Effectiveness of Classical Music Therapy to Reducing Auditory Hallucinations in Schizophrenic Patients

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ABSTRACT
Hallucinations are perceptions that are received by the five senses without an external stimulus or are not real. Hallucinations are identical to schizophrenia where almost 70% of sufferers experience auditory hallucinations. Besides, a music therapy is one of the effective therapies to improve anxiety levels in patients with auditory hallucinations when drug therapy alone does not stand to reduce auditory hallucinations. A classical music therapy can be performed for 10-15 minutes with 80 herz waves which will convey sounds directly to the brain. Thereby diverting auditory hallucinations. This literature review aimed to determine the effectiveness of a classical music therapy on reducing auditory hallucinations in schizophrenic patients. this literature research studied by analysing 165 journals through google scholar searches and the Garuda research portal for a higher education with the keyword: hallucinations, a music therapy, schizophrenia with limitations in 2010 - 2020. Furthermore, screening and assessment of the feasibility of journals were carried out a full text journal obtained for review. It was found from 5 journals that before classical music therapy was performed on auditory hallucinations, a mean of 23.19 with a standard deviation of 4.632, after classical music therapy decreased in the level of auditory hallucinations as many as 170 respondents of auditory hallucinations patients, a mean of 25.75 with a standard deviation. 5.15 This is evidenced by the statistical test results p value <0.05, meaning that there is an effectiveness of classical music therapy against auditory hallucinations in schizophrenic patients, making patients feel comfortable, reducing anxiety, giving a feeling of calm and relaxation. The results of 5 reviewed journals showed attainted test results p value < 0.05, which means that there is an effectiveness of classical music therapy to reduce auditory hallucinations in schizophrenic

Keywords: *Customize Hallucinations; Music Therapy; Schizophrenia*

1. INTRODUCTION

Hallucinations are sensory changes in which a person feels sensations that have no object in the form of sound, sight, taste and touch. Hallucinations are a common symptom experienced by people with schizophrenia. The hallucinations that are often found are auditory hallucinations, characterized by the patient talking or laughing to himself, the patient being angry with himself, covering his ears because the patient thinks someone is talking to him [1].

There are 35 million people with severe mental disorders accompanied by auditory hallucinations in the world, and in Indonesia it reaches around 400,000 people or 1.7 per 1,000 population. The prevalence of mental disorders with auditory hallucinations mostly occurs in men around 50.6% and women around 40.9%. Patients with auditory hallucinations reached 70% and 20% experienced visual hallucinations [2].

Signs and symptoms of hallucinations, including: inappropriate response to reality, smiling and laughing to themselves, talking to themselves, doing physical activities that reflect the content of hallucinations, acting like listening to something / tilting the head to one side as if someone is listening to something. listening to things, lack of interaction with others, and lack of concentration. The types of hallucinations consist of auditory hallucinations, visual hallucinations, olfactory hallucinations (smell), gustatory hallucinations, and tactile/touch-taste/kinaesthetic hallucinations. Classical music therapy makes a person relax, creates a sense of security and well-being, fosters a sense of joy, releases sadness, releases pain and reduces stress levels, so that it can cause a decrease in anxiety [3].

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Schizophrenic patients with auditory hallucinations experience discomfort by the sounds they hear, causing the patient to withdraw from the environment and other people. Giving classical music therapy makes patients feel comfortable and able to interact with other people, so that it can divert auditory hallucinations [4][5].

2. METHOD

The journal will be reviewed is the original article that examines the effectiveness of classical music therapy on reducing auditory hallucinations in schizophrenic patients. Journals are obtained through searching the results of research published in national journals online. Searching journal use Google scholar and Portal Garuda Dikti with keywords: Hallucinations, Schizophrenia, Music therapy.

Inclusion criteria, the journals reviewed were full texts from original articles published in Indonesian-language, with the research subjects being adult schizophrenic patients with auditory hallucinations who were given Music Therapy. Journals are published in the period 2010-2020. Articles that match keywords are then screened, analysed for abstracts, then analysed for the full text of the article, and concluded.

3. RESULT AND DISCUSSION

The articles search through Google Scholar and the Garuda Dikti Portal with the keywords: Hallucinations, Music Therapy, and Schizophrenia, we found 165 articles that matched the keywords. Selection of articles based on year of publication got 125 articles. Followed by selection based on suitability with the theme and duplication, obtained 85 articles. The next screening left 45 articles, while the other 40 articles were excluded because they did not meet the inclusion criteria. 45 articles were identified in the abstract and full text, the result was that 40 articles were excluded and 5 full text articles that matched the inclusion criteria were reviewed.

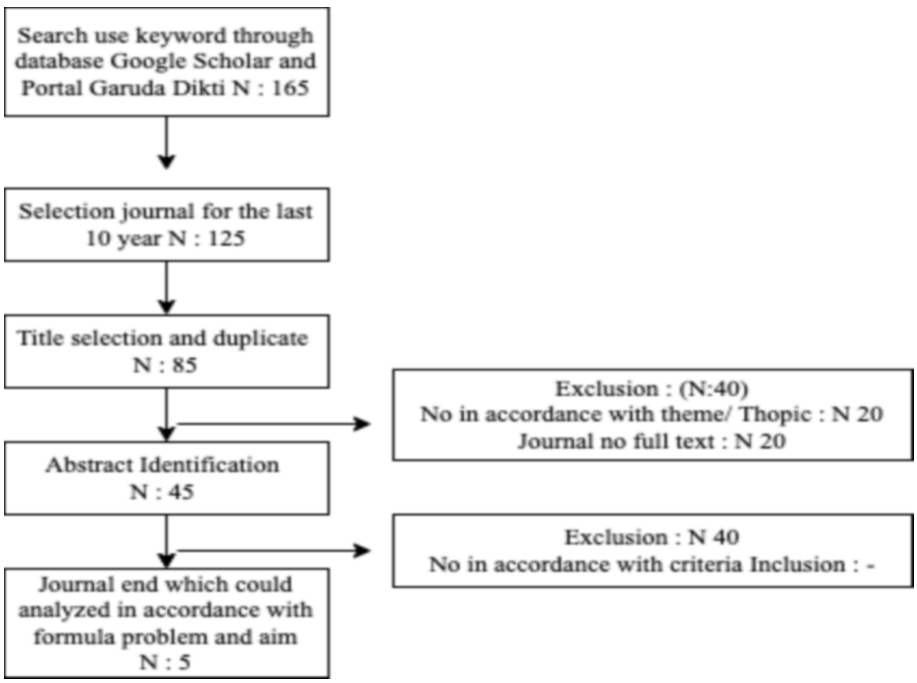

Figure 1 Article selections

Five journals reviewed were all quasi-experimental studies with the research subject adult schizophrenic patients with hallucinations. Five reviewed journals, there were significant differences before and after classical music therapy in reducing the level of hallucinations in patients with schizophrenia.

The first journal [6], study from 22 respondents found that the mean result of measuring the level of hallucinations before the intervention was 4.32 and the standard deviation was 0.646. The mean level of hallucinations after intervention of music therapy decreased to 1.6 and the standard deviation was 0.658. The results of statistical test showed a significant decrease in the level of hallucinations after given music therapy with p value of the Wilcoxon test 0.000 (<0.05).

The second journal [1], research on 34 respondents found that the median values in the experimental group and the control group in the pre-test were 3 and 3 with standard deviations of 0.702 and 0.5. The median values in the experimental group and the control group in the post-test were 2 and 3 with standard deviations of 0.332 and 0.6. The results of statistical tests with an Alpha value of 0.05 obtained p value of 0.003 in the experimental group. It means that there is a significant difference between the pre-test and post-tests. Meanwhile, in the control group, the p value was 0.414,

there was no significant difference between the pre-test and post-test in the control group.

The third journal [7], research on 15 respondents found that the results of statistical analysis using the Wilcoxon test obtained the median hallucinations score before being given Mozart classical music therapy in the experimental group which was 27.00 after being given Mozart classical music therapy of 13 .86 means that there is a decrease in the median value of 13.00 and a p value of 0.001 < (0.05), it can be concluded that Ho is rejected, which means there is a significant difference in the mean hallucinations score before and after being given Mozart classical music therapy in the group. experiment. The median score for hallucinations in the control group at the time of the pre-test was 27.00 and the post-test was 27.00. between hallucinations scores before and after being given Mozart classical music therapy in the control group. Comparison of auditory hallucinations scores in the experimental group and the control group after being given classical music therapy, the median in the experimental group was 13.00 with a minimum value of 7 and a maximum of 28, the median score of hallucinations in the control group was 27.00 with a minimum value of 24 and a maximum value of 36. The results of the analysis using the Mann-Whitney test because the T-Independent test does not meet the requirements, namely the data is not normally distributed. The results of the analysis obtained p value 0.001 < (0.05), so there was a significant difference in hallucinations scores after (post-test) given Mozart classical music therapy between the experimental group and the control group [6].

The fourth journal [8], study from 30 respondents to determine the decrease in signs and symptoms of hallucinations before and after being given music therapy, it is known that the mean difference in the results of measuring signs of auditory hallucinations before and after the intervention is 6,200 with the standard deviation 2.882. Statistical test results obtained 0.000 (p <0.05), it can be concluded that there is a difference between signs and symptoms of auditory hallucinations before and after classical music therapy. Classical music therapy is effective in reducing signs and symptoms of auditory hallucinations in patients with auditory hallucinations [7].

The fifth journal [9], research on 54 respondents from the pre-test and post-test results in this study using the Wilcoxon test, the mean rank of ability to control hallucinations is 27.00, the sum ranks value is 1431.00 and the p value is 0.000 (p value) < 0.005). There is an effect of giving Mozart classical music therapy on the ability to control hallucinations in hallucinating patients. From the results of the study, it was found that before Mozart classical music therapy was carried out for the moderate category in controlling hallucinations, most of the respondents occurred. And after doing classical music therapy, Mozart for the high category experienced an increase in controlling hallucinations.

Table 1 Journal review

Criteria	Journal 1	Journal 2	Journal 3	Journal 4	Journal 5
Author	Dian Anggri Yanti, Abdi Lestari, Sitepu Kuat Sitepu, Pitriani Wina Novita Br Purba	Rafina, Damayanti, Jumaini, Sri Utami	Rosiana, Jumaini, Yesi Hasneli N	Wuri Try Wijayanto, Marisca Agustina	Hira Puspaningrum, Heppy Dwi Rochmawati, Sawab
Method (design, sample)	• Design: Quasy Experiment • Sample: 22 respondents	• Design: Quasy Experiment • Sample: 34 respondents	• Design: Quasy Experiment	• Design: Quasy Experiment • Sample: 30 respondents	• Design: Quasy Experiment • Sample: 54 respondents
Purposes	To determine the effectiveness of classical music therapy to reduce the level of hallucinations in patients with Auditory hallucinations.	To determine the effectiveness of classical music therapy on reducing the level of hallucinations in patients with auditory hallucinations.	To determine the effectiveness of Mozart's classical music therapy on auditory hallucinations in schizophrenic patients.	To determine the effectiveness of classical music therapy on reducing auditory hallucinations.	To determine the effect of Mozart's classical music on reducing hallucinations in hallucinating patients
Research Result	The mean level of hallucinations before intervention was 4.32 with a standard deviation of 0.646. The mean level of hallucinations after the intervention dropped to 1.6 with a	The median values in the experimental group and the control group in the pre-test were 3 and 3 with standard deviations of	The median of hallucination score before treatment in the intervention group was 27.00, after treatment it dropped to 13.86 with the Wilcoxon test known to have p value 0.001	The mean difference in the results of measuring signs and symptoms of auditory hallucinations before and after the intervention was	The results of the pre-test and post-test using the Wilcoxon test, the mean rank of ability to control hallucinations is 27.00, the sum rank is 1431.00

Criteria	Journal 1	Journal 2	Journal 3	Journal 4	Journal 5
	standard deviation of 0.658. Statistical analysis with the Wilcoxon test is known to have p value of 0.000 (<0.05). Giving classical music therapy was significantly effective in reducing the level of auditory hallucinations.	0.702 and 0.5. The median values in the experimental group and the control group in the post-test were 2 and 3 with standard deviations of 0.332 and 0.6. The results of statistical tests with an Alpha value of 0.05 obtained p value of 0.003 in the experimental group. It means that there is a significant difference between the pre-test and post-test. There is a significant effect of giving music therapy to decrease the level of hallucinations.	< (0.05). The median score of hallucinations in the control group before the intervention was 27.00 and after the intervention was 27.00. Statistical test with Wilcoxon obtained p value 0.786 > (0.05). Statistical test of post-test hallucinations scores in both groups using the Mann-Whitney test p value 0.001 < (0.05), there is a significant difference in hallucinations scores before and after being given Mozart classical music therapy	6.200 with a standard deviation of 2.882. Statistical test results obtained 0.000 (p <0.05). There are differences in the results of measuring signs and symptoms of auditory hallucinations before and after classical music therapy. Classical music therapy is effective in reducing signs and symptoms of auditory hallucinations.	and the p value is 0.000 (p value < 0.005). There is an effect of giving Mozart classical music therapy on the ability to control hallucinations in hallucinating patients.

The five journals analysed were all original articles with the theme of the effect of classical music therapy on reducing auditory hallucinations in patients with mental disorders. The study was conducted on respondents with adult mental disorders aged over 18 years. Classical music therapy effective to reducing the level of auditory hallucinations. Listening self-selected music after exposure to stressors can cause reduction anxiety, anger, and make the sympathetic nervous system excited, can increase relaxation compared to sitting still.

Classical music therapy was significantly effective in reducing the level of auditory hallucinations [6][1]. The results of these two studies are in line with the theory [3] who stated that listening to self-selected music after exposure to stressors can cause a reduction in anxiety, anger, and make the sympathetic nervous system excited, can increase relaxation compared to sitting still.

In another study, revealed that classical music therapy was effective in reducing signs and symptoms of auditory hallucinations in auditory hallucination patients. This is in line with the theory that classical music therapy aims to improve physical, emotional, cognitive, and social conditions for individuals at various ages [8]. Classical music therapy can also encourage a decrease in the signs and symptoms of the respondent's auditory hallucinations.

4. CONCLUSION

Five journals reviewed proved that classical music therapy was effective in reducing the level of hallucinations and improving the control of auditory hallucinations in people with mental disorders (schizophrenia).

From these five journals, it is known the effectiveness of music therapy to reduce auditory hallucinations in schizophrenic patients, but these studies have not yet revealed the effect of classical music therapy on other types of hallucinations. The effectiveness of other types of music to reduce the level of hallucinations has also not been studied.

Further research is needed to determine the effectiveness of music therapy other than classical music to reduce auditory hallucinations, and research to further reveal what types of hallucinations can be reduced by classical music therapy.

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