

Effectiveness of Interactive Video-Based Education on Improving Mental Health Literacy in Adolescents

Efektivitas Pendidikan Berbasis Video Interaktif dalam Meningkatkan Literasi Kesehatan Mental pada Remaja.

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Abstract

Background: Teenagers are vulnerable to mental health problems due to emotional challenges, behavior, family problems, and social interactions in friendship and social environments. Being aware of mental health problems is indicated by high literacy. One effort to increase mental health literacy among teenagers is to package information to be very interesting through the use of interactive videos. **Objective:** This study aims to determine the effectiveness of interactive video-based education on improving mental health literacy in adolescents. **Method:** The research design was quasy-experiment with two-group pre-test and post-test, where the number of respondents was 84 and divided into 42 intervention groups and 42 control groups. The inclusion criteria in this study were adolescents aged 15-18 years. The instruments used Mental Health Literacy Questionnaire (MHLQ). Paired Sample T Test and ANCOVA were used to analyze the data. **Results:** The results showed that there was a significant difference in scores in the intervention group between pre-test and post-test ($p = 0.000$), while in the control group there was no significant difference between pre-test and post-test ($p = 0.125$). There was a significant effect with $p\text{-value} = 0.000$. **Conclusion:** Interactive videos presented by providing stimuli for more than one sense can have a positive impact on increasing literacy, especially regarding mental health. **Suggestion:** Further research can be carried out in developing applications that contain interactive video content in them.

INTRODUCTION

Mental health encompasses the overall development of an individual, including physical and psychological aspects (Purnomosidi, Ernawati, Riskiana, & Indriyani, 2023). Individuals who have good mental health are able to live normally and adapt to situations

and problems that occur (Prananda, 2023). Mental health problems are common in society, especially adolescents (Hamidah & Rosidah, 2021). Adolescents often experience significant changes and progress in various aspects of their lives, such as physical, social, and psychological (Fitriana, Ahmad, & Fitria, 2021). Adolescents are vulnerable to mental health problems due to emotional challenges, behavior, family problems, and social interactions in friendships and social environments (Aldam, Keliat, Wardani, Sulistiowati, & Florensa, 2019). The more risk factors an adolescent experience, the greater the impact on their mental health (WHO, 2021).

Mental health problems that occur in adolescents and children are 10-20% worldwide, most mental health problems begin between the ages of 14 and mid-20s (WHO, 2021). According to the Indonesian National Adolescent Mental Health Survey in 2022, of the adolescent population, 34.9% of adolescents experience mental health problems, supported by the data as well. The data shows that only 2.6% of adolescents with mental health problems use mental health services to deal with emotional and behavioral problems. The prevalence of mental health problems is still very high, around one third or 34.9% of adolescents have at least one mental health problem, because in the community, especially adolescents, mental health is still considered a common thing, thus triggering a closed attitude towards mental health problems (Wahdi, Setyawan, Putri, Wilopo, & Erskine, 2022). For this reason, mental health needs to be the main focus, especially among adolescents in Indonesia.

Understanding mental health can provide benefits for the well-being of adolescents themselves because good mental health is very important to overcome mental health-related problems (Nurhaeni, Marisa, & Oktiany, 2022). With these conditions, adolescents need to have mental health literacy in preparing to deal with mental health issues experienced by themselves or those closest to them (Wahyuni & Fitri, 2022). The low mental health literacy in Indonesia of 50% in adolescents is due to a lack of understanding and awareness of mental health problems among them (Rudianto, 2022). Adolescents often experience limited access to mental health information, either due to the limited availability of information sources or difficulty in understanding the available information (Yuliasari & Pusvitasari, 2023). The impact of low mental health literacy in adolescents can be seen in various aspects, including levels of anxiety, depression, and other mental health problems (Syafitri & Rahmah, 2021).

Efforts to improve mental health literacy have been carried out such as counseling, psychoeducation, awareness campaigns and counseling programs although mental health literacy in the community, especially among adolescents, is still not optimal (Ministry of Health of the Republic of Indonesia, 2022). Although the government has increased the accessibility of health facilities, the number of adolescents seeking professional help for their mental health problems remains minimal. Increasing adolescent knowledge about health can be achieved with appropriate media. Research on the effect of video in improving mental health literacy in adolescents has been conducted, only in providing education only the knowledge aspect is provided (Widhawati, Lubis, & Komalasari, 2023). There are several aspects that are not considered such as aspects of belief and attitude (Tito, Yulianto, & Fitiriana, 2023). This research was identify the effectiveness of providing education by adding the two aspects above is important to do. The level of effectiveness of the media used is greater for video media than posters (Caesar & Prasetya, 2020). Where interactive videos will provide education to students so that they understand a material through visualization (Biassari & Putri, 2021). Videos can increase adolescent engagement in understanding mental health concepts, while motivating them to seek further information. This can stimulate critical thinking and increase their understanding of mental health in greater depth (Hifzul, 2020). Adolescents tend to be more interested in visual media such as videos, because they allow them to express themselves through visual creativity (Shanny, 2023).

Based on the description of the problem above, the researcher is interested in researching "The Effectiveness of Interactive Video-Based Education on Increasing Mental Health Literacy in Adolescents". By conducting this research, it is hoped that it can provide additional information about mental health in adolescents and prevent mental health problems.

METHODS

This study was quasi-experimental design with a two-group pre-posttest. A total of 84 high school students in Sumedang, Indonesia. Inclusion criteria are adolescents aged 15-18 years, have smartphones and have no problems in reading. Exclusion criteria Students who are absent due to illness or permission. The research instrument used the Mental Health Literacy Questionnaire (MHLQ) consisting of 29 items and measuring knowledge,

beliefs, and attitudes towards mental health. In this study, the number of samples was calculated using G-power Software Version 3.1. using t-test, means: difference between two dependent means (match pairs) with the assumption of two tails, effect size 0.3, α err prob 0.05 power 0.8. This research was conducted at SMA Plus Al – Falah Jatinangor Sumedang. The intervention consists of 3 weekly sessions. The intervention was conducted in a classroom setting using Power Point (PPT) media and an LCD projector each session approximately 45–60 minutes. The control group did not receive any form of intervention during the study period

Table 1. Procedure Intervention of Interactive Video Education

Session	Activity
Session 1	1. Pre-test 2. The researchers provided an interactive video intervention on the theme of knowledge about mental health literacy. The content of the video included the definition of mental health, factors that influence mental health, characteristics of mental health issues, issues regarding mental health, providing ways to maintain mental health, and adding a quiz. 3. The researchers gave respondents the opportunity to ask questions and discuss. 4. Termination phase asking for respondents' feedback after participating in the session.
Session 2	1. The researcher provided an interactive video intervention focusing on the theme of <i>trust</i> within the context of mental health literacy. The material included understanding mental health problems, identifying risk factors, and obtaining information regarding available facilities and access to professional health services. 2. The researcher offered the respondents an opportunity to ask questions and engage in discussion. 3. The researcher inquired about the respondents' feedback and emotional responses after participating in the session. 4. The researcher established a time agreement with the respondents for the subsequent session.
Session 3	1. The researcher delivered an interactive video intervention focusing on <i>attitudes</i> in mental health literacy. This included fostering awareness of mental health problems and encouraging willingness to seek professional help in addressing mental health disorders. 2. Respondents were given the opportunity to ask questions and engage in discussion. 3. The researcher explored respondents' feedback after participating in the session. 4. Post-test

Data collection using a questionnaire online (google form) to describe mental health literacy in students. The data were then collected for analysis using univariate analysis

(descriptive, frequency, mean and standard deviation) and bivariate analysis (Paired sample T-test and ANCOVA).

RESULTS

The characteristics of the respondents in this study are seen based on age, gender and class, which are described in the following table:

Table 1. Demographic Data of Respondent (n=84)

Characteristic	Total (n=84) F (%)	Intervention Group F (%)	Control Group F (%)
Gender			
Male	46 (53,9 %)	20 (44,7 %)	26 (63,2 %)
Female	38 (46,1 %)	22 (55,3 %)	16 (36,8 %)
Age			
Mean (±SD)	16.28 (±0.842)	16.24 (±0.883)	16.34(±0.815)
Min - Max	15 – 18	15 - 18	15 - 18
Class			
X	28 (33.3 %)	14 (33.3%)	14 (33,3%)
XI	28 (33.3 %)	14 (33.3%)	14 (33.3%)
XII	28 (33.3 %)	14 (33.3%)	14 (33.3%)

Table 2 Mental Health Literacy of the Respondents (n=84)

Variable	Intervention Group		Control Group	
	Mean±SD	Min - Max	Mean±SD	Min - Max
<i>Pre-test</i>	108.61 (±4.487)	100 - 116	107.52 (±7.271)	96 - 126
<i>Post-test</i>	123.51 (±3.226)	118 - 130	110.39 (±7.812)	95 -125

Table 3 Differences in Mental Health Literacy in the Intervention Group and Control Group (n=84)

Group	Pre-Test, Mean (±SD) (Min – Max)	Post-Test, Mean (±SD) (Min – Max)	T	Mean Difference	P-value
Intervention Group (n=42)	108.61 (±4.487) 100 – 116	123.51 (±3.226) 118 - 130	-18.747	-15.368	0.000
Control Group (n=42)	107.52 (±7.271) 96 - 126	110.39 (±7.812) 95 - 125	-1.568	-2.632	0.125

Notes: *p-value* from *paired sample t-test*

Table 4 Effectiveness of Interactive Video-Based Education on Increasing Mental Health Literacy in Adolescents (n=84)

Source	Type III Sum of Square	df	Mean Square	F	Say.
Corrected Model	2691.013a	2	1345.507	75.225	0.000
Intercept	799.425	1	799.425	43.506	0.000
Pre-test	2006.891	1	2006.891	109.219	0.000

Group	1532.861	1	1532.861	83.421	0.000th
Error	1304.622	81	18.375		
Total	1023779.000	84			
Corrected Total	3995.635	83			

^asig = significance value < 0.05

DISCUSSION

This study showed that interactive video-based educational intervention significantly improved mental health literacy in adolescents. The intervention group experienced an increase in mean scores from 108.61 in the pre-test to 123.51 in the post-test, while the control group only increased from 107.52 to 110.39. Although the control group showed an increase, it was not significant because they did not receive any treatment. According to (Fuady, Puji, As-Sahih, Muhiddin, & Sumantri, 2019), the level of mental health literacy in adolescents is influenced by various factors, including education and access to information. Good education contributes to adolescents' ability to understand mental health issues, while access to information through electronic media, such as mobile phones, makes it easier for adolescents to obtain the necessary knowledge (Wela, Fitriana, & Fitriyani, 2020). Knowledge, beliefs, and attitudes are the three main aspects that form mental health literacy, where knowledge helps individuals understand the risks and how to deal with mental health problems (Suyito, Yulianto, & Fitriana, 2023).

The majority of respondents in this study were male. According to (Khojir, 2021), age is associated with increased knowledge and understanding, while higher education contributes to a better understanding of mental health. Interactive video-based education has been proven effective in improving mental health literacy, with a p-value of 0.000 indicating a significant difference between the pre-test and post-test in the intervention group. This study supports previous findings showing that the use of audiovisual media, such as animated videos, can increase knowledge and reduce stigma related to mental health (Ratna, 2021). Providing education through interactive videos has a positive impact, because this media is able to attract attention and facilitate better understanding (Gunawan D. , 2020).

CONCLUSION

Overall, this study emphasizes the importance of innovative educational approaches in improving mental health literacy among adolescents. By utilizing technology and interactive media, adolescents can more easily access relevant information and improve their understanding of mental health. This is expected to encourage them to be more proactive in seeking help and supporting their friends who are experiencing mental health problems.

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