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AUDIOVISUAL MEDIA'S EFFECTIVENESS ON COMMUNITY KNOWLEDGE ABOUT FIRST-AID ACCIDENTS

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ABSTRACT

Traffic accident is one of the most significant causes of death globally. Handling accident victims within the first hour is a critical time to save accident victims and avoid bad conditions or death. People who do not provide first aid do not have good knowledge and skills about first aid. Efforts to increase knowledge can be made through counseling. The learning media used in general are two, namely electronic media and print media. This study aim to determine audiovisual media's effectiveness in increasing public knowledge. The design used *pre-experiment one group, pre-test post-test*. Instruments used questionnaires and audiovisual media. The samples used were village management and surrounding communities, and sampling using *g-power software 3.1* obtained the results of 56 respondents. Data analysis using *the Wilcoxon test*. The study showed that public knowledge about first aid measures in accidents before being given audiovisual media good knowledge (73.2%). However, after being given audiovisual press, almost all respondents had significantly increased knowledge in the category of good knowledge (98.2%). There is a significant effect of the effectiveness of the audiovisual method in increasing public understanding of as many as 14 respondents on first aid actions in accidents with a $p\text{-value} = .0001 (< 0.05)$. Public knowledge of first aid is urgently needed to save accident victims. People who already know the importance of community assistance can perform first aid so that injuries do not become severe.

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1. INTRODUCTION

Traffic accidents are one of the leading causes of death in the world. It is estimated that traffic accidents, initially the ninth cause of disability globally, will become the third cause (Lukumay et al., 2018). Traffic accidents usually occur due to traffic violations, vehicle conditions, and road conditions with potholes (Ambarika, 2017). Handling accident victims within the first hour is essential to save accident victims from avoiding bad situations or death (Ardhianata Putra et al., 2018).

Based on data from the Central Statistics Agency of the Republic of Indonesia (BPS RI, 2020), traffic accidents in 2018 were 103,228 incidents, with 30,568 deaths, 14,395 serious injuries, and 119,945 minor injuries. The number of accidents in Central Java Province shows that the number of traffic accidents in 2019 in Central Java reached 26,179 accidents, with the highest accident rate in Klaten Regency as 3,291 accident cases for Cilacap Regency, as many as 2,898 accident cases, with 84 deaths, 144 serious injuries, and 1,147 lightly injured victims (BPS Jawa Tengah, 2020). From these data, traffic accidents in the world or Indonesia are one of the factors that cause a person's death to be relatively high. Accidents that happen a lot make people have to be able to handle first aid when they encounter an accident on the road. Therefore various kinds of training are needed in first aid in accidents.

It is essential to educate the public about First Aid in Accidents (P3K). Accident victims with injuries and deaths caused by traffic accidents can be reduced if rescue measures are given appropriately and combined with pre-hospital services. The community also has a vital role in providing care at the scene (Tahir, 2019). Many people do not provide first aid because they do not have good knowledge and skills about first aid. With efforts to increase understanding of health education, it is urgently needed in the form of essential assistance to victims, treatment of bleeding, handling of fractures, and evacuation of victims (Bollig et al., 2011).

Education can be done with various media. The number of existing learning media can make it easier to understand the material. There are generally two learning media used: electronic media and print media. With the development of technology, it is hoped that people will understand better if counseling uses electronic media, one of which is audiovisual media. Teaching through audiovisual means using hardware during the learning process, such as film projectors, televisions, and wide visual projectors. Later on, people can repeat the audiovisuals that have been given at the time of counseling. Based on the results of research conducted by Yusantika (2018), there is a significant effect of health education with the audiovisual media on first aid knowledge; the audiovisual media influences first aid ability.

Audiovisual health education is broadcast by involving sound, images, and writing to clarify the message contained, and audiovisual involves thinking, hearing, seeing, psychomotor, and making learning more interesting. Audiovisuals can facilitate understanding and strengthen memory. So that using the audiovisual media can save the memory of the material in the long term. Education about first aid in the community to add information about first aid using audiovisual educational media to increase public knowledge about first aid in accidents.

Researchers know that this area is a route to West Java Province, namely Bingkeng Village, Dayeuhluhur District, Cilacap Regency, Central Java, a preliminary study and frequent traffic

accidents. The road is narrow and winding and up and down. Most traffic accidents are caused by drivers who cannot control their vehicles. When an accident occurs, information is obtained from the community, the community only helps by moving the victim to the nearest resident's house.

2. METHOD

Research Design

This research uses a *pre-experimental* design with the type of *one group pre-post-test* without a control or comparison group. The research variables consisted of the characteristics of the respondents, namely age, gender, education, and type of work; the independent variable is the level of knowledge.

Population and Sample

The sampling technique is used purposive sampling to determine the sample using G-Power 3.1 software. There were 56 respondents with the criteria of Bingkeng Village administrators and Bingkeng village community leaders with the requirements of respondents who did not have visual or hearing impairments, aged over 17 years, who participated in the study to completion. Data analysis used the Wilcoxon test to determine the effectiveness of audiovisual media in increasing public knowledge about first aid in accidents.

Instrument

Collecting data using audiovisual media and questionnaire instruments made by researchers, from 25 questions to get valid results, 19 good, and six invalid questions. The validity test results (0.727) contain questions to measure knowledge of first aid, bleeding aid, fracture aid, and victim evacuation assistance. For inquiries that are not valid, researchers exclude questions on the research questionnaire.

The time for filling out each questionnaire is approximately 10 minutes. The questionnaire was filled out twice. First, the questionnaire was filled in a pre-test before being given counseling using audiovisual media for 15 minutes. Meanwhile, the post-test questionnaire was filled out the next day, with the researcher visiting the research site and the respondent's house.

Research Procedure

The research time starts from the preparation stage in December 2020 until the evaluation of activities in August 2021. Data collection was carried out in Bingkeng Village in June 2021 in cooperation with the village head. Village and community administrators participated in this study personally.

3. RESULTS

Description of characteristics by age, gender, education, and profession

1. Characteristics of Respondents

Table 1. Characteristics of Respondents in Bingkeng Village in 2021

| Variable | F | % |
|--------------------------------------------------------------|----|-----|
| Age | | |
| Late Adolescence (17- 25 years) | 3 | 5.4 |
| Early Adult (26- 35 years) | 11 | 9.6 |
| Late Adult (36- 45 years) | 17 | 0.4 |
| Early Elderly (46-55 years) | 21 | 7.5 |
| Late Elderly (56-65 years) | 4 | 7.1 |
| Gender | | |
| Male | 19 | 3.9 |
| Female | 37 | 6.1 |
| Education Level | | |
| Primary Education (Elementary school and Junior high school) | 17 | 0.4 |
| Secondary Education (Senior High School) | 36 | 4.2 |
| Higher Education (College Student) | 3 | 5.4 |
| Profession | | |
| Work | 31 | 5.4 |
| Unemployment | 25 | 4.6 |

The table above shows that most of them have an early elderly age; as many as 21 respondents (37.5%) have a female gender, and as many as 37 respondents (66.1%) have a secondary education level (Senior High School) as many as 36 respondents (64.3%). Some work with as many as 31 respondents (55.4%).

2. Public Knowledge After Audiovisual Media

Table 2. Public Knowledge of First Aid Actions in Accidents Before Audiovisual Media were Given in Bingkeng 2021

| Prior Knowledge | F | % |
|-----------------|----|------|
| Good | 41 | 73.2 |
| Enough | 15 | 26.8 |
| Less | 0 | 0 |

The table above shows that people mainly had good knowledge before being given the audiovisual media, with as many as 41 respondents (73.2%). According to the researcher's assumption, the community knows what actions to take when facing or meeting accident victims.

3. Public Knowledge Before Audiovisual Media

Table 3. Frequency Distribution of Public Knowledge of First Aid Actions in Accidents After being Given the Audiovisual Media in Bingkeng Village in 2021

| After Knowledge | F | % |
|-----------------|----|------|
| Good | 55 | 98.2 |
| Enough | 1 | 1.8 |
| Less | 0 | 0 |

The table above shows public knowledge after being given the audiovisual media, and almost all respondents have good knowledge, as many as 55 respondents (98.2%).

4. Effectiveness of Audiovisual Media in Increasing Public Knowledge

Table 4. The Effectiveness of Audiovisual Media in Increasing Public Knowledge of First Aid Actions in Accidents in Bingkeng Village in 2021

| Treatment | Decreased | Increased | Z | p |
|---------------------------|-----------|-----------|--------|-------|
| Knowledge <i>Pre-Post</i> | 0 | 14 | -3.742 | .0001 |

The table above shows the study results obtained after giving the audiovisual media; 14 respondents experienced increased knowledge. Test results *Wilcoxon* obtained *p-value* = .0001 (<0.05). This indicates a significant effect of audiovisual media in increasing public knowledge of first aid actions in accidents. Based on the study results showing that audiovisual media affects increasing respondents' knowledge, the researcher assumes this is because audiovisual media consists of sound elements and image elements that can be seen in the form of video and are considered more exciting and easy to understand.

4. DISCUSSION

The results show that a person can get information with increasing age. Much experience is obtained from the environment. The more things a person does or does, the higher the maturity of thinking and seeking information from anywhere. The older you are, the more your grip will develop. Moreover, the mindset of individuals so that they are ready and mature to receive new information. In line with Widyastuti's research (2019), which examines the Description of Knowledge of Coastal Communities About Aid for Drowning Victims in Kenjeran Surabaya, most of the population is 36-45 years old, with as many as 16 respondents (45.7%).

The results showed that most of the respondents were female. According to gender researchers, there is no ideal limit for comparing male and female societies, but male societies are generally needed when doing things that require much energy. To help move heavy loads such as accident victims. According to Irwing (2019), every boy and girl has the same degree because boys or girls will get the same education at school, not only being a priority for boys but also

having the same priorities for both girls and boys. Man. obtained, the information obtained by women and men will be relatively the same.

The above study results found that most respondents had a secondary education level. According to the researcher, the education level of the respondents is at the intermediate level because most of the respondents are already aware of the importance of education. Education contributes to the knowledge of society in acting because, in general, higher education generally has broad knowledge and insight.

The research results above indicate that most of the respondents have jobs. According to researchers, work affects the level of insight obtained. Someone who has worked has extensive experience and more experience than people who do not work. An individual will take action based on his experience. Experienced people will act according to familiar conditions and not feel awkward in their actions. A worker has better information, experience, and adaptability than a non-employed person. A developed workplace learning experience provides professional knowledge, skills, and on-the-job learning experience (Olumide et al., 2015).

According to the researcher's assumption, the community knows what actions to take when facing or meeting accident victims. This is supported by Cho et al. (2018) statement, which states that first aid plays a critical role if you are in an unexpected situation such as an accident. Many people already know the importance of first aid but have not reached the stage of learning. In addition, people think that first aid is valuable when there is an emergency that they might not experience.

The results of the study indicate that public knowledge of first aid in traffic accidents is included in the excellent category, indicating that most people have begun to realize the importance of first aid in traffic accidents; this is because public knowledge is obtained from the environment, information media, experience, information from the environment. Around or from electronic media such as the internet. However, there are still people who do not understand how to do first aid in traffic accidents that are good and right.

The researcher assumed that after being given audiovisual media, almost all of them experienced an increase in knowledge; this could happen because the respondents had received exposure to information related to increasing knowledge of first aid actions in previous accidents through other media such as the internet, information from friends, social media, television, newspapers, the environment, and others. Better education makes it easier for respondents to receive information to improve their understanding and know respondents.

The study results from Willia (2020) stated that respondents had good knowledge before the action was taken and increased at the time after the action was taken. This study proves that delivering information with health education through audiovisual media can change the level of knowledge. Audiovisual media are indeed considered capable of providing a more precise and exciting picture as a medium for conveying health education messages, which are considered capable of conveying messages in the media well to respondents.

Good community knowledge regarding first aid for accident victims can make early handling of accidents correctly and adequately reduce the death rate due to delays in first aid. Based on the study results showing that audiovisual media affects increasing respondents' knowledge, the researcher assumes this is because audiovisual media consists of sound elements and image

elements that can be seen in the form of video and are considered more interesting and easy to understand. Mubarak (2018) states that audiovisual media is considered capable of providing a more precise and more interesting picture as a medium for conveying health education messages. Able to convey messages contained in the media well to respondents.

Research conducted by Mpotos *et al.* (2013) stated that watching videos containing movement sounds can awaken previous memories of BHD training. Another study conducted by Siregar (2019) concluded that audiovisual as a learning medium could stimulate thinking and increase student knowledge at Aljouf University, Saudi Arabia. The effectiveness of audiovisual media provides information and knowledge that is varied and not monotonous so that students can develop and improve their understanding of learning independently.

Based on the study results showing that providing education with audiovisual media can increase knowledge by 25%, researchers assume that audiovisual media is more attractive and attractive so that someone can easily remember it. The use of audiovisual media in this study can increase knowledge also due to the age factor of most of the respondents in the adult category (50%) and have secondary education (64.2%).

In theory, audiovisual media is more effective in increasing knowledge because the presentation of the material is more exciting and can stimulate many of the five senses in the learning process. Many factors influence changes in knowledge in the extension process, including the media and the characteristics of the extension recipients. Learning media should be by the characteristics of the trainees, namely age, educational background, and experience.

6. CONCLUSIONS

Based on the results of research on the effectiveness of audiovisual media as a media for health education to increase public knowledge, it can be concluded that audiovisual media is used to increase public knowledge. Based on this, this study recommends that further research be carried out to find other factors that can affect public knowledge.

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