Insight and Schizophrenia: Correlates, Etiology and Treatment

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Abstract

Many patients with schizophrenia are unaware of the symptoms and course of their illness, as well as the need for treatment. As a result, they may be at greater risk not to recover. Exploring these issues, this paper reviews research, which suggests that unawareness of illness is linked with poorer clinical and psychosocial outcomes, though it may protect some from the negative impact of stigma. It also explores research suggesting that unawareness of illness may have diverse roots including deficits in neurocognition, as well as a wish to protect oneself from stigma. A range of treatments for unawareness of illness are detailed, which include cognitive behavior therapy, recovery-oriented integrative psychotherapy, motivational interviewing and psychosocial rehabilitation. While there is not sufficient research to point to the superiority of any of these treatments, they do share the common view that interventions must assist persons, in a non-authoritative manner, to examine their thoughts and feelings about their circumstances and to construct a personally acceptable and consensually valid account of their barriers to wellness.

Key Words: Recovery, Psychotherapy, Schizophrenia, Insight, Cognition

Introduction

Relative to persons with other major psychiatric disorders, persons with schizophrenia spectrum disorders are often unaware, or reject the possibility, that they suffer from a mental illness (1, 2). They may contest the possibility that an experience they have, such as hearing a voice speak to them that others do not hear, is a symptom of a mental illness. They may be aware that others view their interpretation of an event as thoroughly implausible (e.g., that the glance of another person was part of an act of mind-reading) and yet find it inconceivable that this could be a symptom of a mental illness. This unawareness or denial may be particularly baffling given that these same persons may be fully aware of much of what is occurring in the social world around them (3). Persons who are unaware they are ill, for instance, may be able to accurately describe other psychological aspects of themselves (4), to meaningfully appraise their own health (5) or recognize others who are mentally ill (6). While acknowledging that they are experiencing distress or adversity in their lives, many with schizophrenia, therefore, may reject well-intentioned professional assistance and advice from families and friends.

This phenomenon, referred to sometimes as poor insight, denial of illness and unawareness of illness, repre-

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sents a multidimensional construct. It involves, for instance, awareness of overall illness, acceptance of a specific label, specific symptoms, past and future consequences of illness, causes of illness and treatment needs. Altogether, however, it presents practitioners, patients and their friends and families with a number of pressing issues. At the purely theoretical level, unawareness of illness raises the question of how it is possible for persons with schizophrenia to accurately observe other people and yet interpret the same issues in such a dramatically different manner when applied to themselves. Beyond this, at the most practical level, are the even larger issues of how healthcare professionals can be constructively engaged with persons who are unaware of their needs for treatment and also the possible consequences of unawareness of illness. Generally, models of help-seeking behavior (7, 8) are based on the assumption that persons seek and accept help from others because of a mutually agreed upon need. If illness is denied by the person suffering with it, offers of help may consequently be seen by the potential patient as absurd and intrusive, and treatment may be refused. Assuming treatments such as medication are helpful, it appears a matter of intuition that persons who are unaware of their illness may be at even greater risk for prolonged, and possibly catastrophic, deficits and difficulties.

How does one empower a person with schizophrenia to recover from that illness when he denies he has it?

At present, contemporary models of schizophrenia suggest that many with this condition may recover, which involves more than symptom remission and must be based on a sense of personal empowerment and autonomy (9-12). Recovery is only meaningful when it is a process that is initiated and owned by the person with the illness. Thus, there is an obvious paradox for clinicians and families. How does one empower a person with schizophrenia to recover from that illness when he denies he has it? In response to this, the following review will seek to explore three interrelated questions regarding insight and schizophrenia. First, we will explore the consequences of unawareness of illness in schizophrenia, including the possibility that awareness of illness itself may have some negative consequences. We will then present a range of different models about what unawareness reflects in schizophrenia. In the third section, we will turn to literature on how awareness of illness may be responded to in a treatment setting. We will lastly offer some thoughts regarding the implications of this material for day-to-day practice.

Awareness and Unawareness of Illness: Consequence

Intuitively, if insight is a precondition for adherence to any treatment, it is not surprising that considerable efforts have been undertaken to examine if one consequence of unawareness of illness in schizophrenia is refusal of antipsychotic medication. Bartko et al. (13), for instance, reported that patients with schizophrenia who were nonadherent with medications tended to be less aware of their illness, to have higher levels of grandiose ideation, and poorer social adjustment compared with others who were more adherent with medication. Cuffel et al. (14) found that denial of illness was significantly linked with the perceived need for treatment among persons hospitalized for schizophrenia. Interestingly, while insight predicted compliance when assessed concurrently, insight while hospitalized did not predict either compliance or persons' appraisals of whether or not they were ill when assessed six months later.

More recent studies have also suggested that patients with schizophrenia classified as not aware of their mental illness have poorer attitudes toward medication (15) and have longer episodes of antipsychotic nonadherence, and have more frequent hospitalizations after periods of nonadherence than those classified as more aware of their condition (16). Lesser awareness of illness has also been linked to poorer treatment adherence among patients recovering from a first psychotic episode (17). Summarizing over twenty studies from 2006 and earlier, Lincoln et al. (18) note that while a clear connection can be detected between awareness and medication adherence in the present moment, that link appears to weaken over time. Indeed, as we have suggested elsewhere (19), it is possible that awareness of illness is not a static phenomenon, but one which changes appreciably over time as persons consider and reconsider their life circumstances and needs.

Beyond medication adherence, unawareness of illness has also been linked to poorer clinical outcomes and psychosocial function. Again the links here have an intuitive basis. If no difficulties are perceived, why should help or accommodations be sought? And without help or accommodations, some of the challenges of schizophrenia would likely become even more insurmountable. Consistent with this, Heinrichs et al. (20) in a retrospective study, found that the presence of awareness of illness early in treatment was linked to significantly lower rates of rehospitalization over time. McEvoy et al. (21) also found that patients with better insight at the time of hospitalization were significantly less likely to have a relapse requiring another psychiatric hospitalization over time. A more recent study of a cohort of patients experiencing a first-episode, nonaffective psychosis found participants with high insight had a relapse rate that was 39% of those with the poorest levels of insight (22). An-

other study (23), retrospectively, classified participants with first-break schizophrenia as having good versus poor insight (n=14) based on their presentation in the emergency room and found the group with poor insight had significantly more involuntary hospitalizations during the follow-up period.

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Concerning the association of insight with symptoms over time, Lincoln et al. (18) have suggested that the literature is inconsistent regarding the nature of any interrelationship. Nevertheless, evidence again suggests that, cross-sectionally, the two are linked. For instance, one study of over 500 persons in the early phases of illness found poorer insight correlated with higher levels of positive and negative symptoms, neurocognitive deficits and general psychopathology (24). Consistent with this, another cross-sectional study (25) of participants in later stages of schizophrenia found that poorer insight into symptoms was related to greater levels of symptoms across multiple domains of psychopathology. Another study, which assessed the symptoms at baseline and at three, six and twelve months, revealed enduring associations between lower levels of insight and higher levels of both positive and negative symptoms (26).

Moving to issues of function, a number of studies have also explored whether awareness of illness is linked to behavior in social and vocational settings. Francis and Penn (27), for instance, found poorer awareness of illness was associated with poorer social skills, while Lysaker et al. (28) found poorer awareness of illness was linked to having fewer social relationships and a lesser capacity for interpersonal function. Langdon et al. (29) found that participants with poorer insight had greater difficulties forming ideas about the intentions of others, while Lysaker et al. (30) reported persons with schizophrenia with less awareness of illness tended to construct more one-dimensional accounts of the thoughts and feelings of others, even when levels of neurocognition were controlled for statistically. In another study, Lysaker et al. (31) found that persons who were unaware of illness, and who were enrolled in vocational rehabilitation, had poorer work performance than those with higher levels of awareness. Others have reported that poor insight may also be related to poorer overall social function prior to illness (24, 32), suggesting that any interpersonal deficits linked to insight may precede the onset of symptoms or deficits that emerge with the full presentation of the disorder. Of note, while clinical lore has long suggested unawareness of illness may lead to aggression or violence, empirical studies continue to provide no evidence of this (33).

Finally, while unawareness of illness has been linked to a variety of untoward outcomes, awareness of illness has also been linked to undesirable states. Mintz et al. (34) conducted a meta-analysis of forty studies conducted from 1992 to 2001 and found that higher levels of insight were linked with not only decreased positive and negative symptoms, but also higher levels of depressive symptoms. Examining the issue of causality, Drake et al. (35) found that increasing levels of insight were likely to have resulted in increased levels of depression over a follow-up period of eighteen months. Others have also linked greater awareness of illness to poorer emotional well-being (36), as well as suicidal thoughts and behaviors (37-39).

In summary, unawareness of illness in schizophrenia, sometimes called poor insight, has been linked to a greater risk for medication noncompliance and a graver course of illness, which includes more frequent hospitalizations, higher levels of positive and negative symptoms, poorer social relationships and vocational dysfunction. On the other hand, awareness may also paradoxically be linked with lower self-esteem and despair. One possible way to understand this, which has received experimental support, is that awareness of illness may assist persons to solve some problems linked with schizophrenia, but also leave them vulnerable to the effects of stigma or widespread negative stereotyped beliefs about mental illness (40).

Awareness and Unawareness of Illness: Etiological Models

While agreement is emerging regarding the links between awareness of illness and function (36, 40), the causes and even conceptual boundaries of insight are matters of ongoing debate. Summarizing much of this literature, Osatuke et al. (41) have identified seven major models of the etiology of poor insight, none of which are necessarily mutually exclusive. The first two of the models noted by this group, respectively, suggest that lack of awareness of illness may itself sometimes be a positive or a negative symptom of schizophrenia. Framed as a positive symptom, lack of awareness of illness would itself be considered conceptually as a delusion. Framed as a negative symptom, lack of awareness would itself be considered conceptually as a form of withdrawal from any socially validated self-portrait.

The next four models are essentially all variants on the possibility that unawareness of illness results from some form of cognitive dysfunction: cognitive disorganization, neurocognitive impairment, impaired metacognitive capac-

ity or neuroanatomic deficit. These models share the general view that persons with schizophrenia may fail to recognize the extent of their disorder because of difficulties carrying out such a complex cognitive act (42). To know that one is suffering from schizophrenia requires highly complex judgments about frightening and confusing internal experiences. These judgments, for instance, may involve doubting, labeling and linking those internal experiences to biological and social processes, some of which cannot be immediately observed. Consequently, if memory, attention, and the capacity to scrutinize one's own thoughts or basic brain function is impaired, such complex construction of personal experience is likely to be imperiled (3, 19). To date, these models appear to have received the most empirical attention (41). A wealth of studies has linked poor insight to poorer performance on a wide range of indices of cognition (42-47), though a smaller number has failed to find an association (48). This work, in particular, has pointed to the possibility that decrements in the function of the prefrontal cortex may be implicated in the inability to perceive and describe the symptoms and consequences of schizophrenia.

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The final model noted by Osatuke and colleagues (41) suggests that lack of awareness is essentially a self-protective act or means to cope with the difficulties linked with illness. Stigma about mental illness exists at all levels of contemporary society and includes erroneous beliefs that mental illness is synonymous with incompetence or dangerousness (49). As noted above, to accept that one is ill may open the door to inaccurately and tragically concluding that one is, therefore, incompetent or dangerous. As a result it has been widely suggested that many may reject the label of mental illness in order to avoid feeling even more poorly about themselves (36, 41). In other words, lack of awareness may be a way to live with the illness and, therefore, may not be a symptom or manifestation of the illness. Research supporting this possibility includes findings that persons who reject they are ill may tend to use denial or more avoidant coping strategies in a host of other settings (44, 47).

Clearly one interpretation of this literature is that unawareness may have different roots for different persons. Conceptually for some it may be a delusion of well-being, while for others it may be a sign of withdrawal. For others it may represent cognitive difficulties which limit their ability to construct complex stories of what is wrong, while for others it may be an adaptive response to stigma. One way to integrate these views is to suggest that a true awareness of schizophrenia requires that persons perform a doubly complex act. First, they have to create a socially acceptable account of confusing, painful symptoms and losses. Second, they have to create an account of their illness, which does not nullify their identity or social value. They consequently have to borrow some aspects of the larger social discourse but reject others (e.g., accept they have schizophrenia but deny the inaccurate and stigmatizing belief that schizophrenia means they are dangerous). Consequently, those with more limited cognitive capacities may find this task too complicated, if not impossible, and simply choose to protect themselves by opting out of the whole process of trying to understand what disorder they have (40).

Awareness and Unawareness of Illness: Treatment

Given the complexities and consequences of unawareness of illness, it seems essential to consider how it should be addressed when it appears in treatment. As noted above, recovery is largely understood to involve persons taking charge of their own health. So what should be done when a clinician wants to help a person recover who does not think they are suffering from any form of ill health?

While no single intervention has emerged which might be labeled the treatment of choice when facing lack of awareness (50), several different approaches have provided promising results. First, Cognitive Behavior Therapy (CBT) is a form of psychotherapy that helps persons to identify and correct maladaptive beliefs and behaviors. It has proven to be a treatment persons with schizophrenia will accept which may help them cope effectively with positive symptoms (51). CBT, consequently, seems a natural intervention as unawareness of illness could readily be framed as a belief (e.g., "I am not ill") that could be directly challenged in an intervention. To date, there is some mixed support of this possibility. Rathod et al. (52) have reported that participants randomized to receive a form of brief CBT, which focused on the development of explanations for symptoms and the diagnosis of schizophrenia, demonstrated greater awareness of illness after three months and at one-year follow-up. Startup and colleagues (53), however, failed to replicate this, finding insight improved in their randomized controlled study for both the CBT and control conditions. They did note that participants who dropped out of CBT tended to develop little insight

while those who continued to participate developed steadily greater awareness of illness over time.

Turning to the broader issue of psychotherapy, other groups have suggested that integrative psychotherapy might help persons to simultaneously construct a more coherent account of psychiatric difficulties, personal strengths, losses and hopes (3, 54-57). This approach emphasizes jointly constructing meaning with patients. For instance, instead of exploring the plausibility of the belief that one is the son of a king, it might be explored how consuming and disruptive this belief can be. In this way, persons are assisted to develop their own version of what is wrong (e.g., "I get caught up in beliefs which I sometimes discover later were not true"), which could be directly translatable as improved insight (19). While this has not been tested in randomized, controlled trials, at least three case studies, which included blinded ratings over time, have reported quantitative improvements in awareness of illness (56-58). Consistent with emerging models of recovery from schizophrenia (59-61) in each of these case studies, patients appeared to first gain an enhanced sense of themselves as able and capable people before developing more fully an account of their schizophrenia. Growth in self-esteem and self-efficacy appeared to pave the way for opportunities for greater awareness of illness.

Another specialized approach which shares features in common with CBT and integrative recovery-focused psychotherapy is motivational interviewing, a technique sufficiently applied to conditions in which persons are ambivalent about treatments. Rusch and Corrigan (62) and Sousa (63) have each suggested that motivational interviewing, as applied to persons with severe mental illness, might offer them a caring environment in which to explore their own views about their troubles and the positive and negative consequences of their actions. They suggest such an approach might be especially helpful as it avoids an argumentative stance and focuses on enhancing confidence and self-esteem, perhaps allowing persons to combat stigma should they accept they are ill. Consistent with this are more purely rehabilitative approaches which have suggested that awareness of illness might improve as persons recover greater functional capacity and, consequently, may be better able to fend off stigma. In other words, perhaps improvements in function and self-esteem will lead to better insight than the reverse. Evidence supporting this includes at least one study that found less cognitively impaired patients with schizophrenia who successfully participated in vocational rehabilitation demonstrated significantly improved awareness of illness after five months (64).

Regarding engaging persons who are unaware of illness, Amador (65) has provided a series of illustrated principles for both family members and professionals. These include efforts to avoid a dictatorial stance when talking about the issue of mental illness and a sincere attempt at understanding the unique perspective of the person who is denying they are ill. The approach also emphasizes careful efforts on the part of the clinician or family member to respectfully explain their positions and feelings, which could include frank explanations of their fears and a wish for a mutual understanding not based on their authority.

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Consistent with the literature discussed above linking awareness of illness with heightened distress, Lewis (66) emphasized that increasing insight often involves having to mourn the loss of at least two different kinds of things. First, there is the obvious loss of possible future and past hopes that might be brought into stark relief with insight. With recognition of illness may come awareness, for instance, that shortly after the illness began there was the loss of multiple opportunities. Second, there is also the more subtle loss of symptoms which previously may have explained or made meaning of life. As a fictional illustration of this point, to realize, for instance, that a voice of a god extolling one's virtues was a symptom of a mental illness might leave a void that the acceptance of the reality of that voice had previously filled. Thus, it may be essential that interventions support a sense of self-esteem and expectation in attaining goals and making changes as persons achieve greater degrees of insight. Regarding how dysphoria and related affects might be addressed following improvements in insight, psychotherapeutic interventions might be uniquely useful here as places where persons can grieve, but also begin to construct new stories about their hopes and what it might take for them as able and capable persons to achieve those dreams. Importantly, Bourgeois et al. (67) have reported that persons in treatment who attained greater levels of awareness had a lower suicide risk if they were in treatment.

Additionally, one commonly considered intervention for unawareness of mental illness is psychoeducation which provides basic information about mental illness and symptoms. As noted in a range of reviews (50), however, there is little evidence supporting the effectiveness of this strategy. While this might be initially surprising, if awareness of illness represents a personalized account of one's condition rather than the acceptance versus rejection of a particular fact (61, 68), then it may be that provision of information on its own is not sufficient for meaningful change. Finally, there is also little indication that current pharmacological approaches have a meaningful impact on awareness of illness (69). However, it should be noted, that with the development

of new agents targeting cognitive impairment which may limit insight, it remains possible there will be breakthroughs in this area in the near future.

In summary, research has provided no singular treatment of choice when unawareness of illness is at issue. Studies from a range of perspectives, nevertheless, suggest that interventions which are nonauthoritative in nature and which bolster self-esteem may allow many to create accounts of their difficulties which are personally and consensually acceptable. Interventions from cognitive to integrative to rehabilitative perspectives, thus, are available which could help persons previously with little insight to define a set of challenges which they could take responsibility for addressing, and to seek treatment for, paving the way for recovery.

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Summary and Conclusions

Unawareness of illness is a multidimensional construct which refers to a lack of perception or denial of phenomenon, such as symptoms, their consequences and the utility of treatment. Research has suggested unawareness of illness is linked with a range of poorer clinical and psychosocial outcomes, and it likely is the result of a variety of forces including neurocognitive impairments and the need to protect oneself from stigma.

Posed at the outset of this paper, recovery from schizophrenia requires persons take charge of their lives and treatment. So what is to be done in the face of unawareness of illness? In response to this we have reviewed literature that suggests a wide range of interventions are available which could help recovering persons make sense of their strengths and needs. These interventions share in common the view that it may not be enough for practitioners to provide accurate education about symptoms or labels. Many persons with schizophrenia may need to develop a sense of hope and self-reliance before they will accept, or fully use, any information a practitioner can offer them. These approaches also emphasize that it is important both what practitioners say and how they say it. Helping persons to make their own sense of matters may require speaking in a consultative nonhierarchical way that does not authoritatively usurp their perceptions but also does not lapse into unquestioning support.

In this light we argue that it may be useful to think about services for those with schizophrenia as interventions that offer more than treatments for problems. Recovery-oriented interventions where unawareness of illness is concerned may not only offer tools for coping and support, but also opportunities to think and talk aloud about the meaning of what has happened, along with what has to be grieved and what is hoped for in the future. Recovering persons may need the time and interest of their clinician or rehabilitation specialist in order to begin to retell and deepen their story in such a manner that allows them to see themselves as actively playing the role of agent in an everyday life that has been challenged by schizophrenia.

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