

## Effect of Music Therapy in Reduce the Level of Depression in the Elderly: Literature Review

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### ABSTRACT

**Introduction:** Depression is the most common in the elderly who commit suicide as much as 15% and is one of the diseases that are often found in the elderly that can cause emotional disturbances related to psychology. Music therapy is an important and easy intervention for depressed elderly to reduce depression levels. Music therapy is a therapy to relax the mind. The purpose of this review is to determine the effect of music therapy in reducing depression in the elderly.

**Method:** The method used in preparing the Literature Review uses PICOS. Secondary data obtained from journals with a predetermined discussion. Results Based on literature search through three databases. Researchers get 1,535 articles that match the keywords. then filtered by title, abstract, and text (n=10) which were adjusted to the inclusion criteria.

**Result:** There are 10 journals found, this literature generally recommends giving music therapy to the elderly who are depressed by paying attention to music criteria, features and safety in giving therapy so that it can increase the improvement of therapy.

**Conclusion:** Music therapy has an effect on alpha waves which will stimulate the release of the neurotransmitter serotonin. Serotonin hormone can cause feelings of happiness, because it is a neurotransmitter that affects feelings. Furthermore, serotonin will be converted into the hormone melatonin which has a relaxing effect and mood changes so that it can reduce depression levels.

**Keywords:** Music therapy; Depression; Elderly.

## Introduction

Individuals tend to experience a decline in physical, psychological, and biological abilities when they enter old age or old age. One of the mental or psychological setbacks experienced by the elderly is depression which is one of the most common diseases in the elderly (Masruroh & Widoyanti, 2021). Depression causes prolonged emotional disturbances that affect the individual's psyche characterized by thoughts of disliking or blaming oneself, uncertain moods, loss of motivation, decreased thought patterns and decreased mobility (Pambudi et al., 2020). Depression that occurs in the elderly can cause disruption of coping mechanisms in patients, and most of the elderly experience ineffective individual coping during depression (Henri, 2018).

In 2019 the average number of elderly people of 629 million is expected to reach 1.2 billion by 2025. In 2019 there are 264 million elderly people in the world experiencing depression, the depressed population is mostly between 2% and 6% worldwide today. Globally, older individuals (in the age group 70 years and over) have a higher risk of depression compared to other age groups (OWD, 2021). In 2019 WHO said that Indonesia had a fairly high prevalence rate when compared to other Southeast Asian countries with a total of 9,162,886 cases or 3.7% of the total population as a whole (BCI, 2019).

Depression is a mood disorder, an emotional state that constantly colors all of a person's mental processes. In general, mood disorders that often arise are helplessness and loss of hope, depression disorders, especially in the elderly, are caused by changes felt by the parents as a factor in the aging process. Ineffective coping mechanisms are one of the causes of depression. Ineffective coping (D.0096) is the inability to assess and respond to stressors and/or the inability to use existing resources to solve problems (Tim Pokja SDKI DPP PPNI, 2018).

Coping mechanisms that occur in elderly depression are the inability of the elderly to accept the facts of life that occur at an advanced age and some of the factors that cause this are lack of affection from relatives, feelings of dislike for family, and living alone. The characteristic limitation that occurs is a change in normal communication patterns. Depression in the elderly has become a major problem associated with death and suicide (Adams, 2003). Studies show that older people are 15% more likely to commit suicide because of depression (Pambudi et al., 2020). Older women who suffer from depression are two to three times more likely to commit

suicide than older men (Adams, 2003). If this is not managed properly and correctly, it can harm the elderly who are depressed.

The impact of depression can be minimized by implementing nursing interventions. One of the supporting interventions This can be done and used by caregivers as a guideline to reduce the problems of depressed elderly who experience ineffective coping symptoms. according to the 2017 Indonesian Nursing Intervention Standards (SIKI) one of which is a calming technique (I.08248), one of which is music therapy (Tim Pokja SIKI DPP PPNI, 2018). The purpose of compiling this literature review is to identify the effect of music therapy in reducing depression levels in the elderly.

## **Method**

The protocol and evaluation of the literature review is using the PRISMA method which is intended to select studies that have been found and then adjusted to the objectives of the literature review.

1. Data Search Literature search was conducted on three databases, namely Pubmed, Google Scholar, and Garuda related to music therapy and depression.
2. Selection of literature based on inclusion criteria and exclusion criteria in the form of journals in English, Indonesian, articles are full-text manuscripts and are quantitative studies as well as other literature studies. The data included in this library is a study of music therapy related to elderly people who experience depression.

## **Result**

Literature identification was carried out on 1,535 articles found in three databases. A total of 1516 literatures were found to be non-inclusive. Then as many as 7 journal articles that were not full-text then checked as much as possible found the use of the Mendeley application which found 2 similar journal articles so that 10 journal articles were reviewed. The author also adds selected and relevant books as literature to complement this literature.

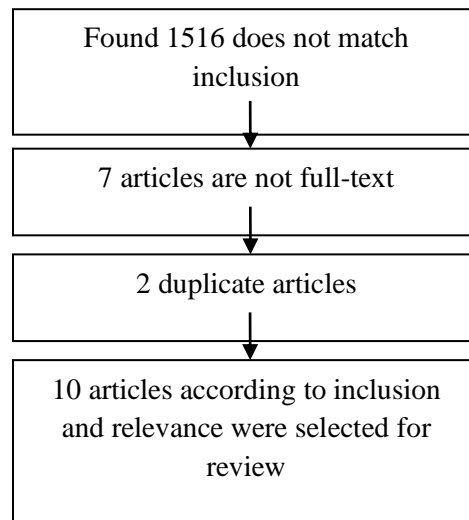


Figure 1. Flowchart of literature review search

## Discussion

Of the 10 articles studied, all of them had positive results with a p value  $<0.05$ . In accordance with the theory of Buana dan Burhanto, (2021) presenting music therapy that is ideal for depression sufferers 10-40 minutes, the results obtained from the study (Ni Made et al., 2021) were given music therapy with a duration of 20 minutes as much as 4 sessions per week for 2 week with statistical test results  $p < 0.05$ , in the study (Pambudi et al., 2020) who were given music therapy with a duration of 15 minutes for 3 sessions for 1 week with statistical test results  $p < 0.05$ , this proves the effect of therapy music in reducing depression levels in depressed elderly (Etika et al., 2017).

According to Amelia dan Trisyani, (2015), music therapy has a moderate tempo that is 40-80 bpm, has a relaxed tone, has a slow rhythm. One of the evidences of the effect of music therapy in reducing depression levels by using tempo is being proven in the research of Masruroh dan Widoyanti, (2021) who gave keroncong music therapy with slow to moderate tempo for 30 minutes a week for 3 to be able to improve or improve physical, emotional condition. cognitive and social will help reduce the level of depression in the elderly.

According to research by Supriyadi dan Oktadi, (2020) the success of reducing depression levels in the elderly is the environmental condition when the client receives music therapy, the client must be in a comfortable position and a quiet environment. This is in line with

the research of Pambudi dkk., (2020) which stated that there were respondents who experienced moderate depression before giving music therapy the sound of flowing water with brainwaves, the results were still experiencing a moderate level of depression, this was because the client was disturbed by a noisy environment so that it made the client is indifferent to the intervention.

Meanwhile, in the research of Ibraheem Sayied et al (2019) the aim of the study was to evaluate the impact of music therapy in reducing depressive symptoms in the elderly population. By using the Geriatric Depression Scale (GDS) instrument, statistical test results ( $P < 0.001$ ) were obtained, which means that there was a significant decrease in the severity of depression ( $P < 0.001$ ) between pre and posttest music therapy interventions for depressed elderly.

This is in accordance with the article Pratama and Puspitosari, (2019) that music therapy has components, namely tone and rhythm that can have psychological and physiological effects on the body. When a sound stimulus is heard in the eardrum which will then be forwarded to the central nervous system, precisely in the limbic system. The limbic system has a neurophysiological function related to emotions (sad, pain, joy and deep memories for a person), feelings and sensations. Music therapy also has an effect on alpha waves which will stimulate the release of the neurotransmitter serotonin. Serotonin hormone can cause feelings of happiness, because it is a neurotransmitter that affects feelings. Furthermore, serotonin will be converted into the hormone melatonin which has a relaxing effect and changes in mood so that it can reduce depression levels (Wijaya et al., 2021).

## **Conclusion**

Music therapy has an effect on alpha waves which will stimulate the release of the neurotransmitter serotonin. Serotonin hormone can cause feelings of happiness, because it is a neurotransmitter that affects feelings. Furthermore, serotonin will be converted into the hormone melatonin which has a relaxing effect and mood changes so that it can reduce depression levels. This is in accordance with the results of statistical tests in 10 (ten) literatures which show that all of them have an influence in reducing depression levels in the elderly.

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