

Exploring Hebephrenic Schizophrenia Through the Lens of Skinnerian Behaviorism with Consideration of Substance Abuse History

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Abstract: This study explores hebephrenic schizophrenia in a 21-year-old man, initials MY, with a history of drug abuse. Using qualitative methods and a case study approach, this research was conducted at RSJ X, East Java, for two weeks. Data were collected through documentation study, observation, and interviews, involving the subject and his family. Data analysis followed the Miles and Huberman technique, including data reduction, data presentation, and conclusion drawing. The results showed that the subject experienced symptoms of hebephrenic schizophrenia, including disorganized behavior, affective disorders, and fragmentary hallucinations. A history of drug abuse, family conflict, and pressure from the work environment are factors that worsen the subject's mental condition. The death of the grandfather who was very close to the subject also played a significant role in triggering the disorder. This study emphasizes the importance of holistic interventions in the treatment of hebephrenic schizophrenia, especially those involving psychosocial factors and substance use.

Keywords: Hebephrenic Schizophrenia, Substance Abuse, Mental Illness, Case Study

1 INTRODUCTION

Schizophrenia is a serious mental disorder that affects an estimated 24 million people worldwide, equivalent to 1 in every 300 people (0.32%), with the disorder being more common in young adulthood, with onset tending to be earlier in men than women (WHO, 2022). According to the DSM-5-TR, this disorder falls within the spectrum of schizophrenia and other psychotic disorders defined by a variety of symptoms such as delusions, hallucinations, disorganized thinking, and grossly abnormal motor behavior (APA, 2022). Schizophrenia is characterized by profound disturbances in thinking, emotions, and behavior, often resulting in withdrawal from social interactions and reality, as well as an inability to logically connect thoughts (Davinson, 2010; Rohmah & Pratikto, 2019). Although schizophrenia is not the most common mental disorder, the complexity of its symptoms makes its management extremely challenging, especially when combined with other conditions such as substance abuse. In Indonesia, data from the 2018 Basic Health Research (Riskesdas) showed a significant increase in the prevalence of schizophrenia, from 1.7 percent of households in 2013 to 6.7 percent in 2018 (Riskesdas, 2019). This increase not only reflects the challenges of mental health care in Indonesia, but also highlights the social burden of this disorder. In East Java alone, the prevalence of schizophrenia reached 6.4 permil, indicating that the problem is widespread across different regions in Indonesia (Ismidah et al., 2022).

One of the most difficult types of schizophrenia to manage is hebephrenic schizophrenia, which is characterized by disorganization of thought and behavior, often in the absence of overt delusions or hallucinations. Patients with hebephrenic schizophrenia tend to have a worse prognosis compared to other subtypes (Fitriani, 2018). Especially if accompanied by substance abuse. This combination of severe mental illness and substance abuse creates a double challenge that worsens symptoms, slows recovery, and increases the risk of relapse. Substance abuse in patients with hebephrenic schizophrenia is often used as a way to cope with their symptoms, but it actually worsens their condition. Dependence on substances such as alcohol or drugs can exacerbate the cognitive and emotional disorganization that characterizes hebephrenic schizophrenia, making medical and psychological interventions more complex and less effective. In the context of the disease course of hebephrenic schizophrenia, understanding the dynamics of how a history of substance abuse affects a patient's condition is crucial. For example, a 21-year-old patient admitted to East Java's RSJ

X demonstrates how hebephrenic schizophrenia develops and interacts with prior substance use. This patient's history of drug abuse adds a layer of complexity to the course of his illness, influencing the way symptoms present and develop. Factors such as substance dependence can exacerbate the cognitive and emotional disorganization that is a key feature of hebephrenic schizophrenia. The case studies that will be conducted in this article aim to illustrate how the course of hebephrenic schizophrenia can be influenced by various factors, including a history of substance abuse, and underline the importance of understanding the full context of a patient's condition to gain a more complete picture of the challenges they face. Therefore, understanding the dynamics of the course of patients with hebephrenic schizophrenia who have a history of substance abuse is crucial for designing effective treatment strategies and improving the quality of life of patients with hebephrenic schizophrenia.

2 MATERIALS AND METHODS

This research uses a qualitative method with a case study approach, which allows researchers to explore the phenomenon of hebephrenic schizophrenia in depth, especially in subjects with a history of drug use. This method was chosen because it provides a more comprehensive understanding of the subject's condition, and allows for a more complete and meaningful analysis in a natural context. The case study in this research focuses on a subject with the initials MY, a 21-year-old man diagnosed with hebephrenic schizophrenia and has a history of substance abuse. Subjects were selected based on the inclusion criteria, namely subjects who were cooperative, were inpatients with a medical diagnosis of schizophrenia, had complete medical record data, and families who were willing to cooperate for the history taking process. This study was conducted for two weeks at RSJ X East Java.

Data were collected through three main methods: documentation study, observation, and interviews. Documentation study involved reviewing official documents such as medical records, clinical reports, as well as relevant scientific literature on hebephrenic schizophrenia and substance abuse. Observation was conducted for two weeks, which included observing the subject's behavior in daily life, physical condition, as well as his interaction with the surrounding environment. Researchers also paid attention to the symptoms that appeared in accordance with the PPDGJ III diagnostic guidelines (F.20 and F.20.1), which are the main reference in the diagnosis of schizophrenia (Maslim, 2013). Furthermore, interviews were conducted both informally and formally using a general guide, involving the subject and his family (alloanamnesis). This interview aimed to dig deeper into the subject's life history, experience of drug use, and symptoms associated with hebephrenic schizophrenia. The interview guide was prepared based on the theory of schizophrenia, Skinner's behaviorism theory, and psychopathology relevant to the subject's condition.

The data collected was analyzed using the Miles and Huberman technique which consists of three main steps: data reduction, data presentation, and conclusion drawing. Data reduction was done by selecting important information from the results of observations, interviews, and documentation studies. Then, the data was presented systematically in the form of a narrative that was easy to analyze further. Finally, conclusion drawing is done to answer research questions and test hypotheses that have been formulated (Sugiyono, 2014). This approach allowed the researcher to understand more deeply the challenges in the diagnosis and treatment of hebephrenic schizophrenia with a history of drug abuse, as well as to identify factors that influence the subject's condition.

3 RESULTS

Based on medical records, a 21-year-old male was admitted to X Mental Hospital on February 3, 2024. The subject was brought to the psychiatric hospital with a chief complaint of anger. The subject after being discharged from the hospital some time before, became angry the day after, berated his father, shouted, angered his father, talked to himself, had difficulty sleeping, heard male voices telling him to walk, paced, and was restless. The subject also likes to wander on foot from home. The subject has a history of entering RSJ X several times starting in 2021, where the subject was diagnosed with hebephrenic schizophrenia. The following is the identity of the subject in this study and the history of the subject's complaints described according to each aspect:

Table 1. Subject Identity

Name	: MY
Place/Date of Birth	: Palembang, January 31, 2003
Age	: 21 years old
Gender	: Men
Tribal Nation	: Java
Religion	: Islam
Last Education	: Vocational High School
Jobs	: Factory employee
Marriage Status	: Unmarried
Address	: Malang, East Java
Child to	: First of three siblings
Hobbies/Passions	: Listening to music, playing cell phone, playing soccer

Table 2. Aspects of Subject's Complaint History

Aspects of Developmental Problems	Conditions Subject
Motor Aspects	The subject often walked back and forth without a clear direction, even getting lost several times until he was found by residents. In addition, the subject also often experienced stiffness in his body.
Emotional Aspects	The subject often experiences flat affect, with emotionless facial expressions and blank eyes. He has difficulty recognizing and expressing his emotions, often feeling normal even though he is actually angry, sad, or happy. The subject often gets angry for no apparent reason, especially at his father, but admits that his anger is more often directed at himself, not others. However, the subject never throws things when angry.
Cognitive Aspects	The subject has attention problems, often asking for repetition of questions after a long silence or giving irrelevant answers when not focused. When playing chess or other games, the subject can focus and play well. However, he has short and long term memory deficits, often forgetting his childhood, recent events, and home address. His executive function is good when playing, but he has difficulty planning for the future and organizing daily tasks. Information processing is slow, as evidenced by the long time it takes to respond to questions. Cognitively, the subject had difficulty expressing thoughts orally and in writing, even in simple sentences.
Social Aspects	The subject withdraws from the environment, as seen from the fact that he often chooses to sleep or stay in his room rather than interact with others. At home, the deteriorating relationship with his stepmother-who was previously close, but now did not want to see the subject-made him feel down and communicate less and less. The surrounding environment, including neighbors who did not accept the subject well, also encouraged the subject to isolate himself and avoid socialization.
Psychological Aspects	The subject was brought here because he heard whispers, which instructed him to go around, and had difficulty sleeping. The whispers were in the form of male and female voices. The subject also often laughed to himself, including during the interview.

To get a more in-depth picture of the subject's condition, it is necessary to trace his life development history, including various factors that may have influenced his current mental state and behavior. In early childhood, the subject felt happy and comfortable living with his parents in Palembang. This happiness was disrupted when the parents divorced, where initially the subject lived with his mother. But during the earthquake and tsunami in Padang during his late childhood, he was then taken by his father. After the event, the subject was left with his grandparents in Semarang, where he was very close to his grandparents. But there he experienced bullying from neighbors for the first time. Then afterward the subject moved to Malang to live with his father who remarried a second mother. The subject again experienced bullying from neighbors at the beginning of his arrival in Malang, so the subject preferred to play with his school friends only. For his relationship with his birth mother, at first the subject was very close to his birth mother, but after that there was a big conflict with his birth mother which caused tension in family relationships and difficulties in social interaction. In addition, the subject's father was busy working so he did not have time to take care of the subject. At school the subject also had difficulty making friends due to language differences. The subject also liked a girl at school, but it turned out that she already had a boyfriend. During his senior high school years, the subject also started taking drugs (koplo pills) and liquor due to the influence of his friends. Not long after in the same year the subject faced a severe problem, where the subject lost his grandfather who was dear to him and had taken care of him as a child. Seven days after the subject's

grandfather died, the subject began to experience behavioral changes where the subject was seen laughing to himself. Then, the following year the subject experienced stress at work which caused the subject to experience more intense hallucinations, including hearing whispers and laughing to himself. The subject also experienced the death of his grandmother and faced torture in a hut for four months. This history provides important insights for understanding the subject's current mental state and behavior, as well as how various traumatic events and environmental stressors affect his mental well-being.

4 DISCUSSIONS

According to Skinner's behaviorism theory point of view, it states that ultimately a person's behavior is controlled by environmental factors or it can be said that the environment is responsible for a behavior, not the free will of the individual himself (Feist et al., 2017). In the case of the subject, it can be seen that starting from childhood the subject has been separated from his divorced parents so that the subject was entrusted to his grandparents in Semarang, even so while in Semarang he felt the love of his grandparents. However, even as a child in Semarang he was bullied by his neighbors and when he moved to Malang, the subject was also not well received and even had a fight, so the subject preferred not to socialize with his neighbors and chose to play with his school friends. In addition, at home he also experienced problems with his mother who did not want to see the subject anymore even though he was previously close and familiar, so the subject became down and rarely communicated with others and preferred to be alone in the room. The subject's father, who was busy taking care of his household and busy working, also made the subject withdraw even more. At school itself, he also had difficulty interacting there because of language differences with his friends, then the subject also liked a woman, but it turned out that the woman already had a boyfriend. The above incidents that caused discomfort to the subject can be said to be negative reinforcers that make the subject more affected or controllable by drugs and his group of friends who influenced him to use the drugs. Where when using drugs, the subject can forget these uncomfortable feelings and memories for a while. The subject used class IV psychotropic drugs, namely trihexyphenidyl or whose market name is coplo pills or cow pills (Lisa & Sutrisna, 2013). In addition, from the subject's medical record, it is also known that the subject has a history of consuming liquor, although the last time he consumed both was a long time ago. In terms of evidence of use, the subject's father stated that there was video evidence and the subject consumed these things because he was influenced by his friends at vocational high school. Even based on medical records, according to his family, the subject was choked at that time.

When viewed according to Skinner's theory of behaviorism, these things can be explained by the theory that everyone is controlled by a variety of social pressures and techniques. However, all of them can be categorized into four categories: (1) operant conditioning; (2) explaining factors; (3) deprivation and satisfaction; and (4) physical control (Feist et al., 2017). In this case, the subject's vocational school friends who are the subject's social group control the subject with the above categories. At first, the subject was choked by his friend to consume the coplo pills and alcohol, where choking the subject here means that they have exercised physical control over the subject. Then, the subject who became aware of the pleasant effects of taking coplo pills or alcohol can be said to get positive reinforcement and feel satisfaction from this. The subject's vocational high school friends are one of the groups that can influence the subject the most because the subject gets positive reinforcement that he has not received so far, because of the things he has experienced since he was a child until before he took drugs as previously described. Then, the influence of the subject's friends who influence the subject to consume coplo pills and alcohol can also be done through persuasive explanations related to the sense of comfort that can be obtained when using these things. The subject also began to enter the initial stage of drug use, namely the trial and error stage where at this stage physical changes are not yet visible according to Partodiharjo (2007), so it is only natural that the subject's father did not know that his son was using drugs.

Not long after in the same year the subject faced a severe problem, where the subject lost his grandfather who was dear to him and had taken care of him as a child. Seven days after the subject's grandfather died, the subject began to experience behavioral changes where the subject was seen laughing by himself. The subject was known to be using drugs at that time after being taken to the hospital by his aunt, so it was known that the subject was using koplo pills again at that time. Therefore, the subject can be said to have entered the novice beginner stage, where this stage is a continuation of the trial and error stage, which makes the user become accustomed to and use it at any time when deemed necessary because he feels the pleasure (Partodiharjo, (2007). The subject's father did not believe at that time until finally he was called by and given video evidence, so inevitably the subject's father also believed that his son used koplo pills and consumed the alcohol. Trihexyphenidyl or koplo pills are included in the hypnotic sedative group, where sedative is a substance that can have a calming effect, while hypnotic is a substance that can make users feel a drowsy effect (Nur'artavia, 2017). The use of koplo pills, which are included in hypnotic sedatives as well as alcohol, can cause changes in mental and emotional life that manifest in unnatural behavioral disorders, so that it can also have an impact on the social life of its users (Nurhanifah, 2019). This can explain why the subject experienced behavioral changes. Then after it was discovered that the subject was using drugs, the subject was hospitalized in Semarang for 1 month. The subject then stopped using drugs

after that and from the medical record it was also known that the subject last consumed it in 2019. Drugs themselves if used over a long period of time will be able to cause dependence, which is usually characterized by higher doses of use, difficulty controlling their desires in terms of using drugs, and withdrawal symptoms if their use is stopped (Hartanti et al., 2022). Then, there is a theory that states that discontinuing the use of hypnotic sedatives can cause withdrawal symptoms, which can cause anxiety, delusion, depersonalization, agoraphobia, pain, seizures, myoclonia, ataxia, tinnitus, panic, delirium, irritability, depression, dysphoria, and others (Joewana, 2004). Therefore, it can be said that when the subject experiences withdrawal symptoms, one of the consequences is that the subject can experience delusions or delusions, which is one of the signs that someone has schizophrenia.

Furthermore, in 2020 the subject worked at a fish factory. Due to the long distance, the subject finally decided to live in a boarding house. Unfortunately, while there it was told that the subject had no friends. At first the subject said he liked working at the factory, but after that he said he didn't like working there because there was a lot of pressure at the job and the pressure was said to make the subject start hallucinating. This withdrawal behavior can be explained as negative reinforcement, where the subject avoids an unpleasant stimulus, namely pressure at work, so that this withdrawal behavior becomes stronger. The lack of positive reinforcement, such as social support or appreciation, exacerbates the subject's social isolation. In addition, another thing that can be seen using Skinner's behaviorism theory is that this unhealthy personality is the result of social control and self-control (Feist et al., 2017). The subject's self-control, which is carried out by engaging in withdrawal behavior to avoid unpleasant pressures, becomes negative reinforcement and has an impact on the development of the unhealthy personality. Then, when social control feels excessive, a person can also use basic strategies to fight these things, ranging from avoidance, rebellion, or using passive resistance (Feist et al., 2017). For the subject himself, it appears that the subject uses an avoidance resistance strategy, where the subject withdraws from agents who exercise physical or psychological control. Although avoiding interaction provides temporary relief, this behavior reinforces the tendency to withdraw and increases the difficulty in forming healthy interpersonal relationships. Another impact of this resistance strategy also makes the subject have difficulty engaging in intimate personal relationships, tend to become distrustful of others, and prefer to live alone without involvement. This then makes the subject become increasingly closed, withdrawn, and alone. In the long run, behaviors maintained through negative reinforcement and lack of positive reinforcement lead to unhealthy personality development, where subjects become increasingly introverted, withdraw from social relationships, and experience deep social isolation.

This withdrawal or social isolation can increase the likelihood of the subject to experience hallucinations more easily if not treated immediately because when the subject experiences social isolation, the subject will be alone for a long time, so that gradually the subject will create his own world with hallucinations (Wahyu et al, 2021). Hallucinations themselves are one of the positive clinical symptoms of schizophrenia. Where hallucinations are false sensory perceptions where there is no sensory stimulus associated with them. Hallucinations can take the form of false sensing of the five senses, but most often auditory hallucinations and visual hallucinations (Darmawan & Budiman, 2020). Where in this case the subject feels that he hears voices in the form of whispers inviting him to talk or do something when in reality there is none and the subject feels that he sees shadows that in reality do not exist. In addition, the subject also experienced negative symptoms of schizophrenia, starting from being lazy to bathe, worship, and other routine activities (avolition) and only tending to confine himself to his room (asociality). When spoken to, the subject also tends to answer briefly, such as "Yes", "No", or "I don't know" and rarely provides reciprocity (alogia). The subject also speaks in a flat tone and his eyes tend to be lifeless (flat affect). The symptoms shown by this subject also refer to the diagnosis of hebephrenic schizophrenia, in accordance with the PPDGJ-III diagnostic criteria. The symptoms include persistent flat affect, difficulty in recognizing and expressing feelings, and significant impairment of thought processes. According to PPDGJ-III criteria according to Maslim (2013), the diagnosis of hebephrenic schizophrenia requires the fulfillment of several conditions: first, the subject must meet the general criteria for schizophrenia diagnosis. Second, this disorder usually appears in adolescence or young adulthood, with onset generally occurring between the ages of 15 to 25 years. Third, the subject's premorbid personality often shows traits such as shy tendencies and preferring to be alone. Fourth, continuous observation for 2 to 3 months is required to ensure consistency of symptoms. Fifth, affective disorders, volitional impulses, and thought process disorders should be prominent, although hallucinations and delusions may be present but are usually not very prominent.

Then, looking at other factors that cause schizophrenia according to Prihananto et al. (2018) which includes various somatogenic, psychogenic, and sociogenic aspects. Somatogenic factors include heredity, congenital defects, brain abnormalities, temperament, and bodily diseases and injuries. Psychogenic factors involve psychological development, early deprivation, family patterns, stress, and substance abuse. Sociogenic factors include social development, ideals, economic level, and displacement of the family unit. A combination of these factors can contribute to the development of schizophrenia. From the explanations above, it can be seen that there are several factors that cause the subject to experience schizophrenia, starting from psychogenic factors such as poor family patterns, such as high levels of stress, frequent conflicts, and inconsistent parenting. In addition, the subject also experienced early deprivation or lack of affection, attention, and social stimulation in the subject's childhood due to the divorce of his parents. Then another

psychogenic factor that occurred in the subject was the abuse of drugs, in the form of coplo pills, and also alcohol at the vocational level. In addition, the sociogenic factor that occurred in the subject was the displacement of the family unit due to the divorce, where after living with his mother after the divorce of his parents, then because of the tsunami, his father took him back, but was entrusted to his grandparents, until he was taken back to live with his father. This move can also cause disruptions in family structure and function, affect interpersonal relationships, and add stress to the subject as a family member, so in this case there is a disturbance in emotional stability and support, which is very important for mental health. Therefore, it can be seen that there are factors that can explain how the subject became schizophrenic.

This study demonstrates several important strengths, including the use of a methodology that allows for an in-depth analysis of the influence of various factors on a client's mental state, as well as significant contributions to the understanding of mental disorders related to trauma history and substance abuse. This approach allows researchers to explore the complex relationship between past experiences and presenting symptoms, and provides new insights into this field of study. However, this study also has limitations, such as a sample size that may not be large enough for broader generalization and potential biases in the reporting of clients' personal histories that could affect the results. To improve the validity of the findings, further research with a larger sample and data triangulation methods is needed.

5 CONCLUSIONS

The subject, a 21-year-old male from Malang, East Java, was admitted to RSJ X on February 3, 2024 with chief complaints of anger, difficulty sleeping, hearing male voices telling him to walk, and wandering aimlessly. The subject has been diagnosed with hebephrenic schizophrenia since 2021 after being admitted to RSJ X several times. Before experiencing this disorder, the subject used drugs such as trihexyphenidyl (koplo pills) and liquor, which according to his father was influenced by his friends at vocational high school who contaminated the subject with drugs. Skinner's behaviorism theory explains that the social environment, including friends, plays a role in the subject's behavior. The death of his beloved grandfather triggered significant behavioral changes, including a return to drug use. Pressure at work was also a triggering factor for hallucinations. Psychogenic and sociogenic factors, such as poor family patterns, family moves, and early deprivation, also play a role in the emergence of schizophrenic disorders in clients. Therefore, there are complex factors that explain how clients develop schizophrenic disorder.

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