

Comparison of the Effectiveness of Counseling with Social Media, Animation and Short Films in Improving Perception and Motivation to Do Physical Activity in Adolescents

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ABSTRACT

Physical activity is an essential component for health, low physical activity in Indonesia causes a high death rate, with 70% of all deaths among adults (including due to heart and lung disease). Therefore, efforts are needed to increase healthy lifestyles, especially physical activity, by providing health information through the media. The purpose of this study was to compare the effectiveness of counseling with social media, animation and short films as health promotion media to increase perceptions and motivation to do physical activity in adolescents. The design of this study is Quasi Experiment with a total sample of 180 people taken by total sampling. The data collection technique uses a physical activity questionnaire. Data analysis using the Anova test. The results of the analysis obtained that counseling with short films was more effective in increasing perceptions and motivation to carry out physical activities in adolescents at SMAN 3 Muaro Jambi indicated by a significance value at 0.000 ($p < 0.05$) compared to social media and animation. There was a more significant increase in perception and motivation to do physical activity after counseling with short films compared to counseling using social media and animation for teenagers at SMAN 3 Muaro Jambi. Suggestions for further research are to examine the factors that influence perceptions and motivation for physical activity in adolescents.

Keywords: Perception, Motivation, Physical Activity, Adolescents

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INTRODUCTION

Non-communicable diseases (NCDs) are non-communicable chronic diseases consisting of cardiovascular disease, cancer, diabetes, respiratory diseases such as asthma and chronic obstructive pulmonary disease¹. PTM is the biggest cause of death in the world and in 2012 the death rate due to PTM was 68% of the 56 million deaths worldwide. In Indonesia, the highest types of NCDs are

hypertension and stroke. The risk factors that cause PTM in Indonesia are the same as the risk factors (PTM) globally². There are four risk factors that can cause NCDs, namely smoking, lack of physical activity, alcohol consumption, and unhealthy diet³.

Physical activity is an essential component for health, low physical activity in Indonesia causes a high death rate, where there are 70% of all deaths among adults (including due to heart and lung disease)⁴. Based on a

review of literature regarding the urgency of research, behavior that causes a person to be reluctant to engage in physical activity can cause various diseases (PTM) such as hypertension and stroke. This condition further accelerates various diseases if unhealthy diet habits, excessive drinking and smoking are followed⁵. Healthy conditions can be achieved by changing unhealthy behavior to healthy behavior⁶.

UNICEF found in 2018 that 70% of all deaths among adults (including due to heart and lung disease), could be prevented through implementing a healthy lifestyle from a young age, namely physical activity. WHO proposes several interventions to prevent and control non-communicable diseases, one of which is providing health information through the media about physical activity⁷. Physical activity is activity carried out in a physically and mentally healthy condition within the capacity of the individual's body. Based on a preliminary study of the phenomenon experienced by respondents, namely that respondents carried out physical activity but still did not really know what physical activity⁸. Teenagers spend 20 hours per week in sedentary activities. Physical inactivity significantly increases the risk of chronic disease and death⁹.

Health promotion is an effort to improve public health that focuses on promotive and preventive efforts¹⁰. Providing information through the media is a form of health promotion such as social media, films and animation to convey health information to teenagers¹⁰. Based on a preliminary survey at SMAN 3 Muaro Jambi, 10 people were asked and it turned out that all of them did not know about preventing risk factors for non-communicable diseases. Therefore, it is very important to immediately carry out promotive and preventive efforts for teenagers. So, research was conducted which aimed to determine the comparison of the effectiveness of social media, animation and short films as health promotion media to increase perceptions and motivation for physical activity in adolescents (Study at SMAN 3 Muaro Jambi).

METHOD

The design of this study is experimental with Quantitative research design with quasi-experiments where measurements

are made twice. With the same sample, one group design, input (O1), intervention and observation are carried out, called process (X), and after the output results are the effects of treatment and experimentation. (O2). Population: all students of SMAN 3 Muaro Jambi amounted to 180 people. Total sampling technique in which the entire population is sampled. Inclusion criteria: Class X and willing to be a respondent. Exclusion criteria: not willing to respond. Sampling technique: purposive sampling. Place: SMAN 3 Muaro Jambi in March-November 2023. Research mechanism: preparation (*ethical clearance*, research instruments and equipment) and implementation of physical activity counseling with: 1) short films, 2) animation, and 3) Social Media = Instagram. Processing date: *editing, scoring, coding, Entry and cleaning*. Analysis date: *Univariate Analysis* (To obtain an average physical activity score before and after the intervention) and *Bivariate Analysis* (To see whether or not there is a difference between the independent variable and the dependent variable by using statistical dependent t-test and ANOVA test (parametric) at the significance level of 0.05).

RESULTS

Table 1. Normality test results perception and motivation of physical activity pre-test and post-test on teenagers at SMAN 3 Muaro Jambi.

| Variabel | Kolmogorov Smirnov | | |
|----------------------|--------------------|----|-------|
| | Statistic | df | Sig. |
| Pre-test perception | 0,212 | 60 | 0,061 |
| Post-test perception | 0,240 | 60 | 0,071 |
| Pre-test motivation | 0,201 | 60 | 0,064 |
| Post-test motivation | 0,272 | 60 | 0,070 |

Description) Significant at > 0.05.*

Based on Table 1 shows that the results of statistical tests *Kolmogorov Smirnov* obtained significant value of perception and motivation to perform physical activity both at the time of *pre-test* and *post-test*, each of which is greater than 0.05. This means that the data on perception and motivation to perform physical activity during the *pre-test* and *post-test* were normally distributed. Therefore, different statistical tests using *uji Anova test*.

Table 2. The average value of perception and motivation to do physical activity Pre-test and Post-test counseling treatment with Social Media. Animation and short films in adolescents at

| Variable | Treatment | Variables | Mean | Std. Deviation | Min – Max |
|------------|--------------|-----------|------|----------------|-----------|
| Perception | Social Media | Pre-test | 3,33 | 1,02 | 2 – 6 |
| | | Post-test | 2,50 | 0,90 | 8– 10 |
| | Animation | Pre-test | 3,30 | 1,04 | 2 – 6 |
| | | Post-test | 2,55 | 0,92 | 7– 10 |
| | Short Film | Pre-test | 3,27 | 1,12 | 2 – 6 |
| | | Post-test | 2,14 | 0,70 | 9– 10 |
| Motivation | Social Media | Pre-test | 3,33 | 1,331 | 2 – 5 |
| | | Post-test | 7,67 | 0,568 | 7 – 10 |
| | Animation | Pre-test | 3,30 | 1,313 | 2 – 5 |
| | | Post-test | 7,65 | 0,576 | 8– 10 |
| | Short Film | Pre-test | 4,33 | 1,027 | 2 – 5 |
| | | Post-test | 9,50 | 0,702 | 9– 10 |

Based on Table 2 shows that *the mean value obtained* is different between the perception and motivation to perform physical activity *pre-test conditions* and perception and motivation to perform physical activity *post-test conditions*. This means that mathematically indicates there are differences in perception and motivation to do physical activity before and after counseling treatment with social media, animation and short films in adolescents at SMAN 3 Muaro Jambi.

Table 3. The average increase in perception and motivation to do physical activity with counseling treatment with social media, animation and short films in adolescents at SMAN 3 Muaro Jambi.

| Variable | Treatment | Mean | Average Improvement |
|------------|--------------|-----------|---------------------|
| Perception | Social Media | Pre-test | 3,33 |
| | | Post-test | 2,50 |
| | Animation | Pre-test | 3,30 |
| | | Post-test | 2,55 |
| | Short Film | Pre-test | 3,27 |
| | | Post-test | 2,14 |
| Motivation | Social Media | Pre-test | 3,33 |
| | | Post-test | 7,67 |
| | Animation | Pre-test | 3,30 |
| | | Post-test | 7,65 |
| | Short Film | Pre-test | 4,33 |
| | | Post-test | 9,50 |

Based on Table 3 showed an increase in the average score of perception and motivation to do physical activity after counseling treatment using social media, animation and short films in adolescents at SMAN 3 Muaro Jambi.

Table 4. Comparison of the effectiveness of counseling with social media, animation and short films in improving the perception and motivation of physical activity in adolescents at SMAN 3 Muaro Jambi.

| Variable | Treatment variable | Average Increase | N | Sig. (2-tailed) |
|------------|--------------------|------------------|------|-----------------|
| Perception | Social Media | Pre-test | 0,83 | 60 |
| | | Post-test | | |
| | Animation | Pre-test | 0,75 | 60 |
| | | Post-test | | |
| | Short Film | Pre-test | 1,13 | 60 |
| | | Post-test | | |
| Motivation | Social Media | Pre-test | 4,33 | 60 |
| | | Post-test | | |
| | Animation | Pre-test | 4,35 | 60 |
| | | Post-test | | |
| | Short Film | Pre-test | 5,17 | 60 |
| | | Post-test | | |

Description) significant at < 0.05*

Based on Table 4 shows that counseling with short films is more effective in improving the perception and motivation of physical activity in adolescents at SMAN 3 Muaro Jambi than counseling with social media and animation.

DISCUSSION

1. Perceptions of Physical Activity

Based on Table 2, the results of the pretest were carried out on teenagers at SMAN 3 Muaro Jambi. From the results of the analysis of the pretest scores, it shows that the average perception score about physical activity among teenagers at SMAN 3 Muaro Jambi is still poor, namely 3.33 before

counseling with social media, 3.30 before counseling with animation, and 3.27 before counseling with a short film. This shows that the perception of respondents' physical activity before receiving counseling with social media, animation and short films is still a poor criterion. Based on table 3, the results of the post test carried out on teenagers at SMAN 3 Muaro Jambi show that the average perception score about physical activity among teenagers at SMAN 3 Muaro Jambi has increased, namely 0.83 after counseling with social media, 0.75 after counseling with animation, and 1.13 after counseling with a short film. Social media is a health promotion medium to increase perceptions about health¹¹. The increase in perceptions about physical activity was caused by outreach with short films, namely providing counseling to teenagers about correct physical activity as well as increasing motivation to do physical activity among teenagers at SMAN 3 Muaro Jambi¹². Short film media to increase the knowledge of school age children¹³. Education through film media can increase school knowledge and attitudes about healthy living¹⁴. The film media referred to here is film as an audio-visual tool for lessons, information or counseling¹⁵.

2. Motivation to do physical activity

Based on Table 2, the results of the pretest were carried out on students at SMAN 3 Muaro Jambi. From the results of the analysis of the pretest scores, it shows that the average motivation score for physical activity for teenagers at SMAN 3 Muaro Jambi is still low, namely 4.33 before counseling using social media, animation and short films, 3.33. This shows that the respondent's motivation to carry out an initial physical activity before receiving counseling was still low.

Based on the results of the analysis in table 4, it can be seen that counseling using short films is very effective in increasing motivation to do physical activity among teenagers at SMAN 3 Muaro Jambi. The role of motivation is very important as a driving force for physical activity in adolescents¹⁶. This is proven by the p -value = 0.000, this value is smaller than the value 0.05. Short films are audio-visual media that can increase physical activity in teenagers¹⁷. Interventions with audio-visual media such as films showed that through post-test results there was an increase in changes in adolescent behavior

regarding changes in eating behavior, physical activity and sleep patterns¹⁸.

Short films are an educational medium that has the advantage that the main content of the discussion can be prepared beforehand, the order of presentation can be arranged quickly, charts can be taken or swapped and can be prepared easily¹⁹. Increasing the motivation for physical activity among teenagers at SMAN 3 Muaro Jambi provides readiness to learn and be independent in physical activity. Low physical activity among elementary school children is caused by several factors. These factors include the lack of adequate physical activity facilities in schools²⁰. One way of being interested in physical activity can be done through health promotion using the right media²¹. Healthy lifestyle behaviors such as activity must be instilled in teenagers because their immune system is susceptible to disease compared to the immune system of adults. This is a shared responsibility, both parents and teachers at school, to teach each other and set an example for teenagers to get used to adopting a healthy lifestyle²². Apart from that, health service programs have a significant relationship with physical activity²³. Irregular physical activity can be a factor in teenagers' weight gain²⁴.

CONCLUSION

There was a more significant increase in perception and motivation to do physical activity after counseling with short films compared to counseling using social media and animation for teenagers at SMAN 3 Muaro Jambi. Suggestions for further research are to examine the factors that influence perceptions and motivation for physical activity in adolescents.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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