

# The Effectiveness of Audio-Visual Media in Social Marketing Campaigns <sup>†</sup>

Mareta Maulidiyanti \* and Laily Nazwa Muslim

Public Relations Study Program, Vocational Education Program, Universitas Indonesia, UI Depok Campus, Depok 16424, West Java, Indonesia

\* Correspondence: mareta20@ui.ac.id

<sup>†</sup> Presented at the 5th International Conference on Vocational Education Applied Science and Technology 2022, Teluk Betung, Indonesia, 26–28 October 2022.

**Abstract:** Stunting is a condition of failure to thrive in children under five (infants under 5 years old) due to chronic malnutrition, wherein the child is too short for their age. Some areas in Indonesia are still experiencing this problem and are overcome by social marketing programs. This study aims to determine the effectiveness of audio-visual media interventions on the knowledge of public in the prevention of stunting. This study applies an experimental design with pre- and post-test designs in the same group. The respondents were given materials in the form of educational audio-visual materials and nutritious recipes. There are 50 respondents involved in this study. The sampling method used nonprobability sampling by purposive sampling in the Nusa Tenggara Barat area. Bivariate data analysis was performed using SPSS statistical applications, and using the non-parametric two related sample (Wilcoxon) and Mann–Whitney tests. The result shows that mothers and cadres experienced an increase in knowledge after receiving social campaign materials in the form of audio visuals. This can be seen from the Z value, which shows the number  $-3.715$  b with a  $p$ -value of  $0.000$  to  $0.05$ . The Z value is  $-3.815$  b with a  $p$ -value of  $0.000$  or  $p < 0.05$ , which meant that there were significant differences between knowledge and attitude before and after the audio-visual media intervention. Provision of health information can therefore be delivered effectively by using audiovisual material. This study also shows that audiovisual materials in the form of tutorials are preferred because they are easy to practice.



**Citation:** Maulidiyanti, M.; Muslim, L.N. The Effectiveness of Audio-Visual Media in Social Marketing Campaigns. *Proceedings* **2022**, *83*, 48. <https://doi.org/10.3390/proceedings2022083048>

Academic Editors: Ari Nurfikri, Triana Karnadipa, Karin Amelia Safitri, Debrina Vita and Widyo Swasto

Published: 5 January 2023



**Copyright:** © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

**Keywords:** stunting; audio-visual campaign; social marketing

## 1. Introduction

Stunting or failure to grow is a condition that describes the status of malnutrition that has a chronic nature, during the growth and development of the child from the beginning of the life period; it presents with a z-score value of height according to age less than minus two standard deviations based on growth standards, according to WHO [1]. Lack of maternal knowledge about stunting may be a risk factor in the occurrence of stunting children [2]. Mothers who have a low level of knowledge reported not knowing the importance of implementing a healthy lifestyle and fulfilling their child's nutrition, or that these would have an impact on the risk of stunting [3]. A person's stunted condition will affect the nutritional condition of the next generation; it needs to be cut off immediately so that it does not continue. The stunting cycle explains that the condition of pregnant women who experience malnutrition will give birth to babies who are also malnourished; the child will be stunted and eventually grow into a malnourished adolescent, whom if not corrected will eventually produce malnourished children again when they grow up. Stunting can be prevented during the golden period, which is the first 1000 days of life (HPK). There are two phases in the first 1000 days of life: namely, 270 days when the baby is still in the womb, and 730 days after the baby is outside the womb or after birth [4]. From 2019 to

2021, Indonesia has continued to experience improvements in nutritional status; in 2019, malnutrition was at 27.7%, and in 2021, it fell to 24.4%. The decline for the last two years is 3.3%; meanwhile, over the next three years, it is targeted to fall by 10%. This target will only be achieved if stunting interventions are carried out through various programs. The World Health Organization (WHO), which is below 20%. Indonesia is among the countries with the third highest stunting prevalence in the South East Asian Region after Timor Leste and India [5].

Solving this stunting problem requires collaboration from various parties, ranging from the government to the private sector and non-governmental organizations. In Indonesia, especially in areas where stunting is still an issue, various health promotions and social public relations campaigns have been carried out to build awareness about stunting and how to prevent it. The goal of health promotion is to improve the capabilities of individuals, families, group, and communities to be able to live healthily, to develop health efforts sourced from community and to encourage the realization of an environment conducive to a healthy lifestyle [6]. In public relations, health promotion is included in social marketing.

Rapid developments of recent times and increasingly modern technology has caused the emergence of various new media and social campaigns that exist to support health promotion. One of the media that has experienced development is audio-visual media [7]. Audio-visual media encourages the public to find out more information [8].

Bergizi dari Bumi Kami (BDBK), a social marketing campaign conducted in Sembalun, West Nusa Tenggara, one of the priority areas for stunting, is the object of research in this paper. This campaign aims to increase maternal awareness and knowledge of stunting so that it can be prevented. The BDBK program uses the audio-visual method in the form of videos, flipcharts, posters and banners. This study aims to determine the effectiveness of audio-visual media interventions on the knowledge of public in the prevention of stunting.

## 2. Materials and Methods Materials

### 2.1. Social Marketing

Social marketing is the process of implementing the principles and techniques of marketing to persuade and change people's behavior in order to provide beneficial social effects [9]. Kotler and Seymore, in Wahyuni Pudjiastuti (2016:6–8) claim that in addition to using 4P (product, price, place and promotion), its elements need to be compounded with 3P; Kotler added personnel, process, and presentation, while Seymore added producer, purchaser, and probing. All of those elements determine the success of a social marketing campaign [10]. According to Kotler, in Wahyuni Pudjiastuti, social marketing there are three types of product: idea, practice and tangible product.

### 2.2. Audio Visual

Through audio-visual media, the public interacts with multiple senses of hearing and sight, which encourages information to be well received. Suiraoka and Supariasa claim that one will remember 20% of what was heard, 50% of what is seen and 80% of what is heard, seen, and immediately done [11]. Audio-visual media has a motion effect, so that it looks more attractive, is easier to understand and gives a concrete picture of the situation and experience [12]. In previous studies, Kapti et al. [13] showed that public knowledge and attitudes differ before and after being given health education with audio-visual media.

The Bergizi dari Bumi Kami social campaign provided audio-visual material with two big themes: (1) Stunting; causes and ways to prevent it, and (2) Nutrient-dense food recipes. All the videos can be accessed on the YouTube channel, "Bumi Bergizi".

Figure 1 is the material with the theme of Stunting; causes and ways to prevent it. This material seeks to show the dangers and causes of stunting, and ways to prevent stunting. As a persuasive message, the words "Save Sembalun Kids from Stunting" is used. To facilitate the implementation of the recommendations in the previous video about the provision of nutritious food, audio-visual materials show nutritious recipes that are easy

and inexpensive (Figure 2). This material shows ingredients, recipes, and healthy cooking methods for several menus. The selected menu is adapted to local food ingredients.

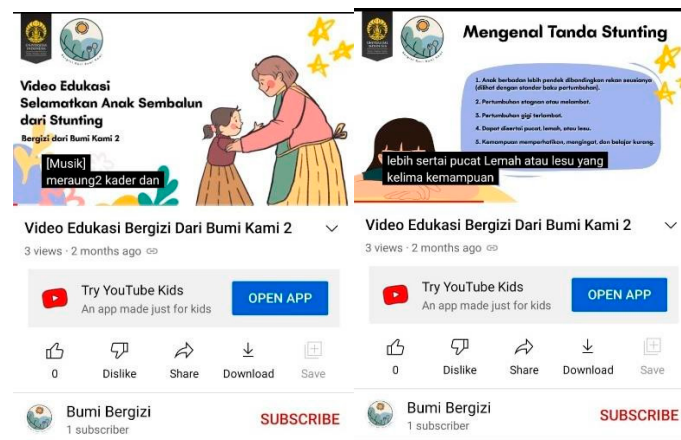


Figure 1. Audio-visual material in social marketing.

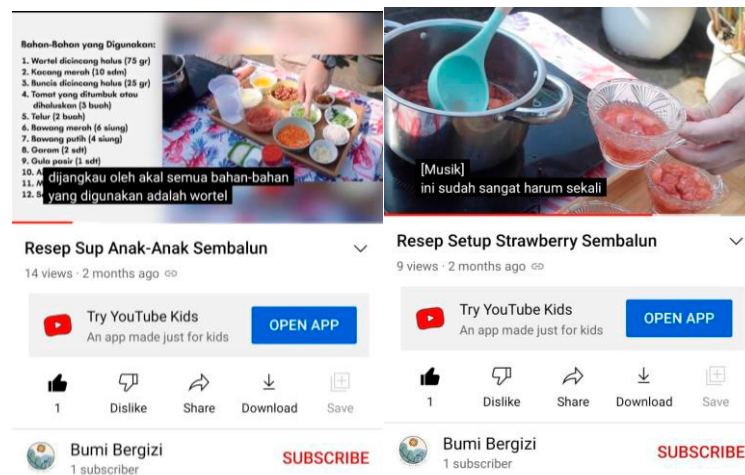


Figure 2. Audio-visual recipes.

### 2.3. Method

This study applies an experimental design with pre- and post-tests performed in the same group. The respondents were given materials in the form of educational audio-visual materials and nutritious recipes. The respondents are mothers who have children between the ages of 0 and 12, as well as pregnant women and Posyandu administrators. There are 50 respondents involved in this study. They filled out research questionnaires as an instrument used to measure knowledge and attitudes about stunting. Sampling was performed using nonprobability sampling by purposive sampling in the Nusa Tenggara Barat area. The data are processed by coding, assessment and evaluation processes in the tabulation stage. The data analysis procedure used was univariate and bivariate in the form of the Wilcoxon test at a significance of 95% (0.05).

## 3. Results

The results show that mothers and cadres experienced an increase in knowledge after receiving social campaign materials in the form of audio-visuals. This can be seen from the Z value, which shows the number  $-3.715$  b with a  $p$ -value of 0.000 or 0.05. This figure shows that there is a difference between knowledge before and after education in the form of audio-visual media. Knowledge increased after health promotion using audio-visual materials was provided; attitude also changed. The Z value is  $-3.815$  b with a  $p$ -value

0.000 or  $p < 0.05$ , which means that there was an impact on attitudes resulting from the audio-visual material. There were significant differences in knowledge and attitude before and after the audio-visual media intervention.

## 4. Discussion

### 4.1. The Characteristics of Respondents

Characteristics of respondents were analyzed from four aspects; namely, age, educational background, occupation, and access to health information.

Table 1 shows us that respondents in West Nusa Tenggara, especially Sembalun, East Lombok, are dominated by the age of 18 years and under (64%), and the majority only have elementary school (48%) and junior high school (28%) education. This data show that there are many early marriages that happen at a young age. In terms of work, the respondents' main occupation is farming/gardening (46%). However, 100% of respondents have had good access to health information. Good access to health information gives great hope for the provision of good health education.

**Table 1.** Respondents' characteristics.

No	Respondents' Characteristics	Frequency	%
<b>1 Age</b>			
	≤18	32	64
	≥19–25	12	24
	≥26	6	12
<b>2 Education</b>			
	Primary school	24	48
	Secondary school	14	28
	Senior high school	10	20
	University	2	4
<b>3 Occupation</b>			
	Farmer	23	46
	Village/health official	5	10
	Entrepreneur	10	20
	Full-time mother	12	24
<b>4 Health information access</b>			
	Available	50	100
	Not available	0	0

### 4.2. The Distribution of Knowledge (before and after)

Table 2 shows that mothers' knowledge about stunting before receiving social campaign materials in the form of audio-visual media was very low; as many as 64% had lesser knowledge and only 4% had good knowledge. After being given information through audio-visual materials, the respondents' knowledge improved; 24% had lesser knowledge and 20% had good knowledge. These conditions show an improvement in knowledge after being given a social campaign/marketing using audio-visual media. Knowledge in the cognitive domain consists of knowing, understanding, application, analysis, synthesis and evaluation [14]. Knowledge is defined as the result of knowing, and occurs after a person feels a certain object. Feeling occurs through the five human senses of sight, hearing, smell, taste, and touch [6].

**Table 2.** Distribution of knowledge (before and after).

Knowledge	Frequency (f)	Pretest Percentage (%)	Frequency (f)	Post Percentage (%)
Less	32	64	12	24
Fair	16	32	28	56
Good	2	4	10	20

#### The Distribution of Attitude (before and after)

The results in the table indicate that there was an increase in more positive attitudes towards stunting after respondents were given a social campaign/marketing materials using audio-visuals. Attitude is a collection of responses to a stimulus or object. Attitudes involve thoughts, feelings, concerns and various other psychological aspects [15]. Attitudes can change depending on individual environmental conditions. Differences in place and time can produce different attitudes. There are three levels of attitude: cognitive, affective and conative. Table 3 shows that after the stimulus was given, there were 22% good attitudes, and poor attitudes decreased to 20%.

**Table 3.** Distribution of attitude (before and after).

Knowledge	Frequency (f)	Pretest Percentage (%)	Frequency (f)	Post Percentage (%)
Poor	47	94	10	20
Fair	3	6	29	58
Good	0	0	11	22

The success of social marketing in the form of health promotion is influenced by many factors, as other communication programs may include the message used. The ability of the promotion officer to convey, good educational materials [6] and the choice of delivery medium also play an important role in success [16].

## 5. Conclusions

Providing social campaigns using the right medium is very important in ensuring the message can be received by the target audience. In this study, it was proven that the audio-visual medium was able to increase knowledge and attitudes about stunting in East Lombok, West Nusa Tenggara. Audio-visual materials are effective because the medium presents information that can be accessed by two senses, sight and hearing. Further research can be developed by looking at the effectiveness of visual materials and followed by comparative studies. These results also show that products in social campaigns cannot just be ideas, but need to be supported by tangible products to be effective.

**Author Contributions:** Conception and design of study: M.M.; acquisition of data: M.M. and L.N.M.; analysis and/or interpretation of data: M.M. and L.N.M.; Drafting the manuscript: M.M. and L.N.M.; revising the manuscript critically for important intellectual content: M.M. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** Not Applicable.

**Data Availability Statement:** Not applicable.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

1. Ni'mah, K.; Nadhiroh, S.R. Faktor yang Berhubungan dengan Kejadian Stunting pada Balita. *Media Gizi Indones.* **2015**, *10*, 13–19.
2. Mahmudiono, T.; Nindya, T.S.; Andrias, D.R.; Megatsari, H.; Rosenkranz, R.R. The Effectiveness of Nutrition Education for Overweight/Obese Mothers with Stunted Children (NEO-MOM) in Reducing the Double Burden of Malnutrition in Indonesia: Study Protocol for a Randomized Controlled Trial. *BMC Public Health* **2016**, *16*, 486. [CrossRef] [PubMed]
3. Mashreky, S.R.; Rahman, F.; Rahman, A.; Talab, A.; Rahman, Z. Role of Mass Media in Increasing Knowledge and Practices of Mothers on Iyef: Findings from a Community Trial in Rural Bangladesh. *South East Asia J. Public Health* **2015**, *5*, 18–24. [CrossRef]
4. Aryono, H. *Pentingnya 1000 Hari Pertama Anak untuk Mencegah Stunting*. *Pentingnya Nutrisi 1000 Hari Pertama Anak untuk Mencegah Stunting*; Info Sehat FKUI: Jakarta, Indonesia, 2022.
5. Status Gizi Indonesia 2021 Membaik. Available online: <https://www.antaranews.com/infografik/2617049/status-gizi-indonesia-di-2021-membaik> (accessed on 18 October 2022).
6. Notoatmodjo, S. *Promosi Kesehatan dan Perilaku Kesehatan*; Rineka Cipta: Jakarta, Indonesia, 2012.
7. Febliza, A. *Basic Statistics of Educational Research*; Adefa Grafika: Pekanbaru, Indonesia, 2015.
8. Firdaus, F. Effectiveness of the Use of Audio-Visual Media in Learning Science. *SPEKTRA J. Kaji. Pendidik. Sains* **2016**, *2*, 46–54. [CrossRef]
9. Lee, N.R.; Kotler, P. *Social Marketing: Behavior Change for Social Good*, 6th ed.; SAGE Publication: Southend Oaks, CA, USA, 2019.
10. Pudjiastuti, W. *Social Marketing: Strategi Jitu Mengatasi Masalah Sosial di Indonesia*; Yayasan Pustaka Obor Indonesia: Jakarta, Indonesia, 2016.
11. Suraoka, D.N.S. *Health Education Media*; Graha Ilmu: Yogyakarta, Indonesia, 2012.
12. Armah. The Effect of Audio Visual Media on the Ability to Write News Texts. *Lang. J.* **2013**, *2*, 3. [CrossRef]
13. Eko, K.R. The effectiveness of audiovisual as a medium for health education to increase knowledge and attitudes of mothers in the management of toddlers with diarrhea in two Malang city hospitals. *Nursing* **2013**, *1*, 1–3.
14. Fitriani. *Health Promotion*, 1st ed.; Graha Ilmu: Yogyakarta, Indonesia, 2011.
15. Wawan, A.; Dewi, M. *Developmental Psychology an Approach throughout the Life Span*; Nuha Medika: Yogyakarta, Indonesia, 2011.
16. Triyanti, M.; Widagdo, L.; Syamsulhuda, B.M. Increasing the Knowledge and Skills of Cadre of Child Development Monitoring at Posyandu using BBM and Mind Mapping (MM). *Indones. Health Promot. J.* **2017**, *12*, 267–277. [CrossRef]

**Disclaimer/Publisher's Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.