



Cultural Communication Strategies of Behavioral Changes in Accelerating of Stunting Prevention: A Systematic Review

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Abstract

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BACKGROUND: Stunting is a condition of failure to thrive in children under-5 years of age (toddlers) due to chronic malnutrition and infection. Stunting has an impact on the level of intelligence, susceptibility to disease, reduces productivity, increases poverty, and inequality. This condition is closely related to the culture of the community. Therefore, a cultural communication strategy is needed as an intervention to change maternal behavior and prevent stunting.

AIM: This study aims to analyze articles related to cultural communication strategies in efforts to prevent stunting in children.

METHODS: The method used in writing this article is a literature review. That is, a search for literature conducted using an online database that provides free journal articles in PDF format: ProQuest, BMC Public Health, Google Scholar, PubMed, and Plos One. In the initial stages of searching for journal articles, around 5173 articles from the year 2011 to 2020 were obtained. Exploration and identification of articles that have relevance will be compiled. Exploration and identification of articles that have relevance will be compiled. Of these, only about seven articles are considered relevant (PRISMA).

RESULTS: Stunting is a condition of failure to thrive in children under-5 years of age as a result of chronic malnutrition so that the child is too short for his age. Malnutrition occurs since the baby is in the womb and in the early days after the baby is born. The factors that cause stunting in children are family factors and family environment, inadequate food, breastfeeding, and infection. These factors are closely related to the local culture. Therefore, cultural communication strategies are considered effective in changing mother's behavior and preventing stunting in children.

CONCLUSION: Cultural communication interventions in efforts to prevent stunting, by involving religious leaders who actively convey nutritional information on the pulpit and church programs can increase public knowledge and awareness in efforts to prevent malnutrition.

Introduction

Stunting reflects chronic malnutrition in a critical period of growth and development in early life [1]. An estimated 149 million children or 21.9% under-5 years of age are stunted [2]. Compared to other states, Asian states have the highest number of children under 5 who are stunted, namely, 55%. Meanwhile, there are only 39% of African states. Globally, the burden of stunting from 36 countries is 90%. This problem accounts for 45% of all child deaths between <5 years of age [3], [4]. Indonesia is ranked as the 5th country with the highest number of people with stunting after India at 48% (60,788 children under 5), China 15% (12,658 children under 5), Nigeria 41% (10,158 children under 5), and Pakistan at 42% (7688 children under 5) [5]. Southeast Asia shows that the prevalence of stunting in Indonesia is the second highest, after Cambodia.

The problem of stunting suffered by children under-5 years of age will have an impact on the level of intelligence, susceptibility to disease, reduce productivity and then hinder economic growth, increase poverty, and inequality [6]. The early years of a child's life are the best opportunities for nurturing physical and brain development. There is ample evidence that malnutrition due to malnutrition early in life can have long-term consequences for children's learning and future productivity. The World Health Organization (WHO) states that stunting in children is related to household, environmental, socioeconomic, and cultural influences. These factors cause growth and development of children to be stunted. Furthermore, the WHO also reports that community conditions such as lack of food or nutritional intake for infants and young children (IYC) are the main pillars in stunted growth and development of children [7]. Culture has a role in the pattern of upbringing and giving food to children. A culture in the form of poor feeding practices and a

large number of taboos is an obstacle to the provision and fulfillment of nutrition for pregnant women which have an impact on the growth and development of the children they are carrying [8]. Public ignorance of the factors that cause stunting and the provision of health services that are not in accordance with standards, both at the community level and at health service facilities, cause stunting [9].

Taking into account, the factors that influence the occurrence of stunting in children encouraging the Indonesian government to launch a strategy to accelerate stunting prevention which is called the “five pillars of the national strategy to accelerate stunting prevention,” namely: (1) Commitment and leadership vision; (2) national campaign and behavior change communication; (3) convergence, coordination, and consolidation of central, regional, and village programs; (4) nutrition and food security; and (5) monitoring and evaluation [10].

Referring to the second pillar of the national strategy to accelerate stunting prevention shows the importance of communicating behavior change. Pillar 2 (two), namely, the national campaign and behavior change communication aims to increase public knowledge and awareness so as to trigger the adoption of positive behaviors to prevent stunting. Pillar 2 (two) plays an important role in increasing the effectiveness of specific and sensitive nutrition interventions [10]. Behavior change communication in efforts to prevent stunting aims to increase public awareness and change key behaviors [11]. Behavior change communication is aimed at issues (communication) that are important but not urgent (requiring a process and time for change). Stunting reduction is a long-term problem. Therefore, the change in key behaviors must be ongoing and persistent. It takes time to change people’s behavior [12].

Communication and culture are two things that are difficult to separate. Basically, culture is the values that arise from the process of interaction between individuals. In communicating behavior change, especially for areas that still adhere to customs and ancestral beliefs, a slightly different communication is needed, such as cultural communication. This study aims to analyze articles related to cultural communication strategies in efforts to prevent stunting in children.

Methods

The method used in writing this article is a literature review. That is, a search for literature conducted using an online database that provides free journal articles in PDF format: ProQuest, BMC Public Health, Google Scholar, PubMed, and Plos One. In the initial stages of searching for journal articles,

around 5173 articles from the year 2011 to 2020 were obtained. Exploration and identification of articles that have relevance will be compiled. Exploration and identification of articles that have relevance will be compiled. Of these, only about seven articles are considered relevant (Figure 1).

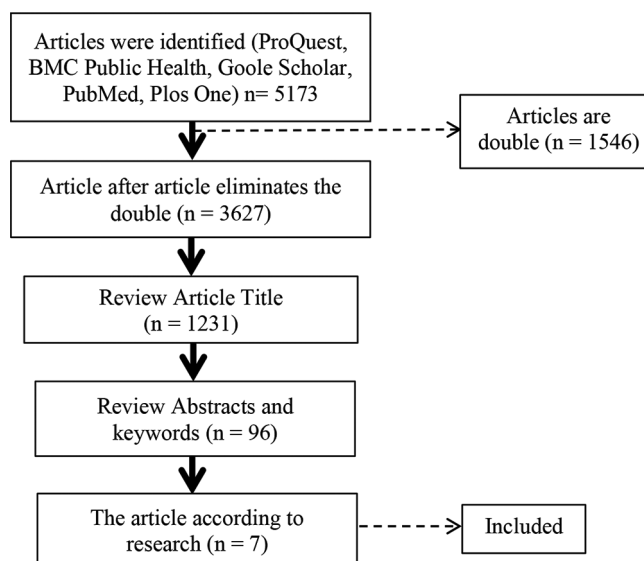


Figure 1: Schematic of search results and featured articles based on the PRISMA 2015 guidelines

Results

Based on the results of journal collection and analysis (Table 1), the authors found that stunting is a condition of failure to thrive in children under-5 years of age as a result of chronic malnutrition so that the child is too short for his age. Malnutrition occurs since the baby is in the womb and in the early days after the baby is born. The factors that cause stunting in children are family factors and family environment, inadequate food, breastfeeding, and infection. These factors are closely related to the local culture. Therefore, cultural communication strategies are considered effective in changing mother’s behavior and preventing stunting in children.

Research carried out in Kenya, applying a communication strategy through a cultural approach, shows that any form of intervention to improve child feeding in rural Kenya should build on the concept of a “core food culture for IYC” as this would align with feeding practices. Food has been adopted by the local community [13]. It is necessary to adopt an innovative communication approach so that core objectives can be achieved without eliminating existing cultural features. Communication strategies are carried out in various ways, one of which is through the contribution of religious leaders in nutrition advocacy. Conducting nutritional advocacy between services has contributed

Table 1: Results of journal collection and analysis

No.	Author	Title	Aims	Methods	Results	Conclusions
1	Thuita et al. (2019) [13]	Is there a "CF cultural core" in rural Kenya? Results from ethnographic research in five countries	to determine whether the concept of "special foods for IYC" exists in the different ethnic groups in these areas as an identifiable component of cultural beliefs and knowledge, as well as in practice, and whether they can be characterized as a "CF cultural core"	The ethnographic cognitive mapping technique of "free listing" and a qualitative 24 h recall of IYC intake, with probing, to obtain data on caregivers' beliefs and behaviors	An IYC cultural food core can be identified in all of the counties. A related finding that supports the argument for an "IYC cultural core" with respect to appropriate foods for IYC is the clear cognitive consensus within sites about its content, although in practice, food insecurity and food shortage constrain household abilities to put their beliefs into practice Intervention sites showed 83% higher odd of total ECD composite score (cognitive, language, motor) compared to children in the control sites. Child caregivers had better child care, nutrition practices and early learning support than controls. No change was found in discipline practices and stunting rates	interventions to improve IYC feeding in rural Kenya that build on the concept of "IYC cultural core foods" will be congruent with basic cultural ideas about managing IYC feeding and could take advantage of this cultural feature
2	Rosales et al. (2019) [15]	Behavior change communication model enhancing parental practices for improved ECD outcomes in rural Armenia – A quasi-experimental study	The interventions enhancing parental practices in children's health and growth, protection from neglect, abuse, and injury have lifelong impact on health, learning, economic productiveness outcome	A quasi-experimental intervention-control design, with pre-and post-data collected	Intervention sites showed 83% higher odd of total ECD composite score (cognitive, language, motor) compared to children in the control sites. Child caregivers had better child care, nutrition practices and early learning support than controls. No change was found in discipline practices and stunting rates	MCH-ECD integrated model is an effective delivery platform for improving parenting behavior, child growth, and development.
3	Kodish et al. (2015) [16]	Identifying the Sociocultural Barriers and Facilitating Factors to Nutrition-related Behavior Change: Formative Research for a Stunting Prevention Program in Ntchisi, Malawi	describes formative research findings derived from a Rapid Assessment Procedures (RAP) approach to inform the integrated nutrition intervention	With a three-phase, emergent research design, this study utilized ethnographic methods including in-depth interviews, direct meal observations, and full-day child observations	Community members felt that nutrition-related illnesses were less salient and threatening than other illnesses, and food quality was less important than food quantity. Household food allocation occurred in predictable patterns and varied by type of household member and season. Considered an energy-giving food, the SQ-LNS was accepted, but health education and communications tailored to local understanding of nutrition and health are necessary to ensure its appropriate utilization Path analyses showed a strong relation between AG and egg consumption, which led to increased child dietary diversity and HAZ	Tailoring a communications strategy to Ntchisi, Malawi could only be done through formative research to understand the sociocultural factors influencing nutrition-related behaviors. A RAP approach allowed for a comprehensive understanding of this local environment
4	Kim et al. (2019) [17]	Behavior Change Interventions Delivered through Interpersonal Communication, Agricultural Activities, Community Mobilization, and Mass Media Increase CF Practices and Reduce Child Stunting in Ethiopia	The aim of this study was to evaluate the impact of A and T intensive compared with non-intensive interventions (standard nutrition counseling and agricultural extension service and less intensive CM and MM) on CF practices and knowledge and child anthropometric outcomes	A cluster-randomized evaluation design with cross-sectional surveys among households with children aged 6–23.9 months	Path analyses showed a strong relation between AG and egg consumption, which led to increased child dietary diversity and HAZ	Delivery of social and behavior change interventions using multiple platforms was feasible and effective, resulting in improvements in CF practices and child stunting within a 2 years period. There is a need for continued efforts, however, to expand intervention coverage and to improve CF practices in Ethiopia Continuous education on intercultural communication competence could succeed to further develop clinical mentors' mentoring expertise, which could have the potential to greatly benefit students, patients and staff. Such education could be designed, implemented and measured for its effect in collaboration between health care organizations and higher educational institutions
5	Hagqvist et al. (2020) [18]	Clinical mentors' experiences of their intercultural communication competence in mentoring culturally and linguistically diverse nursing students: A qualitative study	To describe clinical mentors' experiences of their intercultural communication competence in mentoring culturally and linguistically diverse nursing students during completion of their clinical practice	Qualitative study design	Mentors stated that empathy motivates them in the development of intercultural communication. Mentors experienced a lack of resources and support from their superiors, which caused psychological and ethical strain and reduced mentors' motivation. Mentors openly admitted that they had experienced fear towards unknown cultures, but that this fear was reduced through positive mentoring experiences and cultural encounters	Continuous education on intercultural communication competence could succeed to further develop clinical mentors' mentoring expertise, which could have the potential to greatly benefit students, patients and staff. Such education could be designed, implemented and measured for its effect in collaboration between health care organizations and higher educational institutions

(Cont...)

Table 1: (Continued)

No.	Author	Title	Aims	Methods	Results	Conclusions
6	Brooks <i>et al.</i> (2019) [19]	Culturally sensitive communication in health care: A concept analysis	To explore the concept of culturally sensitive communication and identify clinical practice implications and knowledge gaps related to culturally sensitive communication in healthcare	A systematic literature	Three major uses of culturally sensitive communication were identified, including understanding one's own culture, open and sensitive communication, and strategies to collaborate with the patient and family for optimal patient care	This concept analysis aids understanding of culturally sensitive communication, the benefits and challenges associated with its use, and clinical practice implications
7	Claramita <i>et al.</i> (2020) [20]	A partnership-oriented and culturally sensitive communication style of doctors can impact the health outcomes of patients with chronic illnesses in Indonesia	A partnership-oriented communication style is globally recommended for medical practice. A culturally-sensitive doctor-patient communication guideline is also needed for Southeast Asia. The "Greet-Invite-Discuss" guideline was established and tested with primary care doctors and their patients in Indonesia	Mixed methods study	Qualitatively, doctors demonstrated more partnership and culturally sensitive communication, and patients expressed more satisfaction, increased comprehension and self-management, of their chronic illnesses	The "Greet-Invite-Discuss" guideline was useful for primary care doctors for a more partnership-oriented and culturally sensitive communication with patients in chronic care management

IYC: Infants and young children, ECD: Early Childhood Growth and Development, CF: Complementary feeding.

to the achievement of good nutrition among the community. Religious leaders have proven to play an important role in advocating for better health and nutrition [14].

Research on behavior change strategies using a communication approach has been carried out in various countries with different results. Research by Rosales *et al.* (2019) shows that changes in behavior using the integrated model Early Childhood Growth and Development (MCH-ECD) which does not show changes in behavior that can reduce the number of stunting in Armenia [15]. Furthermore, in the Mozambique area, Cabo Delgado has its own approach, namely, by communication in the nutrition intervention section, because heterogeneous culture causes many perceptions to emerge about food so that there needs to be a change in behavior in terms of consuming food and this approach is considered effective in reducing the number of stunting [16]. Another study in Ethiopia has also proven results in reducing the prevalence of stunting by intervening in social and behavior change using various platforms that are feasible and effective, resulting in improvements in complementary feeding (CF) practices and child stunting within 2 years [17]. Research conducted in Mozambique explained about the behavior change communication strategies carried out by three ethnic groups that have different sociocultural characteristics, there is cultural diversity that causes substantial differences in food, disease, and health so that different forms of approach are needed for each ethnicity, this is the importance of doing cultural communication so that intervention targets can run effectively according to the needs of each ethnicity [16].

Research conducted by Hagqvist *et al.* (2020) reported that there is a need to develop and increase competence in cultural communication to make changes in community behavior, especially for health workers [18]. Further research conducted by

Brooks *et al.* (2019) explains the importance of cultural communication where there are three main uses, such as being able to understand one's own culture and others, communication that is open and sensitive and strategies to work with patients, families for easy and optimal intervention processes [19]. Meanwhile, research conducted by Claramita *et al.* (2020) in Indonesia proves that culture-sensitive communication styles of health workers can have an impact on the health outcomes of patients with chronic diseases in Indonesia. The results of examinations carried out by doctors through a cultural communication approach to diabetes patients showed that the patient's blood pressure or fasting blood glucose levels decreased significantly, except for the 2 h blood glucose level (NS). Then, overall, the patients expressed more satisfaction because they could get a better understanding of self-management to protect themselves from their chronic diseases. Using communication guidelines that are oriented toward cooperation and cultural sensitivity of health workers can improve communication to get optimal health outcomes [20].

Discussion

Communication is a process of conveying information from one place to another. Culture is a comprehensive relationship that influences each other and determines group identity, beliefs, values, qibla, customs, and communication patterns and culture is a system because these elements have a role as a major component in a member of another culture. Culture as a system will have an influence on communication, because the basis of communication itself is the culture contained in society. Even the cultural background of the communicator will influence every part and every pattern

of communication activity. In this case, communicators who have a similar culture with communication goals will find it easier to convey information related to stunting and children's health so that it can influence behavior change in a good direction. The influence of culture on communication is that each culture will encourage a certain style of communication that is expected in each culture, culture with its strength will shape perceptions in society, and culture will bind or unite people together.

Culture and communication are parts that cannot be assessed because culture will affect how people interpret the messages conveyed in the communication process. The communication process takes place in a cultural context and plays an important role in the socialization process of members of the social system. In the behavioral communication strategy with the Social Ecology Model, it describes the interventions at each target level. The communication strategy of community leaders, families, relatives, or communities called interpersonal means remains a very effective method of changing behavior and can improve target communication for change. Culture appropriate interpersonal communication is very effective in awareness and the adoption of behavior quickly becomes permanent behavior. This is applied in Uganda, investigating by involving religious leaders who actively convey nutritional information on the pulpit and church programs that have succeeded in increasing public knowledge and awareness in efforts to prevent malnutrition [14].

Religious figures have credibility with receptive audiences. Communication skills with status, the power of persuasion, and the ability to be aware of individual health and nutrition through exposure to religious texts can make people aware of changing healthy lifestyles [21]. Therefore, religious leaders can be effective agents of changing behavior. The broad and active activities of religious leaders mobilize their followers to take and disseminate religious narratives that carry messages, values, and social norms that can provide information about stunting and how to prevent it. Even though religious leaders have influence on many people, their ability to deliver nutritional information is a major challenge, therefore, training and media are needed to help them disseminate health messages [14].

Conclusion

Cultural communication interventions in efforts to prevent stunting, by involving religious leaders who actively convey nutritional information on the pulpit and church programs can increase public knowledge and awareness in efforts to prevent malnutrition. Involving religious leaders in related socialization efforts for ideal marriage, proper parenting and sanitation hygiene strongly supports the stunting reduction program.

References

1. UNICEF. Improving Child Nutrition. The Achievable Imperative for Global Progress. Vol. 18. NCSL Legisbrief; 2013. p. 1-2.
2. World Health Organization, UNICEF and Group WB. Levels and Trends in Child Malnutrition. Geneva: World Health Organization; 2018. p. 1-16.
3. Black RE, Victora CG, Walker SP, Bhutta ZA, Christian P, De Onis M, et al. Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet*. 2013;382(9890):427-51. [http://doi.org/10.1016/S0140-6736\(13\)60937-X](http://doi.org/10.1016/S0140-6736(13)60937-X)
PMid:23746772
4. García-Cruz LM, Azpeitia GG, Suárez DR, Rodríguez AS, Ferrer JF, Serra-Majem L. Factors associated with stunting among children aged 0 to 59 months from the central region of Mozambique. *Nutrients*. 2017;9(5):491.
PMid:28498315
5. Mohamed S, Hussein MD. Prevalence of thinness, stunting and anemia among rural school-aged Sudanese children: A cross-sectional study. *J Trop Pediatr*. 2015;61(4):260-5. <http://doi.org/10.1093/tropej/fmv028>
PMid:25896992
6. Gatica-domínguez G, Victora C, Barros AJ. Ethnic inequalities and trends in stunting prevalence among Guatemalan children: An analysis using national health surveys 1995-2014. *Int J Equity Health*. 2019;18:110. <http://doi.org/10.1186/s12939-019-1016-0>
PMid:31319862
7. Modjadji P, Madiba S. Childhood undernutrition and its predictors in a rural health and demographic surveillance system site in South Africa. *Int J Environ Res Public Health*. 2019;16(17):3021. <http://doi.org/10.3390/ijerph16173021>
PMid:31438531
8. Rafsanjani TM. The influence of individual, family support and socio-culture on the food consumption of breastfeeding young mothers (Case study in Sofyan Village, Simeulue Timur District, Simeulue Regency). *AcTion*. 2018;3(2):124.
9. Steinholt M, Ha SO, Houy C, Odland JØ, Odland ML. An increased risk of stunting among newborns in poorer rural settings: A cross-sectional pilot study among pregnant women at selected sites in rural Cambodia. *Int J Environ Res Public Health*. 2019;16(21):4170. <http://doi.org/10.3390/ijerph16214170>
PMid:31671791
10. Kementerian Kesehatan Republik Indonesia. Strategi Komunikasi Perubahan Perilaku dalam Percepatan Pencegahan Stunting. Direktorat Promosi Kesehatan dan Pemberdayaan Masyarakat; 2018. p. 1-21.
11. Foundation T. Peran Komunikasi Perubahan Perilaku (KPP) Dalam Pencegahan Stunting. Foundation T; 2020.
12. Aisyiyah FN. Pentingnya Strategi Komunikasi Perubahan Perilaku Dalam Percepatan Penurunan Stunting. Klaten; 2020.
13. Thuita FM, Pelto GH, Musinguzi E, Armar-Klemesu M. Is there a "complementary feeding cultural core" in rural Kenya? Results from ethnographic research in five counties. *Matern Child Nutr*. 2019;15(1):e12671. <http://doi.org/10.1111/mcn.12671>
PMid:30216678
14. Bwekembe AS. The Contribution of Religious Leaders towards Nutrition Advocacy in Semi-Urban and Urban Communities in Kampala District. Makerere University; 2019.
15. Rosales A, Sargsyan V, Abelyan K, Hovhannesian A, Ter-Abrahanyan K, Jillson KQ, et al. Behavior change communication model enhancing parental practices for improved early childhood growth and development outcomes in rural Armenia a quasi-experimental study. *Prevent Med*

- Rep. 2019;14:100820.
PMid:30815335
16. Kodish S, Aburto N, Hambayi MN, Kennedy C, Gittelsohn J. Identifying the sociocultural barriers and facilitating factors to nutrition-related behavior change: Formative research for a stunting prevention program in Ntchisi, Malawi. *Food Nutr Bull.* 2015;36(2):138-53.
PMid:26121699
17. Kim SS, Nguyen PH, Yohannes Y, Abebe Y, Tharaney M, Drummond E, *et al.* Behavior change interventions delivered through interpersonal communication, agricultural activities, community mobilization, and mass media increase complementary feeding practices and reduce child stunting in Ethiopia. *J Nutr.* 2019;149(8):1470-81. <http://doi.org/10.1093/jn/nxz087>
PMid:31165869
18. Hagqvist P, Oikarainen A, Tuomikoski AM, Juntunen J, Mikkonen K. Clinical mentors' experiences of their intercultural communication competence in mentoring culturally and linguistically diverse nursing students: A qualitative study. *Nurse Educ Today.* 2020;87:104348. <http://doi.org/10.1016/j.nedt.2020.104348>
PMid:32028100
19. Brooks LA, Manias E, Bloomer MJ. Culturally sensitive communication in healthcare: A concept analysis. *Collegian.* 2019;26(3):383-91.
20. Claramita M, Arininta N, Fathonah Y, Kartika S, Prabandari YS, Pramantara IDP. A partnership-oriented and culturally-sensitive communication style of doctors can impact the health outcomes of patients with chronic illnesses in Indonesia. *Patient Educ Couns.* 2020;103(2):292-300. <http://doi.org/10.1016/j.pec.2019.08.033>
PMid:31474388
21. Anshel MH, Smith M. The role of religious leaders in promoting healthy habits in religious institutions. *J Religion and Health.* 2014;53(4):1046-59.
PMid:23516019