

The Effectiveness of Laughter Therapy by using Wayang Kulit (Shadow Puppets) Video Media to Reduce Elderly Anxiety During The COVID-19 Pandemic

La eficacia de la terapia de la risa mediante el uso de medios de video Wayang Kulit (Títeres de sombra) para reducir la ansiedad de los ancianos durante la pandemia de COVID-19

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SUMMARY

Introduction: *The elderly have the risk of physical and psychosocial disorders such as anxiety. Laughter therapy is an intervention that can be applied to reduce anxiety among the elderly. It is a non-pharmacological therapy that utilizes laughter to reduce the problem of physical and mental disorders. The study aimed to determine the effectiveness of laughter therapy by using Wayang Kulit's (Shadow Puppets) video to reduce elderly anxiety during the COVID-19 pandemic.*

Methods: *The research method used a quasi-experimental with the pre-posttest without a control group using a dependent sample test as many 34 samples were taken by consecutive sampling according to the criteria. The population of this study was the elderly aged 30-74 years.*

Results: *This study showed that laughter therapy using Wayang Kulit's video effectively reduced elderly*

anxiety with a $p=0.001$ ($<0,05$), which showed the elderly during the COVID-19 pandemic.

Conclusion: *The writer suggests that health services will make laughter therapy interventions in the integrated healthcare center (Posyandu) program to reduce elderly anxiety. One way is to create a schedule for playing this video in an integrated healthcare center.*

Keywords: *Anxiety, elderly, laughter therapy*

RESUMEN

Introducción: *Los adultos mayores tienen riesgo de sufrir trastornos físicos y psicosociales como la ansiedad. La risoterapia es una intervención que se puede aplicar para reducir la ansiedad entre las personas mayores. Es una terapia no farmacológica que utiliza la risa para reducir el problema de los trastornos físicos y mentales. El estudio tuvo como objetivo determinar la efectividad de la terapia de la risa mediante el uso del video de Wayang Kulit (Títeres de sombra) para reducir la ansiedad de los ancianos durante la pandemia de COVID-19.*

Métodos: *El método de investigación utilizó un método cuasi-experimental con la prueba pre-pos sin grupo control utilizando una prueba de muestra dependiente ya que se tomaron 34 muestras por muestreo consecutivo de acuerdo a los criterios. La población de este estudio fueron los ancianos de 30 a 74 años.*

Resultados: *Este estudio mostró que la terapia de la risa usando el video de Wayang Kulit redujo efectivamente la ansiedad de los ancianos con un*

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valor de $p=0,001$ ($\alpha<0,05$), que mostró a los ancianos durante la pandemia de COVID-19.

Conclusión: El escritor sugiere que los servicios de salud realizarán intervenciones de risoterapia en el programa del centro de salud integrado (Posyandu) para reducir la ansiedad de los ancianos. Una forma es crear un horario para reproducir este video en un centro de salud integrado.

Palabras clave: Ansiedad, ancianos, risoterapia.

INTRODUCTION

Coronavirus Disease (COVID-19) was identified in Indonesia on March 2, 2020, with the cases reaching 111 762 965 confirmed COVID-19, and it spread in 34 provinces in Indonesia until February 24, 2021. Indonesia has reported 77 512 suspected cases still being monitored (1). World Health Organization (WHO) stated that age increases the mortality rate. The elderly aged 60-80 years experienced the highest deaths, reaching 4 %-21.9 % (2). Since the COVID-19 pandemic, the community has carried out social restrictions in which all activities are limited within their respective homes, and the older people experience increased anxiety (3-6).

Anxiety can eliminate happiness, hope, desire, peace of mind, and the ability to feel the peace of life, and friendly relationships and even eliminate the desire to enjoy everyday life, where anxiety occurs due to lack of family time to pay attention, incompatibility with family. These conditions are due to poor care by the family or the family is very busy with their activities. As a result, the elderly feel alone and afraid of being abandoned by their family (7-9). Prolonged anxiety will impact the elderly, and it is possible to experience despair (10,11).

The body will experience various declines during increasing age due to the aging process. Almost all organ and movement functions decrease, followed by a decrease in immunity as the body’s protector, which cannot work as strong as when it was young. Consequently, the elderly have a higher risk of various diseases, including COVID-19. With these problems, researchers are interested in implementing Wayang Kulit (Shadow Puppets) video media to reduce anxiety levels in the elderly during the COVID-19 pandemic.

METHODS

This study used a quantitative and quasi-experimental method with a pre and post-test design without a control group. The sample in this study was elderly who experienced anxiety during the pandemic, aged 60-74 years, of Javanese ethnicity and who lived in an area in Riau, Indonesia. This study used a consecutive sampling technique with data collection using the Depression, Anxiety and Stress Scale (DASS) 21 questionnaire consisting of 14 anxiety items. The variables studied in this study were the independent variable, namely laughter therapy, and the dependent variable, namely the level of anxiety in the elderly during the pandemic. This study employed univariate and bivariate data analysis and a statistical test dependent sample t-test. Moreover, this research has been reviewed by the Ethics Committee of the Hang Tuah School of Health Pekanbaru.

RESULTS

Based on Table 1, it is discovered that the average age of respondents was 65.15 years, and most of them were female (55.9 %). Their highest education level was a primary school (53.3 %) and working as housewives (41.2 %)

Table 1
Characteristics of Respondents (n = 34)

Characteristics	Frequency (F)	Percent (%)
Age (year)	Mean (SD) = 65.15 (4.328)	
Sex		
Male	15	44.1
Female	19	55.9
Educational Background		
Primary School	12	35.3
Junior High School	10	29.4
Senior High School	8	23.5
College	4	11.8
Occupation		
Private sector	9	26.5
Teacher	6	17.6
Housewives	14	41.2
Others	5	14.7
Total	34	100.0

Based on Table 2, most respondents experienced moderate anxiety, with 24 respondents (70.6 %), before giving laughter therapy. However, after being given laughter therapy, they experienced changes to normal anxiety levels with 22 respondents (64.7 %).

Table 2

Changes in the Anxiety Level in the Elderly Before and After Being Given Laughter Therapy

Changes in Anxiety Levels	Score	Experiment (Laughter Therapy)			
		Pre-test		Post-test	
		n	%	n	%
Normal	0-7	0	0	22	64.7
Mild	8-9	5	14.7	7	20.6
Moderate	10-14	24	70.6	5	14.7
Severe	15-19	5	14.7	0	0
Panic	>20	0	0	0	0

DISCUSSION

The results showed that laughter therapy was effective against changes in anxiety levels in the elderly. Based on the analysis, it is known that the average change in anxiety levels before being given laughter therapy is (12.03), while after being given laughter therapy is (6.76). These results indicate that providing laughter therapy can reduce anxiety levels in the elderly during the pandemic. Laughter therapy effectively reduces anxiety levels in the elderly during the pandemic. Furthermore, laughter therapy can increase positive coping. Laughter is a subconscious defense mechanism that suppresses the release of psychic energy from its importance in the mind. It effectively reduces stress by activating the parasympathetic system. It happens through changes in breathing patterns and diaphragmatic breathing exercises during laughter therapy (12). Measuring brain waves before and after two hours of laughter therapy showed that alpha waves (associated with relaxation) and beta waves (associated with alertness, sleep, and emotion) increased by 40 % (13). Laughter therapy improves memory, creative thinking, problem-

solving, interpersonal interaction, relationships, attraction, closeness, and increasing and building group identity, solidarity, and cohesiveness (14).

Previous research suggests that laughter therapy effectively reduces anxiety and blood pressure problems in the elderly (15). When the elderly said it was difficult to rest, it was challenging to feel calm, easily agitated, and often impatient when doing something. In addition, the elderly said they were often offended when talking to their friends (15). Based on this study's results, the elderly stated it is difficult to start sleeping at night due to anxiety and feeling afraid of being infected with COVID-19. Hence, it can be concluded that the elderly who cannot handle their anxiety well can worsen the situation and disrupt communication relationships with other people. Thus, it is necessary to give laughter therapy to prevent this.

Anxiety is a natural human response to adapt to a condition that can cause fear, worry, and anxiety in the presence or absence of psychological stress. Anxiety can cause physical or bodily symptoms (such as tachycardia and sleep disturbances) (16). A study conducted on 72 older people aged 60 years showed that laughter therapy reduced anxiety levels. In this study, the experimental group received laughter therapy two times a week for 90 minutes per session and was carried out for six weeks (17). This study has similarities with the research conducted. The targeted respondents were elderly in the community, but the implementation was different because of the Covid-19 pandemic conditions. Researchers did not do it in groups but individually to prevent transmission.

Laughter can activate the alpha state, which makes the mind relaxed and relaxed to suppress the production of the hormone cortisol, which can trigger the emergence of anxiety (18). This research aligns with research in Indonesia, which suggests that laughter therapy effectively increases blood pressure, heart rate, and oxygen levels. Thus, faster breathing will increase serotonin and brain endorphins, so with happy and laughing conditions, the hypothalamus will produce endorphins that stimulate the brain to reduce pain and boost immunity (19). A good laugh can release muscle tension for up to 45 minutes and stimulate disease that attacks

cells and release antibodies. At the same time, it can lower stress hormones to increase a person's immunity by increasing the number of T-lymphocytes through the activation of natural killer cells by increasing white blood cells in the body and Ig A, G, and M (19,20). Therefore, it can be concluded that laughter therapy using Wayang Kulit videos can reduce anxiety and help the elderly increase immunity.

CONCLUSION

Based on the study results, it was found that laughter therapy was effective against changes in anxiety levels. Suggestions for further researchers are that the results of this study can be used as basic information. Data and evidence-based to carry out further research need to be developed with different aspects such as music therapy, murotal Al-Qur'an (Mortal Quran), and various methods or designs using comparison groups. In this study, it was not randomized. It is hoped that further research can conduct a randomized study and increase the number of respondents.

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