents a separate challenge that can worsen public understanding of stunting (Nababan, 2024).

The role of communication both within the family and through digital media becomes a strategic element in this form of resistance. Effective communication enables families to negotiate identity, manage social pressures, and build psychological and social resilience. Moreover, digital literacy strengthens families' capacity to critically navigate health information, allowing them to participate more actively in advocating for a more inclusive and stigma-free understanding of health. Thus, communication is not merely a channel for disseminating messages but also a form of social intervention and everyday activism that empowers families to confront and overcome stigma.

Based on these conditions, this research attempts to answer a fundamental question: How does digital literacy function as a form of communication activism in overcoming stunting stigma by enhancing the effectiveness of family communication in the era of digital health information? This question includes an in-depth analysis of digital literacy mechanisms in shifting public perceptions and behaviors, strategies for utilizing digital media for anti-stigma education, and the identification of factors that shape the effectiveness of digital communication within family health contexts. This research is expected to contribute both theoretically and practically to the development of more inclusive, participatory, and impactful health communication strategies for addressing stunting in Indonesia

RESEARCH METHODS

Research Design and Approach

This research employed qualitative research methods with a phenomenological approach. The phenomenological approach was selected because this study aimed to understand the lived experiences of individuals within specific social contexts, particularly the experiences of families with stunted children in confronting social stigma and utilizing digital literacy to address these challenges (Sugiyono, 2020). This approach allowed researchers to explore the meanings that individuals ascribed to their experiences regarding specific phenomena or concepts

(Creswell, 2019). Phenomenology enabled researchers to reveal the essence of lived experiences and understand the meanings informants gave to those experiences, particularly how families with stunted children experienced social stigma, how they responded to that stigma, and how digital literacy functioned in their adaptation and problem-solving processes.

Research Setting

Data collection was conducted in Banjarnegara Regency, which had the highest stunting prevalence in Central Java Province. The research specifically focused on Wanayasa District, Banjarnegara Regency. This location was selected based on several considerations: the area exhibited demographic and socioeconomic characteristics representative of rural community contexts for understanding stunting stigma dynamics, and the community demonstrated accessibility and readiness to participate in the research.

Participant Selection

Informants were selected using purposive sampling techniques to identify participants with specific characteristics and experiences relevant to the research focus (Creswell, 2019). The study involved 13 families with stunted children aged 24-47 months (2 to 4 years). This age range was selected because it represented a critical period in child growth when stunting could be clearly identified, and parents had accumulated sufficient child-rearing experience and social interaction regarding their children's conditions (Romadhona et al., 2023).

Specific inclusion criteria required that informants were families who experienced stigmatization due to their children's stunted condition, whether morally, physically, or psychologically. The stigma experienced included restricted access to community interactions, discrimination, and degraded identity leading to diminished mental health and vulnerable resilience (Ligar et al., 2024). These criteria ensured that informants had direct experience with the studied phenomenon and could provide in-depth information about the impact of stunting stigma on family life.

Data Collection

The primary data collection technique was in-depth interviews, which enabled researchers to obtain comprehensive information about experiences, perspectives, and meanings informants attributed to their lived phenomena (Creswell, 2019). Data collection occurred over approximately two months, with interviews conducted at informants' homes either alternately or simultaneously. Given the geographic proximity of several informants' residences, group interviews were conducted at certain times.

Non-participant observation served as a complementary data collection method. This technique allowed researchers to monitor informants' activities and routines within their environments, obtaining information from multiple perspectives (Creswell, 2019; Sugiyono, 2020). Researchers observed informants' behaviors and interactions in natural contexts without influencing the observed situations. Observation activities included monitoring informants' activities at posyandu (integrated health posts) during toddler weighing and height measurements, family activities at home, and interactions with neighbors.

Data Analysis

Data analysis followed phenomenological analysis procedures, focusing on identifying themes and patterns that emerged from informants' experiences. Interview transcripts and observation notes were systematically coded to identify recurring themes related to digital health literacy, stigma experiences, and family communication patterns in addressing stunting challenges.

RESULTS AND DISCUSSION

Results

In the experience of mothers with children experiencing stunting, the formation of a stigmatized status does not arise solely from personal reflection. Instead, this status emerges through communication with external parties, particularly with health cadres and midwives they encounter at the posyandu (integrated health posts) or primary

health care services. Mothers tend to rely heavily on the information delivered by health workers to understand their child's condition. However, it is the manner in which the information is conveyed that directly or indirectly begins to shape stigma even before the word "stunting" is explicitly mentioned.

Some mothers begin to feel that their child is "different" after receiving repeated comments from cadres, usually regarding the child's stagnant weight, height that does not match their age, or a lack of appetite. One mother, PA, shared that since her child was labeled "small" by a cadre, she became aware that her child was frequently commented on during each visit.

"They often said my child is small and that the weight hasn't increased. Even though I've tried everything… it feels like I'm the one to blame" (Interview, 2025).

In this case, although the term "stunting" was not directly used, the continuous judgment from cadres created a perception that something was wrong with the child's condition. Such comments not only made mothers worry about their child's development but also led them to question their own competence as a parent. A similar experience was shared by KH, who felt judged unilaterally when bringing her child to the posyandu. KH stated that the health workers did not fully explain her child's condition but immediately emphasized that the child needed to eat more.

"They said, 'She's not eating enough, huh?' But I already cook all kinds of food" (Interview, 2025).

This type of communication made KH feel like she was not given space to explain or engage in a dialogue. The judgments from cadres and midwives—though perhaps intended as concern only deepened the mother's sense of guilt, which ultimately reinforced the stigma. FM's experience also shows how midwives can act as powerful agents in shaping stigma. FM recounted that a midwife referred to her child as "malnourished" without offering a detailed explanation. As a result, FM avoided visiting the posyandu for several months.

"I was afraid of being scolded, afraid they'd say my child is malnourished again. So sometimes I don't go for weighing" (Interview, 2025).

This situation illustrates that one-way communication lacking empathy and adequate education plays a major role in creating negative perceptions both about the child's status and about the mother herself. In addition to cadres and midwives, the social environment also plays a significant role in reinforcing stigma. Comments that may seem casual but carry a tone of comparison are often made by neighbors or other mothers at the posyandu. W shared that her child was once compared physically and even given a hurtful nickname.

"They said my child looks like a bancet (a type of small frog) so small. I didn't know how to respond. I was embarrassed" (Interview, 2025).

Such remarks not only target the child's appearance but also socially shame the mother. Stigma doesn't only come from above (cadres, midwives, or health workers) but also spreads through the community, which often labels without empathy. Furthermore, close family members such as spouses or parents can also contribute to strengthening the stigma. Some mothers mentioned they often received comments like "not attentive enough" or "not raising the child properly." Even within the family context, such remarks still carry judgment. For instance, S shared that her husband once said she was "not good at taking care of the child" because the child's weight hadn't increased.

"They said I'm not taking care of the child properly… but I'm the one holding the child every day" (Interview, 2025).

Although not all mothers experience direct pressure from their families, the family still plays a critical role, as it can either be a source of support or worsen the social pressure they face. Nevertheless, not all mothers immediately accept the stigma. Some, like US, make efforts to seek out information or empower themselves through the experiences of other mothers.

"I look up the information myself too. Sometimes from social media, sometimes by asking other moms. So I know that every child's condition is different" (US, Personal Interview, March 9, 2025).

This shows that some mothers place themselves not only as passive recipients of information but also as active subjects who search for, evaluate, and reject labels they deem inaccurate. The establishment of a stigmatized status is greatly influenced by the communication between mothers and external parties—especially cadres and midwives as dominant actors. While social environments and families reinforce stigma, the initial influence often comes from interactions with health services. In these dynamics, mothers experience psychological pressure that affects not only their perception of the child but also of themselves as caregivers. However, some mothers demonstrate efforts to create their own narratives and do not fully submit to the labels imposed on them.

Based on the interviews, it can be seen that mothers' responses to stigmatizing communication regarding their children are not uniform. These responses are influenced by how well they understand stunting, who delivers the message, and how the message is conveyed. Behind every comment from a cadre, midwife, or community member, there lies a complex emotional and perceptual dynamic within the mother ranging from guilt, shame, and helplessness to ultimately choosing whether to comply or withdraw.

Most mothers show passive responses accepting information or judgment from outsiders without protest, even though they may internally disagree or feel confused. This response does not stem from believing the information is completely accurate but from feeling they are in an unequal position, socially or in terms of knowledge. They feel powerless to reject or question cadres and midwives especially when such remarks are made publicly, as in posyandu settings. KH revealed that she felt cornered, even if she was never explicitly blamed for her child's stunting. But each time KH took her child to the posyandu, she felt increasing psychological pressure from remarks like "you need to pay more attention to their eating," which implicitly placed blame on her.

"I feel like they're always hinting at me. Even though I've tried my best. But when they say that, I just stay quiet" (Interview, 2025).

This silent and passive response is often accompanied by feelings of shame, confusion, or sadness. Many mothers don't know how to respond to comments that touch on their child's condition. W described that after being told by a neighbor her child was "small like a bancet," she preferred to stay home for a few days and avoided social interactions.

"I was so embarrassed. So I stayed home. If possible, I didn't want to meetanyone." (Interview, 2025).

This shame does not only stem from the child's perceived physical inadequacy, but also from the belief that stunting is a result of poor parenting. The stigma doesn't stop at the child it reflects back onto the mother as the primary caregiver. FM's experience shows that pressure from the community and posyandu can lead to avoidance behavior. FM chose not to attend the posyandu for two months because she couldn't bear the comments from cadres questioning her child's eating habits. Even though FM understood the importance of monitoring her child's growth, the emotional burden led her to stay away.

"I was really scared of being scolded. So I didn't go" (Interview, 2025).

This situation illustrates a dual dilemma faced by mothers: on one hand, they recognize the importance of routine health checks, but on the other hand, they want to protect themselves from shame. Such avoidance indirectly worsens their access to information and support they should be receiving. However, not all mothers respond with resignation or avoidance. Some instead show self-defensive mechanisms or reject the label given. They choose to trust their own judgment of their child and dismiss negative comments they find irrelevant. US stated that she feels calmer when assessing her child based on behavior and cheerfulness—not just numbers.

"My child is active and eats well. If they say she's small, maybe it's genetic. I don't worry too   much   about it" (Interview, 2025).

Such responses represent a symbolic resistance to the dominance of medical or social narratives about stunting. Mothers build alternative knowledge based on their own observations and everyday experiences, which they feel

are more suited to their child's context. Some mothers also change how they engage with the posyandu: some continue to attend but are more selective in accepting advice, while others actively seek information from social media or consult with health workers they trust more.

Responses to stigma are complex. Some mothers are passive, cry, or avoid. Others choose to resist, engage in dialogue, or seek social support. These response patterns are highly influenced by the context of communication and relationships in social interactions. This means that changing the communication approach from cadres, midwives, and the surrounding environment can significantly influence how mothers interpret and respond to the stigma they face.

DISCUSSION

Manifestation of Stunting Stigma in Family Communication

In the context of child health, communication plays an important role not only as a tool for conveying information, but also as a means of shaping perceptions, attitudes, and even certain social constructions, including stigma (Widiastuti et al., 2022). For mothers who have toddlers, communication becomes a meeting point between hopes and the reality experienced daily. Based on observation and interview results, what is conveyed by cadres, midwives, and people around them can have a significant influence on how a mother views her child's condition. Responses to stigma are complex, whether she feels empowered to help, or instead feels like the cause and has failed as a parent (Ligar et al., 2024). Based on interview results, there are mothers who are passive, cry, or avoid, but there are also those who choose to refuse, engage in dialogue, or seek social support. This response pattern is greatly influenced by communication contexts and relationships in social interactions. This suggests that changes in communication approaches from cadres, midwives, and the environment can influence how mothers interpret and respond to the stigma they face (Carrara et al., 2023).

In this context, communication is not only understood as verbal activity that appears on the surface, but also includes the inner processes experienced by mothers when receiving information, evaluating themselves, and responding to various reactions from their surroundings (Mbanusi et al., 2025). When a mother receives information about her child's condition from cadres or midwives, either directly or implicitly, she not only processes that information as medical data, but also as a reflection of social values and expectations imposed on her. This is what will eventually form the internal stigma (Yang, Choi, 2023).

Furthermore, nuclear family members such as spouses or parents can also play a role in reinforcing stigma (Yin et al., 2024). Based on interview results, several mothers mentioned that they often receive comments such as lack of attention or wrong in taking care of the child. Although delivered in a family context, these comments still carry judgmental content. Although not all mothers experience direct pressure from family, the family's role remains important because it can become a space of support or actually worsen the social pressure felt (Nabunya et al., 2020). Not all mothers, however, readily accept that stigmatized status. The findings indicate that families often choose to withdraw from health services because they feel monitored or judged negatively by their surrounding environment. In addition, they tend to avoid social interactions to minimize the possibility of comments or judgments that may embarrass them.

Thus, stunting cannot be understood solely as a nutritional and health issue, but must be viewed as a social crisis that affects the family's relationship with the community, shapes negative self-perceptions, and weakens the family's psychosocial resilience. This understanding underscores that stunting interventions need to incorporate aspects of communication, social support, and stigma reduction so that efforts to improve child health can be carried out effectively. Based on interview results, several mothers attempt to seek information themselves or strengthen themselves through the experiences of other mothers. This shows that some mothers try to position themselves not only as objects receiving information, but also as subjects who actively seek, weigh, and reject labels considered inappropriate (Miguel Rios-González, 2023).

In addition, pressure from the environment and posyandu can create avoidance responses. Based on observation and interview results, there are mothers who choose not to come to posyandu for two months because they cannot bear to receive comments from cadres questioning their child's eating patterns. Although they are aware that

monitoring child growth and development is important, emotional pressure makes them choose to stay away. However, not all mothers show resigned or avoidant responses. Some show self-defense mechanisms or rejection of given labels. They choose to believe in their personal assessment of their child and ignore negative comments they consider irrelevant. Such responses are a form of symbolic resistance against the dominance of medical and social narratives about stunting (Ligar et al., 2024). Mothers build knowledge from daily experiences and observations, which they feel are more appropriate to their child's context. Based on observation results, there are several mothers who then change how they interact with posyandu, some still come but are more selective about the advice given. There are also those who begin to actively seek information from social media or consult directly with healthcare workers they consider more understanding.

The success of stunting management is not sufficient with only providing supplementary feeding, nutrition education, or assistance, but also greatly depends on the quality of communication built between cadres, midwives, and mothers of toddlers (Romadhona et al., 2023; Simbolon, Sitompul, 2024). An approach that is too technical, lacking empathy, and without considering privacy space, reinforces stigma and distances mothers from the service system. Therefore, additional training is needed for cadres and midwives to develop communication skills that are inclusive, empathetic, and sensitive to mothers' feelings (Marni et al., 2021). Without changing communication methods, stunting management efforts risk failure because mothers who should be the primary partners instead feel blamed, ignored, or judged (Hastuti, 2023).

Digital Literacy as Communication Activism in the Stunting Crisis

The analysis of informant family experiences shows that digital literacy functions not only as an informational skill but also as a form of communication activism in the stunting crisis. It holds strong potential to challenge stigma, yet its implementation faces complex structural and cultural barriers. The main potential lies in the ability of digital media to provide wide and up-to-date access to information about stunting (Causio et al., 2024). Based on interview results, several informants who have internet access began to realize that the information they obtained from digital media can complement information obtained from healthcare workers.

This phenomenon reflects a shift in community behavior in accessing health services, where digital platforms become the main source of information before deciding to consult directly (Wasir et al., 2025). Social media sites such as Instagram, TikTok, and YouTube are now filled with educational content from doctors and health practitioners who provide tips, symptom explanations, and treatment recommendations (Fitzpatrick, 2023). Meanwhile, direct consultation with healthcare workers through telemedicine applications or face-to-face visits provides more accurate and personal diagnostic certainty. Although access to information has become easier, the community still needs to be careful in selecting valid information and not replacing professional medical consultation with information obtained from social media alone (Wulandari et al., 2025). Another potential of digital literacy is its ability to facilitate the formation of virtual support communities (Estacio et al., 2019).

Based on the in-depth analysis of informant family experiences, several important implications emerge for developing digital literacy programs that function not only as technical training but also as communication activism strategies to resist and overcome stunting stigma. First, digital literacy programs must be designed considering the socioeconomic and cultural contexts of local communities (Rahayu, 2021). Programs that focus too much on the technical aspects of technology use without considering local contexts tend to be ineffective. The experience of informant KH, who works in the agricultural sector with a busy routine, shows that digital literacy programs must be flexible and can be adapted to participants' schedules and needs (Veranita, 2023).

Second, digital literacy programs must integrate technical training with improving health information literacy abilities. It is not enough to just teach how to use smartphones or access the internet, but also need to teach how to evaluate the credibility of health information found online (Rusmawan et al., 2023). Third, programs must facilitate the formation of digital support communities that can function as safe spaces for sharing experiences and seeking emotional support. Digital literacy programs can facilitate the formation of WhatsApp groups or other digital platforms moderated by healthcare workers or trained facilitators (Hariyanto et al., 2023).

Fourth, the information content provided must be accessible and culturally appropriate. The experience of several informants who had difficulty understanding medical terminology shows that information about stunting

needs to be presented in simple and easy-to-understand language (Causio et al., 2024). In addition, content can be enriched with visuals and multimedia that can enhance understanding, especially for participants with limited literacy levels (El Benny et al., 2021). Fifth, digital literacy programs must involve all family members, not just mothers as primary caregivers (Causio et al., 2024; Situmeang et al., 2020).

CONCLUSIONS

This research reveals the complexity of the relationship between digital literacy, stunting stigma, and family communication in the context of rural communities in Indonesia. Through thick description analysis of the experiences of 13 families with stunted children, this research shows that digital literacy has great potential as a strategy to overcome stunting stigma, but its implementation faces various structural and cultural challenges.

The main findings show that digital literacy limitations are not only related to technical abilities to use technology, but also enables families to engage in small-scale forms of health activism during crisis situations. The stigma experienced by informant families appears in various forms, ranging from negative labels to social isolation, which then influences family communication strategies in dealing with this condition.

The potential of digital media in overcoming stigma lies in its ability to provide wide access to information, facilitate the formation of support communities, and strengthen family communication. However, realizing this potential requires a comprehensive and contextual approach that considers local socioeconomic, cultural, and technological infrastructure factors.

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