

THE EFFECT OF MUSIC THERAPY AND POSITIVE AFFIRMATIONS (TEMATIVE) ON REDUCING DEPRESSION LEVELS IN ELDERLY FAMILIES WITH SRTOKE

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Abstract: Introduction: In Indonesia, the problem of stroke is becoming increasingly important to pay attention to because the incidence of stroke in Indonesia is the highest in the Asian region. Stroke sufferers in Indonesia have increased according to 2018 Basic Health Research (RISKESDAS) data based on age groups. Stroke incidents are more common in the 55–64-year age group. Stroke in the elderly is a complex problem because it has an impact on the family. Apart from physical factors, there are psychological problems and illnesses such as chronic disease, poverty, successive failures, prolonged stress, or conflict with family or children. Living conditions like this can trigger depression. Depression can affect anyone, but people with chronic illnesses such as stroke are at higher risk. One method to reduce depression levels is music therapy. The aim of this research is to determine the effect of music therapy on reducing levels of depression. The methodology used is "Quasi experimental pre-post-test wit control group". With the intervention package providing music therapy to the intervention group. Meanwhile, the control group was not given intervention, only given direction. The population in this study were elderly people in the PKM Cipayang work area. Analysis results the results of statistical tests in the control group obtained a p value = 0.254. which means there is no significant difference in the average pre and post-depression levels in the control group. The results of statistical tests in the intervention group showed a p value = 0.058, meaning that there was a significant difference in the average level of anxiety in the pre and post intervention groups.

Keywords: elderly family/ depression, music therapy

INTRODUCTION

The increase in the number of elderly people has an impact on various aspects of life, both for the elderly individuals themselves, their families, society and the government. The impact of the increasing number of elderly people can be seen in the decline in organ function which makes this group vulnerable to degenerative diseases in addition to the persistence of infectious diseases.

The aging process is a natural process accompanied by a decline in condition physical, with visible decline in body organ function, psychological and social decline. Changes from the biological aspect of changes that occur in a person's cells as they become elderly. Physiological changes that occur in sexual activity in old age usually take place gradually and indicate the basic status of the vascular, hormonal and neurological aspects. Psychological deterioration that is often encountered in the elderly includes feelings of uselessness, sadness, insomnia, stress, depression, anxiety, dementia and delirium. Social changes generally mean that many elderly people give up their social participation, even though this release is done forcefully. and Changes in family life, the relationship between the elderly and their children is much less satisfactory, which is caused by various things (Potter & Perry, 2006)

One of the degenerative diseases that often attacks the elderly is stroke. According to the Indonesian Stroke Foundation, there is a tendency to increase the number of stroke sufferers in Indonesia. According to a 2004 survey, stroke affected 35.8% of elderly people and 12.9% of younger people.

Strokes that attack the elderly cause elderly dependency to increase. As a result of the aging process, elderly people are unable to carry out daily activities so they need help from other people. Stroke is a condition that occurs when

the blood supply to the brain is disrupted or reduced due to blockage (ischemic stroke) or rupture of blood vessels (hemorrhagic stroke). Without a blood supply, the brain will not receive oxygen and nutrients, so cells in some areas of the brain will die. This condition causes the parts of the body controlled by the damaged brain area to not function properly

One non-pharmacological therapy that can be used to reduce depression levels in the elderly is music therapy. Listening to music can affect the autonomic nervous system (sympathetic and parasympathetic nervous system) which can produce a relaxation response. This will improve behavior and psychological symptoms in elderly people who experience depression.

Knight and Wies (2011) stated that one of the supportive rehabilitation therapies that can help patients achieve independence in daily activities and functions is music therapy. According to Misbach, in research by Renny Wulan A (2013), early stimulation in stroke patients can be done through visual, audio or touch. Music therapy is one way to provide audio stimulation to stroke patients

Music therapy is a technique used for healing diseases that use certain rhythms. Types of music used in therapy. Music can be according to your wishes, such as classical music, instrumental music, music relaxing rhythmic, orchestral and other modern music (Potter, 2006) Music therapy is one way to reduce depression that is cheap and easy for everyone, including the elderly. Music therapy has become a complement to therapy for mental disorders such as schizophrenia, violent behavior, emotional disorders such as mania and depression, emotional disorders, stress and anxiety (Rachmawati et al, 2008).

RESEARCH METHODS

The design used in this research was "Quasi experimental pre-post test with control group" with an intervention package providing music therapy. Research was conducted to determine the effect of music therapy on reducing depression levels in elderly families. This research method is in accordance with the opinion of Sastroasmoro and Ismail (2002) that quasi-experimental research aims to reveal the effect of intervention/treatment on subjects and measure the results (effects) of the intervention.

The sampling technique was carried out using cluster random sampling, namely sampling based on clusters of groups that met the inclusion criteria adjusted to the sample size based on the time period for obtaining research samples (Sastroasmoro & Ismael, 2008).

The sample is part of the entire object being studied and is considered to represent the entire population. In this research, the sampling technique used is random sampling, namely sampling in such a way that each basic unit (individual) has the same opportunity to be taken as a sample. Calculation of the minimum sample size is based on the results of calculations using UI for estimating the difference between two paired means with a significance level of 10%, test power of 90% and one-sided hypothesis testing. (Ariawan, 1998 in Helthy, 2008)

Based on this formula, the sample size in this study was 30 respondents in the intervention group and 30 in the control group

RESULTS AND DISCUSSION

From the results of research entitled "The Effect of Music Therapy and Positive Affirmations (Temative) on Reducing Depression Levels in Elderly Families with Srtoke" which was carried out from July to October 2023. The number of respondents was 67 respondents (30 respondents in the intervention group and 35 respondents in the intervention group control) Both groups underwent a pre-test and post-test and the results were compared.

Table 1. Frequency distribution of respondents according to age, gender, status, education, occupation in the control group and intervention group

Characteristics	Group		Group Intervention		Total	
	N	%	N	%	N	%
1 Age						
a. Late adulthood < 45	9	24.3	13	38.2	71	100
b. Middle age 45-54	8	21.6	9	26.5		
c. Advanced Age > 55	20	54.1	12	35.3		
2 Gender						
a. Man	9	24.3	8	23.5	71	100
b. Woman	28	75.7	26	76.5		
3 Status						
a. Marry	37	100	31	91.2	71	100
b. Not married			3	8.8		
4 Religion						
a. Islam	37	100	32	94.1	71	100
b. Christian			2	2.9		
5 Education						
a. Low	17	45.9	18	52.9	71	100
b. Tall	20	54.1	16	47.1		
6 Work						
a. Work	2	5.4	12	35.3	71	100
b. Not Work	35	94.6	22	64.7		

Based on the table above, respondents who care for the elderly in the control group are mostly elderly (over 55 years) with 20 (54.1%) respondents. In the Intervention Group which cared for the elderly, 13 (38.2%) respondents were under 45 years of age (late adults)

Respondents who care for the elderly are mostly women, in the control group table there are 28 (75.7%) and in the intervention group 26 (76.5%). Most of the respondents who care for the elderly are married and all respondents are Muslim. The average education level of respondents who care for the elderly in the control group is high school and, in the intervention, group has low and high education. On average, respondents who care for the elderly do not work.

Table 2. Frequency distribution of respondents Depression in the control group and intervention group

Vaeiable	Group Control		Group Intervention		Total	
	N	%	N	%	N	%
1 Depression Pre group						
a. Normal	27	73	30	88.2	71	100
b. Light	6	16.2	2	5.9		
c. Currently	4	10.8	2	5.9		
d. Critical			-	-		
d. Awfully			-	-		
2 Depression Post group						
a. Normal	31	83.8	33	97.1	71	100
b. Light	3	8.1	1	2.9		

c. Currently	3	8.1
d. Critical		
d. Awfully		

Distribution of depression levels in families caring for elderly people in the Pre Control group, 27 (73%) respondents had normal levels of depression, 6 (16.2%) respondents had mild levels of depression and 4 (10.8%) respondents had moderate levels of depression. In the Post Group there was a change in the level of depression. Normal depression was 31 (83.8%) respondents, mild depression was 3 (8.1%) and moderate depression was 3 (8.1%) respondents.

In the intervention group, before the intervention was carried out, 30 (88.2%) respondents had normal levels of depression, 2 (5.9%) respondents had mild depression and 3 (5.9) respondents had moderate levels of depression. After the intervention, the level of depression in the Normal intervention group was 33 (97.1%) respondents and mild depression was 1 (2.9%)

Table 3. Differences in Respondents' Depression Levels Before and After In the Control and Intervention Groups

Variable	Group	Mean	SD	SE	P Value
Control	Before	1.5405	0.90045	0.14803	0.254
	After	1.4324	0.83468	0.13722	
	Difference	0.1081			
Intervention	Before	1.18	0.521	0,089	0.058
	After	1.03	0.171	0.029	
	Difference	0.15			

The average for families caring for elderly people in the control group who experienced depression before (pre) was 1.5 with a standard deviation of 0.9, while for the post-control group the average after was 1.4 with a standard deviation of 0.8. The difference between anxiety in the pre- and post-control groups was 0.108. The results of statistical tests in the control group obtained a p value = 0.254. which means that at alpha 5% there is no significant difference in the average level of pre and post depression in the control group.

The average level of depression for families caring for the elderly in the intervention group before the intervention was 1.18 with a standard deviation of 0.521, while for the post-intervention group the average was 1.03 with a standard deviation of 0.171. The difference in depression between the pre and post intervention groups was 0.15. The results of statistical tests in the intervention group showed a p value = 0.058, meaning that at an alpha of 5% there was a significant difference in the average anxiety in the pre and post intervention groups.

Discussion

The aging process is a natural process accompanied by a decline in condition physical (decreased function of body organs), psychological and social decline. Individually, the influence of the aging process can cause various problems. Apart from physical factors, psychological life problems also plague older people throughout their lives, such as chronic illness, poverty, successive failures, prolonged stress, or conflict with family or children. Living conditions like this can trigger depression. Depression can affect anyone, but people with chronic illnesses such as stroke are at higher risk. The family has a very important role in caring for the elderly with stroke conditions, where the elderly need help in meeting their daily living needs. One method to reduce depression levels in families caring for the elderly is music therapy.

According to Hanser and Thomson (1994), music directly influences behavior, the process is where music as a stimulus is received by the receptor nerves and continues through the effector nerves which function as the body's driving force so that certain behavior becomes. The formation of behavior always begins with physical and mental changes. When music has a strong enough influence on the physical and mental, it is certain that music will influence a person's behavior. This is supported by research by Frazer et al (2005) which states that music therapy for elderly people who experience depression can have a positive effect on mood and relaxation. As explained in the previous section, this research aims to determine the effect of music therapy on changes in depression levels in families caring for the elderly.

This research was carried out offline in the Jati Murni Pondok Melati area for the intervention group and for the control group it was carried out in the Cakung terate swamp area. In the Intervention group, after the explanation was given, a pretest was given, then intervention was carried out, namely listening to music 3 times, then a posttest was carried out. In the control group, after the explanation was given a pretest, they were given instructions to listen to music if they were stressed, then a posttest was carried out.

The characteristics of the respondents in this study were equivalent between the control group and the intervention group. In the intervention group there were 34 respondents and there were 37 respondents in the control group. The average age of respondents was over 45 years, both in the control group and the intervention group. In this study, the majority were women who cared for the elderly, were married, and did not work. Most of the family members who care for the elderly are the elderly's children, husband/wife's nieces and nephews.

This is in accordance with the research results of Sri Eko and Kartinah (2011) which said that the majority of respondents were women, had low education and did not work. From the results of data analysis in the Pre Control group, 27 (73%) respondents had normal levels of depression, post data the normal level of depression increased to 31 (83.8%). In the pre-data, the level of mild depression was 6 (16.2%) respondents, and this decreased to 3 (8.1%) respondents who had a mild level of depression. Meanwhile, in the control group respondents who were moderately depressed at the time, there were 4 (10.8%) respondents who had moderate levels of depression. In the Post group there was a change in the level of moderate depression, down to 3 (8.1%) respondents. From the data above, there was a change in the level of depression after following the direction of music listening therapy to a lower level of depression.

From the results of the before and after analysis in the control group, the p value = 0.254, which means there is no significant difference in the average level of pre and post depression in the control group. In the control group there was a decrease in depression levels, this can be seen as the number of depression levels decreasing but the decrease was not significant. This situation can occur due to a lack of intervention, so that respondents lack focus. In the control group, respondents who were not intervened were only given an explanation to listen to music if they were depressed. After one week, the respondents were visited again and carried out a post test. These results are in accordance with the research results of Sri Eko and Kartinah (2011) which said that in the control group there was no change in depression in the elderly.

In the intervention group, before the intervention was carried out, 30 (88.2%) respondents had normal levels of depression, after the music therapy intervention was carried out for 3 meetings there were 33 with normal levels of depression. The level of mild depression in pre was 2 (5.9%) decreased to 1 respondent, and the level of moderate depression in pre was 2 (5.9%) after intervention became none. In the results of the music intervention in the intervention group, it was seen that there was a decrease in the level of depression. From previously there was a moderate level of depression. After the intervention there was no moderate depression. From the data, it can be seen that there was a decrease in the number of respondents with levels of depression in the control and intervention groups

In the intervention group, the results of pre and post data analysis showed that the p value = 0.058. In this group, there was a significant difference in the average anxiety in the pre and post intervention groups. In this condition, respondents really implemented the intervention, namely listening to music. With 4 visits to the respondents, in this

case the patient's family who cared for the elderly said they were happy and relaxed. In the intervention group, respondents were monitored while listening to music, so they focused, after which a post-test was carried out.

This research is in accordance with research by Sri Eko and Kartinah (2011) who said that an analysis comparing the results before therapy and after therapy shows that there is an influence of music therapy on changes in levels of depression in the elderly. This is confirmed by the results of the Literature Review from Ryan Nuari P & Warih (2019) from 10 journals reviewed. 7 journals said that the effect of providing preferred therapy from selected music showed positive results with significant changes between the intervention group and the control group. Preferred Music is a type of music therapy that is provided by listening to music that the client likes to support the client's physiological, mental and social resources using musical experiences. Preferred Music was carried out on 40 respondents and showed the results that from providing music therapy there was a significant reduction in the level of depression from moderate to normal

Music can affect the autonomic nervous system (sympathetic and parasympathetic nervous system). When music is listened to, it can stimulate the sympathetic and parasympathetic nerves to produce a relaxation response. The characteristics of the relaxation response that arises include a decrease in pulse rate, regular deep breathing, muscle relaxation, reduced perception of pain, anxiety and depression as well as stimulation of the brain's alpha wave frequency which produces a relaxed condition. The workings of the autonomic nerves are opposite to each other, namely triggering or inhibiting. The sympathetic nervous system increases contractions in general and the parasympathetic system decreases the strength and frequency of contractions. When conditions are reactive, the parasympathetic nerves work more dominantly, including relaxing the blood vessels, which has the effect of reducing peripheral resistance and ultimately lowering blood pressure and causing neuroendocrine effects which stimulate the release of endorphins which can reduce the perception of pain, anxiety and depression (Ellis & Thayer, 2010)

These results are in line with research by Putri Endah Rahma et al (2013) which states that there is an influence of music therapy on the level of depression in the elderly at UPTD Tresna Werdha Natar, South Lampung Regency. Music has an important role in reducing the level of depression in the elderly, apart from that, spiritual therapy also plays an important role in reducing depression. The psychological impact of the elderly before and after music therapy is very different. Before being given therapy, the elderly felt restless, depressed and not interested in carrying out activities, whereas after the music therapy the elderly felt calmer emotionally so that the elderly were able to control themselves from excessive anxiety, worry, sadness which caused the elderly to become psychologically tense.

CONCLUSION

1. From the results of the before and after analysis in the control group, the p value = 0.254, which means there is no significant difference in the average pre and post depression levels in the control group. In the control group there was a decrease in depression levels, this can be seen as the number of depression levels decreasing but the decrease was not significant
2. In the intervention group, the results of pre and post data analysis showed that the p value = 0.058. In this group, there was a significant difference in the average level of depression in the pre and post intervention groups. In the intervention group, there was a significant reduction in depression levels at each level of depression
3. Musical therapy has a very important role in non-pharmacological management as a complementary therapy. Using this music is an effective method in reducing symptoms of depression in families who care for the elderly.
4. Music therapy will influence the nervous system (sympathetic and parasympathetic) to produce a physical and mental relaxation response in the individual

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REFERENCE

- Amalia & Tulus. 2019. Perawatan Lansia Oleh Keluarga dan Care Giver. Jakarta: Bumi Medika
1. Hawari, D. (2008). Manajemen Stres, Cemas dan Depresi. Jakarta: FKUI
 2. Hastono, Sutanto Priyo. (2007). Analisis Data Kesehatan. Depok: Fakultas Kesehatan Masyarakat Universitas Indonesia
 3. Perry, Patricia A., & Potter, Anne Griffin. (2006). Fundamental Keperawatan buku I edisi 7. Jakarta: Salemba Medika
 4. Stuart, G. W. & Laraia, M. T. (2016). Prinsip dan Praktik Keperawatan Kesehatan jiwa STUART Edisi Indonesia. Singapore, Elsevier
 5. Wiese, N., and Knight, A. J. (2010). Therapeutic music and nursing in post stroke rehabilitation. Journal of Rehabilitation
 6. Renny Wulan A, Andy Sofyan Prasetyo (2013) Pengaruh Pemberian Terapi Musik Klasik Terhadap Memory Jangka Pendek Pada Pasien Dengan Stroke Iskemik di RSUD Kudus tahun 2013 <http://jurnal.stikeskendekiautma.kudus.ac.id/index.php/stikes/article/view/23/74>
 7. Videbeck, S.L. (2006). Psychiatric Mental Health Nursing. (3rd edition). Philadelphia: Lippincott Williams & Wilkins.
 8. Katalog Dalam Terbitan. Kementerian Kesehatan RI Indonesia. Kementerian Kesehatan RI. Direktorat Jenderal Kesehatan Masyarakat Panduan Praktis untuk Keluarga dalam Perawatan Jangka Panjang bagi Lanjut Usia. Jakarta: Kementerian Kesehatan RI. 2019 ISBN 978-602-416-524-6 1. Judul I. Geriatrics Ii. Geriatrics Nursing Iii. Geriatrics Psychiatry Iv. Community Health Services
 9. Sastroasmoro, Sudigdo & Ismael, Sofyan. 2008. Dasar-Dasar Metodologi Penelitian Klinis Edisi ke – 3. Jakarta: Sagung Seto
 10. Djohan. (2006). Terapi Musik, Terapi Musik Dan Aplikasi. Jogjakarta: Glanggripres
 11. Kaplan & Sandock. (2008). Buku Ajar Psikiatrik Klinis. Edisi 2. Jakarta: EGC.
 12. Stuart, Gail W, (2010), .Buku Saku Keperawatan Jiwa. Edisi 5. Jakarta. EGC
 13. Undang-undang No. 36 tahun 2009, www.dikti.go.id/files/atur/.../UU-36-2009Kesehatan
 14. Ellis, R., Thayer, J. (2010). Music and Autonomic Nervous System (DYS) Function. Music Perception. Berkeley : Apr 2010 Vol 27
 15. <https://journal.binadarma.ac.id/index.php/jurnalpsyche/article/view/702>
 16. Theresia Widyastuti (2019), Terapi Musik Terhadap Depresi Pada Lansia, Program Studi Psikologi Universitas Katolik Misi Charitas Palembang
 17. <https://ejurnal.esaunggul.ac.id/index.php/IJNHS/article/view/3293/2856>
 18. Bahtiar Bahtiar^{1*}, Junaiti Sahar², Widyatuti Widyatuti², (2020) Penerapan Terapi Musik Dalam Mengatasi Masalah Depresi Ringan-Sedang Pada Lansia Dan Keluarga Lansia Di Kota Depok
 19. <https://media.neliti.com/media/publications/337488-pengaruh-terapi-musik-terhadap-perubahan-705049ed.pdf>
 20. Sri Eko Purbowinoto * Kartinah** (2011) Pengaruh Terapi Musik Terhadap Perubahan Tingkat Depresi Pada Lansia Di Pstw (Panti Sosial Tresna Wredha) Unit Budi Luhur, Kasongan, Bantul Yogyakarta
 21. <https://ejurnal.poltekkes-tjk.ac.id/index.php/JKEP/article/view/345>
 22. Putri Endah Rahma, Sulastri Sulastri, Rohayati Rohayati (2013) Pengaruh Terapi Musik Terhadap Tingkat Depresi Pada Lansia
 23. https://www.academia.edu/14546510/ASUHAN_KEPERAWATAN_LANSIA_DENGAN_DEPRESI
 24. <https://docplayer.info/150315341-Terapi-musik-dalam-menurunkan-tingkat-depresi-pada-lansia-a-literatur-review.html>
 25. Ryan Nuari Pratama, Warih Andan Puspitosari Terapi Musik Dalam Menurunkan Tingkat Depresi Pada Lansia: A Literatur Review Magister Ilmu Keperawatan Pascasarjana, Universitas Muhammadiyah Yogyakarta