Self-Efficacy in Prevention of COVID-19 in Teenagers through Islamic-Based Animation Videos

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Abstract

Implementation of health protocols in preventing the transmission of COVID-19 infection in adolescents is still lacking. Although teenagers’ knowledge regarding the implementation of health protocols is adequate, the attitude of teenagers, sometimes indifferent and less concerned, causes this health protocol not to be implemented. The way to handle this problem is by increasing self-efficacy for implementing the COVID-19 prevention protocol. The study aims to identify the impact of health education through Islamic-based COVID-19 prevention animation videos on teenagers' self-efficacy. This study was using a one-group pretest-posttest in the research design. The sampling technique used purposive sampling as many as 47 teenagers participated in this study. The intervention carried out in this study was health education through an Islamic-based animated video on COVID-19 prevention. Teenager self-efficacy measurements were measured using the 22-items Self-Efficacy Questionnaire for Implementing the COVID-19 Prevention Protocol. The paired t-test examines the difference between self-efficacy scores before and after health education. Significant differences were found in self-efficacy in implementing COVID-19 prevention protocols after health education (t = -2.596; p-value = 0.013). The present study suggests that health education using Islamic-based animated videos increases self-efficacy in teenagers. Therefore, health education through animated videos could improve teenagers' self-efficacy in efforts to implement COVID-19 prevention protocols, especially in mosque environments.

Keywords: Animation; COVID-19; Islamic value; self-efficacy; teenagers.

Abstrak


Kata Kunci: Animasi; COVID-19; nilai Islam; efikasi diri; remaja.

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INTRODUCTION

Health protocols related to preventing the transmission of Corona Virus Disease 2021 (COVID-19) are mandatory, especially in public places. The health protocols that the government has set include washing hands with soap, wearing personal protective equipment (PPE) with masks, and keeping a distance from everyone (Kementerian Kesehatan RI, 2020). Compliance with implementing health protocols in public places is expected to be carried out in full by the entire community to break the chain of the spread of COVID-19. However, this health protocol still needs to be entirely appropriately implemented.

The study results regarding compliance in implementing health protocols in several public places in Jakarta show that there were still violations of health protocols. The average percentage of compliance with health protocols in public places such as workplaces, shopping places, traditional markets, worship places, and public service is 74.02% (Simanjuntak, Napitupulu, Wele, & Yanie, 2020). In public places of worship, such as mosques, health protocols preventing the transmission of COVID-19 must consistently be enforced and monitored, especially after the government has allowed mosques as places of worship for the general public (Kementerian Agama RI, 2020).

The health protocol for preventing the transmission of COVID-19 in the mosque environment is carried out by checking the body temperature of the congregation in the mosque, using masks according to government recommendations, washing hands with soap and disinfectant, and operating facilities to worship each other (Kementerian Kesehatan RI, 2020). Efforts to prevent the transmission of COVID-19 are carried out to avoid infection of mosque congregations, whether adults, teenagers, or even children, due to COVID-19, especially in the mosque environment.

The implementation of the health protocol will run wholly if the community has good knowledge, attitudes, and skills in its application. Behavioral habituation efforts can be carried out with strategies to increase understanding of knowledge and strengthen self-efficacy (Wilandika, Fatmawati, Farida, & Yusof, 2022; Wilandika, Kamila, & Sofiyah, 2021), especially for teenagers who are still relatively young with unstable behavior. Diananda (2019) said that adolescence is an age that is still developing, although, at this age, teenagers tend to have labile emotions and negative attitudes and knowledge.

The behavior of teenagers who tend to have unstable emotions and negative attitudes is correlated with efforts to prevent the transmission of COVID-19. Al-Hanawi et al. (2020) found that teenagers' knowledge and attitudes toward preventing the transmission of COVID-19 were less than adults. Moreover, Amarie et al. (2020), in their research to determine the public ability to control COVID-19, found that the understanding of male and teenage adults tended to be lower and neglected in the implementation of the COVID-19 prevention health protocol.

Based on the illustration above, education and assistance are still needed to change the behavior of implementing health protocols to prevent the transmission of COVID-19. Educational activities increase knowledge and the desire to change behavior through education with animated videos. Animated cartoons are moving images that communicate knowledge or information about the context of the problem (Onuora, Torti Obasi, Ezeah, & Gever, 2021). Oyero and Oyesomi (2014) translate animated cartoons as films that are displayed using a sequence of images with different layouts so that they seem to move. This education has advantages over other actions because it utilizes images as a medium, which is visually attractive, easier to understand, and increases enthusiasm and focus (Umam & Anas, 2018). In addition, educational strategies using picture media have improved teenage learning outcomes (Mindaudah, 2018).
Good knowledge can influence attitudes, but maintaining a permanent attitude is complex and requires a long process. High self-efficacy can help a person maintain consistent behavior (Mulyanti & Fachrurozi, 2016). High self-efficacy impacts increasing self-confidence to carry out a response so that it ultimately determines action. Conversely, if a person’s self-efficacy is low, the self-confidence to take action will also decrease, so they cannot take the expected action (Lesilolo, 2019). Thus, this study aims to identify the impact of health education through Islamic-based COVID-19 prevention animation videos on teenagers' self-efficacy in implementing COVID-19 prevention protocols.

**RESEARCH METHOD**

This study uses a one-group pretest-posttest design. The sampling technique used purposive sampling; 47 teenagers aged 11-14 participated in this study. The teenager here is defined as a student actively carrying out religious activities in one of the mosques in Bandung. At the beginning and end of the health education, all participants completed a questionnaire regarding their self-efficacy in implementing the COVID-19 prevention health protocol.

The questionnaire used in this study was the 22-items Self-Efficacy Questionnaire for Implementing the COVID-19 Prevention Protocol. The response format for the questionnaire is a four-point Likert scale. Researchers developed a questionnaire based on the HIV risk behavior prevention self-efficacy questionnaire (Wilandika, 2017). Self-efficacy dimensions in this questionnaire include personal experience, vicarious experience, verbal persuasion, and emotional aspects. Experts have reviewed the Self-Efficacy Questionnaire for Implementing the COVID-19 Prevention Protocol to assess the feasibility and relevance of questions in measuring self-efficacy. In addition, this instrument has been tested for construct validity. The item correlation validity of this instrument ranges from 0.381 to 0.728 and has a reliability value of 0.896. Data analysis used the paired t-test to determine the impact of health education through animated videos on self-efficacy for implementing COVID-19 prevention protocols.

The intervention given to participants in this study was health education using an Islamic-based animated video to increase self-efficacy in preventing the transmission of COVID-19. The intervention was implemented directly in the mosque while still paying attention to health protocols such as washing hands, maintaining distance, and using masks for every teenager. All teenagers and parties involved in this health education must wash their hands using a disinfectant, check body temperature, wear a mask, and maintain a distance.

The animation video used is 5 minutes and 44 seconds long. All participants attended health education in one meeting for 75 minutes—the animated video used in this study illustrates the effort to prevent the spread of COVID-19. The cartoon illustration shows a pair of teenage girls and boys wearing Muslim clothes when practicing the COVID-19 prevention protocol and the place that is the background of this animation, one of which is the mosque environment. The animated video used in the study received input related to the content and the audiovisual appearance of the video. Experts who provide feedback and evaluation are health experts and graphic design experts.

Data related to the study were collected after obtaining approval from the Research Ethics Committee from Universitas Aisyiyah Bandung (No. 31/KEP.01/Unisa-Bandung/VI/2021) and the Mosque Security Council. This study followed all regulations and recommendations for research with teenagers. A researcher contacted the teacher and each teenager to obtain written consent permitting the data collection. Teenagers were informed about the data collection process, and their participation in the
study was completely voluntary. In addition, teenagers could withdraw their consent for the data collection at any time without affecting their participation in the activity.

RESULTS AND DISCUSSION

Implementing the COVID-19 transmission prevention protocol is an effort to reduce the number of infections so that every individual and community can avoid the deadly COVID-19. However, implementing this health protocol has had a broad impact, one of which is related to a decrease in activity among teenagers (López-Bueno et al., 2020). During the COVID-19 pandemic, teenagers still have to carry out activities because it impacts their physical and psychological development (Bühlmeier et al., 2018; Maugeri et al., 2020). Therefore, the activities carried out by teenagers during the COVID-19 pandemic must be accompanied by implementation of suitable COVID-19 prevention protocols.

Implementing COVID-19 prevention protocols for teenagers is a crucial health protocol due to the high activity of teenagers. Prevention of COVID-19 transmission among teenagers can be done in various ways, such as using a health educational approach. Health education can increase knowledge and psychological scales such as self-efficacy (Wilandika et al., 2021). The application of animated videos as a means of education for teenagers increases their knowledge. Animated videos can increase knowledge because they are interactive, effective, and efficient media (Masitah, Pamungkasari, & Suminah, 2020). A study conducted by Ale (2020) found that mobile technologies such as laptops, smartphones, and netbooks effectively convey information about COVID-19 to increase awareness about the disease and measures to prevent its transmission.

As shown in Table 1, most teenagers who participated in this study were 12 years old (57.4%) and female (70.2%). Almost all teenagers exposed to COVID-19 information (87.2%) had heard of COVID-19. Self-efficacy for implementing the COVID-19 prevention protocol after receiving health education through the COVID-19 prevention animation video increased by 12.8%. The self-efficacy of teenagers in the high category before the implementation of education was 72.3% and increased to 85.1% after health education. Health protocols to prevent COVID-19 are a priority to be implemented in every environmental setting and age level.

| Table 1. Personal characteristics and self-efficacy category of teenagers |
|-------------------------------------------------|--------|------|
| Variable                                        | f      | %    |
| **Age**                                         |        |      |
| 11 year old                                     | 11     | 23.4 |
| 12 year old                                     | 27     | 57.4 |
| 13 year old                                     | 3      | 6.4  |
| 14 year old                                     | 6      | 12.8 |
| **Gender**                                      |        |      |
| Male                                            | 14     | 29.8 |
| Female                                          | 33     | 70.2 |
| **Information exposure on COVID-19 prevention protocol** |        |      |
| Yes                                             | 41     | 87.2 |
| No                                              | 6      | 12.8 |
| **Self-efficacy category before health education** |        |      |
| High                                            | 34     | 72.3 |
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Table 2. Comparison of self-efficacy in the COVID-19 prevention scores before and after intervention

<table>
<thead>
<tr>
<th>Paired differences</th>
<th>Mean</th>
<th>SD</th>
<th>Std. error mean</th>
<th>95% Confidence interval of the difference</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Efficacy score pre and post-test</td>
<td>-3.021</td>
<td>7.979</td>
<td>1.163</td>
<td>-5.364</td>
<td>-0.678</td>
<td>-2.596</td>
<td>46</td>
</tr>
</tbody>
</table>

Based on the paired t-test (Table 2), significant differences were found for self-efficacy in implementing COVID-19 prevention protocols after health education with a p-value of 0.013 (p < 0.05). Thus, Islamic-based animated videos increase teenagers’ self-efficacy in implementing the COVID-19 health protocol. Short animated videos are an effective form of communication media to campaign health messages, especially during this COVID-19 period, to raise awareness and encourage the implementation of the COVID-19 prevention protocol (Vandormael et al., 2021).

Using Islamic-based animated videos and increasing knowledge can also increase self-efficacy, developing into sedentary behavior. Health education using animated cartoon videos can increase knowledge about COVID-19. Ability to understand messages related to COVID-19 significantly predicted health behaviors such as self-efficacy, task self-efficacy, and self-efficacy coping (Okpara, Anselm, Felix, Omowale, & Gever, 2021). Furthermore, Vandormael et al. (2020) stated that animated videos of entertainment education could increase knowledge, behavioral intentions, and actions toward COVID-19 prevention behavior.

Similarly, Islamic belief allows increasing one's skills, attitude, or behavior through images and written media. As in the Hadith of Bukhari, which reads:

The Prophet Muhammad SAW once made a line and made another line in the middle until it came out of the (rectangle) boundary, then he made many small lines leading to the center line from the sides of the edge line, then he said: This is the image of a human being. This rectangular line is the death that will undoubtedly occur to him, while the line that emerges is his wishful thinking, and
these small lines are the various trials and calamities that are ready to confront him. If he is freed from one problem, another test will surely befall him; if he is released from another, another test will surely befall him.

In this hadith, it is explained that the Prophet Muhammad SAW once explained to his followers the meaning of human beings by using media of images. (Nur Azizah, 2018). Thus, from an Islamic perspective, media images can be a person’s effort to understand a problem and even solve a condition, such as increasing self-efficacy to prevent disease.

Self-efficacy is the self-confidence that produces positive behavior. For someone with high self-efficacy, the action taken will also be better, as is the case in preventing COVID-19 (Hernández-Padilla et al., 2020). As in this study, health education based on Islamic animated video could increase the self-efficacy of COVID-19 preventive protocols. Teenagers' belief in their ability or self-efficacy was the strongest predictor of protective behaviors during the COVID-19 pandemic (Fathian-Dastgerdi, khoshgoftar, Tavakoli, & Jaleh, 2021). Education through animated videos is an effort to strengthen self-efficacy in implementing health protocols to prevent the transmission of COVID-19, especially in teenagers.

Despite the contributions listed above, the current study has several limitations. The first limitation is that researchers rely on questionnaires. As a result, the animated video’s impact is determined by the respondents’ reported opinions. The use of offline media platforms is another limitation of this study. It is also necessary to check online media or social media platforms such as YouTube, Facebook, or Instagram for better delivery. As a result, the researchers recommend conducting additional research to address these limitations.

CONCLUSION

Islamic-based animated video has a beneficial impact on increasing teenagers’ self-efficacy for implementing the COVID-19 prevention health protocol. Islamic-based animated videos is a method that can be used as a learning medium in health education for teenagers. Visually, every Islamic educational value packaged in the animated video will be readily accepted by teenagers, especially those between 11 and 14 years old. Health education based on animated videos is a bridge in increasing understanding and strengthening the desire to implement COVID-19 prevention protocols to prevent COVID-19 transmission.

REFERENCES


