

## Comparison of the Effectiveness of Audio and Visual-Audio as Health Promotion Media for Prevention of COVID-19 Transmission

Lina Eta Safitri, Desy Fadilah Adina Putri, Julia Mujahadah Pratiwi

School of Health Sciences Griya Husada, Sumbawa

### ABSTRACT

**Background:** The elementary school in Jotang village in Sumbawa is a mountainous and coastal area with middle to lower economic status and the lack of availability of health workers there, allowing public knowledge, especially children, to be very lacking. There has never been any research on children's health in the area to be considered in choosing an elementary school in Jotang village to be the research site. This study aims to compare the effect of health promotion using audio media with audio-visual media on preventing the transmission of the COVID-19 virus to elementary school students in Jotang Village, Sumbawa Regency.

**Subjects and Method:** This research is a quasi-experimental study with pre-test and post-test designs. The research was conducted in Jotang village, Sumbawa regency, West Nusa Tenggara, Tahun 2022. The sample was 88 students. Variables The dependent variable was knowledge. The independent variables were audio media and video media. Data were collected by using a questionnaire and analyzed by bivariate analysis with Mann Whitney test.

**Results:** That audio-visual media is more effective than audio media as a health promotion medium for elementary school children compared to audio media with  $p= 0.039$ .

**Conclusion:** Audio-visual media is more effective than audio media as a health promotion.

**Keywords:** health promotion media, COVID-19, primary school.

### Correspondence:

Lina Eta Safitri. School of Health Sciences Griya Husada Sumbawa. Jl. Kebayan, Brang Biji, Sumbawa, West Nusa Tenggara. Email: Safitrieltalina96@gmail.com. Mobile: 085337037619.

### Cite this as:

Safitri LE, Putri DFA, Pratiwi JM (2023). Comparison of the Effectiveness of Audio and Visual-Audio as Health Promotion Media for Prevention of COVID-19 Transmission. *J Health Promot Behav.* 08(01): 8-12. <https://doi.org/10.26911/thejhp.2023.08.01.02>.



Journal of Health Promotion and Behavior is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

### BACKGROUND

The World Health Organization (WHO) declared the coronavirus disease 2019 (COVID-19) a global pandemic on March 11, 2020, and the spread of severe acute respiratory syndrome, coronavirus 2 (SARS-CoV-2) has brought about unprecedented health, social and economic disruptions. happened before. around the world indirectly and SARS-CoV-2 infection in children is milder than adults, most of the infected children show mild or no

symptoms. However, there are many research results that state undesirable effects on children such as events that are detrimental to children's health, education that is not optimal because children are sick, and the problem of widespread health disparities in children (Stiwei, 2022)

COVID-19 cases are reported to have caused more than 286 million cases and 5.4 million deaths to date. Variants of COVID have appeared periodically in alpha, beta, gamma, delta and now omicron. 'Micron' is

driving the current spike in cases in most countries including India and is poised to replace 'delta' worldwide. This variant with more than 50 mutations is phylogenetically very different from the other variants. The omicron variant spread quickly. The pain so far is still lighter compared to the delta. It is expected that the direct effect of omicron on children is milder than the previous variant. However, the indirect effects on a child's mental, physical and social health may be considerable due to school closures, missed vaccinations, and neglect of other diseases (Singhal, 2022).

Based on this, it is necessary to prevent the spread of the COVID-19 virus to children. Efforts that can be made are to increase one's knowledge and attitudes. These activities can be carried out through health promotion. The increase in knowledge and attitudes is expected to give individuals a good perception and interpret the knowledge and attitudes obtained into an action of healthy behavior. Health promotion can use media or without media. Health promotion media that can be utilized are print, audio and audio-visual media (Ifroh, 2018).

The elementary school (SD) in Jotang village in Sumbawa is a mountainous and coastal area with middle to lower economic status and the lack of availability of health workers there, allowing public knowledge, especially children, to be very lacking. There has never been any research on children's health in the area to be considered in choosing an elementary school in Jotang village to be the research site. This study aims to compare the effect of health promotion using audio media with audio-visual media on preventing the transmission of the COVID-19 virus to elementary school students in Jotang Village, Sumbawa Regency. The title proposed by the researcher is in accordance with the scope of

the School of Health Sciences Griya Husada Sumbawa research strategic plan and has urgency, namely as an effort to prevent the transmission of the COVID-19 virus in children and to find out differences in the effectiveness of health promotion media. The results obtained are an important basis for the government to control the spread of COVID-19 and change health behavior in

## SUBJECTS AND METHOD

### 1. Study Design

This was a quasi-experimental study with pre-test and post-test designs. The research was conducted in Jotang village, Sumbawa regency, West Nusa Tenggara, Tahun 2022.

### 2. Population and Sample

The population in this study were all students in Jotang 2 and 3 public elementary schools. This study uses a total sample. The subjects used were 48 public elementary school children in Jotang village, Sumbawa regency.

### 3. Inclusion and Exclusion Criteria

Inclusion criteria were elementary school students who attend SDN 2 and 3 Jotang, domiciled in Jotang village, Sumbawa Regency, West Nusa Tenggara, and are the subject of research. Exclusion criteria were students who did not come to school during the study.

### 4. Study Variables

The dependent variables was students' knowledge. The independent variable were audio media and video media.

### 5. Operational Definition of Variables

**Knowledge** is the result of measuring student knowledge after students are given education using audio and audio-visual.

**Audio media** health promotion media in the form of sound made using the R and D method which has been tested for media, materials and objects.

**Audio visual media** a health promotion media in the form of sound made using the

R and D method which has been tested for media, materials and objects.

## 6. Instruments

The study data were obtained from primary and secondary data. The primary data were obtained by using questionnaires.

## 7. Data Analysis

The data in this study were analyzed using bivariate analysis with Mann Withnay test.

## RESULTS

### 1. Sample Characteristic

Table 1 showed the categories of variables, total sample, and also the percentage of each variable.

**Table 1. Characteristics of research subjects.**

Variables	Categoris	Frequency (n)	Percentage (%)
<b>Student Age</b>	9 years old	17	19.3 %
	10 years old	43	48.9 %
	11 years old	24	27.3 %
	12 years old	4	4.5 %
<b>Student Gender</b>	Male	45	51.1 %
	Female	43	48.9 %
<b>Student Class</b>	Class IV	39	44.3 %
	Class V	49	55.7 %

### 2. Bivariate Analysis

Tables 2 showed that the normality test from the Kolmogorov-Smirnov test data in the audio-visual and audio groups is not normal. with  $p < 0.001$  less than 0.05. Then

the data transformation is still not normal so that the data used for the bivariate test uses a non-parametric test from the 2 Independent t test, namely Mann Whitney.

**Table 2. Normality test of audio-visual and audio group.**

Kolmogorov-Smirnov				
	Group	Statistic	df	p
Results	Audio	0.300	48	<0.001
	Videos	0.198	40	<0.001

**Table 3. The results of Mann-Whitney test**

Media	n	Mean Rank	p
Audio-Visual	48	49.36	0.039
Audio	40	38.66	

Table 3. showed the results of Mann Whitney test results show that audio-visual media is more effective than audio media as a health promotion medium for elementary school children compared to audio media with  $p$  value= 0.039.

## DISCUSSION

The results of this research showed that audio-visual media is more effective than audio media as a health promotion medium for elementary school children compared to audio media with  $p = 0.039$ .

In this case, the researcher argues that the provision of health promotion to prevent the transmission of COVID-19 in children using audio-visual media is better in improving the behavior of preventing the transmission of COVID-19 in children than using audio media. This is because audio-visual media has the advantage that it can stimulate the effects of motion so that it looks more interesting and more easily stimulates student understanding. Audio-visual media can make children see and hear the given material simultaneously (Jafar, 2015).

The results of this study are in line with research conducted by Papiliya et al. (2016) which stated that audio-visual media was more effective as a medium for promoting dental and oral health for elementary school students. The results of the same study were also conducted by Septiani et al. (2016), which stated that audio-visual media was significant for increasing mothers' perceptions of sex education for school children.

Changes in behaviour according to the organism stimulus theory occur because with the stimulus given to the organism, the organism reacts so that behavior changes occur (Maulana, 2009). Kurt Lewis theory also states that behavioral changes occur because of encouragement or stimuli in the form of counselling or information (Kholid, 2012).

A good stimulus is given to the organism, the better the behavior change of the organism. A good stimulus is a stimulus that can involve many senses of the organism because the more senses that are used to receive and manage the stimulus, the more likely the information is understood and retained in memory (Supriati, 2012).

Extension using audio-visual media makes the recipient of counselling use more

senses compared to counseling that only uses audio media, Audio-visual media encourages recipients to use the senses of hearing and sense of sight so that information can be received well.

#### **AUTHOR CONTRIBUTION**

Lina Eta Safitri was the main researcher who selects the topic. Desy Fadilah Adina Putri was searches and collects research data. Julia Mujahadah was analyzed data and reviewed research documents.

#### **FUNDING AND SPONSORSHIP**

This study was funded by Ministry of Education and Culture of Indonesia.

#### **CONFLICT OF INTEREST**

There is no conflict of interest in this study.

#### **ACKNOWLEDGMENT**

We are very grateful to Elementary School 2 Jotang, Elementary school 3 Jotang, School of Health Sciences Griya Husada Sumbawa, and Ministry of Education and Culture of Indonesia.

#### **REFERENCES**

- Jafar CP (2015). Pengaruh pendidikan kesehatan melalui audiovisual terhadap perilaku personal hygiene anak kelas IV di SDN 2 Jambidan Banguntapan Bantul. Yogyakarta (the effect of health education through audiovisual on personal hygiene behavior of grade IV children at SDN 2 Jambi and Banguntapan Bantul. Yogyakarta): Program Studi Ilmu Keperawatan Sekolah Tinggi Ilmu Kesehatan Aisyiyah.
- Kholid A (2012). Promosi Kesehatan dengan Pendekatan Teori Perilaku Media dan Aplikasinya (Health promotion with Media Behavior Theory Approach and Its Application).

- Jakarta: Raja Grafindo Persada; p.120.
- Maulana HDJ (2009). Promosi Kesehatan (Health Promotion). Jakarta: EGC, 2009; p. 232
- Papilaya EA, Zuliari K (2016). Perbandingan pengaruh promosi kesehatan menggunakan media audio dengan media audio-visual terhadap perilaku kesehatan gigi dan mulut siswa SD. Vol.4(2), 282-286. Journal e-GiGi.
- Septiani E, Prawitasari S, Emilia O (2016). Efektivitas promosi kesehatan menggunakan audiovisual terhadap perubahan persepsi ibu tentang pendidikan seks untuk anak prasekolah. Vol.32(11), 421-426. BKM Journal of Community Medicine and Public Health.
- Singhal T (2022). The Emergence of Omicron: Challenging Times Are Here Again! Indian J Pediatr. 13:1-7. doi: 10.1007/s12098-022-04077-4
- Supiyati, Ambarwati ER (2012). Promosi Kesehatan (Health Promotion). Yogyakarta: Pustaka Rihama,.
- Stilwell PA, Munro APS, Basatemur E, Talawila Da Camara N, Harwood R, Roland D (2022). Bibliography of published COVID-19 in children literature. Arch Dis Child. 107(2):168-172. doi: 10.1136/archdischild-2021-321751.