

# ***Impact of Awareness of Symptoms on Risk in Suicidality in Schizophrenia Patients***

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**Abstract:** Schizophrenia is a chronic mental disorder which might become more serious if patients recognize their symptoms that would lead to suicidal attempts. In this work, cognitive functions and comorbidity are discussed while analyzing factors contributing to insight into illness and suicidality. First of all, depression and substance use are important comorbidities relating to suicidal behaviors in schizophrenia patients. Moreover, hopelessness in patients after recognizing having awareness of schizophrenia symptoms is also predicting suicidality. Secondly, external factors are mentioned such as social stressors and family stressors that contribute to the recognition of symptoms causing functional disabilities in daily life and therefore attempting to suicide as a result. The meanings and implications of analyzing the internal and external factors are to explore if the environment, genetics, and additional mental disorders would lead to patients' recognition of symptoms that should be expected to be detected in the very early stages of schizophrenia episodes. Specifically, based on this, more patients who have awareness of symptoms and tend to suicide afterward would be forestalled.

**Keywords:** Schizophrenia, mental health, insight to illness, suicidal behaviors

## **1. Introduction**

Schizophrenia is a severe mental disorder in clinical assessments, and symptoms of schizophrenia are important to pay attention to because which might contribute to suicidal behaviors in patients with schizophrenia [1]. Patients with schizophrenia usually suffer from severe symptoms and hopelessness [2] because multiple symptoms worsen patients' life functioning and hopelessness comes from patients' awareness of these symptoms. John Nash, an American mathematician who created Game Theory and Nash equilibrium, was diagnosed as schizophrenia and he fought with it for many years. He was suffering from hallucinations, delusions, and illusionary characters in his mind, and the film, *Beautiful Mind*, is talking about his life experience fighting with schizophrenia. Based on the sample experience from John Nash, there were two models involving in schizophrenia that can explain the suffering in John Nash and other patients – stress-vulnerability model and neurodevelopmental theory. Stress-vulnerability model introduces that schizophrenia is a joint function of vulnerability and stress when dealing with environmental factors [3], which could be seen on schizophrenia patients because they would undergo many stressors on their daily lives and, as well as interpersonal relationship with others, especially when patients are vulnerable surrounding by many excellent and sociable people. Neurodevelopmental theory is about the possibility that biological and environmental factors together

influence people on pathological processes [4], which is essential because researchers can expand directions on finding contributions to schizophrenia in combining ways.

Even though schizophrenia is rarely seen in our ordinary life, it is indeed a very important disease into which delve in medicine and psychology. Accordingly, relating problems and hidden mechanisms causing schizophrenia are needed to be discussed: suicidality is one of the relating issues in schizophrenia patients. It is worthy to notice that being conscious of symptoms of schizophrenia, such as delusions and blunted emotions, is increasing the risk of suicidality in individuals with schizophrenia [2]. According to Pompili et al., 2009, awareness of illness does correlate to suicide risk when the awareness leads to hopelessness. This part is important because insight into illness can bring negative and positive effects on patients; that is, patients usually are afraid of mental deterioration or feel hopelessness in treatment [5] whereas some patients recognize treatments are protective factors dealing with their symptoms. Furthermore, the theory that schizophrenia stems from neurodevelopmental factors does not account for the varying progression and treatment responses of the disease, particularly its advancing nature. Specifically, this perspective led to a bleak outlook on therapy, suggesting that individuals with schizophrenia were predestined for the condition from birth and faced grim outcomes regardless of intervention [6].

Here we explore the environmental factors and biological factors that make patients to become aware their symptoms which might cause higher rates of suicidality. Also, it is essential to expand consequences and prevention on aftermath of awareness of symptoms on these patients in schizophrenia because we still do not have enough effective treatment and psychological mollify for patients with schizophrenia.

## **2. Literature Review**

### **2.1. Connotation**

#### **2.1.1. Definition**

Schizophrenia is a long-term brain condition with active episodes of the disorder that can manifest as delusions, hallucinations, incoherent speech, cognitive difficulties, and reduced motivation (American Psychiatric Association). Insight into illness relating to schizophrenia refers to patients' recognition and understanding of their own condition or symptoms, encompassing awareness of its societal impacts, the importance of treatment, medication effects, implications of the disorder, and familiarity with its signs and symptoms [7]. When insight into illness connect to schizophrenia and risk of suicidality, it is necessary to analyze the relationships, interactions, and negative and positive factors contributing to consequences. Hopelessness is connecting the suicidality and schizophrenia or other mental disorders as a key mediator [8] according to their study that cognitive disorders and substance abuse alone would not be able to predict suicidality in schizophrenia patients unless hopelessness gets involved. According to López-Morínigo et al., [9], a history of suicidal tendencies before the initial presentation of psychosis correlates with higher levels of self-awareness during that presentation. This heightened awareness encompasses various aspects, including recognizing the presence of a mental illness, reinterpreting psychotic symptoms, and adherence to treatment.

#### **2.1.2. Cognitive Functioning**

According to Delaney et al., [10], patients with a history of suicidal thoughts or those who had made one suicide attempt generally performed better in neuropsychological assessments compared to those who had attempted suicide multiple times at a trend level. Specifically, executive dysfunction is linked to challenges in purpose-driven actions, and it might play a crucial role in deciding if suicidal

thoughts lead to actions. All in all, this research supports a central role for the significance of executive functioning in relation to suicidality.

Secondly, diathesis-stress model also explains the relationships between external factors and neural mechanisms causing behavioral outcomes [11]. That is, some psychosocial stress and prenatal insult would relate to hippocampal function that would control cortisol release; after the process begins, subcortical dopamine system would be activated so that symptoms would onset on patients. This theory is important because it primarily emphasizes the neurological reactions to stress in schizophrenia and tends to view stressors uniformly. Recent studies [12] indicate that in mentally sound individuals, cortisol production is most pronounced when faced with stressors that are seen as uncontrollable threats to vital objectives or threats to social evaluation. Based on these findings, Jones and Fernyhough., 2007 posit that such specific stressors are the ones that intensify schizophrenia symptoms in those already predisposed to the condition. This idea could help reconcile conflicting data on the link between stress and schizophrenia and their study offers potential tests for this idea and discusses its relevance for treating and managing the illness.

## **2.2. Demography**

### **2.2.1. Internal Factors**

Comorbidity is one of the important topics relating to suicidality in schizophrenia; for example, substance abuse could predict suicidal behaviors with hopelessness together [8]. This part is important because hopelessness in awareness of illness would cause patients' suicidal attempts with other disorders together existing.

Substance misuse or addiction frequently co-occurs with schizophrenia, and substance use have been identified as one of the factors that heighten the risk of suicide [13]. In addition, schizophrenia personality disorder is worthy to discuss while comorbidity occurs. SPD typically emerges in early adulthood, and who with SPD also experience concurrent mood, substance use, and anxiety disorders [14]. Over half of those with SPD have experienced a significant depressive episode in the past. Moreover, more than half of people with SPD have gone through a major depressive episode at least once, and when Newton-Howes et al., [15] explored data in a mental health clinic, about a third to half of them are diagnosed with major depression.

Depression is another disorder often comorbid with Schizophrenia needed to be discussed as a link between depression and awareness in schizophrenia. According to Kim et al., [8], depressive symptoms would contribute to suicidal risk in a great extent, and they found that depression correlates to awareness of symptoms positively. Moreover, Kim et al. indicate that as patients recognize their illness – understanding they have symptoms like psychosis, and cognitive issues which impact on their life quality – they may become demoralized. This feeling might become severe especially if they believe treatments are not effective in the future. Therefore, when a healthcare professionals find out that their patients show a deep understanding of their illness's severity, especially if paired with despair about achieving a significant recovery, they should be vigilant about the risk of suicide.

### **2.2.2. External Factors**

Schizophrenia results from a combination of inherent susceptibility and the stress experienced from environmental interactions [16]. This research stated that of 30 analyses comparing the level of stress to symptom severity among groups of schizophrenic patients, 23 of those showed statistically meaningful results, indicating that higher levels of prior life event stressors were linked to more severe symptoms.

A study conducting by Harkavey-Friedman and his colleagues tried to detect suicidal attempts in 52 people and found that 25% of these people adopted suicidal behaviors when they experience the

symptoms. Also, when people experience first episode psychosis, they would plan to suicide if, at pre-treatment assessment, the hallucinations are severe enough [17].

According to Walker et al., 1997, it is important to acknowledge that clinical symptoms or episodic conditions can disrupt daily functioning, leading to not only self-perceived stress but also stress arising from interpersonal relationships, work, and financial situations. Also, the research indicating a direct link between psychosocial stressors and worsening of symptoms is also supported by studies examining the interactions between patients and their family members, especially when patients are subjected to family members who display high emotional intensity, make critical remarks, or both, there is a significant rise in the chances of a relapse [18].

### 3. Future Implications

Suicide among individuals with schizophrenia is a multifaceted issue that continually poses difficulties in clinical settings. Berardelli et al., [19] highlights those multiple factors, spanning from demographics to environment, influence the risk of suicide in schizophrenia. Yet, efforts to pinpoint high-risk individuals using basic assessment methods have yielded an excessive number of false-positive results, limiting the clinical utility. Regarding on prevention, it is necessary to get early detection involved in even though nowadays existing the absence of precise and specific diagnostic guidelines for early-stage schizophrenia, confirmed biological indicators, and established treatment approaches [6]. Future studies should focus more on the types and early episodes before patients being diagnosed as schizophrenia. Further exploration on other thoughts than hopelessness only after acknowledging the recognition of schizophrenia symptoms that might contribute to suicidality as well. In future treatment strategies, addressing feelings of demoralization and fostering of hopelessness are crucial components, because it is necessary to detect early symptoms or premonition and decrease the negative consequences by acknowledging awareness of illness in patients with schizophrenia. However, this paper exists some limitations due to lacking papers on external factors and psychological factors contributing to schizophrenia. Also, depression and substances use disorder in comorbidity are too limited to be discussed, so it is significant to include more other disorders comorbid with schizophrenia.

### 4. Conclusions

To conclude, this paper aims to figure out external and internal factors causing people with schizophrenia to conduct suicidal behaviors and why they would recognize their symptoms during episodes. We discussed several models such as stress-vulnerability model and neurodevelopmental theory to explore the background of schizophrenia and how the genetic and environmental factors might contribute to high rates of diagnosing schizophrenia. Also, diathesis-stress model gives clear connections between psychosocial stress and neural mechanism in dopamine system contributing to symptoms in schizophrenia patients. This theory suggests that the genetic vulnerability to schizophrenia may be linked to anomalies in DA receptors. Damage to the hippocampus acquired before birth could enhance the chances of developing schizophrenia in those already genetically inclined towards the condition, as proposed by Walker et al., 1997. After this, comorbidity is explained with internal factors that substances use disorder and depression could contribute to higher rates of suicidality in schizophrenia patients because they together or alone would enhance people's awareness into their own illness that would make them have feelings of hopelessness. External factors such as environmental influences with stressful interpersonal relationships and family influences with interactions with family members. All in all, theories and mechanisms are encouraging us to discover more directions on preventing early episodes in schizophrenia patients and finding more relationships between awareness of symptoms and suicidality in them.

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