

The Effectiveness of Music Therapy in Reducing Stress Symptoms in Students

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ABSTRACT

Music in social societies is considered a widespread phenomenon these days. This study aimed to test the effectiveness of music therapy as a method to reduce stress symptoms in college students through an experimental psychology approach. This research is a quantitative research that uses Pre-Experimental with one group pretest-posttest design. The sample in this study consisted of 16 students. The population in this study is students at Uin Raden Fatah Palembang or individuals who are in the category of late adolescents or early adults aged 18-22 years. Data analysis using parametric test analysis with T-Test. Researchers used the IBM SPSS Statistic 26 application for data analysis processing that showed that the value was (Sig = 0.001), which means significant or effective. The results of the data normality test are said to be normal if a value of ≥ 0.05 is obtained and a Pretest value (sig .411) and Post test (sig .988) are obtained, which means the data is said to be normal.

ABSTRAK

Musik dalam masyarakat sosial dianggap sebagai fenomena yang tersebar luas akhir-akhir ini. Penelitian ini bertujuan untuk menguji efektivitas terapi musik sebagai metode untuk mengurangi gejala stres pada mahasiswa melalui pendekatan psikologi eksperimental. Penelitian ini merupakan penelitian kuantitatif yang menggunakan Pre-Experimental dengan one group pretest-posttest design. Sampel dalam penelitian ini terdiri dari 16 siswa. Populasi dalam penelitian ini adalah mahasiswa di Uin Raden Fatah Palembang atau individu yang berada dalam kategori remaja akhir atau dewasa awal usia 18-22 tahun. Analisis data menggunakan analisis uji parametrik dengan T-Test. Peneliti menggunakan aplikasi IBM SPSS Statistic 26 untuk pengolahan analisis data yang menunjukkan bahwa nilainya adalah (Sig=0,001), yang berarti signifikan atau efektif. Hasil uji normalitas data dikatakan normal apabila diperoleh nilai $\geq 0,05$ dan diperoleh nilai Pretest (sig .411) dan Post test (sig .988), yang berarti data dikatakan normal.

Introduction

Students are students who are registered at universities within a certain period of time and have the task to complete their studies. In this task, students are vulnerable to stress due to high demands and heavy academic workload. To relieve stress, usually students always do music therapy to relieve the stress faced. Adaptation that occurs in students is a process of personal change, from psychological reactions to solving internal problems, tensions, frustrations, and conflicts, as well as being in tune with the demands of society and the environment.

The transition from adolescence to adulthood encourages students to be better prepared to face life in the hope that there will be positive changes in themselves (Fatimah et al., 2020). Changes that occur at this age include physical changes, changes in interests and behaviors related to adaptation to cultural pressures and social expectations (Liando, 2015).

Stress is defined as a person's inability to cope with threats faced mentally, physically, emotionally, and spiritually, which at some point can affect a person's physical condition. According to WHO (2003) stress is the body's reaction or response to psychosocial stressors be it mental pressure life burden (Priyoto, 2014). Stress is a common thing that many people face in everyday life. High levels of stress can affect a person's physical and mental health. Therefore, many people are looking for ways to deal with stress to be more productive and happy.

The state of stress that occurs in students is usually called academic stress (Puspitha, 2017). The definition of academic stress according to (Lubis et al., 2021), which is a form of negative stress that causes students to experience laziness both in thinking and acting while doing activities. This happens when a person has too many requests or tasks to complete at the same time (Ray, 2019).

Listening to music with a slow tempo is an effective relaxation technique to reduce stress. This technique can be done during work as long as it does not interfere with the work process and can also be done during breaks (Lidyansyah, 2014). Because music is a chorus of sound stimuli that form vibrations that stimulate the senses, organs, and emotions. That is, people who listen to music react both physically and psychologically, stimulating body systems, including the activity of glands in the body. This is because music has the ability to touch one's heart and soul through unique sensory stimuli.

Music therapy is one of the established methods for relaxation. Music has the ability to cure diseases and improve human mental capacity. When used therapeutically, music has the power to enhance, nourish, and enhance mental, emotional, social, and spiritual as well as physical health. This is due to the fact that music has many benefits, including music is structured, universal, soothing, fun, and easy to listen to (Coal, 2021).

Gestalt theory explains that humans perceive attention to the entirety of their parts (Saleh, 2018). From this theory, the use of music therapy can help reduce stress in terms of the perception of individuals who pay attention to the surrounding environment. In addition to the Gestalt theory, Cognitive Behavioral theory also supports music therapy as a way to reduce stress triggered in the brain by negative and irrational thoughts (Padmi, 2017). Relieving stress in individuals who have negative thought patterns can also be done with music therapy with soothing songs (Biondi, 2019).

It can be concluded that students often experience stress due to many demands in the academic field, such as assignments, as well as the submission of final assignments that cause various impacts on the students themselves. Academic stress that arises in students can be treated with music therapy. Music therapy is therapy that uses music or therapy that is nonverbal. Psychological science has long known that music has a significant impact on a person's mood and emotions.

Researchers are interested in studying more about the effect of music therapy on reducing stress levels in college students. Because many students experience stress as a result of academic demands. Researchers hope that the results of this study can be the basis for developing student personality in reducing stress in students.

Method

This research is an experimental research that uses Pre-Experimental with one group pretest-posttest design, which is research consisting of pretest before treatment. The population in this study is individuals who fall into the category of late adolescents or early adults who have the age of 18-24 years and are domiciled in the city of Palembang. The sampling technique uses purposive. Based on the characteristics that have been determined, respondents in this study are students of UIN Raden Fatah Palembang, have stress disorders and are willing to be samples in this study. The sample in this study was 16 respondents to this experimental study randomly selected. Samples were obtained through a google form distributed on social media.

Researchers collected samples in a room to carry out a pre-test on Wednesday, March 20, 2024. The pre-test process included the provision of informed consent, Sheldon Cohen's 1988 Perceived Stress Scale (PSS-10), which had been translated into Indonesian by experts had valid and reliable answers with a Cronbach Alpha score of 0.960. The number of scores in PSS-10 is 0-50 using the method of summing the scores of each answer. The interpretation of the measurements is mild stress score 10-20, moderate stress 21-31 and severe stress score 32-50.

At the meeting, the sample received material about the research to be carried out, namely the explanation of music therapy. During the therapy process, researchers also made observations on subjects. Participants were given a sound and how to listen to it. Researchers provide direction to continue to communicate with each other via whatsapp or other social media to control the course of the research process. The sample is informed that the research process will take place 3 times and the final day the researcher will communicate with the sample then asked again to fill out a questionnaire (post-test) related to the effect of music therapy in reducing stress symptoms.

After this study gets the data, then the data obtained is analyzed so that it can make it easier for researchers to draw conclusions. Quantitative data processing was carried out with data analysis techniques in this study using SPSS.

Results and Discussion

In this study design to be more accurate, researchers used One Group Pretest-Posttest Design. There is a pretest before treatment and posttest after treatment. This experimental method research was used to prove the effectiveness of music therapy in reducing stress

symptoms in UIN Raden Fatah Palembang students. The results of the study can be seen in the table below :

Table 1. (Uji Normalitas)
 Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest Stress	.114	16	.200*	.945	16	.411
Posttest Stress	.090	16	.200*	.984	16	.988

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The Normality Test is used to test the normal or abnormal distribution of data. So a calculation is expected for the normal distribution of a data. If the significance value > 0.05 then the residual value is normally distributed, conversely if the significance value is < 0.05 then the residual value is not normally distributed. Based on table 1 above, the normality test results can be seen that the data has a p (sign) value of > 0.05 (0.411) for Pretest and (0.988) for Posttest. It is stated that all residual data are normally distributed so that the T-Test can be carried out.

Table 2. (Deskriptif)
 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest Stress	34.63	16	5.596	1.399
	Posttest Stress	24.44	16	8.107	2.027

Table 3. (Uji-T)

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
Pair					Lower	Upper			
Pair 1	Pretest Stress -	10.18	9.642	2.410	5.050	15.325	4.226	15	.001
	Posttest Stress	8							

In the table above, researchers used a parametric data hypothesis test with the T-Test. It can be seen in table 2 that there is a decrease in stress levels in students with a mean (34.63) for pretest and mean (24.44) for posttest. In table 3 the data obtains a value (p value = 0.001). This means that Ho was rejected because the significant value of < 0.05 and H1 was accepted and a significant difference was obtained after the music terpi treatment.

All ages can experience stressful situations, including toddlers, teenagers, adults, and even the elderly. The learning years, especially for students, are adolescence and early adulthood. Many things can cause increased stress, one simple and effective non-pharmacological approach to dealing with stress in adolescents is music therapy intervention.

Previous research has shown classical music therapy is an effective type of music therapy for children who experience stress. This research is in line with the findings of Primadita (2011) and (Psychologist, 2014) who studied the effects of classical music therapy or classical music therapy Mozart. Their findings showed that the average stress level of students was moderate before receiving classical music therapy, but returned to normal after treatment (Primadita, 2011).

The results of other studies also mention that music therapy is effective in reducing stress levels and anxiety, music can affect a person's feelings, thoughts, and physical condition (Khadijah, 2023). In a tense state, listening to music can also help you feel more peaceful. In other words, because music has the potential to reduce stress, the theory that music has the potential to reduce stress is acceptable (Triwahyuningsih, 2017).

Likewise, the results of research conducted by (Tjahjani, 2015) decreased stress levels after the administration of classical music therapy. Theoretically, listening to classical music can have a calming effect on the body, mind, and emotions. It can lower tension caused by stressful events and provide calm when brain activity increases (Trappe, 2012). Listening to music increases the activity of the hypothalamus, thus preventing the release of corticotropin-releasing factor (CRF) hormone. This will cause adrenocorticotrophic hormone (ACTH) released by the anterior pituitary gland to be blocked, thus preventing the adrenal glands from producing cortisol, adrenaline, and noradrenaline. It also inhibits the ability of the thyroid gland to release thyroxine hormone throughout the body (Ashwani & Milind, 2011).

People with high thyroxine hormone levels may get tired quickly, easily tense, easily nervous, and have difficulty sleeping. As a result, listening to peaceful and soothing music will provide a more calming and relaxing psychological effect. The autonomic nervous system (also known as the autonomic nervous system) is affected and stimulated by listening to music. The autonomic nervous system is divided into two parts: the sympathetic nervous system (also known as the parasympathetic nervous system) and the sympathetic nervous system (also known as the sympathetic nervous system). The sympathetic nervous system functions when a person is tense or stressed, while the parasympathetic nervous system plays a role in lowering blood pressure and heart rate, relaxing the body's muscles, lowering blood glucose levels, and reducing energy expenditure (Fukui et al., 2012).

How to deal with stress by following music therapy and see how different types of music can effectively lower stress levels. In addition, he said that the act of listening to self-selected classical music can significantly decrease feelings of anger, anxiety, and sympathetic nervous system stimulation while increasing relaxation compared to states of sitting motion or listening to intense mental music (Labbe et al, 2007).

Listening to or practicing music therapy can be an effective way to deal with stress, as it can have a more relaxed and comfortable psychological impact. This is supported by research that has been published in previous journals and research conducted by researchers on UIN Raden Fatah Palembang students in this journal. According to a number of facts and studies,

any music therapy can lower stress levels, especially if the music includes soft strains or tones that encourage the mind to actively relax and reconcile feelings. One of the most effective forms of music therapy is classical music therapy, especially when Mozart-style classical music therapy is used, as it has been shown to significantly reduce stress levels in patients. Currently, many studies are conducted in Indonesia on the use of classical music as a music therapy intervention, especially for stress management.

Conclusion

Based on the presentation of the results of the study, it can be concluded that music therapy has an effect on reducing stress symptoms in students by obtaining residual data of normal distribution (> 0.05). Researchers used a hypothesis test of parametric data with the T-Test. From these results obtain a value (p value = 0.001). This means that there is a significant difference after doing music therapy treatment.

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