

Social Factors in Schizophrenia

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Abstract

One of the defining characteristics of schizophrenia is impaired social functioning. This was recognized a century ago in the earliest clinical descriptions of the disorder. Today, deterioration of social relations remains a hallmark of schizophrenia, with social isolation and withdrawal forming part of its clinical profile in the *Diagnostic and Statistical Manual of Mental Disorders*. But what kind of social problems do patients with schizophrenia have? When do they become apparent? Who is most affected? In this article, I present a brief review of what is currently known and highlight issues that still require attention from researchers. In addition to describing the social deficits associated with schizophrenia, I also consider some of the social consequences that may arise from these deficits. These consequences include social rejection, stigma, and problematic family relationships. I also consider the role of social-skills training in improving patients' general social functioning and the clinical course of their disease.

Keywords

schizophrenia, social competence, social skill, stigma, expressed emotion

Navigating a complex social world is not easy. Perhaps we struggle to make small talk at a party, or to be appropriately assertive when we need to be. All of us make social errors from time to time. But the problems experienced by patients with schizophrenia go far beyond this. For many people with this disorder, understanding and functioning in the social world seems to demand skills that do not come naturally.

In this article I provide a brief review of social functioning in schizophrenia. *Social functioning* is a global term that reflects a person's ability to interact appropriately and effectively in the social world. This term is often used interchangeably with terms such as *social adjustment* and *social competence*. Within the literature, there is no standard use of these terms, and they will all be used interchangeably in this article. At a conceptual level, however, it may be helpful to think of social functioning as being dependent on social competence (or the ability to affect favorably one's social environment), which is itself dependent on such things as social knowledge and social skills, as well as on social judgment. As should be readily apparent, problems or deficits in any of these areas will have implications for social functioning more broadly.

The impairments in social functioning that influence the lives of patients with schizophrenia are well captured by one simple observation. The majority of patients with this disorder do not marry: Compared to people in the general population, patients with schizophrenia are more than six times more likely to remain unmarried (MacCabe, Koupil, & Leon, 2009). They are also much less likely to enter into meaningful long-term

relationships even when compared to people with other forms of severe mental illness such as affective psychosis.

Social competence is a term used by researchers to refer to how well a person is doing in day-to-day social situations. On measures of social competence, patients with schizophrenia fare poorly. Studies show that patients diagnosed with schizophrenia typically score lower than healthy controls or patients with other clinical disorders. Impaired social functioning relative to healthy controls is also found in patients who are experiencing their first episodes of the illness (Ballon, Kaur, Marks, & Cadenhead, 2007) or who are only beginning to show very early (premorbid) signs of the disorder. Interpersonal deficits have even been found to characterize individuals who are simply at heightened risk for developing the disorder but who are not in any way ill (Hans, Auerbach, Asarnow, Styr, & Marcus, 2000).

Global difficulties in social competence thus seem to be characteristic of those diagnosed with schizophrenia at all stages of the illness. Such difficulties may also predate any signs of illness, often by many years. Moreover, the social difficulties and deficits that are apparent early on resemble the difficulties and deficits that are characteristic of patients in the later stages of the illness.

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The fact that social problems predate the clinical onset of schizophrenia is important. It suggests that the problems in social functioning that are associated with schizophrenia are unlikely to be explained solely by the symptoms of the disorder or by the effects of medications and hospitalization. Were the latter the case, we would not expect social deficits to be apparent prior to the onset of the illness. Longitudinal research also suggests that these social impairments are stable over time. This further suggests that they are not a simple result of symptoms. On the contrary, Cornblatt et al. (2007) found that social impairments measured in the prodromal period (the period prior to the onset of psychosis) actually predicted the presence of psychosis 1 year later. This raises the possibility that impaired social functioning could be an early marker for schizophrenia.

Social Skill Deficits

Underlying socially competent behavior are social skills. Social skills are the specific behavioral components or abilities that we need in order to communicate effectively or to be successful in social situations. They include verbal and nonverbal behaviors (such as body position or voice tone). Social skills include the ability to obtain or provide information and to express and exchange attitudes, opinions, and feelings. These skills, which people routinely use in their everyday conversations, encounters, and relationships, are thought to be critical to social competence.

The typical way to measure social skills in a research setting is via role-play. This might involve the patient interacting with a research assistant to simulate a situation such as buying an item in a store. Specific behaviors are then rated by trained assessors. Despite its "staged" nature, role-play appears to be a valid method for the study of interpersonal behavior. Behavior during role-play is strongly correlated with more global measures of social competence (see Mueser & Bellack, 1998).

Social-skills research, relying heavily on role-playing tasks, has provided useful information about specific deficiencies in the social functioning of schizophrenia patients. For example, in conversation, patients with schizophrenia show weaker verbal (e.g., clarity, negotiation, and persistence) and nonverbal skills (e.g., interest, fluency, and affect) than do nonpatient controls (Bellack, Sayers, Mueser, & Bennett, 1994). Compared with mood disordered or nonpatient controls they also tend to be less assertive when challenged. Moreover, although healthy and psychiatric controls tend to apologize or try to explain when they are criticized, people who suffer from schizophrenia are more inclined to deny making errors or simply to lie when challenged (Bellack, Mueser, Wade, Sayers, & Morrison, 1992). However, it is important to recognize that the overall social performance of people with schizophrenia is compromised more by mild impairments across a broad range of skill areas rather than by severe problems in one specific domain (see Mueser, Bellack, Douglas, & Morrison, 1991).

Social Problem Solving and Social Understanding

In addition to having problems with specific social skills, patients with schizophrenia also show deficiencies in their social problem solving. When presented with a hypothetical interpersonal problem situation they are less able to conceptualize and generate effective solutions than are control participants. However, social problem-solving deficits, although characteristic of schizophrenia, are also found in patients with other disorders (e.g., bipolar disorder). In other words, social problem-solving deficits are not specific to schizophrenia (Bellack et al., 1994). It is very likely, however, that the factors underlying poor social problem solving in patients with schizophrenia (such as cognitive impairments) differ from those underlying impaired social functioning in patients with bipolar disorder, in which acute symptoms may play more of a role.

Schizophrenia patients also perform poorly on other social-cognitive tasks (Hooker & Park, 2002; Pinkham & Penn, 2006). They have difficulties recognizing faces they have seen before and have problems correctly identifying the emotional expressions of others. They are also impaired relative to controls when it comes to recognizing emotion conveyed in speech. Patients with schizophrenia also do less well on tests that tap social knowledge. Compared to healthy controls and to patients with other forms of severe mental illness they fail to spot subtle (or not so subtle) social hints. They also are less able to recognize when someone has made a social error or faux pas (Zhu et al., 2007). Stated simply, patients with schizophrenia seem relatively less aware of the rules that govern social situations and that facilitate smooth and effective interpersonal exchanges.

Gender and Social Functioning

No review of social functioning in schizophrenia would be complete without consideration of gender issues. A wealth of evidence shows that female schizophrenia patients have a milder range of interpersonal problems and are characterized by better social functioning than are males with the disorder (see Hass & Garratt, 1998). In a representative study, Andia et al. (1995) found that, compared to men, women with schizophrenia were more likely to have been married, to be able to live independently, and to be employed, despite having similar symptom profiles. Moreover, females in this study had higher levels of social functioning even though they were being maintained on lower doses of antipsychotic medication than the male patients.

Role-play studies assessing social skills reveal similar findings. Mueser and his colleagues (Mueser, Bellack, Morrison, & Wade, 1990) reported a clear advantage for female patients across a range of different measures. Although they did not differ from male patients with respect to their symptomatology, females with schizophrenia were more skilled in how appropriate the duration of their speech was (very short or very long responses were rated less favorably), their turn-taking abilities

during conversations, aspects of their verbal content in specific role-play scenarios, and their overall social skills. There is also evidence that gender differences in social skill may be specific to schizophrenia. In the study just described, gender was unrelated to social skill in both the affective control group (people with mood disorders) and the healthy control group.

Social Skills, Stigma, and Rejection

People with schizophrenia are often stigmatized and avoided by others. Societal misinformation about schizophrenia undoubtedly plays a role in contributing to this. However, it is also reasonable to expect that some of the social deficits that characterize people with this disorder create difficulties for them and for the people with whom they interact. Over time, this may lead to increased negativity, social distance, and rejection by others.

In an empirical demonstration of this, Nisenson, Berenbaum, and Good (2001) asked student research assistants (all of whom had been selected because they had pleasant dispositions) to form brief friendships with patients who suffered from schizophrenia. Over the course of the study, which lasted 2 weeks, the behavior of the research assistants changed. Most notable was that the amount of negativity that the students showed toward the patients increased considerably.

But do poor social skills explain why people tend not to want to marry, befriend, or employ someone who has schizophrenia? At least in part, the answer appears to be yes. Penn, Kohlmaier, and Corrigan (2000) videotaped clinically stable outpatients with schizophrenia during a 3-minute role-play conversation with a confederate. Trained research assistants then rated the patients' social skills, noting such things as how well they made eye contact, how clearly they spoke, and whether their conversation was interrupted by pauses or stutters. The videotaped role-plays were then shown to 41 undergraduates, who were asked how much social distance they would want to have from each of the patients they had seen. The best predictor of the students expressing a desire to avoid interacting with the patient in the videotape was how "strange" the patient was rated as being. This, in turn, was predicted by the patient's overall social skills. In short, what this study demonstrates is that people who have poor social skills seem strange to us; and when we regard people as strange we tend to want to avoid them.

Families Coping With Schizophrenia

If brief interactions with schizophrenia patients present challenges for student research assistants, what is it like to live with someone who suffers from this disorder? Many family members of patients confront the symptoms of schizophrenia and the social deficits associated with it on a daily basis. Although some relatives seem able to respond quite well to the inevitable challenges that this creates, high levels of family tension are much more typical.

Expressed emotion (EE) is a relational variable. It provides a measure of the family environment and reflects high levels of criticism, hostility, or emotional overinvolvement (intrusive or overprotective behaviors and attitudes) toward the patient. Many studies have demonstrated that patients with schizophrenia are more than twice as likely to experience a symptomatic relapse if they live in a high-family-EE environment (see Hooley, 2007). But why do high-EE attitudes develop? In many cases, high levels of EE may be a natural response to the stress of prolonged caretaking and continued exposure to the social or behavioral disturbances of the patients themselves (Hooley & Gotlib, 2000). EE levels do seem to increase in families in which patients have been ill for longer periods of time (McFarlane & Cook, 2007). Nisenson et al.'s (2001) findings of increased negativity in the students who visited schizophrenia inpatients also lends credence to this notion that criticism and hostility might develop, at least in part, as a consequence of continued interaction with a disturbed patient.

Does Social-Skills Training Improve Social Functioning?

There is reason to believe that the social-skill deficits of patients with schizophrenia compromise their overall social competence, make them appear strange to others, and contribute to the social rejection and stigma associated with the disorder. To the extent that this is true, social-skills training might be expected to provide a variety of benefits.

Social-skills training programs are designed to teach new skills and improve overall interpersonal functioning. Complex sequences of social behaviors (such as starting a conversation with a new person or interviewing for a job) are reduced to their component parts. These parts are further broken down into even more basic elements (such as eye contact, rate of speech, or turn taking). Patients then learn to combine skills in a smooth and fluid manner into more elaborate sequences of behaviors such as those involved in being assertive. All of this is accomplished through goal setting, instruction, rehearsal, corrective feedback, and practice homework assignments.

A recent meta-analysis suggests that social-skills training significantly improves the social functioning of patients with schizophrenia in a number of important ways (Kurtz & Mueser, 2009). As would be expected, patients who receive social-skills training demonstrate considerable gains in such skills. Patients also show improvements on measures of overall social functioning and independent living. Social-skills training also has a modest effect on reducing rates of relapse. This could be because social-skills training improves patients' abilities to cope with stress. It is also possible that social-skills training reduces the overall level of stress in the family and reduces potential targets for criticism.

Summary and Future Directions

Difficulties in social functioning characterize patients with schizophrenia at all stages of the illness. Social difficulties

frequently predate the onset of the illness and remain even during periods of symptom remission. They can also be observed in those who are at potential risk for developing schizophrenia. Although there is considerable individual variation in the nature and extent of social difficulties, males are especially likely to experience problems.

The symptoms of schizophrenia no doubt compromise social functioning to some degree. However, there is reason to believe that the difficulties in relating that are experienced by many schizophrenia patients are important in their own right. We do not know yet why they are such a central feature of the illness. They may, at least in part, be related to neurocognitive deficits associated with schizophrenia, particularly those involving attention/vigilance and aspects of memory. Neurocognitive difficulties may also underlie problems in social cognition. Understanding how social and nonsocial cognition are related is now an important new area of research. We also need to learn more about how the pattern of associations between these domains and social functioning is influenced by such factors as gender and symptoms.

The challenges that schizophrenia patients experience when it comes to relating to and understanding the social world likely limit the extent to which they can develop supportive interpersonal relationships. People with schizophrenia do not pick up on the kind of social hints that are obvious to most people. They also tend to be emotionally unexpressive and hard for others to “read.” Together, these and other characteristics may conspire to make interactions with schizophrenia patients less rewarding for those who live or work with them. This contributes to stigma. The fact that interactions with patients with schizophrenia are difficult and less rewarding for others is also problematic because schizophrenia patients, like many other patients, are at higher risk of relapse when they live in emotionally stressful home environments. Helping patients improve their social skills and helping families cope with the stress of living with a person with schizophrenia is therefore important. Although treatment developments are needed in many areas, research suggests that older patients benefit less from social-skills treatments than do younger patients (Kurtz & Mueser, 2009). Refining treatments to improve clinical outcomes for older patients is thus a high priority.

We also need to learn more about the social difficulties that are specific to schizophrenia. Marked difficulties in interpersonal relating are characteristic of other clinical conditions such as Asperger’s syndrome. Comparing patients with these disorders would be informative because, like schizophrenia, Asperger’s syndrome has its origins in neurodevelopment. The two disorders are also believed to have certain candidate genes in common. Understanding more about the similarities and differences between patients with these clinical conditions may advance knowledge about factors that might underlie deficits in social skills and social understanding more broadly. Finally, although research is now moving in this direction, the neuroanatomical correlates of social-skill and social-competence deficits in schizophrenia remain essentially unexplored. Although we have come a long way, answers to some of the

most pressing questions in the area of interpersonal functioning and schizophrenia still await future systematic investigation.

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Declaration of Conflicting Interests

The author declared that she has no conflicts of interest with respect to her authorship or the publication of this article.

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