



## CAUSAL FACTORS OF VIOLENT BEHAVIOR IN PATIENTS WITH SCHIZOPHRENIA: LITERATUR REVIEW

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### ABSTRACT

Schizophrenia causes distortion of thoughts, perception distortions, emotions, and behavior so that patients with schizophrenia have a higher risk of aggressive behavior where dramatic changes in behavior occur within a few days or weeks so that violent behavior is often associated with schizophrenic patients. Violent behavior is a situation where a person performs an action that can harm physically, both to himself and others. Although violent behavior is often associated with schizophrenic patients, not many studies have shown what factors can trigger violent behavior in schizophrenic patients. Aim this study was conducted to determine the factors causing the emergence of violent behavior in patients with schizophrenia. Method. This study uses Qualitative descriptive research approach to find out the description and problems in detail. The source of article data is done using databases and search engines, namely EBSCO, Springer, and Garuda. The strategy used to search the literature is to use the keywords Schizophrenia, Violent Behavior, and Factors. Inclusion criteria in this study were free full text and the year of article published in the range 2012-2022, in Indonesian and English, settings for various geographic locations and settings using the keyword cognitive behavior therapy. Results. Found 383 articles that have a theme according to the keywords entered. Furthermore, full-text article filtering and duplication filtering were carried out to obtain 219 articles. By using the inclusion and exclusion criteria, 6 research articles were obtained which were then analyzed in this study. Article analysis using PRISMA and PICO as the approach. Conclusion. Two main factors cause violent behavior in schizophrenic patients. These factors are predisposing factors such as the patient's personality and history of violence, as well as precipitating factors such as genetics, loss of self-concept, and disharmony in the patient's living environment.

Keywords: causal factors; schizophrenia; violent behavior

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## INTRODUCTION

The problem of mental health disorders throughout the world has become a serious problem. WHO (2019) estimates that around 450 million people in the world experience mental health disorders, with 20 million of them experiencing schizophrenia. Meanwhile, it is estimated that 2-3% of the Indonesian population has mental disorders and the prevalence of people who have suffered from schizophrenia in Indonesia reaches 1.8 per 1000 population. Schizophrenia causes thought distortions, distortions of perception, emotions and behavior so that patients with schizophrenia are at greater risk. high levels of aggressive behavior where dramatic changes in behavior occur within a few days or weeks so that violent behavior is often associated with schizophrenia patients (Stuart 2014). Violent behavior is a response to stressors faced by a person. This response can cause harm to oneself, others and the environment.

Violent behavior is a situation where a person carries out actions that can cause physical harm, both to themselves and others (Afnuhazi 2015). Violent behavior is anger that is expressed excessively by an individual so that it cannot be controlled both verbally and nonverbally and can injure oneself, and others and damage the environment. Violent behavior can be caused by several factors, both predisposing factors and precipitating factors, both of which can trigger violent behavior. Violent behavior occurs because of the accumulation of repeated frustration and because the individual's desires are not achieved or even fail so the individual behaves aggressively (Suerni and Livana 2019). Violent behavior is considered an extreme result of anger, fear, or panic. Aggressive behavior and violent behavior are often seen as a range where verbal aggression is on the one hand and violent behavior is on the other. Where in this case there is a situation that causes emotions, feelings of frustration, hatred, or anger. So this will influence a person's violent behavior. Based on this deep emotional state, sometimes behavior becomes aggressive or injurious due to poor use of coping.

Signs and symptoms of violent behavior include a red and tense face, bulging/sharp eyes, clenched fists, tightly clenched jaw, harsh speech, high voice, screaming or shouting, threatening verbally and physically, throwing or hitting objects/other people, damaging things or other things, not having the ability to prevent/control violent behavior (Muhith 2015). Apart from that, other signs include curt speaking, self-harm, aggressive/raging behavior, and stiff body posture. Signs and symptoms experienced by clients of violent behavior need to be treated appropriately because if not, this can cause other, more serious problems to arise. Clients with violent behavior often cannot control the situation and do not feel the benefits of health services. Although violent behavior is often associated with schizophrenic patients, there is not much research showing what factors can trigger violent behavior in schizophrenic patients. Aim this study was conducted to determine the factors causing the emergence of violent behavior in patients with schizophrenia.

## **METHOD**

This research uses a literature study. The articles used are national and international published articles. The article data source was carried out using databases and search engines, namely EBSCO, Springer, and Garuda. The strategy used to search for literature was to use the keywords Schizophrenia, Violent Behavior, and Factors. The inclusion criteria in this research are free full text, article publication year in the range 2012-2022, in Indonesian and English, qualitative research type, and cross-sectional study. The total search for articles from national and international articles was 383 articles. Identified based on combining keywords by applying the PICO approach with Population: The keywords used in the search are: Schizophrenia, Violent Behavior, and Factors. The article analysis process used PRISMA and collected 6 articles. keyword cognitive behavior therapy. Meanwhile, the exclusion criteria are books, case reports, unpublished full text, publication year below 2012, and languages other than Indonesian and English. From the results of the screening and selection of articles that had been carried out, 6 articles were analyzed in this study. Data collection and analysis is an iterative process that occurs simultaneously as the research progresses (Tenny et al. 2021). The data analysis model used is the Miles and Huberman model (1984), where data analysis activities are carried out in 4 stages, namely: data collection, data reduction, data display, conclusion/verification (Sudibyo 2016).

## **RESULTS**

After searching using keywords that had been created in the database used, namely EBSCO, Springer, and Garuda, 383 articles were found that had themes according to the keywords

entered. Next, the researchers carried out filtering to obtain full-text articles in all databases so that 93 full-text articles and 290 articles that were not full-text were filtered out from all the databases used. The researcher then downloaded all the articles and entered them into the Mendeley application to filter for duplication and obtained 136 duplicate articles. Of the 219 total articles after screening, 83 articles remained which the researchers then filtered according to the inclusion criteria. So there are 26 remaining articles. Next, the full-text filtering of the articles was carried out so that the remaining articles were left. The final results of the article screening found 6 research articles that were relevant to the aims of this literature review. To facilitate the presentation of information in article analysis, the results of article analysis will be presented in table form consisting of the article title, author, year, research objectives, research location, population, sample and sampling technique, research design, research instruments, and results.

Title, Author, Year	Research Place	Interest	Population sampel	Research Design and Instruments	Purpose	Result
Faktor Predisposisi dan Presipitasi Pasien Resiko Perilaku Kekerasan (Kandar, Dwi Indah Iswanti 2019)	Indonesia	Predisposing and precipitating factors in violent behavior	5 patient with nursing diagnoses of violent behavior	Research with a qualitative descriptive approach	To determine the factors that influence violent behavior in patients with mental disorders	The results showed that genetic factors did not influence participants in violent behavior. Psychological factors: Research results show that perpetrators of violent behavior, among others, tend to have closed personalities, have deep experiences of loss, are victims of sexual abuse, victims of violence in the family. Socio-cultural factors: Among the socio-cultural factors that influence violent behavior include work and marriage.
An Exploration of the Sleep Quality and Potential Violence among Patients with Schizophrenia in Community (Zi-Ting Chen MSN; Hsiao-Tzu Wang RN,MSN; Ke-Hsin Chueh RN, PhD; I-Chao Liu, MD, DSc; Chien-Ming 2020)	China	Influence quality sleep on patient schizophrenia with behavior al risks violence	78 people with diagnosis aged schizophrenia	Cross Sectional by using Brief instrument Psychiatric Rating Scales, Pittsburg Sleep Quality Index (PSQI) and Aggression Questionnaire	To find out the influence Demographic characteristics, severity of psychiatric symptoms, and sleep quality in patients with schizophrenia on potential risk of violence	The results of the study show that sleep quality is not satisfaction is an important influencing factor. A study of mental disorder patients in institutions of criminal treatment in the Netherlands revealed that patients with sleep disorders were more irritable, less tolerant of frustration, more impulsive, and more aggressive. This study also revealed that unsatisfactory sleep quality was positively correlated with the risk of potential violence. this study revealed that patients younger than 40 years of age showed higher levels of hostility

						than those aged 40 years or older. These results are consistent with the findings of the present study, which showed that young age was an important factor influencing the risk of hostility and that younger patients showed stronger hostility. A previous study also showed that patients with a history of violent behavior have a high risk of showing aggressive behavior again.
<i>Moral Cognition, the Missing Link Between Psychotic Symptoms and Acts of Violence:a Cross-Sectional National Forensic Cohort Study (Ken O'Reilly, Paul O'Connell, Danny O'Sullivan, Aiden Corvin, James Sheerin, Padraic O'Flynn, Gary Donohoe, Hazel McCarthy, Daniela Ambrosh, Muireann O'Donnell, Aisling Ryan &amp; Harry G. Kennedy, 2019)</i>	Irlandia	The influence of moral knowledge on psychotic symptoms with violent behavior	51 patient cross-sectional with violent behavior with psychotic symptoms	To determine the influence and relationship of moral knowledge on psychotic symptoms and violent behavior.	Revealed that patients with sleep disorders were more irritable, less tolerant of frustration, more impulsive, and more aggressive. This study also revealed that unsatisfactory sleep quality was positively correlated with the risk of potential violence. this study revealed that patients younger than 40 years of age showed higher levels of hostility than those aged 40 years or older. These results are consistent with the findings of the present study, which showed that young age was an important factor influencing the risk of hostility and that younger patients showed stronger hostility. A previous study also showed that patients with a history of violent behavior have a high risk of showing aggressive behavior again.	
<i>Prevalence of Aggressive or Violent Behaviour in Thai Patients with Schizophrenia: a CrossSectional Study (N Maneeton, B Maneeton, N</i>	Thailand	Prevalence of factors associated with violent behavior in schizophrenia patients	207 patient diagnosed with schizophrenia	<i>Cross sectional study</i> To determine the prevalence of factors associated with violent behavior in patients with schizophrenia	The results showed that Thai patients with schizophrenia who had access to weapons were more likely to have aggressive or violent behavior. Aggressive or violent behavior can be caused by several factors before, during, and after periods of active illness and may be influenced by cultural and racial	

<p>Jaiyen, P Woottitluk, W Khemawichanur at, 2019)</p>						
<p>variations. Cultural differences can influence the development of aggressive behavior or violence in schizophrenia patients, and these findings may not be generalizable to other populations. Some patients who had committed acts of serious violence or homicide were incarcerated, and this may also have influenced the prevalence of aggressive or violent behavior that we found.</p>						
<p><i>Sociodemographic and clinical characteristics of patients with violence attempts with psychotic disorders (Sevda Korkmaz, Levent Turhan, Filiz Izci, Sadullah Salgam, Murag Atmaca, 2017)</i></p>	Turki	<p>Sociodemographic factors of schizophrenia patients with violent behavior and without violent behavior</p>	<p>151 people diagnosed with schizophrenia were divided into two groups, those with violent behavior and those without violent behavior</p>	<p>Cross sectional study</p>	<p>To compare socio-demographic factors and clinical characteristics of schizophrenia patients with violent behavior</p>	<p>The results showed that the average age of schizophrenia patients with violent behavior was lower than that of schizophrenia patients without violent behavior. Men have higher levels of violent behavior than women. Violent behavior was found in 56% of the sample in this study, especially those diagnosed with chronic schizophrenia and paranoid schizophrenia.</p>
<p><i>Hippocampal subfield and amygdala nuclei volumes in schizophrenia patients with a history of violence (Natali Tesli, Dennis van der Meer, Jaroslav Rokicki, Guttorm Storvestre, Cato Rosaeg, Arvid Jensen, Gabriela Hjell, Christina Bell, Thomas Fischer-Vieler, Martin Tesli,</i></p>	Norwegia	<p>Measuring hippocampal subfield and amygdala nucleus volumes in schizophrenic patients with violent behavior</p>	<p>The research was conducted on 165 people with the following details; 20 people diagnosed with schizophrenia with violent behavior, 5 people with schizophrenia without violent behavior, and 90 healthy people (control group).</p>	<p>Cross sectional study</p>	<p>To determine the volume of hippocampal subfields and the volume of amygdala nuclei in schizophrenic patients with violent behavior</p>	<p>The results showed that the total hippocampal and amygdala volumes were smaller in schizophrenia patients with violent behavior compared to the control group. Schizophrenia patients with violent behavior showed smaller amygdala and basal nucleus analyses compared to schizophrenia patients without violent behavior. The accessory basal nucleus has extensive internuclear connections with the basal nucleus and is one of the main targets for input from cortical as well as subcortical regions. Although both SCZ groups showed</p>

Ole A.  
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Haukvik, 2020)

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## **DISCUSSION**

This article aims to determine the factors that most influence the causes of violent behavior in patients with schizophrenia. From 6 articles discussing factors that influence violent behavior in patients with schizophrenia, the following results were obtained. Violent behavior is influenced by various factors that cause a person to carry out actions that can cause physical harm, both to themselves and others. Based on research Kandar and Iswanti (2019) , it is explained that there are predisposing and precipitating factors that influence a person to carry out violent behavior. There are two predisposing factors that influence schizophrenic patients to carry out violent behavior, including psychological factors such as a closed personality, loss, sexual abuse, violence in the family, and also sociocultural factors. such as job loss and marital problems. Apart from that, Kandar's research, it was also explained precipitating factors in patients at risk of violent behavior, namely genetic factors such as drug withdrawal which triggers patients experiencing the risk of violent behavior, psychological factors such as loss of self-concept due to not being accepted by the surrounding environment, and socio-cultural factors such as the disharmony of the living environment makes you want to get angry and speak harshly. There are two factors that trigger mental disorders, namely factors from oneself and from outside, including the surrounding environment (Stuart 2014).

Patients with violent behavior are often affected by physical illness, relapse of psychotic symptoms, irregular medication, unresolved interests, and impaired emotional regulation (Yosep, Iyus, & Sutini 2014). Research explains other factors that influence someone to carry out violent behavior, namely the sleep quality factor, where schizophrenic patients with unsatisfactory sleep quality are more irritable, intolerant of frustration, impulsive, and more aggressive. This is because poor quality sleep causes decreased frontal cortex function, thereby impairing emotional control and increasing the risk of violent behavior, anger, and other aggressive behavior. It is explained that sleep quality is positively correlated with the risk of violent behavior. Another factor is age, where the risk of hostility and violent behavior appears more in young communities. Apart from that, a history of previous violence is also a factor that influences violent behavior, where schizophrenia patients who show violent behavior in the previous month are at higher risk of committing violent behavior than patients who do not show violent behavior (Chen et al. 2021).

Several studies state that patients with schizophrenia are at greater risk of committing violent behavior O'Reilly et al. (2019), in their research, the factor that causes patients with psychotic symptoms to commit violent behavior is the moral cognition factor, explaining that the moral cognition in question includes the patient's knowledge of reducing suffering, responding to injustice or betrayal, the desire to obey authority, or the desire to punish inappropriate or repugnant behavior. This may be the main mediator in explaining the relationship between psychotic symptoms and violent acts. These findings may also be important for risk assessment, treatment, and prevention of violence. The factors that trigger someone to behave violently are complex or multifactorial because they can be caused by various sources, including the individual, environment, family, parenting style, personality model and knowledge (Varcarolis 2014).

Violent behavior in patients with schizophrenia is higher compared to the general population. Violent behavior shown by patients with schizophrenia can be verbal or physical violence. Apart from that, according to research (Maneeton et al. 2019), criminal acts committed by schizophrenia patients are higher compared to the general population. Maneeton also revealed that patients who have access to sharp weapons have a higher risk of committing violent behavior. Sociodemographic factors that influence violent behavior in schizophrenia patients include being unmarried, not having a job, having a diagnosis of schizophrenia, receiving electroconvulsive therapy, and being at risk of suicide. According to research by Maneeton et.al., violent behavior is caused by various influencing factors before, during, and after the active period which is influenced by racial and cultural diversity.

Meanwhile, according to research Korkmaz et al. (2017), the average age of schizophrenia patients with violent behavior is lower than that of schizophrenia patients without violent behavior. Violent behavior in schizophrenia patients is higher in men than in women. Korkmaz, et.al's research revealed that violent behavior was carried out by 56% of schizophrenia patients, especially patients with paranoid schizophrenia and chronic schizophrenia diagnoses. This may be caused by the presence of delusions of persecution, jealousy, and auditory hallucinations that give orders. Because in the paranoid subtype, patients will lose less cognitive abilities than in other subtypes of schizophrenia, and thus, they may exhibit violent behavior. This research also states that the majority of patients show violent behavior toward those closest to them, namely family, because schizophrenia patients' social relationships are limited to family. In addition, economic factors have an influence because research shows that groups with low-income levels show a higher risk of violent behavior. Another factor that influences the smoking habits of schizophrenia patients with violent behavior is higher compared to schizophrenia patients without violent behavior.

Tesla et al., (2020) revealed differences in hippocampal and amygdala volume in schizophrenia patients with violent behavior. Schizophrenic patients with violent behavior have smaller hippocampal and amygdala volumes compared to normal people. The accessory basal nucleus has extensive internuclear connections with the basal nucleus and is one of the main targets for input from cortical and subcortical regions. The basal nucleus belongs to the basolateral complex and is connected to striatal areas involved in the control of instrumental behavior and in generating emotional states through signaling of affective arousal to higher-order brain areas. This nucleus is the primary target of afferents from the prefrontal cortex. The anatomical and functional connectivity between the orbital prefrontal cortex and the basal amygdala is critical for decoding emotionally vital information and thus critical for guiding goal-directed behavior.

## **CONCLUSION**

Various research articles have shown a relationship between violent behavior and schizophrenia patients. This behavior can arise due to two main factors, namely predisposing factors and precipitation factors. One of the predisposing factors that play a major role in violent behavior is psychological, which is characterized by closed behavior, loss, a history of sexual abuse, and family violence. Other predisposing factors that are also influential are socio-cultural factors, such as problems in marriage and loss of work. Meanwhile, the precipitating factors that trigger violent behavior are genetic such as age and abnormal brain structure, psychological such as loss of self-concept due to not being accepted by the surrounding environment or the desire to punish behavior that is considered inappropriate, and socio-cultural such as disharmony in the living environment. I want to get angry and speak harshly.

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