

## Case Report

## Mozart Music Therapy for Improving Productivity Daily Living on Schizophrenia Patient: A Case Study

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**ABSTRACT**

**Background:** Auditory hallucinations are nursing problems that often occur in schizophrenic patients. These problems can occur due to traumatic experiences such as bullying and violence. One of the treatments for auditory hallucinations is nursing intervention with music therapy.

**Objectives:** The aim of this study was to describe nursing care in patients with auditory hallucinations.

**Methods:** The study design used case study. The research sample was one patient with auditory hallucinations at the Klinik Nur Illahie, Indonesia. The data collection process was carried out by interviewing and observing. The instrument used a mental assessment questionnaire.

**Results:** The results showed that the patient had a sensory perception disorder: Auditory hallucinations. Patients were given nursing interventions, namely hallucinations management and Mozart music therapy. Patients are given deep breathing relaxation exercises prior to music therapy. Mozart music therapy is given to the patient for 10-15 minutes to relax and reduce the patient's hallucinations. After being given nursing intervention for 3 days, the patient is able to control his hallucinations and can be active together with other patients.

**Conclusion:** Nursing interventions with hallucinations management and Mozart music therapy can be given to patients with auditory hallucinations and have been shown to be effective in controlling hallucinations and increasing patient productivity.

**Keywords:** Hallucination, Music therapy, Nursing interventions, Schizophrenia, Patients

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## Introduction

Schizophrenia is a brain disorder disease characterized by disorganized thoughts, delusions, violent behavior, and strange or catatonic behavior (Gaebel & Zielasek, 2015). According to data from the World Health Organization (WHO) (2022), there are 20 million people experiencing schizophrenia worldwide (WHO, 2022). The prevalence of schizophrenia in Indonesian society reached around 400000 people or 1.7 per 1000 population in 2018 (Kementerian Kesehatan, 2019). As many as 70% of schizophrenic patients experience hallucinations, which is a psychotic disorder characterized by major disturbances of thought, perception, emotion, and behavior (Guo et al., 2016; Schnack et al., 2016).

Schizophrenia can occur due to traumatic experiences in the past and also genetic factors. Traumatic experiences reported by the patients can result in mental health problems such as stress and depression. Problems experienced continuously can cause psychiatric nursing problems, such as hallucinations, low self-esteem, social isolation, and violent behavior. Traumatic events can be in the form of physical or verbal violence and bullying. This chain of events in patients experiencing mental health problems could continue to become schizophrenia.

Hallucinations are the loss of an individual's ability to distinguish between internal stimuli (thoughts) and external stimuli (the outside world) (Ratcliffe & Wilkinson, 2016). The symptoms that can be observed in patients with hallucinations include talking or laughing to themselves, getting angry for no reason, pointing in a certain direction, being afraid of something unclear, smelling like they are not there, and covering the nose (Goghari & Harrow, 2016; Schambeck et al., 2022; Yang et al., 2018). The client gives a perception or opinion about something he hears without a real object or stimulus. For example, the patient says and hears something even though no one is speaking (Baumeister et al., 2017; Hugdahl et al., 2015; Scarselli et al., 2022).

The hallucinations that commonly occur in schizophrenic patients are auditory (70%), visual (20%), and other types, namely pronunciation, tactile, and kinesthetic hallucinations (10%) (Xie et al., 2018; Yosep et al., 2023). Auditory hallucinations occur without external stimuli, even though the impact of something imaginary is in the form of human perception (Cai et al., 2022; Cimino, 2022; Yosep et al., 2022). The patients with auditory hallucinations seem to talk or laugh to themselves.

Sometimes, the patients are angry with themselves and cover their ears because the patients think someone is talking to them (Ahn et al., 2022; Hosseini et al., 2021).

Hallucinations, if not handled properly, will result in adverse consequences for the patient, family, others, and the environment (Hugdahl et al., 2015). Handling patients with hallucinations can be done with nursing strategies, namely helping clients recognize and control the contents of hallucinations. Previous studies have shown that nursing interventions by rebuking the contents of auditory hallucinations can reduce hallucinatory symptoms (Yang et al., 2015). In addition, other studies have shown that auditory hallucinations can be overcome with group activity therapy interventions (Aynsworth et al., 2017). Another study shows that nurses can provide music therapy to reduce hallucination symptoms in patients with auditory hallucinations (Štillová et al., 2021). The above data show that nursing interventions still focus on independent interventions by nurses, so interventions that patients can carry out independently are needed.

According to the medical records of the Nur Ilahie Clinic, Garut Regency, Indonesia, the prevalence of hearing hallucinations was 18 out of 33 people on June 24, 2022. One of the patients with auditory hallucinations was Mr. B, who heard whispers like "don't lie, don't betray, I'm your God." Based on these data, nursing interventions were needed to overcome auditory hallucinations in patients at the Nur Ilahie Rehabilitation Clinic, Garut Regency, Indonesia. This study aimed to describe nursing care with Mozart music therapy on patients with auditory hallucinations in Nur Ilahie Clinic, Garut Regency, West Java.

## Materials and Methods

This study used a case study with a qualitative design using a nursing care approach. Nursing care includes the assessment process, nursing diagnoses, intervention planning, nursing implementation, and nursing evaluation (Toney-Butler & Thayer, 2022). The case study subjects used were patients with auditory hallucinations at the Nur Ilahie Clinic, Garut Regency. The case study was conducted for ten days, from June 27 to July 6, 2022. Data collection was carried out by observation and interviews. The authors took the patient's informed consent before carrying out nursing assessments and interventions. Licensing to provide nursing care has been carried out by the Faculty of Nursing, University of Padjadjaran, to the Nur Ilahie Clinic. The assessment instrument was a mental disorder patient assessment format from the Faculty of Nursing, Universitas Padjadjaran, as

well as a strategy for implementing nursing actions in patients with auditory hallucinations. The data obtained from the results of the patient assessment were adjusted to interviews with nurses and patient medical records. The data are also grouped so that they can formulate a nursing diagnosis. Nursing diagnoses appear to be a reference for the authors in carrying out interventions and evaluations in patients with auditory hallucinations.

## Results

### Clinical presentation

Based on the results of the study, it was found that the patient entered the clinic because he was often day-dreaming and angry. This incident resulted from his wife's divorce. The patient had also been treated in a mental hospital and was diagnosed with schizophrenia. The patient also said that he was often bullied verbally because he was fat and had tattoos. This situation causes the patient to be insecure and often attack other people because he does not accept the bullying.

Then, the condition worsened because the patient's biological mother died, so the patient did not take medication regularly. When interviewed, the patient complained of hearing incoherent voices; the last sentence the patient heard was, "I am your God." The sentence is heard repeatedly every day, especially when the patient is alone. The patient performs dhikr when auditory hallucinations are felt. Hallucinations sometimes disappear, sometimes not. The medical diagnosis recorded in the patient's medical record was schizophrenia.

### Diagnostic testing

Based on the above data assessment, a nursing diagnosis of sensory perception disorder was found: Auditory hallucinations. The data that support the authors in determining the nursing diagnosis of auditory hallucinations is that the client says he hears voices that are not clear. The sentence that is heard is, "I am your God." The client often hears whispers from several people, male and female. Also, the client has difficulty concentrating and gets easily distracted. The authors used nursing intervention classification guidelines. Management of hallucinations that are planned to be carried out on the patient includes reviewing behaviors that show hallucinations, assessing the content of hallucinations, providing a safe and comfortable environment, discussing feelings and responses to hallucinations, recommending talking to trusted people, teaching how to control hallucinations to collaborate with doctors to provide drugs.

The authors intervened by giving the patient an application of Mozart's music for 10 minutes within 3 days. Before being given Mozart music therapy, the patient was asked to relax by taking deep breaths. The patient relaxed to increase his focus following music therapy. This therapy is based on previous research, which states that Mozart's music effectively calms the nerves and can help clients who experience auditory hallucinations. The results of this study indicated that Mozart's music effectively reduces auditory hallucinations experienced by schizophrenic patients.

After nursing actions and providing music therapy for three days, it was found that the problem of auditory hallucinations decreased. It can be seen in the patient that he could control his hallucinations; the frequency of hallucinations has reduced and the patient start doing activities with other people so that the provision of nursing interventions can be continued to overcome the problem of auditory hallucinations.

## Discussion

The assessment of the patient revealed the presence of several symptoms that led to a diagnosis of sensory perception disorder: Auditory hallucinations associated with psychotic disorders. The auditory hallucinations are hearing whispers, feeling appropriate through the sense of hearing, acting as if hearing, having poor concentration, and talking to themselves (Toney-Butler & Thayer 2022). Auditory hallucinations are a condition where patients experience hearing voices that are not real and are ordered or called to perform an activity (Serino et al. 2014).

Conditions that cause auditory hallucinations are discontinuation of treatment for schizophrenia and problems that trigger stress, namely the death of a parent. In addition, the patient had also experienced a relapse when he divorced his wife. Hallucinations can be caused by several concomitant factors such as not taking medication as recommended, not carrying out regular doctor visits, stopping treatment without the approval of health workers, especially doctors, lack of family and community support, and severe life problems that trigger stress (Toh et al., 2015). This finding is in line with previous research, which states that the precipitating factors that cause auditory hallucinations are the absence of communication, closed communication, heredity, and family who do not know how to give the proper intervention when the client is at home (Baumeister et al., 2017).

One of the causes of schizophrenia is traumatic experiences such as bullying. Bullying can be physical or verbal. The form of bullying experienced was verbal. This finding is in line with previous studies that show that verbal bullying can cause mental health problems, such as stress and depression (Singla et al., 2021; Yosep et al., 2022). The impact of mental health that is experienced continuously can cause mental nursing problems such as hallucinations and social isolation (Wu et al., 2016; Yosep et al., 2022). Meanwhile, other studies show that the impact of bullying is the emergence of violent behavior in victims (Koh, 2016).

The intervention planning that was given to the patient included the management of hallucinations and music Mozart therapy. The intervention aims to reduce signs and symptoms of auditory hallucinations, namely decreased whispering, sensory distortion, and hallucinatory behavior, and increased concentration and orientation. Hallucination management interventions are carried out by observing hallucinatory behavior, monitoring the content of hallucinations, maintaining a safe environment, and discussing feelings and responses to hallucinations (Colucci, 2014). This measure is in line with previous research showing that hallucinatory management interventions can reduce auditory hallucinations symptoms (Štillová et al., 2021). Hallucination management therapy has also been more effective than occupational therapy in reducing auditory hallucinations symptoms (Moseley et al., 2018; Zhou et al., 2015).

Mozart music therapy is an effective music therapy in reducing the symptoms of auditory hallucinations. Mozart music therapy performing for 20 minutes can relax patients with auditory hallucinations. Previous research on Mozart's music therapy was also carried out to reduce stress symptoms (Štillová et al., 2021). Mozart music therapy is also believed to reduce depressive symptoms in schizophrenic patients (Moseley et al., 2018). Previous studies showed that Mozart's music therapy was more effective in reducing the intensity of auditory hallucinations and sleeping more quietly than classical music therapy (Barus & Siregar, 2020).

The results of the case study show that the implementation of hallucination management and Mozart music therapy for three days can reduce the symptoms of hallucinations. The patient can cope with hallucinations, carry out social activities, sleep peacefully, and concentrate more when invited to a conversation. This finding aligns with previous research showing that managing auditory hallucinations in patients can increase their engagement in their activities (Gawęda et al., 2015; Gawęda et al.,

2013). In addition, hallucinating patients who were given hallucinatory management therapy also showed reduced symptoms of depression and loneliness experienced by schizophrenic patients (Liao et al., 2015; Yang et al., 2015). Other studies have also demonstrated that Mozart music therapy can overcome the symptoms of auditory hallucinations if carried out for 3-7 days (Nordberg et al., 2021).

## Conclusion

The results of the study showed that the patient had symptoms of auditory hallucinations characterized by the presence of voices that the patient should not be heard. The Patient was given nursing interventions, namely hallucination management and Mozart music therapy. After being given the intervention for 3 days, the patient could control the hallucinations, the frequency of hallucinations appeared reduced, and the patient started participating in activities with others. This research can be used as a basis for nurses in performing nursing interventions on hallucinatory patients and a guideline for health facilities to make policies for interventions in auditory hallucinations patients.

## Limitations

The study limitation is that the intervention time is limited to 3 days. So that the implementation process cannot be carried out comprehensively to assess patient habits. This research is also limited to providing nursing interventions that are carried out from 8 AM to 5 PM. The patient's progress cannot be monitored outside of this time. The data from the assessment also cannot be compared with data from the family, so there is no supporting data to validate the data obtained.

## Ethical Considerations

### Compliance with ethical guidelines

All ethical principles are considered in this article. The participants were informed of the purpose of the research and its implementation stages. They were also assured about the confidentiality of their information and were free to leave the study whenever they wished, and if desired, the research results would be available to them. A written consent has been obtained from the subjects. Principles of the Helsinki Convention was also observed.

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## Authors' contributions

All authors equally contributed to preparing this article.

## Conflict of interest

The authors declared no conflict of interest.

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