

# Schizophrenia: More than Meets the Eye

Mallory R. Sole

## Abstract

This paper will explore various aspects of schizophrenia, including a description of the disorder, the cultural and ethical implications of a diagnosis, and the models of etiology that describe the causes, the treatments, and, finally, the prognosis. Exploring these various domains will provide a comprehensive view of the disorder and the literature available. Furthermore, each section discussed will work together to give an overall view of what being diagnosed with this disorder looks like, exploring why those with schizophrenia are so often misunderstood.

## Description

Imagine that you are sitting in a work meeting. You are trying to pretend that everything is fine, but you keep hearing voices. Voices that no one else seems to be hearing. It is like an incessant whispering that will not stop, no matter what you do, and it is terrifying. What are you supposed to do? You feel like there is something wrong with you, and you are so afraid to tell anyone, but you do not think you can keep pretending much longer. You are not crazy, but, at the moment, it feels like there is no other explanation. This is just one example of what it is like to live with schizophrenia, a mental disorder characterized by “delusions, hallucinations, and disorganized speech” (Coulibaly et al., 2021, p. 2) as well as “ideas of persecution and voicehearing” (Moritz et al., 2024, p. 22). As a matter of fact, this disorder is more common than one might think, affecting approximately 5 out of every 1,000 people worldwide (Coulibaly et al., 2021).

Characteristics of this disorder are further broken down into two categories: positive and negative. Delusions, hallucinations, and disorganized speech are all considered positive symptoms, since they are “additions” to the cognition and behavior of an individual. For instance, an individual who does not have the delusion that they are God until after they develop schizophrenia. Likewise, an individual who does not start hearing voices until after the development of the disorder. The symptoms are added to the individual’s personality in conjunction with their diagnosis. On the other hand, negative symptoms, like social withdrawal, are symptoms that appear to be deficits in the individual, or something the individual is no longer expressing. These can also include diminished emotional range, *alogia*<sup>1</sup>, and

---

<sup>1</sup> Alogia is poverty of speech or the reduction of speech or speech content (Comer & Comer, 2023).

avolition<sup>2</sup> (García-Portilla et al., 2021). Furthermore, schizophrenic diagnoses have often been related to symptoms of neurodegeneration or intellectual deterioration (Moritz et al., 2024).

This view, description, and understanding of schizophrenia have all changed several times throughout its history, specifically in the various versions of the DSM<sup>3</sup>. In fact, one of the interesting aspects of schizophrenia is that there is support for several different factors influencing the development and progression of the disease (Coulibaly et al., 2021). This is partly due to the influence of cultural values and beliefs regarding mental illness, which can directly impact the beliefs behind the causes of the disorder and how those diagnosed with schizophrenia are treated (Coulibaly et al., 2021). In other words, while schizophrenia is relatively common, there is disagreement on specific causes. Consequently, difficulty in treating schizophrenia, a disorder that usually requires lifelong treatment, arises and causes a general sense of ambiguity around the disorder. It is the stigma and judgments that arise out of this ambiguity that we need to resolve and cause so many with the disorder to be misunderstood. We are doing a disservice to those diagnosed by continuing to accept these negative beliefs instead of spreading knowledge. It is for that reason that this paper is being written: to provide a background on the experience of those with schizophrenia, to understand their lives from a cultural perspective, and to comprehend what the most common outcomes are and take steps to improve the prognosis. Only when the negatives are understood can steps be taken to see and change what it is really like for that person society labeled a monster.

### **Diagnosis**

Difficulties with schizophrenia arise since long-term recovery is rare, and the diagnosis usually comes with a 20-year reduction in life expectancy (Donovan, 2024). Generally, the prognosis for this disorder is not overly positive and is often accompanied by many negative side effects, including an inability to function normally and take care of personal needs (Donovan, 2024). This could be anything from being unable to get a job or live on their own, to the loss of interpersonal relationships without the cognitive capability to maintain them. Their lives revolve around their delusions or hallucinations, which have the potential to cause distressing or dangerous situations, characterizing schizophrenia as a very difficult disorder to live with. Nonetheless, for a diagnosis to be made, there must be at least two Criterion A symptoms apparent, with at least one of them being delusions, hallucinations, or disorganized speech (Moritz et al., 2024). Possible Criterion A symptoms that could be paired with delusions, hallucinations, or disorganized speech are

---

<sup>2</sup> Feeling drained of energy or lack of interest in goals (Comer & Comer, 2023).

<sup>3</sup> DSM is the Diagnostic and Statistical Manual of Mental Disorders, which describes symptoms and diagnostic criteria of all known mental disorders.

disorganized or catatonic behavior and diminished emotional expression. Consequently, a person will be diagnosed with schizophrenia after showing at least two of the above symptoms for a consistent amount of time.

### **Implications**

Even though the diagnostic criteria for schizophrenia are easy to understand, it is important to note the often unseen ethical and cultural influences related to diagnosing this disorder. Notably, the reactions and attitudes of family, care professionals, social support, and caregivers, which include judgments, stigma, and the general negative idea a culture has of schizophrenia, directly influence the schizophrenic individual's dignity and mental health (Amiri et al., 2025a). When looking at this from a diagnostician's point of view, a positive attitude and demeanor can significantly enhance the patient's handling of the diagnosis. As a result, it is up to the mental health professional to take ethical steps to reduce immediate judgment, as well as prepare the patient for the judgment they will face from society. This is true for all mental disorders and diagnoses, especially severe disorders like schizophrenia, where symptoms and the associated stereotypes seem to be more pronounced.

Furthermore, Amiri et al. (2025a) identify that there are different cultural implications and reactions to this diagnosis. For instance, psychiatric patients in low-income countries have limited access to healthcare and community-based programs (Amiri et al., 2025a), meaning individuals diagnosed in these cultures are faced with difficulties in addition to those that come from the immediate diagnosis. Moreover, many cultures have completely different views on the diagnosis of this disorder. For instance, Africans believe schizophrenia is the result of psychosocial and supernatural causes, so schizophrenics are seen as possessed and judged accordingly (Coulibaly et al., 2021). These cultural biases can also appear in day-to-day conversation. For example, "patients described instances where they felt disrespected in the workplace or were regarded as 'strange'" (Amiri et al., 2025a, p. 564). In addition, attitudes toward those diagnosed with schizophrenia commonly involve society labeling them as crazy or disabled and calling them psychotic (Amiri et al., 2025a), often causing distress for those diagnosed.

Overall, cultures' views on the disorder vary widely because of various prominent cultural beliefs, as well as the experience of schizophrenic individuals in that country. In cultures where schizophrenia occurrences are more severe, usually due to environmental factors like a lack of mental health services, the disorder is more highly scrutinized. Additionally, there is usually a lack of knowledge on the symptoms and aspects of the disorder (Ruiz et al., 2012). Lack of knowledge, perhaps one of the most detrimental

environmental factors, can lead to harsh, close-minded understandings of the disorder, influencing its intensity and occurrences. Essentially, cultures that have more knowledge of mental illness are more likely to be accepting of those with schizophrenia and provide more sympathy and support (Gilmore & Hughes, 2021).

### **Models of Etiology**

This can be described by the sociocultural model of etiology, which explains that understandings of schizophrenia vary across cultures and social contexts and explores the idea that schizophrenia can develop because of certain societal factors. For instance, understanding of schizophrenia varies widely, with one culture concluding that schizophrenia is caused by emotional or head trauma, genetic factors, emotional problems, mistreatment, or divine will (Audiffred-Jaramillo & Alba-García, 2024). Furthermore, a European sample believed that childhood trauma triggered schizophrenia, while a sample from Spain thought this disorder was triggered by drugs and alcohol (Audiffred-Jaramillo & Alba-García, 2024). Samples from Italy found that many people believed schizophrenia was caused by stress or breakups, while Guadalajara residents had mixed ideas, saying that some possible causes were drugs, nervousness, head trauma, or witchcraft (Audiffred-Jaramillo & Alba-García, 2024). Interestingly, witchcraft was also a popular explanation in Bali and Africa (Audiffred-Jaramillo & Alba-García, 2024).

Likewise, societal factors, like a lack of structured and working activities, can lead to a loss of social support, personality, and independence (Coulibaly et al., 2021). Naturally, these factors exacerbate and accelerate the natural course of the disorder and explain why many diagnosed individuals are unemployed. Equally important, schizophrenic individuals are more likely to be single than married and, therefore, four times more likely to develop the disorder (Coulibaly et al., 2021). These various environmental factors, like problematic family interactions or immigration and being a part of an ethnic minority, can lead to an increased risk of developing schizophrenia (Audiffred-Jaramillo & Alba-García, 2024; Jablensky, 2000). Another way to look at this is through the diathesis-stress model. The more stress or life struggles individuals face as a result of their culture or society, the more likely they are to develop schizophrenia or experience exacerbated symptoms. The world around us has an immeasurable impact on lives, and it is important to acknowledge that.

However, the biological model of etiology is also very important to explore since it focuses on more definitive neurobiological underpinnings, specifically about polygenic inheritance, neurotransmitter dysregulation, and brain abnormalities (Tiwari et al., 2025). Audiffred-Jaramillo and Alba-García (2024) even admit that the biological “causes of schizophrenia are highly developed on science fields” (p. 435). Specific biological factors like

psychiatric family history and perinatal factors were found to be particularly influential, since there is a “significant association between severity of symptoms and a positive familial history” (Budisteanu et al., 2020, p. 3), with 52% of study participants having a history of psychiatric symptoms and 35% having a family history of schizophrenia. Furthermore, there is evidence that sex can affect gene expression and, as a result, the symptomology of schizophrenia (Carceller et al., 2024). In other words, evidence from the sociocultural, diathesis-stress model, and the biological model shows that “the etiology of schizophrenia is currently understood as multifactorial” (Audiffred-Jaramillo & Alba-García, 2024, p. 435).

### **Treatments**

Schizophrenia is further complicated by the various treatment options available, especially when research shows that treatment is more effective when it comes from multiple sources. For example, two of the most common treatment options are cognitive behavioral therapy (CBT)<sup>4</sup> and antipsychotics. CBT has been shown to significantly reduce negative symptoms, improve overall functioning, social skills, and social functioning of those living with schizophrenia (Hong et al., 2025). In fact, general improvements were found across a range of psychopathology domains, even social activation and symptom severity (Pos et al., 2019). Despite this, exceptions indicated by Pos et al. (2019) and Hong et al. (2025) imply that CBT might not be as effective when used on its own.

Instead, a treatment like antipsychotics can be used in conjunction with CBT to address the biological effects of schizophrenia. In fact, antipsychotics are particularly effective against the positive symptoms of the disorder, causing symptom reduction in 62% of study participants and enhancing cognitive functions (Inayah et al., 2025; Wilanowska et al., 2024). The negative symptoms tend to persist after antipsychotics, but, as mentioned above, CBT is efficient at reducing those effects. Nevertheless, professionals have supported the effectiveness of antipsychotics by saying “individuals who meet diagnostic criteria for schizophrenia and experience recurrences of several psychotic episodes should continue antipsychotic treatment for many years to indefinitely” (Davidson & Carpenter, 2024, pp. 14-15). Unfortunately, antipsychotics do have the potential to cause adverse side effects (Wilanowska et al., 2024) and seem to be most effective against positive symptoms (Inayah et al., 2025), while negative symptoms can be addressed through psychotherapies like CBT (Hong et al., 2025; Pos et al., 2019). With that said,

---

<sup>4</sup> A “goal-oriented psychotherapy that aims to improve individuals’ emotional and psychological states by changing their negative thought patterns and behaviors” (Hong et al., 2025, p. 1).

the most effective treatment for a disorder with a multifactorial model of etiology, like schizophrenia, would probably be a multifactorial approach (Audiffred-Jaramillo & Alba-García, 2024).

#### **4 Ds—Distress, Deviance, Dysfunction, and Danger**

While examining the diagnosing process and influences, as well as the subsequent treatment options, provides a visual of the path this disorder takes, it does not exemplify the patients' experiences. This can be done through the description of four abnormal behavior factors, which are often used in psychology to understand mental disorders. The first is distress, or the degree to which the individual experiences emotional or physical distress as a result of their behavior or diagnosis. Second, deviance is the degree to which the individual's behaviors stray from what is normal and expected of them. Similarly, dysfunction is measured by the degree the diagnosed individual's behaviors influence their ability to live a normal life. Lastly, danger simply explores the physical danger the individual is in as a result of their diagnosis or their potential to put others in danger. Experiencing and living with any mental disorder can cause varying levels of these four factors. However, with severe mental disorders, like schizophrenia, these levels have a greater chance of being more intense. Exploring how these four factors can be represented by schizophrenia highlights just some of the ways diagnosed individuals are disregarded as out of control or products of their own making.

Distress, for instance, can exhibit itself in many social interactions, specifically the breakdown of individuals' social lives, as mentioned above. Due to the manifestation of this disorder, individuals often have a hard time managing their social interactions, negatively impacting the families and support networks of those diagnosed with schizophrenia (Hong et al., 2025). As social creatures, being essentially forced into isolation by a mental disorder will cause a large amount of distress through emotions like loneliness and depression. In addition to unwillingly losing connections with loved ones, distress can also arise from agitation caused by delusions or hallucinations and treatment in general, specifically side effects (Davidson & Carpenter, 2024; Wilanowska et al., 2024).

Deviance also makes an appearance in schizophrenia since most of the behaviors that are exhibited during schizophrenia will appear as deviant. One of the main instances is in the form of ongoing functional impairment, specifically social and role functioning (Donovan, 2024). In other words, as schizophrenia impairs functioning, individuals have a hard time gauging or comprehending situations and behaving in a way that society deems normal. It was even found that deviant behaviors exhibited before the development of schizophrenia can lead to more schizophrenic deviant behaviors later on. For example, individuals who showed deviant levels of sadness before developing schizophrenia were three times as likely to attempt suicide after the onset of

the disorder (Sobin et al., 2003). Deviant behaviors prior to diagnosis also presented themselves in higher levels of sensory and auditory hallucinations, as well as thought disorder after diagnosis (Sobin et al., 2003).

Moreover, schizophrenic symptoms are classified as either negative or positive, with negative symptoms often seen as deviant. For instance, certain negative symptoms like isolation or inactivity can decrease the quality of life and make individuals living with schizophrenia avoid others (Pos et al., 2019). Our society is a social one, where it is expected that we participate in society and interact with our peers. Therefore, when someone no longer has the capacity to carry on a relationship and they start isolating themselves, as in schizophrenia, it can be seen as deviant and causes judgments and stereotypes to be made. This creates a cycle for the diagnosed individual that is very hard to break as they start expressing their symptoms and withdrawing from society. The initial withdrawal causes distress in the form of relationship loss, but as time goes on, the individual starts to experience more distress from those around them judging their behavior. Instead of this prompting the individual to repair their relationships, it pushes them further away, leaving the individual without any of the support they so desperately need.

Likewise, schizophrenia causes dysfunction and impairment to the person diagnosed and “is among the top 20 causes of disability in the US” (Donovan, 2024, p. 18). Essentially, individuals become unable to go about their daily lives as they used to because of the degenerative aspects of the disorder. In fact, there is currently a large focus on the biological and neuro aspects of this disease because of the neurotransmitter dysregulation, specifically dopamine, glutamate, and serotonin, and the many brain abnormalities in the prefrontal, temporal, and limbic regions (Tiwari et al., 2025). In other words, people with mental disorders suffer a loss in “decision-making capacity, living in independent housing, holding a job, and carrying out the acts of daily life” (Hindenoeh et al., 2023, p. 1375), which are greatly amplified by the degenerative aspects of schizophrenia.

Danger is something that many people with schizophrenia experience, especially when it is understood that they often have trouble taking care of themselves. Moreover, there is an increased risk of suicide, especially if the individual has depressed feelings before they develop schizophrenia (Sobin et al., 2003). The increased risk of developing depression, anxiety, and other psychiatric disorders in general is a prevalent danger of schizophrenia (Donovan, 2024). Furthermore, it is implied that since judgment is impaired (Tiwari et al., 2025) and patients might have an unhealthy obsession with their hallucinations or delusions, they could engage in risky/dangerous behavior that they would not have engaged in before the appearance of their hallucinations. On the flip side, many people

society view those diagnosed with schizophrenia as dangerous to them and “believe that those suffering from such disorders are not completely human, but insane or dangerous” (Amiri et al., 2025a, p. 569). Those with schizophrenic disorders are not seen as someone whose symptoms can be a danger to themselves, but rather as someone who can be a danger to the people around them.

In general, the levels of danger, dysfunction, deviance, and distress can vary from person to person, but they are usually high in severe mental disorders like schizophrenia. As a matter of fact, most individuals are judged by the symptoms they outwardly express. However, it is important to understand that these symptoms arise from biological changes caused by the disorder, and the behaviors exhibited are made in response to those changes. By comprehending the cognitive, psychological, and emotional changes that schizophrenia causes, it is easy to see that the symptoms are not an accurate representation of who the individual is, but rather the reason they are so often misunderstood. These individuals are not trying to be the monsters people make them out to be, they are just trying to cope with the life they were given.

### **Prognosis**

In support of all the factors mentioned above, the prognosis for schizophrenia is not positive. In fact, schizophrenia is “associated with a 20-year decrease in life expectancy and a 4-fold increase in all-cause mortality” (Donovan, 2024, p. 18). Additionally, only about 5% of individuals are in remission after 25 years, while only 13% are in recovery (Donovan, 2024), and a significant number will need long-term support (Baltazar et al., 2022). While schizophrenic individuals might get to a point in their lives when they can lead a somewhat normal life and manage their symptoms, there are still many factors that augment the negative prognosis. For instance, social institutions like social assistance and general support, as well as factors like an increased risk of health complications, disease, and suicide, the possibility of treatment resistant schizophrenia, and increased drug and alcohol abuse, can all affect the prognosis (Baltazar et al., 2022). In other words, while diagnosed individuals might make great strides in progress from the onset of symptoms to their later life, there are still many factors working against them.

Despite this, the prognosis for schizophrenia is more positive when certain steps are taken. It is by no means entirely good, but it can be improved. One way to improve the prognosis is to implement a version of early intervention treatment. Early intervention should be applied soon after the first episode of schizophrenia and is often associated with a lower risk of relapse and hospitalization (Donovan, 2024). Additionally, it has been discovered that first-episode schizophrenia patients are more responsive to medications (Donovan, 2024) because they have not developed a tolerance to

the treatment options (Baltazar et al., 2022). Other options that have been presented include the idea of a symptom-specific treatment, essentially the opposite of a one-size-fits-all treatment, where symptoms are treated as they manifest and include medications to increase cognitive functioning (Davidson & Carpenter, 2024). The goal is to reduce the need to take medications for extended periods and risk developing a tolerance and to stop the reduction in cognitive functioning that comes with schizophrenia. This step, in combination with a greater public understanding of this disorder, can hopefully lead to a more positive prognosis in the future.

### **Conclusion**

Overall, the symptoms of schizophrenia and the consequences of those symptoms are often too severe to support a good prognosis. This is especially noticeable in the number of people who still suffer from schizophrenia even years after diagnosis (Donovan, 2024). In addition, many cultural or family factors can influence the experience and, as a result, prognosis of schizophrenia. One example would be family members rejecting the individual with schizophrenia and neglecting them. The “negligence could yield a severity equivalent to physical mistreatment and potentially engender a deeply influential impact on an individual’s well-being and standard of living” (Amiri et al., 2025b, p. 1921). Similar comments are made about community and cultural perceptions of schizophrenia, with the understanding being that community and family ideals can influence the quality of life of someone with schizophrenia (Gilmore & Hughes, 2021). With so many factors influencing the quality of life and symptom severity after diagnosis, especially the differing opinions on etiology and treatment options, the struggles these individuals go through make complete sense. Schizophrenia is much more than it initially seems, and those diagnosed are failing to live the life they are meant for because of it. Therefore, if we take the time to curb our initial judgments on mental health and mental illness, we just might change someone’s life.

## References

- Amiri, E., Baghaei, R., Ebrahimi, H., & Habibzadeh, H. (2025a). Barriers to maintaining dignity for patients with schizophrenia: A qualitative study. *Nursing Ethics*, 32(2), 560–574.  
<https://doi.org/10.1177/09697330241262320>
- Amiri, E., Ebrahimi, H., Habibzadeh, H., & Baghaei, R. (2025b). Family caregivers' role in dignity of people with schizophrenia: A qualitative study. *Nursing Ethics*, 32(6), 1911–1925.  
<https://doi.org/10.1177/09697330251319372>
- Audiffred-Jaramillo, R. I., & Alba-García, J. E. G. D. (2024). Cultural beliefs about the etiology of schizophrenia and expressed emotion in Mexican families. *Revista Colombiana de Psiquiatría*, 53(4), 435–442.  
<https://doi.org/10.1016/j.rcp.2022.07.003>
- Baltazar, L., De Benedictis, L., Abdel-Baki, A., Lalonde, P., & Lesage, A. (2022). Long term course and outcome of first episode schizophrenia: A 27-to-31-year follow-up. *Social Psychiatry & Psychiatric Epidemiology*, 57(7), 1319–1328. <https://doi.org/10.1007/s00127-021-02185-8>
- Budisteanu, M., Andrei, E., Linca, F., Hulea, D. S., Velicu, A. C., Mihailescu, I., Riga, S., Arghir, A., Papuc, S. M., Sirbu, C. A., Mitrica, M., Docu-Axelerad, A., Ghinescu, M. C., Dobrescu, I., & Rad, F. (2020). Predictive factors in early onset schizophrenia. *Experimental & Therapeutic Medicine*, 20(6), Article 210.  
<https://doi.org/10.3892/etm.2020.9340>
- Carceller, H., Hidalgo, M. R., Escartí, M. J., Nacher, J., de la Iglesia-Vayá, M., & García-García, F. (2024). The impact of sex on gene expression in the brain of schizophrenic patients: A systematic review and meta-analysis of transcriptomic studies. *Biology of Sex*
- Comer, R. J., & Comer, J. S. (2024). *Psychopathology: Science and practice* (12th ed.). Worth Publishers.
- Coulibaly, S. d. P., Ba, B., Mounkoro, P. P., Diakite, B., Kassogue, Y., Maiga, M., Dara, A. E., Traoré, J., Kamaté, Z., Traoré, K., Koné, M., Maiga, B., Diarra, Z., Coulibaly, S., Togora, A., Maiga, Y., & Koumaré, B. (2021). Descriptive study of cases of schizophrenia in the Malian population. *BMC Psychiatry*, 21(1), Article 413.  
<https://doi.org/10.1186/s12888-021-03422-9>
- Davidson, M., & Carpenter, W. T. (2024 January). Targeted treatment of schizophrenia symptoms as they manifest, or continuous treatment to reduce the risk of psychosis recurrence. *Schizophrenia Bulletin*, 50(1), 14–21.  
<https://doi.org/10.1093/schbul/sbad145>

- Donovan, A. L. (2024). First episode schizophrenia: Intervening early and well. *Psychiatric Times*, 41(10), 18–20.
- García-Portilla, M. P., García-Álvarez, L., de la Fuente-Tomás, L., Santo, F. D., Velasco, A., González-Blanco, L., Zurrón-Madera, P., Fonseca-Pedrero, E., Bobes-Bascarán, M. T. Sáiz, P. A., Bobes, J. (2021). Spanish validation of the MAP-SR: Two heads better than one for the assessment of negative symptoms of schizophrenia. *Psicothema*, 33(3), 473-480.  
<https://doi.org/10.7334/psicothema2020.457>
- Gilmore, L., & Hughes, B. (2021). Perceptions of schizophrenia in the Australian community: 2005–2017. *Journal of Mental Health*, 30(4), 440–446.  
<https://doi.org/10.1080/09638237.2019.1630720>
- Hindenoeh, M., Kostova, M., Urdapilleta, I., Del Goletto, S., & Passerieux, C. (2023 April 18). Health and social case management for the inclusion of people living with a schizophrenic disorder: The PASSVers experience. *Community Mental Health Journal*, 59(7), 1375–1387.  
<https://doi.org/10.1007/s10597-023-01125-x>
- Hong, Y., Chen, Y., Bai, Y., & Tan, W. (2025 May 20). Cognitive-behavioral therapy for the improvement of negative symptoms and functioning in schizophrenia: A systematic review and meta-analysis of randomized controlled trials. *PLOS One*, 20(5), Article e0324685.  
<https://doi.org/10.1371/journal.pone.0324685>
- Inayah, A. F., Wahyu Andika, P. A., & Puspitasari, A. A. (2025 February 20). The relationship of risperidone therapy pattern to the symptoms that appear in schizophrenia patients under out patient treatment. *Journal Of Universal Studies*, 5(2), 1965–1974.  
<https://doi.org/10.59188/eduvest.v5i2.33264>
- Jablensky, A. (2000). Epidemiology of schizophrenia: The global burden of disease and disability. *European Archives of Psychiatry and Clinical Neurosciences*, 250, 274–285. <https://doi.org/10.1007/s004060070002>
- Moritz, S., Gawęda, Ł., Carpenter, W. T., Aleksandrowicz, A., Borgmann, L., Gallinat, J., & Fuchs, T. (2024). What Kurt Schneider really said and what the DSM has made of it in its different editions: A plea to redefine hallucinations in schizophrenia. *Schizophrenia Bulletin*, 50(1), 22–31.  
<https://doi.org/10.1093/schbul/sbad131>

- Pos, K., Franke, N., Smit, F., Wijnen, B. F. M., Staring, A. B. P., Van der Gaag, M., Meijer, C., de Haan, L., Velthorst, E., & Schirmbeck, F. (2019). Cognitive behavioral therapy for social activation in recent-onset psychosis: Randomized controlled trial. *Journal of Consulting and Clinical Psychology, 87*(2), 151–160.  
<https://doi.org/10.1037/ccp0000362>
- Ruiz, M. Á., Montes, J. M., Correas Lauffer, J., Álvarez, C., Mauriño, J., & de Dios Perrino, C. (2012). Opinions and beliefs of the Spanish population on serious mental illnesses (schizophrenia and bipolar disease). *Revista de Psiquiatría y Salud Mental, 5*(2), 98-106.  
<https://doi.org/10.1016/j.rpsm.2012.01.002>
- Sobin, C., Roos, J. L., Pretorius, H., Lundy, L. S., & Karayiorgou, M. (2003 February 15). A comparison study of early non-psychotic deviant behavior in Afrikaner and US patients with schizophrenia or schizoaffective disorder. *Psychiatry Research, 117*(2), 113–125.  
[https://doi.org/10.1016/S0165-1781\(02\)00321-9](https://doi.org/10.1016/S0165-1781(02)00321-9)
- Tiwari, S., Dey, S., Saran, B., Dhandayuthapani, S., Yadav, V. T., & Batra, J. (2025). The neurobiological concepts and treatment regimen of schizophrenia. *International Journal of Medicine & Public Health, 15*(2), 920–926.  
<https://doi.org/10.70034/ijmedph.2025.2.166>
- Wilanowska, W., Greguła, A., Stachyrak, K., Mika, D., Matuszewska, J., Mazur, B., Babkiewicz- Jahn, K., Oleksak, I., Welian-Polus, I., & Turek, K. (2024 May 13). Cariprazine: An Antipsychotic Medication with High Therapeutic Potential. *Journal of Education, Health, and Sport, 67*, Article 49405.  
<https://doi.org/10.12775/JEHS.2024.67.49405>