.

Effectiveness of Animated Video Psychoeducation to Increase Knowledge of Psychological Preparedness for Flood Disasters among Elementary School-Age Children in Pirak Timu District

M. Ari Mauliya[1]*, Widi Astuti[1], Dwi Iramadhani[1]

[1]Psychology Department of Medicine Faculty, Malikussaleh University
Kampus Utama Jl. Cot Tengku Nie, Reuleut, Muara Batu, Aceh Utara, 24355 – Indonesia
e-mail ari.200620099@mhs.unimal.ac.id
*Correspondence author

Abstract:
This study aims to see the effect of animated video psychoeducation on increasing psychological preparedness for disaster (PPFD) knowledge in elementary school-age children in Pirak Timu District. This study used an experimental one group pretest-posttest design with a total of 26 elementary school students who live in flood-prone areas. The animated video used in this study has been tested for validity by experts and elementary school students who match the research criteria. The results of this hypothesis test are accepted, seen from the significance value of the Wilcoxon Signed Rank Test between the pretest and posttest, therefore it can be concluded that there is an effect of animated video psychoeducation on increasing knowledge of psychological preparedness for disaster

Keywords: *Elementary school-aged children, Disaster psychological preparedness, Psychoeducation, Knowledge*

1. Introduction

Indonesia is a very disaster-prone area due to its geological conditions, geographical location, and demographics, besides that the geographical location passed by the equator causes the Indonesian region to have a tropical climate with high rainfall causing tornadoes, floods, or landslides (Yanuarto et al., 2019). Aceh Province is also one of the areas of Indonesia that is worried about disasters, while disasters in Aceh province are not only earthquakes and tsunamis, but also floods or flash floods (BNPB, 2020). According to BNPB (2020) North Aceh Regency is one of the districts where flood disasters often occur, recorded as many as 29 cases from 2019 to 2020, the incident caused the submergence of 1182 houses and caused property damage. According to the BPBD of North Aceh

76

Regency itself, there are 4 sub-districts that are prone to flooding, namely Pirak Timu, Lhoksukon, Matangkuli and Geudong. Sub-districts that have the potential for frequent flooding when the rainy season arrives are Pirak Timu and Matangkuli sub-districts (Fitria et al., 2023).

Floods have an impact in the form of damage to the primary sector and damage to sectors supporting human activities and activities (Salim & Siswanto, 2021). This of course provides both material and non-material losses for the wider community, including children (Nurani et al., 2022). The analysis shows that students affected by disasters result in schools being closed for a long period of time until the disaster is over. The impact that can occur is a decrease in academic achievement and can also lead to dropping out of school after a disaster. Lack of continuity and declining quality of education services. The decline in the quality of education is indicated by the continued decline in the average META achievement test scores (Eileen Segarra-Alméstica et al., 2022). From the facts stated above, efforts to improve disaster preparedness in school settings are an important agenda that should be the focus of attention in this study (Aprilin et al., 2018).

The researcher conducted a survey to increase the knowledge that children have about psychological preparedness in facing disasters. From the survey results above, it can be seen that in the awareness aspect 51% of students feel afraid when a flood occurs, 75% of students cannot manage their feelings when a flood occurs, and 93% of students are afraid of losing their families and drowning when a flood occurs, in the anticipation aspect 82% of students still play water while swimming in flood water, 85% of students do not know how to overcome panic, In the readiness aspect, 85% of students' houses were submerged during the flood, 70% of students did not know the effects of flood water on their bodies, and 50% of students did not know what steps to take during a flood.

Based on the phenomena and problems that exist in the region, researchers developed a psychological narrative that can increase psychological knowledge of disaster preparedness in elementary school students in North Aceh, especially in flood-prone areas.

2. Methode

The research method used in this research is the experimental method, the research design used is One Group Pretest-Postest, which in this design there is a pretest, before being given treatment.

Sample is part of the number and characteristics of the population (Sugiyono, 2022). The sampling technique used in this study is Nonprobability sampling, which is a sampling technique that

does not provide equal opportunities for each element or member of the population to be selected as a sample. This study uses purposive sampling, which is a sampling technique with certain considerations.

In this study, data collection used questionnaire or scale techniques. The measurement scale is a reference in determining the length of the interval in the measuring instrument, so that the measuring instrument produces quantitative data (Sugiyono, 2022). In this study, the scale used is the Guttman scale to get a firm answer, namely "True-False", so that in this study the subject can answer with certainty, right and wrong in knowing PPFD.

3. Result
Normality Test
Table 1

	Shapiro-Wilk		
	Statistic	Df	Sig
Pretest	0.857	26	0.002
Posttest	0.952	26	0.252

Source: data processed by SPSS 26

Data is normally distributed if the sig value> 0.05. In this study, the sig value in the Shapiro-Wilk table for the pre-test is 0.002, which means that the pre-test data is not normally distributed, and the post- test results are 0.252, which means normal distribution, so then the homogeneity of the research data is checked.

Homogeneity test
Table 2.

Levene Statistic	Sig.
1.1911	0.146

Source: data processed by SPSS (2024)

Based on the results of the homogeneity test above, it can be seen that the significance value of homogeneity is 0.146 so it can be concluded that the significance value> 0.05 means that the research data is homogeneous, because one of the research data is not normally distributed, hypothesis testing uses the Wilcoxon sign-rank test.

78

.

Wilcoxon Signed Rank Test Results
Table 3

		N	Mean Rank	Sum of Ranks
Posttest-Pretest	Negative Ranks	1[a]	3.00	3.00
	Positive Ranks	20[b]	11.40	228.00
	Ties	5[o]		
	Total	26		

Source: data processed by SPSS (2024)
a. posttest < pretest
b. posttest > pretest
c. posttest = pretest

From the results above, there was 1 student who experienced a decrease in scores from pretest to posttest, as many as 20 students experienced an increase from pretest to posttest and 5 students who had the same posttest score and pretest score .

Statistics Wilcoxon Signed Rank Test Results
Table 4

	Posttest – Pretest
Z	-3.954[b]
Asymp. Sig. (2-tailed)	.000

Source: data processed by SPSS (2024)
a. Wilcoxon Signed Rank Test
b. Based on negative ranks

Hypothesis testing can be determined using the Asymp. Sig. (2-tailed) value in the Wilcoxon Signed Ranks Test statistical test table, which is $p < 0.05$, because the Asymp. Sig. (2-tailed) is 0.000 then H0 is rejected. Therefore, it can be concluded that there are differences in pretest and posttest results after the application of animated video psychoeducation.

4. Discussion

This study aims to determine whether or not there is an effect of animated videos on increasing PPFD knowledge in elementary school children in Pirak Timu District. In this study obtained the results that the hypothesis test was accepted ($p < 0.05$) so that it could be concluded that there was a difference between pretest and posttest scores after being given animated video psychoeducation

.

treatment. The results of the hypothesis test also concluded that there was an increase in knowledge about PPFD in elementary school children in Pirak Timu Subdistrict, as seen from the difference between the mean scores between pretest and posttest of 39.54%. Increasing PPFD or psychological preparedness for disasters can prepare individuals in dealing with psychological stress caused by disasters, when individuals are psychologically prepared individuals will be able to prepare themselves physically, such as preparing household needs, storing water and food (Zulch, 2019).

The increase in PPFD knowledge that occurred was due to several factors. First, because the learning video added backsound in the form of music and color animation is able to attract attention in Wisada's learning (Wisada et al., 2019). The treatment given is in the form of an animated video, where the use of animated video learning becomes more fun and not boring so that it can make students active and improve student learning outcomes (Rahmayanti & Istianah, 2018). This is in line with research from Oviyanti et al (2024) that animated video learning has a significant impact on the level of knowledge of elementary school students and animated videos can significantly increase the educational effect of students.

Second, some of the material presented by the subject has never received. This has been conveyed in animated videos, these messages include planting trees, knowing how to calm yourself and others when feelings such as anxiety, fear and panic arise and breathing techniques with butterfly hugs, so this treatment is quite effective in giving these children (Astuti, 2024; Kurniawan, 2023; Ramdhiani et al., 2024).

Third, the animated video is very relevant as can be seen from the very high Aiken,s V value of student validation conducted by 37 students regarding animated videos explaining flood disaster preparedness, the validation results have a valid value of 8.87 which means it has very high validity. The assessment points include the information conveyed in accordance with the topic of PPFD discussion with a valid value of 0.97 (very high), the language used is easy to understand with a valid value of 0.66 (high), the video developed does not depend on other teaching materials with a valid value of 0.91 (very high), the video is right on target according to the subject 0.83 (very high), The video material is in accordance with its use as learning media with a valid value of 1 (very high), the video contains text, images and animations with a valid value of 1 (very high), the video display is made clear and good with high resulosi so that it is comfortable to see and not blurry with a valid

value of 1 (very high) and the video can be watched in groups or individuals with a valid value of 0.83 (very high). According to (Riyana, 2007) one of the characteristics of a good video is visualization with media, which means that the video is made in accordance with the demands of the material or content material. One of these characteristics has a high and good content validity result, which is 0.91. This is in line with the opinion of Russel (1974) who revealed that a good module should have a good content validity value. This is also what makes the conditions for the change in the pretest posttest in this study.

Fourth, the need to conduct screening with the aim of seeing high and low knowledge of students in order to know the people who really need it. At the beginning of the knowledge test screening, it was seen that out of 37 students, there were 11 students who already had knowledge about PPFD, according to Zulch (2019) this was because students had experienced flooding, and felt the experience of flooding. Zulc (2019) also added that people who have experienced disasters score higher than people who have never experienced them. Although the research population is in a flood-prone area, some students have obtained high PPFD scores. Despite being in a disaster location, 14 other students were not prepared for disasters due to parental guidance and supervision, closeness to parents, discipline and disaster impact activities. Even when a disaster occurs, strong communication between parents and children can control children's behavior (Pratiwi & Nurfadilah, 2019; Tumengkol et al., 2020).

Fifth, the self-directed learning (SDL) approach has an effect or an increase between the pretest and posttest. SDL is a condition in which individuals take the initiative, either with or without the help of others and the stages of self-directed learning are carried out by being aware of their own needs in learning, setting learning goals, making decisions on learning resources, having their own learning strategies and evaluating independently (Knowles, 1975). In this study, the subject can control his own learning process and monitor himself. This is in line with research conducted by Lubis et al (2023) who made learning media using the SDL learning approach which was effective in increasing subject knowledge. Research conducted by Iramadhani et al (2021) explains that the SDL learning approach has proven effective in increasing subject knowledge in their research. Therefore, suggestions for developing other learning media such as leaflets, books, posters and others using the same learning approach.

81

Sixth, teaching materials are in accordance with the guidance of the material and teaching materials prove an increase. This condition is in line with research conducted by (Riyana, 2007) which explains that a good video is a video that provides education and self-learning process for its users. In addition, the video in this study has a duration of 14 minutes. This helps learning media users to be able to increase their knowledge. This is in accordance with research conducted by Qolbi (2021) that in this study provided audiovisual viewing with a duration of 15 minutes

5. Summary

The hypothesis in this study is accepted, so it can be concluded that animated video psychoeducation can increase knowledge about psychological preparedness for disasters in elementary school students aged 7-12 years. This can be seen from the difference between pretest and posttest scores after being given the animated video psychoeducation treatment.

Bibliography

Aprilin, H., Haksamana, S., & Mahkhfudi. (2018). Kesiapsiagaan Sekolah Terhadap Potensi Bencana Banjir di SDN Gebangmalang Kecamatan Mojoanyar Kabupaten Mojokerto. Jurnal Biosains Pascasarjana, 20(2), 133. https://doi.org/10.20473/jbp.v20i2.2018.133-145

Astuti, N. A. P. (2024). Butterfly Hug sebagai Teknik Relaksasi: Metode Efektif untuk Mengurangi Kecemasan Remaja.

BNPB. (2020). Kajian Risiko Bencana Aceh.

Eileen Segarra-Alméstica, Jose Caraballo-Cueto, Yolanda Cordero, & Hector Cordero. (2022). The effect of consecutive disasters on educational outcomes. International Journal of Disaster Risk Reduction, 83, 103398. https://doi.org/10.1016/j.ijdrr.2022.103398

Fitria, I., Jauhari, J., & Asyura, F. (2023). Kesiapsiagaan Darurat Banjir Pada Tenaga Kesehatan Di Kabupaten Aceh Utara. 9(2).

Iramadhani, D., Julistia, R., & Muna, Z. (2021). Psikoedukasi Pengaruh Gadget Terhadap Pelajar Didunia Pendidikan Sekolah Menengah Kejuruan. Jurnal Penelitian Pendidikan, Pskologi dan Kesehatan (J-P3K), 2(2), 96–101. https://doi.org/10.51849/j-p3k.v2i2.70

Kurniawan, E. A. P. B. (2023). Efektivitas Terapi Butter Fly Hug Terhadap Kesehatan Mental Stres Orang Tua Dengan Anak Berkebutuhan Khusus di Slb. Jurnal Kesehatan.\

Knowles, M. S. (1975). Self Directd Learning: A Guide For Learners And Teachers.: Association Press And Follet Publishing Company. https://eric.ed.gov/?id=ED114653

Lubis, J. A., Astuti, W., & Iramadhani, D. (2023). Psikoedukasi non-training melalui leaflet untuk meningkatkan pengetahuan self- management pada mahasiswa tingkat awal. Jurnal Riset Psikologi.

Nurani, Y., Hapidin, H., Wulandari, C., & Sutihat, E. (2022). Pengenalan Mitigasi Bencana Banjir untuk Anak Usia Dini melalui Media Digital Video Pembelajaran. Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini, 6(6), 5747–5756. https://doi.org/10.31004/obsesi.v6i6.2940

Oviyanti, R., Pandra, V., & Rosalina, E. (2024). Penerapan Media Pembelajaran Video Animasi untuk Mengukur Hasil Belajar pada Mata Pelajaran IPS di Kelas IV SD Negeri 14 Lubuklinggau. Jurnal Pendidikan dan Pembelajaran Indonesia (JPPI), 4(1), 296–304. https://doi.org/10.53299/jppi.v4i1.451

Pratiwi, M. A., & Nurfadilah, N. (2019). Peran Pengasuhan Orang Tua Dalam Menghadapi Bencana Banjir Di Rawajati, Jakarta Selatan. Jurnal Anak Usia Dini Holistik Integratif (AUDHI), 2(1), 12. https://doi.org/10.36722/jaudhi.v2i1.576

Qolbi, R. (2021). Valisasi Psikoedukasi Melalui Media Video dan Leaflet Untuk Meningkatkan Peningkatan Goal Setting Pada Santri Mts di Yayasan Islamic Center Sumatra Utara.

Rahmayanti, L., & Istianah, F. (2018). Pengaruh Penggunaan Media Video Animasi Terhadap Hasil Belajar Siswa Kelas V Sdn Se-Gugus Sukodono Sidoarjo. 06.

Ramdhiani, S., Sukamti, N., & Helen, M. (2024). Pengaruh Butter Fly Hug Terhadap Penurunan Tingkat Stress Pada Remaja di Smk Al-Mafatih Jakarta. 5.

Riyana, C. (2007). Pedoman Pengembangan Media Video. Program P3AI Universitas Pendidikan Indonesia.

Russel, D. J. (1974). Modular Intruction. Burgess Publishing Company.

Salim, M. A., & Siswanto, A. B. (2021). Kajian Penanganan Dampak Banjir Kabupaten Pekalongan.pdf.

Sugiyanto. (2009). Manipulasi: Karakteristik Eksperimen. Buletin Psikologi, 17(2), 98–108. https://doi.org/10.22146/bpsi.11486

Wisada, P., Darma, Suderma, K., & Yuda, I. W. (2019). Pengembangan Media Video Pembelajaran Berorientasi Pendidikan Karakter. Journal of Education Technologi.

Yanuarto, T., Andri Cipto Utomo, & Sridewanto Edi Pinuji. (2019). Buku Saku. Pusat Data, Informasi dan Komunikasi Kebencanaan BNPB.

.

Zulch, H. (2019). Psychological preparedness for natural hazards– improving disaster preparedness policy and practice. United Nations Office for Disaster Risk Reduction, 1–43. https://www.unisdr.org/files/66345_f357zulchpsychologicalpreparednessf.pdf

.