

HEALTH COMMUNICATION TRANSFORMATION IN THE DIGITAL ERA: THE ROLE OF THE NORTH LOMBOK COMMUNICATION AND INFORMATION SERVICE THROUGH PODCASTS IN THE STUNTING REDUCTION CAMPAIGN

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ABSTRACT

Digital transformation has changed the landscape of health communication, including in efforts to reduce stunting rates in Indonesia. This study aims to analyze the role of the Communication and Informatics Office (Kominfo) of North Lombok Regency in utilizing podcasts as a health communication medium in the stunting reduction campaign. The main focus of this study is to examine how digital communication strategies are built, the messages conveyed, and the extent to which the podcast program is effective in increasing public understanding regarding stunting prevention. This study uses a qualitative approach with a case study method. Data were collected through in-depth interviews with Kominfo, health workers, and podcast listeners, and supplemented with observations and documentation. The results of the study show that Kominfo North Lombok utilizes podcasts as an alternative media that reaches the wider community with a relaxed, communicative, and easily accessible educational approach. Podcasts that are packaged in local languages and present credible sources such as doctors and community leaders, traditional leaders, religious leaders have proven to be able to increase awareness of the importance of balanced nutrition, the role of pregnant women, and proper parenting patterns. However, challenges are still faced in terms of limited internet access in certain areas and minimal digital literacy among some listeners. This study recommends optimizing cross-sector collaboration and increasing podcast socialization as a strategy to strengthen digital communication in efforts to reduce stunting. This finding emphasizes the importance of adapting health communication in the digital era to create a society that is more aware and responsive to public health issues.

Keywords: digital communication, podcast, stunting.

INTRODUCTION

Digital transformation has had a significant impact on various aspects of life, including public health. One of the main challenges in the health sector in Indonesia is the high rate of stunting in children. According to data from the Indonesian Nutrition Status Study (SSGI), the national prevalence of stunting in 2022 was recorded at 21.6%, which is still far from the national target of reducing it to 14% by 2024 (Ministry of Health of the Republic of Indonesia, 2022). In underdeveloped areas such as North Lombok Regency—the youngest regency in West Nusa Tenggara Province—these challenges become even more complex due to limited infrastructure, low digital literacy, and geographical barriers.

Specifically, in 2022, 5,383 children in North Lombok Regency were recorded as stunted, with a prevalence rate of 22.94% (North Lombok Regency Health Office, 2022). Recognizing the serious long-term impact of stunting on human resource quality, the local government has made this issue a priority agenda, coordinated through a stunting reduction acceleration team under the leadership of the Vice Regent. This effort is also driven by 2021 SSGI data showing that the national stunting prevalence rate reached 35%, far exceeding the WHO's maximum tolerance limit of 20%.

As a strategic commitment, the North Lombok Regency Government has initiated various intervention programs, including Healthy Kitchens, prenatal classes, premarital counseling, and nutrition education campaigns. This multisectoral approach also includes improving access to nutritious food, health services, and strengthening family planning programs. In 2024, the Simultaneous Intervention Movement program was launched, encompassing data collection, weighing, measuring, and mass education for all pregnant women and infants. As a result, the prevalence of stunting was significantly reduced, from 33% in 2020 to 15.78% by mid-2024—an achievement that was made possible by cross-sectoral collaboration and integrated communication strategies (Antara NTB, 2024).

In this context, the Communication and Information Agency (Kominfo) of North Lombok Regency plays a crucial role as a strategic public communication manager. The innovation of utilizing podcasts as a health communication medium is a solution to overcome the limitations of conventional media, while reaching a wide audience through a communicative, inclusive, and locally-based approach. Podcasts, as one form of new media, offer advantages in terms of flexible access times, wide reach, and the ability to attract digitally literate younger audiences (McClung & Johnson, 2010).

Previous studies have highlighted the significant potential of digital media in supporting health communication. For example, Ventola (2014) emphasized the effectiveness of social media in raising awareness, disseminating information, and creating participatory spaces for communities. However, research on podcasts as a health communication tool in 3T areas (Frontier, Remote, and Underdeveloped) remains limited. Therefore, this study introduces novelty by positioning podcasts as an alternative local-based medium in stunting reduction campaigns.

In communication studies, the development communication approach (Servaes, 2008) and participatory digital communication (Carpentier, 2011) serve as the primary theoretical foundations for this research. Both emphasize the importance of active community involvement and the use of media appropriate to the socio-cultural context. Additionally, the Media Richness theory (Daft & Lengel, 1986) and the Culture-Centered Communication approach (Dutta, 2008) are used to assess the effectiveness of podcasts in conveying health messages that are rich in meaning, relevant, and easily understood by the local community.

Based on this background, the research question in this study is: What is the role of the North Lombok Communication and Information Agency in utilizing podcasts as a health communication medium in the campaign to reduce stunting rates? The objectives of this study are to: (1) analyze the digital communication strategies developed by the Lombok Utara District Communication and Information Office through podcasts; (2) identify the key messages conveyed in the stunting podcasts; and (3) evaluate the effectiveness of podcasts in enhancing public understanding of stunting prevention.

Using a case study approach and a participatory digital communication perspective, this research is expected to contribute theoretically and practically to the development of health communication strategies that are more adaptive to the digital era and culturally relevant.

METHOD

This study uses a qualitative approach with a case study method that aims to explore in depth the digital communication strategies implemented by the Communication and Information Agency (Kominfo) of North Lombok Regency in utilizing podcast media as a means of campaigning to reduce stunting rates. The selection of the case study is based on the need to understand the phenomenon holistically in a real-life context (Yin, 2018), particularly in the context of 3T (Frontier, Outermost, and Underdeveloped) regions such as North Lombok.

Although it does not use variables in a quantitative sense, this study establishes several thematic focuses as the main reference for data collection. These include: first, the Ministry of Communication and Information Technology's digital communication strategy, which involves systematic efforts to design, produce, and disseminate podcast content addressing stunting issues; second, the health communication messages conveyed in the podcasts, including balanced nutrition education, the role of pregnant women, and child-rearing practices; and third, the effectiveness of podcasts in increasing public awareness and understanding of stunting prevention. In this context, podcasts are defined as internet-based audio broadcasts accessible through various digital platforms (Berry, 2016). Meanwhile, health communication is understood as the process of conveying information aimed at increasing knowledge and changing public behavior related to specific health issues (Kreps & Thornton, 1992). The effectiveness of communication is assessed based on informants' perceptions of message clarity, content relevance, and the appeal of podcast presentation to the local audience.

The research design used was descriptive-qualitative, with an orientation to provide a detailed description of the production, distribution, and impact of podcasts as a medium of health communication. To maintain the validity of the findings, this study applied triangulation techniques that included data source, method, and theory triangulation (Patton, 2002). This strategy was used to ensure that the data obtained had depth and reliability.

The research subjects were determined using purposive sampling with the main criteria being direct or indirect involvement in the production and utilization of podcasts. The main informants consisted of the head and technical staff of the North Lombok District Communication and Information Agency, health workers who contributed to the narrative and educational content, and active podcast listeners such as pregnant women, posyandu cadres, and community leaders from areas with high stunting prevalence. This approach allows researchers to obtain diverse perspectives from the creators, communicators, and recipients of the communication message.

Data was collected through three main techniques. First, semi-structured in-depth interviews aimed at exploring the informants' views, experiences, and assessments of the role and influence of podcasts. Second, direct observation was conducted to understand the technical processes of podcast production and distribution, as well as their connection to field education activities. Third, documentation involved collecting data from podcast recording archives, interview transcripts, digital campaign materials, and official reports of Kominfo activities.

Data analysis was conducted using a thematic approach based on the model developed by Miles, Huberman, and Saldana (2014), which consists of three stages: data reduction, data presentation, and conclusion drawing/verification. Each piece of data obtained was manually coded and classified based on three main categories: communication strategies, message content in podcasts, and public perceptions of media effectiveness. To enrich interpretation and sharpen analysis, this study draws on development communication theory (Servaes, 2008), the participatory digital communication approach (Carpentier, 2011), and the culture-centered approach (Dutta, 2008), which places special emphasis on the social and cultural context of the target community.

As part of the supporting process, the researcher also conducted a literature review related to podcasts, health communication, and digital transformation in public services. Additionally, the researcher conducted preliminary mapping of locations and identification of key informants, as well as coordinating with the Lombok Utara Regency Communication and Information Office and Health Office to obtain official and in-depth information regarding the digital media-based stunting campaign initiative.

RESULTS AND DISCUSSION

Digital Communication Strategy of the Ministry of Communication and Information Technology through Podcasts

The Ministry of Communication and Information Technology (Kominfo) of North Lombok Regency has adopted podcasts as one of its health communication media in an effort to reduce stunting rates. The use of podcasts is part of a digital communication strategy that combines elements of public participation, local adaptation, and the use of information technology that is accessible to the community.

In the context of development communication, this strategy can be analyzed through a participatory communication approach. According to Carpentier (2011), participatory communication emphasizes the importance of active community involvement in the production, dissemination, and evaluation of messages. This approach seeks to break the one-way communication pattern that only positions the community as recipients of information, turning them into active participants in the communication process. This is evident in the design of the Kominfo podcast, which not only features expert sources, such as doctors or health workers, but also involves community leaders, religious leaders, and traditional leaders. The presence of local figures enhances trust and strengthens the credibility of the message.

Additionally, this strategy aligns with Servaes' (2008) theory of development communication, which emphasizes the importance of communication rooted in local social and cultural contexts. In the multiplicity paradigm model, development communication is not merely about transferring information from the center to the regions but about how local communities actively participate in formulating solutions to their problems using media relevant to their social and cultural conditions. The use of local languages in podcasts is also a form of cultural adaptation, which strengthens the emotional connection between the message and the audience.

Podcasts are also a technologically inclusive medium. According to the Diffusion of Innovations theory (Rogers, 2003), the adoption of new technology depends on ease of access, relative usefulness, and compatibility with local values. In this context, podcasts have the advantage of time flexibility, relatively low production costs, and the ability to reach audiences across ages and backgrounds. Young people, who are digital natives, are more likely to be interested in consuming digital audio content than conventional media. Thus, podcasts have the potential to bridge the information gap between generations.

This Kominfo strategy can also be linked to the perspective of strategic communication (Zerfass et al., 2018), in which communication is not only viewed as an activity of conveying information, but also as a strategic instrument to achieve certain goals. In this case, the goal of reducing stunting in North Lombok Regency is integrated into health education narratives disseminated through podcasts. Using a storytelling format, the information conveyed becomes easier to understand and accept by the community, especially in areas with relatively low literacy rates.

This overall strategy demonstrates how the use of new media such as podcasts can enhance the effectiveness of local government public communication. By combining principles of participation, cultural relevance, and technology adoption, the Lombok Utara District Communication and Information Office (Kominfo) underscores the role of podcasts as an inclusive communication bridge in community health development efforts.

Message Content in Podcasts

The content or message in podcasts developed by the North Lombok Regency Communication and Information Agency (Kominfo) focuses on educating the public about the importance of balanced nutrition, the central role of pregnant women, and proper child-rearing practices. This content focus is designed as a strategic step in supporting efforts to reduce stunting rates at the village and sub-district levels. These

health messages are not merely compiled as informative material but are designed to influence the way people think and behave, encouraging them to be more concerned about family health aspects. This approach aligns with the perspective of health communication, which views the dissemination of information as an important tool in driving behavioral changes among individuals and communities (Kreps, 1988).

The podcast messages are delivered in a narrative and interactive format. The storytelling model was chosen because it is believed to make educational material easier to understand, evoke empathy, and strengthen listeners' connection with the message being conveyed. This aligns with the Narrative Paradigm proposed by Fisher (1984), which emphasizes that humans are fundamentally homo narrans – storytelling beings who make sense of their lives through stories. Through narrative, facts and technical information related to nutrition, maternal health, and child-rearing become more contextual and relevant to listeners' daily lives. In addition to narrative, the interactive dialogue format featuring sources such as healthcare workers, religious figures, and traditional leaders opens up a virtual two-way dialogue space. Listeners are not merely recipients of information but are invited to participate in the conversation, in line with the principles of Dialogic Communication Theory (Kent & Taylor, 2002), which emphasizes the importance of dialogic relationships in building public trust.

The success of this podcast is also determined by its ability to adapt the substance of the message to the cultural context of the local community. Through the Culture-Centered Approach (CCA) (Dutta, 2008), the content of the message is structured with consideration for local values, norms, and socio-cultural practices. The local language is used as the primary medium of communication, making the message easier to accept, less distant, and felt as part of the community's daily practices. Even the use of traditional terms or local wisdom in examples or anecdotes helps reduce cultural resistance while building a sense of ownership toward the stunting reduction program.

The emotional closeness between the communicator and the audience is also an important aspect of the success of the message content. In this context, the presence of credible sources—such as village midwives, religious leaders, or traditional leaders—strengthens the audience's trust in the message content. This is relevant to the Source Credibility Theory (Hovland, Janis, & Kelley, 1953), which emphasizes that trust in the message source, both in terms of expertise and shared values, significantly influences the effectiveness of communication. Thus, information conveyed through podcasts is more likely to be internalized as new knowledge and actualized in real behavior.

From the medium perspective, the use of podcasts can also be analyzed through the Media Richness Theory (Daft & Lengel, 1986). This theory explains that media with high information richness – which allows for the full conveyance of voice intonation, emotions, and cultural context – tend to be more effective for complex and sensitive topics such as family health issues. Podcasts, which combine voice, tone, storytelling, and discussion, have an advantage in building message clarity, reducing ambiguity, and increasing listener engagement compared to one-way media such as posters or pamphlets.

Finally, the substance of the message in this podcast has strong relevance for motivating behavioral change in the community. From the perspective of the Health Belief Model (HBM) (Rosenstock, 1974), the delivery of health messages needs to reinforce individuals' perceptions of their vulnerability to the risk of stunting, clarify the benefits of preventive measures, and minimize perceived barriers. Through concrete narratives about the risks of malnutrition, the importance of a mother's role, and examples of healthy parenting practices, the podcast contributes to enhancing community self-awareness, thereby hopefully encouraging better family health practices.

Thus, the content of the Lombok Utara Regency Kominfo podcast can be understood as a form of holistic public communication practice. This strategy is not only rooted in local cultural strengths but also integrates narrative techniques, a dialogic approach, the use of information-rich media, and a focus on sustainable behavioral change. This model can serve as a good example for digital communication strategies in other regions facing similar challenges in public health issues.

The Effectiveness of Podcasts in Improving Public Understanding

Initial evaluation results from in-depth interviews with a number of listeners show that podcasts developed by the North Lombok Regency Communication and Information Agency (Kominfo) have proven to be quite effective in improving public understanding of stunting prevention issues. Most listeners acknowledged that the content delivered through the podcast helped them understand more concretely the importance of implementing balanced nutrition, the role of pregnant women in maintaining fetal health, and child-rearing practices that support optimal growth and development. This level of understanding can be attributed to the advantages of podcasts as an educational medium, where information can be accessed flexibly, repeatedly, and contextualized through narration (Rubin et al., 2010).

From the perspective of Uses and Gratifications Theory (Katz, Blumler, & Gurevitch, 1973), the effectiveness of podcasts lies in their ability to meet the needs of audiences seeking practical information in a way that does not burden their time and energy. Listeners can tune in to podcast episodes during daily activities, such as while working in the fields, at home, or on the go. This accessibility makes podcasts increasingly relevant in the digital age, especially for communities in areas with limited literacy.

Furthermore, the success of podcasts in enhancing understanding can also be analyzed through Cognitive Learning Theory (Bandura, 1986), which emphasizes that the learning process is influenced by observation, imitation, and role models. By featuring credible sources such as healthcare professionals, religious leaders, and traditional figures, listeners gain behavioral models they can emulate in their daily practices. The repetition of messages through consistent episodes also reinforces information retention.

However, the effectiveness of podcasts cannot be separated from structural challenges that must be recognized as limiting factors. One finding from the field evaluation indicates that there are still barriers to internet access in some remote areas. Yet, stable internet connectivity is a prerequisite for optimizing digital media such as podcasts. Additionally, low digital literacy among certain segments of society, particularly the elderly or families with low educational backgrounds, also acts as a barrier to the equitable use of podcasts.

To address these challenges, a development communication approach is needed that focuses not only on content dissemination but also on strengthening communication infrastructure and empowering communities. Servaes (2008) emphasizes that development communication should prioritize active community participation, so that communities are not merely passive recipients of information but also have the ability to utilize technology according to their needs. Therefore, cross-sectoral collaboration—such as between local governments, internet service providers, educational institutions, and civil society organizations—needs to be strengthened to accelerate the provision of equitable internet access and develop targeted digital literacy programs.

In addition, the Empowerment Communication theory (Waisbord, 2001) also emphasizes the importance of opening up space for the community to be involved in the production, distribution, and evaluation of content. This approach can be applied, for example, by involving local communities in the creation of podcast content that is

relevant to the local wisdom of each village, so that listeners feel more ownership and are encouraged to practice the messages they receive.

Thus, it can be concluded that the Lombok Utara Kominfo podcast demonstrates potential as an effective health communication medium in enhancing public understanding. However, optimizing its impact requires support in the form of improved digital infrastructure quality, digital literacy programs, and participatory community empowerment. This synergy is expected to realize inclusive, adaptive, and behavior-change-oriented public communication toward a healthier society.

CONCLUSION

The transformation of health communication through the use of podcasts by the North Lombok Regency Communication and Information Agency has proven to be an effective educational medium in the campaign to reduce stunting, especially in 3T areas. With a local-based digital communication strategy, messages delivered in local languages, and the involvement of credible sources such as doctors and community leaders, podcasts have succeeded in increasing public understanding of balanced nutrition, the role of pregnant women, and child-rearing practices. However, limited internet access and low digital literacy in some areas remain challenges in optimizing the use of this medium.

Based on these findings, it is recommended that local governments strengthen digital infrastructure and develop community-based digital literacy programs. Cross-sector collaboration should also be expanded to ensure podcast content remains relevant, contextual, and sustainable. Additionally, diversifying content formats (audio, visual, and text) and conducting regular monitoring and evaluation will enhance the effectiveness of digital communication strategies in supporting more inclusive and equitable efforts to reduce stunting.

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