
Assessing Knowledge About Thalassemia Among Reproductive Age Population After Video Media Education

Lulu Eva Rakhmilla^{1§*}, Ranisa Larasati^{2§}, Edhyana K. Sahiratmadja³, Enny Rohmawaty⁴, Susi Susanah⁵, Sjarif Hidajat Effendi⁵

¹*Department of Public Health, Faculty of Medicine, Universitas Padjadjaran, Indonesia*

²*Faculty of Medicine, Universitas Padjadjaran, Indonesia*

³*Department of Biochemistry and Molecular Biology, Faculty of Medicine, Universitas Padjadjaran, Indonesia*

⁴*Department of Pharmacology and Therapeutics, Faculty of Medicine, Universitas Padjadjaran, Indonesia*

⁵*Department of Paediatrics, Faculty of Medicine, Universitas Padjadjaran, Indonesia*

§equally contributed

According to the World Health Organization, the reproductive age of women is between 15 and 49 years of age which allows a person to marry and have offspring. This age suggests that knowledge on thalassemia is very important to be given to teenagers of high school students level that have the potency to get married after completing their education so that they need for early counseling before marriage [1]. Therefore, it is important to intervene on high school students to improve the knowledge about thalassemia. Education is one of thalassemia prevention strategies that have been agreed internationally. Knowledge of how diseases are derived, early symptoms and prevention of thalassemia should be delivered through interesting media, one of which is video media. The use of audio-visual materials such as videos tends to capture the audience's attention more easily and increase one's interest. This concept is believed to be an important factor in the learning process and provides better results [2].

A total of 56 students were participated in this research, 14 people did not meet the inclusion criteria. The research findings showed that range score of knowledge in the pre-test was 8 – 15 (mean 11.53, SD 1.968), then average score after the intervention with video media was significantly increase (mean 14.95, SD 1.463). Subsequently two weeks later, second post-test were done and it shows a slightly decrease in pattern, even though the difference was not statistically significant but it still indicates the evidence of retention of knowledge (mean 13.98, SD 1.933) (Fig. 1). There was a significant statistical relationship between video intervention and increasing knowledge ($p < 0.001$).

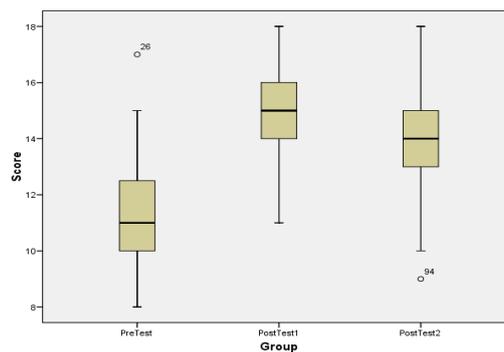


Fig. 1: Subject responses to knowledge retention questions after 2 weeks intervention

Video can illustrate something that happens in real life that affects a person's motivation in understanding a material. Additional modification capabilities such as animation, supporting sounds and other elements available in a video media make it much more interesting than educational through other media [2]. The various advantages possessed by this video media have great potential to be used in enhancing knowledge and altering public awareness in the prevention of thalassemia. Material delivering is not only measured from the mastery of the concept, but it is expected that the material taught is stored in long-term memory. The retention power of a person can also be an indicator of a quality teaching given and can be measured two weeks after the material is delivered.

Many were unaware that both parents must be carriers in order to produce an affected child and that carrier parents have a chance of 1:2:1 of having children who are normal, carrier, and thalassemia major. Government health departments should implement carrier screening at the time of child immunization and counselling accordingly. It is necessary to provide people with relevant information about thalassemia in order to increase their awareness and knowledge of the condition and eventually encourage people to do auto screening.

According to the high prevalence of the disease, thalassemia prevention programs are considerable importance and many countries apply the screening and premarital counseling as the basic prevention program [3]. Early intervention can provide prevention of this disease.

This research shows that the use of video media as a means of health education programs can increase high school students' knowledge. Video can act as an interesting educational media as audio-visual media combines audio and visual function, making students easier in

capturing the information. This video may be used as a consideration for comparison with other educational methods to see the comparison of effectiveness in conveying the information in implementing health counselling programs to the public as a means of preventive and promotive.

Keywords: thalassemia, video media education, reproductive age, prevention

* **Correspondence:** lulu.eva.rakhmilla@unpad.ac.id

Acknowledgements

We thank to all students Darul Fatwa Jatinangor who voluntary contributed in the study and for their cooperative help.

References:

1. Karimzaei, T., et. al., *Knowledge, Attitude and Practice of Carrier Thalassemia Marriage Volunteer in Prevention of Major Thalassemia*. Glob J Health Sci, 2015. **7**(5): p. 364–370.
2. Ramkalawon, L., Bholoa, A., *Exploring Usefulness of Video-Based Instruction As a Pedagogical Tool in Learning of Mathematics*. Int J Emerg Technol Comput Appl Sci. 2014. **10**(3): p. 245–249.
3. Ishaq, F., et. al., *Awareness Among Parents of Beta-Thalassemia Major Patients Regarding Prenatal Diagnosis and Premarital Screening*. J Coll Physicians Surg Pak, 2012. **22**(4): p. 218–221.