



# Effectiveness of Mental Health through Audiovisual Media on Schizophrenia Caregiver: A Systematic Review

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## Abstract

**Background:** The utilization of audiovisual media information technology as a method that can be used to provide nursing services to schizophrenic patients in hospitals and the community during the COVID-19 pandemic is one thing that needs to be considered. The purpose of the study: is to analyze the literature on the effect of mental health interventions through audiovisual media on caregivers' ability to treat schizophrenic patients.

**Methods:** This article was compiled through the literature review method. Literature is drawn from PubMed, ProQuest, and Scopus. The search for articles was limited to publications from 2016 to 2021. The literature obtained as many as six articles that met the inclusion criteria using a review protocol through the PRISMA checklist. Through screening inclusion and exclusion criteria, quality assessment, and data extraction stages. All relevant articles were analyzed based on quality and relevance to the review topic, questions, and literature review objectives.

**Result:** Based on the results of the analysis of six articles that have been reviewed about the effectiveness of audiovisual media on the caregiver's ability to treat schizophrenic patients. There are five articles or 83% of journals that state that audiovisual media effectively improves the caregiver's ability to care for schizophrenic patients. Another article stated that the Audiovisual module that was compiled was valid and reliable, so it was hoped that it would improve the caregiver's ability to care for schizophrenic patients.

**Conclusion:** Audiovisual media effectively increases caregivers in caring for schizophrenic patients at home.

**Key Words:** Audiovisual, Caregiver, e-health, Knowledge, Mental Illness.

**DOI Number:** 10.14704/nq.2022.20.5.NQ22193

**NeuroQuantology 2022; 20(5):444-451**

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## Introduction

The COVID-19 Pandemic has become a global health problem, including in Indonesia. The impact of the COVID-19 pandemic requires nursing services to adapt to changes in health services. Before the pandemic, health services in hospitals and at home or in the community were provided by nurses directly or face to face. With the program to prevent the high number of Covid 19 cases through face-to-face restrictions and social distancing, nursing staff need to find solutions so that services for schizophrenic patients remain optimal and

maintain health protocols. One of the efforts in adapting nursing services is through nurses' awareness of the use of information technology.

The utilization of audiovisual media information technology is one way that can be used in providing nursing services in hospitals and the community. Audiovisual media technology for nurses and caregivers (families and communities) is expected to reduce the prevalence of schizophrenia cases and increase caregiver independence.

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**Relevant conflicts of interest/financial disclosures:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

**Received:** 18 March 2022 **Accepted:** 23 April 2022



The high prevalence of schizophrenic patients is a challenge for nurses both nationally and globally. WHO in 2019 reported that the prevalence of mental disorders was 264 million people, while 20 million people had schizophrenia. Riskesdas (2018) states that the prevalence of people with mental disorders (ODGJ) in Indonesia has increased to 7 per mil households, meaning that per 1000 households, there are seven households with ODGJ, so the number is estimated at 450 thousand severe ODGJ. The highest prevalence is in Bali, 11.1%, while in Central Java, 8.2% of 1000 houses suffer from schizophrenia.

Stuart (2016) states that schizophrenia is a chronic neurobiological disorder; the syndrome can cause damage to the lives of individuals, families, and communities. The impact that often arises is the repeated period of recovery and relapse, so it requires continuous treatment. Schizophrenic patients who lived with their families during the Covid-19 pandemic era have various problems, namely irregularity in taking medication and not routinely controlling. This condition becomes a burden on the family regarding how to treat schizophrenic patients at home. It is suspected that the condition of lack of family knowledge, unsupportive attitudes, and lack of family skills or abilities in caring for patients are also the causes of high cases of schizophrenia. So it takes the role of nurses to make caregivers independent to be able to care for schizophrenic patients at home.

People with schizophrenia at home are often unable to carry out their duties, so there is a change in the roles and responsibilities of families who care for patients (WHO, 2017). People with schizophrenia need caregivers to support, care for, and fulfil their needs, and families as companions and nurses are also very influential in the relapse of people with schizophrenia. Caregiver support with less impact is six times more likely to relapse than families who have good support (Isak, 2015).

A caregiver is someone who takes care of patients in their lives. Caregivers as emotional support, care for patients (bathing, dressing, preparing food, preparing medicine), manage finances, make care decisions, and deal with health services (Award & Vuroganti, 2008). Caregiver factors related to relapse include knowledge factors, treatment methods for schizophrenia patients, family support (support), quality of life, and stressful life events

while caring for patients (Farkhah et al., 2017). Efforts to increase caregiver knowledge are through health education. Health education has a good impact if, in the process, the appropriate method is used. Health education provides mental health guidance or counselling to the community to improve mental health in the family, prevent disease and recognize mental disorders early and their treatment efforts. Health education methods are face-to-face (poster) and social media methods (Andi, 2017). The video intervention method effectively increases caregiver knowledge (Bambang, 2019). Based on this background, this literature review aims to analyze whether there is an effect of mental health interventions through audiovisual media on the ability of caregivers to treat schizophrenic patients.

### Method's

This article was conducted using a literature search technique method. A list of databases used from national and international databases include PubMed, ProQuest, and Scopus. The literature reviewed was retrieved by adjusting the list of keywords and synonyms. The keywords used are Mental Illness, Audiovisual, Knowledge, Caregiver, and e-health. The inclusion criteria applied included: limited article searches for publications from 2016 to 2021, using English, quantitative and qualitative research methods, and mixed methods. Six hundred ninety-one articles were found and screened according to the inclusion criteria into six full-text articles. All relevant articles were analyzed according to the topic of the review and the purpose of the literature review. Articles were analyzed using Endnote. The article selection process in Figure 1 is structured according to the Preferred Reporting Systematic Reviews guidelines according to Moher et al. (2009). A total of 691 articles indicated the suitability of the topic between 2016 - and 2021. After the title and abstract screening were carried out, 70 articles entered the full text and eligibility review stage according to the inclusion and exclusion criteria. Six research articles that met were then reviewed for quality and synthesized.



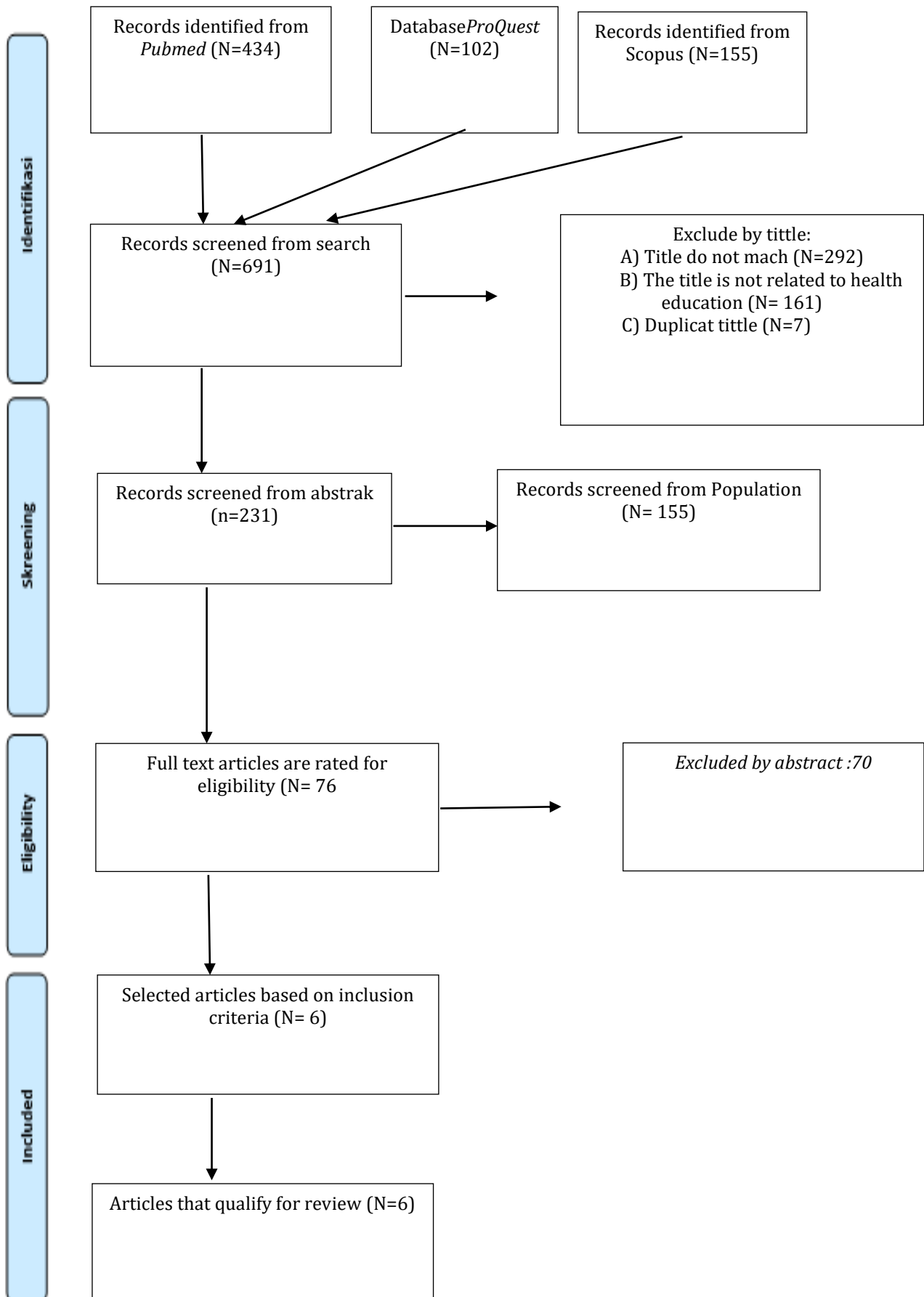


Figure 1. Prisma Diagram



## Results

**Table 1.** Summary Appraisal

No	Researcher's name and year	Research Title	Method	Respondent	Research purposes	intervention	Results	Implication
1	Hamza, A. Et.al (2019)	Development , and Testing of an Audio-Visual Self-Help Yoga Manual for Indian Caregivers of Persons with Schizophrenia. Living in the Community: A Single-Blind Randomized Controlled Trial.	Quantitative, with experimental test with control group	Divided into two intervention groups and control groups. The intervention group consisted of 23 caregivers (families) and the control group consisted of 25 participants who had family members suffering from schizophrenia.	Tested whether independent yoga therapy given to caregivers was more effective in increasing the family's ability to care for sick family members or not when compared to the control group who was only given therapy as usual.	Providing independent self-yoga therapy exercises.	Manual self yoga therapy was found to affect the ability of caregivers to treat patients with schizophrenia, but there was no significant difference between the intervention group and the control group.	Therapy given through audiovisual media can improve the ability of caregivers in treating schizophrenic patients at home.
2	Sin, J., et al (2019).	Usability evaluation of an e-Health intervention for family carers of individuals affected by psychosis: A mixed-method study.	Online trial of the intervention. Qualitative. Mixed-methods research design using MRC complex interventions	Respondents consisted of 20 caregivers, aged over 18 years, involved in the care of schizophrenic patients, participants can use the internet in English and have internet access at home.	To determine the impact of e-health psychoeducation on the ability of caregivers in knowing the client's disease condition and ability to problem-solving strategies.	Therapie-health psychoeducation.	The results showed that psychoeducation therapy that was given through electronic means had an impact on the caregiver's ability to recognize the client's illness and ability in problem-solving strategies.	E-health psychoeducation is effective in increasing the ability of caregivers in caring for members who suffer from mental disorders.
3	Balasubramanian, N., et al (2018)	Video Assisted Teaching Module (VATM): developed for primary caregivers on home care of schizophrenic patient.	This study uses the Pertinent literature method and the reliability validity test for the video-assisted teaching module.	The sample in this study is in the form of literature which is compiled and analyzed to build a learning module.	This study aims to explain whether the VAT-model development process can be applied to caregivers who care for schizophrenic patients at home.	Consists of 3 phases of activity: Phase 1: pre-production (Review of relevant literature, scriptwriting ). Phase 2: Production (shooting). Phase 3:	Video is more popular and has a unique feature that captures accurately and comprehensively according to the nature or phenomenon of nursing in	The development of learning modules through video has been tested to be valid and reliable in improving the ability of caregivers in treating schizophrenic



						post-production (editing, validity, reliability, and pretesting).	providing health information in a multi-media, multi-sensory continuous manner, according to the subject and context.	c patients.
4	Marria Y. Hernandez, et al (2016)	Using a Narrative Film to Increase Knowledge and Interpersonal Communication About Psychosis Among Latinos	Qualitative research	Forty respondents were divided into 4 groups, consisting of family and friends who had schizophrenic patients. The average participant was 49 years old and most of them were born in Latin America and had lived for more than 10 years.	This study aims to determine the effectiveness of film narratives as a form of audiovisual in increasing knowledge and interpersonal communication skills between family and friends towards schizophrenic patients.	Participants were given an intervention through a narrative film about how to communicate and interact with schizophrenic patients.	Through the spectacle intervention in the form of narrative films, participants' knowledge increased, especially knowledge about the main symptoms, hallucinations and speech disorders as basic signs of schizophrenic patients. Interpersonal communication skills were also reported to increase after participants watched narrative films.	Film narratives are effective in improving knowledge and communication skills. Film narrative as part of audiovisual needs to be used as a strategy in simulation and dialogue between caregivers and schizophrenic patients.
5	Sherry K. W. Chan, et al (2016)	Web-Based Psychoeducation, Program for Caregivers of First-Episode of Psychosis: An Experience of Chinese Population in Hong Kong.	Qualitative research	A total of 809 caregivers participated in the interactive internet-based self-help psychoeducation program (iPEP), consisting of men and women with an age range of 17 years - to 81 years.	The purpose of this study was to analyze whether the iPEP method is effective in improving the skills of caregivers in treating psychosis patients.	The web-based online training includes written learning and video formats that include knowledge of psychosis, treatment skills, and local reference sources of information.	Participants reported that they had browsed the website an average of 5 times with a duration of about 5-30 minutes. The website increased their knowledge of psychosis (85.2%); improve their understanding of local resources (77.5%) and	Web-based psychoeducation is effective in increasing knowledge, understanding, and support for the care of patients with mental disorders. Web-based psychoeducation is recommended for caregivers to use in the treatment of psychosis



							make them feel supported (74.7%). Over 80% of respondents would recommend the website to others.	patients.
6	Nagarajan, P, et al (2020)	Effect of a Video-assisted Teaching Program about ECT on Knowledge and attitude of Caregivers of Patients with Major Mental Illness	Qualitative research	An experimental pre-test and post-test design were adopted. Forty caregivers of persons with schizophrenia (n = 12), depression (n = 13), BPAD with mania (n = 8), and BPAD with depression (n = 7) were selected using a convenience sample. Caregivers' knowledge and attitudes toward ECT were assessed before and after the intervention with a single video-assisted teaching session on ECT	To test whether there is an effect of video learning program intervention on the level of knowledge and attitudes of caregivers who have Schizophrenia patients.	Intervention through the provision of learning videos about ECT on caregiver knowledge and attitudes.	The pre-test evaluation showed poor knowledge among 12 (30%) and a moderate level of knowledge in the remaining 28 (70%) of the research subjects. Attitude scores revealed a neutral attitude among 47.5% and a conservative attitude among 10% of subjects towards ECT. There were a significant increase in both mean ( $\pm$ SD) knowledge scores (13.4 $\pm$ 4.7 vs 25.6 $\pm$ 2.9) and attitudes (10.7 $\pm$ 3.5 vs 14.6 $\pm$ 3.9) after intervention with the help of teaching videos.	Learning videos improve knowledge and attitudes towards ECT among caregivers by dispelling myths and misconceptions about ECT.

Based on the results of the analysis of 6 articles reviewed about the effectiveness of audiovisual media on the ability of caregivers to treat schizophrenic patients. There are five articles that state that audiovisual media effectively improves the caregiver's ability to treat schizophrenic patients. Audiovisual media is especially effective in increasing caregivers' knowledge, attitudes, and skills compared to

conventional interventions (face to face). As the results of research by Hamza et al. (2019) in their research on audiovisual media to caregivers, the results of this study show that audiovisual media therapy has a more significant influence than the usual method (face to face) on the ability of caregivers to treat patients with disorders. Schizophrenia.



The effectiveness of nursing interventions through audiovisual media for caregivers is also explained in detail regarding the caregiver's age limit. Based on research from Sin J. et al. (2019), the practical age limit in intervention for caregivers is over 18 years of age. His research also reveals that audiovisual media such as e-health psychoeducation help improve caregivers' abilities to know the client's disease conditions and caregivers' abilities to use problem-solving strategies. Other studies from Nagarajan also support these results, P et al. (2020) that audiovisual media effectively increases caregiver knowledge and attitudes and reduces misunderstandings about nursing actions in schizophrenic patients.

Audiovisual media, known as sound and display media, are an alternative for learning and intervention in the era of the Covid 19 Pandemic. A suitable model or type of audiovisual media is needed to improve the caregiver's ability to treat schizophrenic patients at home. Audiovisual media with a narrative film model has proven to be effective in increasing the caregiver's ability to treat schizophrenic patients at home. As research by Marria Y. Hernandez et al. (2016), as many as 40 respondents who have schizophrenia patients watched narrative films about knowledge of main symptoms, hallucinations, and speech disorders as basic signs of schizophrenic patients; it is proven that these interventions increase caregiver knowledge and communication skills. Interpersonally to patients.

Information technology is developing so rapidly that there is no limitation of space or distance between one person and another. The distance becomes closer when connected via online media. Likewise, audiovisual media can be developed online. As research by Sherry K.W. Chan et al. (2016) in their research, as many as 809 caregivers participated in the online interactive internet-based self-help psychoeducation program (CPAP), consisting of men and women with an age range of 17 years and 81 years. In his research, online web-based training, including written learning and video formats, knowledge of psychosis, treatment skills, and local reference sources of information. The results of the study, after participants reported that they had browsed the website an average of 5 times, with a duration of about 5-30 minutes, the website increased knowledge about psychosis (85.2%); increased understanding of local resources (77.5%) and make caregivers feel

supported (74.7%). The study results also stated that more than 80% of respondents would recommend the website to others as a way to improve the caregiver's ability to care for patients at home.

## Discussion

The problem of recurrence that often occurs in schizophrenic patients is due to various things. *Recurrence* is a problem that must be considered by nursing personnel because it can be prevented by minimizing the cause. Several factors that influence recurrence include non-adherence to taking medication, lack of support from health workers and families, and the patient's genetic history (Arif I.T et al., 2022). In (Friedman, 2010) mentions that one of the causes of recurrence of people with schizophrenia is the lack of social support in sick family members due to family ignorance in caring for people with mental disorders at home.

Negative stigma from society is also a problem because it is seen as a disgrace and a deviant individual, resulting in discriminatory treatment. Stigma in ODGJ (people with mental disorders) that grows and develops is also considered something that is right by the community and the patient's family. On the other hand, families can treat families who become ODGJ as well as possible, Komang E.M et al. (2019). So far, treatment or prevention of recurrence is still limited to having to go to the hospital; there has been no modification of the actions of mental nurses to make caregivers independent, especially in terms of increasing knowledge, attitudes, and skills in caring for schizophrenic patients at home.

Optimizing caregivers in caring for schizophrenic patients needs to be modified through appropriate nursing actions. One of them is by providing the proper education. Audiovisual media can do mental nursing education about mental nursing interventions because it is easier to convey messages to caregivers than lectures and discussions.

Audiovisual media is easy to design and increases effectiveness and efficiency because it can be seen repeatedly by caregivers. Audiovisual media that combines the two senses of hearing and sight makes conveying messages and receiving health information easy. Likewise, in communication, some media factors are the key to the success of the message being well received by listeners.



Mental nursing interventions for caregivers through audiovisual media are more effective based on six previously analyzed journals when compared to the usual method or face-to-face method. The reasons why audiovisual media are effective are because they do not require a formal setting or a visit to the hospital. There is no feeling of awkwardness or embarrassment for nurses. They save on transportation, and caregivers can repeatedly witness examples of mental nursing interventions. Audiovisual media as a medium for nursing interventions are not limited to education to increase knowledge. However, they can also improve attitudes and caring skills, improve ways of communicating with patients and increase family confidence about mental nursing actions given in hospitals, such as ECT actions. Audiovisual media can also reduce negative stigma or disgrace in society because audiovisual media can also contain material or messages that schizophrenia is not a cursed or mystical disease. However, schizophrenia is a mental illness that requires drug therapy and family support.

Audiovisual media has become a trend in intervention in the Covid-19 pandemic era and has challenges that must be anticipated as preparatory actions that mental nurses must meet. Such as research from Sherry K.W. Chan et al. (2016) states that an internet connection is required, the availability of a gadget/smartphone or the caregiver's ability to apply audiovisual media. The application of psychiatric nursing therapy through audiovisual media also needs to be prepared with the preparation of valid and reliable modules or SOPs before the intervention is carried out so that the effectiveness of therapy can be appropriately fulfilled. Balasubramanian, N. et al. (2018) found that a valid and reliable instrument is essential before the intervention is carried out.

## Conclusion

Based on the literature study that has been analyzed, it can be concluded that audiovisual media can effectively improve the caregiver's ability to treat schizophrenic patients at home.

## Acknowledgement

The authors acknowledge the Institution for encouraging the research.

## Conflict of Interest

None.

## Funding Source

None.

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