

Insight, Outcome and Recovery in Schizophrenia Spectrum Disorders: An Examination of their Paradoxical Relationship

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Abstract: While interest has grown steadily in understanding how persons with schizophrenia appraise their disorder and subsequently move towards recovery, the nature of the impact of awareness or admission of schizophrenia on various domains of quality of life has remained a matter of debate. At the level of both theory and empirical study, it has been alternately argued that acknowledgement of one's mental illness is a key to and a detriment to recovery. Acknowledgement of illness has been recognized as something essential in order for a person to be able to make informed decisions about the future, to free oneself from blame for difficulties linked with illness and to form sustaining bonds with others. From another view, however, "awareness of illness" has been suggested as a barrier to recovery because it represents the acceptance of a system of social power in which one's individuality and dignity is diminished. Indeed empirical studies suggest both awareness and lack of awareness have significant risks associated with them. In this chapter we review this evidence and suggest that the impact of insight on quality of life may be mitigated by the degree to which persons have internalized stigmatizing beliefs about their illness. Clinical and theoretical implications are discussed.

Keywords: Insight, quality of life, schizophrenia, recovery, psychosocial function, symptoms, narrative, hope.

1. INTRODUCTION

Relative to persons with other major psychiatric disorders, persons with schizophrenia spectrum disorders are often unaware, or willfully contest that they suffer from what others think may be a mental illness [1, 2]. They may dispute the possibility that the experiences they have, such as hearing a voice others do not hear or seeing a vision others do not see, are symptoms of a mental illness. They may be aware that their interpretation of an event is entirely implausible in the eyes of others, yet find it inconceivable that this could be a symptom of a mental illness. This unawareness or denial may be particularly baffling to those around them given that these same persons may be fully aware of much of what is occurring in the social world [3]. They may, for instance, be fully cognizant of the irrationality of a bizarre delusion of persecution which someone else they know is experiencing, but may deny that their own virtually identical belief could similarly be linked with a mental illness [4]. They may know most people work but appear perplexed as to why others think something in their lives has gone wrong when they are not working. While acknowledging that they are distressed or have lost jobs or housing, many with schizophrenia may reject well-intentioned professional assistance despite pleading from family and previous personal experiences suggesting psychiatric treatment is beneficial.

Whether referred to as poor insight, denial, or unawareness of illness, this phenomenon poses many intriguing theoretical issues. How for instance, is it possible that persons can be reasonable observers of others and yet interpret the same issues in such a dramatically different manner when applied to themselves? Beyond this, the even larger issue

looms regarding non-adherence with treatment and recovery. Most models of help-seeking behavior [e.g. 5, 6] are based on the core assumption that persons who reject the possibility they are ill may not only fail to seek assistance from others but also reject assistance when offered. If illness is denied by the person suffering with it, offers of help are likely to be seen as absurd and unwarranted. Thus, if it is assumed that current treatments such as medication are helpful, then 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.

While a wealth of anecdotal evidence suggests that lack of awareness leads to medication non-adherence, which deters movement towards recovery, published studies from over two decades of research suggest a more complicated picture. As will be reviewed below, research on the link between insight, health, and outcome has been strikingly inconsistent taken in the larger frame. While some studies have linked awareness of illness to a range of undesirable outcomes, other studies have suggested the opposite. Specifically both awareness and unawareness of illness appear to serve as a risk factor for a range of equally undesirable factors. Paradoxically, awareness of schizophrenia, which is often an implicit goal of most psychiatric treatment programs, seems to be both essential and harmful to persons seeking to recover a reasonable quality of life.

In this review we seek to evolve and develop an understanding of these seeming contradictions and to discuss the implications for treatment. In particular, we assert that if psychiatric treatment continues to promote services which assist persons to better understand their conditions, that it is essential for the field to evolve a thorough understanding of the complex effects awareness of illness has on persons with schizophrenia. Accordingly, this review is divided into five sections. In the first we review literature on the risks of lack of awareness of illness. In contrast to this, the second section examines the risks of awareness of illness. In the third sec-

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tion, we suggest that the effects of awareness of illness on quality of life are mediated by the meaning which severe mental illness holds for persons with schizophrenia. Here we will draw on evidence from studies suggesting that the meanings assigned to non-psychiatric medical conditions directly impacts upon quality of life. In the fourth section, several recent studies will be reviewed which examine the interaction of insight with one type of meaning often associated with schizophrenia, namely societal stereotypes of mental illness or stigma. We will lastly offer some thoughts regarding the clinical implications of this material.

2. UNAWARENESS OF ILLNESS AS A PREDICTOR OF POORER OUTCOME

2.1. Unawareness and Treatment Adherence

If insight is a precondition for adherence to any treatment, it is not surprising that a wealth of studies have sought to determine if denial or unawareness of illness in schizophrenia is linked to the acceptance of antipsychotic medication. Bartko *et al.* [7], for instance, reported that patients diagnosed with schizophrenia who were non-adherent with medications ($n = 32$) tended to be less aware of their illness, to have higher levels of grandiose ideation, and more difficulties with social adjustment compared with others rated as adherent with medication ($n = 26$). Consistent with this, Cuffel *et al.* [8] found that denial of illness was significantly linked with 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. This may suggest that personal awareness of illness is malleable and its relationship with other variables changes over time.

A more recent study [9] has explored the relationship of illness awareness to non-adherence to antipsychotic medications. In this study the authors surveyed over 700 psychiatrists regarding the presentation, management, and course of illness for an adult patient with schizophrenia under their care for at least one year and who had been non-adherent to oral anti-psychotics. From the 534 psychiatrists who responded, 300 patients were classified according to whether they were more or less aware of their condition. Analyses revealed that the 97 classified as not aware of their mental illness had significantly longer episodes of antipsychotic non-adherence, more severe levels of positive symptoms, and more frequent hospitalizations after periods of non-adherence than those classified as more aware of their condition.

2.2. Unawareness and Clinical Outcome

Consistent with the links between insight and medication adherence, denial of illness has also been linked to poorer clinical outcome and prognosis [10]. For instance, in an early study, Heinrichs *et al.* [11] retrospectively examined outcomes linked with the presence of awareness of illness. They studied a sample of 38 patients with schizophrenia in an acute state and found that the 63% whom they labeled as having "early insight" into the significance of their condition had significantly lower rates of re-hospitalization than the 37% labeled as not having insight. McEvoy *et al.* [12] fol-

lowed 46 patients with schizophrenia for several years after they were hospitalized during an acute phase of illness. They found that patients with better insight at the time of hospitalization were significantly less likely to have a relapse requiring another psychiatric hospitalization within the window of their follow-up period.

Concerning the association of insight with symptoms, one cross sectional 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 [13]. Consistent with this, another cross sectional study by Sevy *et al.* [14] examining 96 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 longitudinal study assessed the symptoms of 180 persons with early psychosis at admission and then at three, six and twelve months. Analyses revealed enduring associations between lower levels of insight and higher levels of both positive and negative symptoms [15]. Finally Bota *et al.* [16] have examined the impact of insight among persons in the early phase of illness. These authors retrospectively classified 24 participants with first break schizophrenia as having good ($n = 10$) vs. poor insight ($n = 14$) based on their presentation in the emergency room. Analyses comparing the clinical course over the next three years between these groups, revealed that the group with poor insight had significantly more involuntary hospitalizations and were perceived as less cooperative, more hyperactive, and more withdrawn from others.

2.3. Unawareness and Psychosocial Function

Exploring the relationship of insight and interpersonal function, several studies have similarly found that unawareness of illness predicts reduced capacities for social and community interactions. In a study by Francis and Penn [17], persons with schizophrenia engaged in social interactions with a research confederate which were observed by a trained rater. Coding of those interactions revealed that better insight was associated with better social skills, more self-disclosure of suffering from a mental illness and less observed social strangeness. In a study by Lysaker *et al.* [18] insight and level of interpersonal function were assessed concurrently in a structured interview. Analyses revealed participants rated as having impaired insight ($n = 57$) had fewer social relationships and lesser capacity for interpersonal function than those with unimpaired insight ($n=44$).

In a recent study, Langdon *et al.* [19] measured levels of insight, externalizing bias or the tendency to blame others or circumstances for negative events, and theory of mind or awareness of the thoughts and feelings of others. Analyses of 34 participants who had schizophrenia and persecutory delusions revealed that those with poorer insight tended to have greater biases for blaming persons or circumstances for negative events and also to have greater difficulties forming ideas about the intentions of others. Importantly, the link between insight and theory of mind existed independent of level of delusions. In addition to these studies, at least two other investigators have reported that poor insight may also be related to poorer overall social function prior to illness [13, 20], 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.

To explore the association of insight with the ability to work, Lysaker *et al.* [21] divided a sample of 121 persons with schizophrenia spectrum disorders who had completed a vocational rehabilitation program into two groups: good insight ($n = 65$) and impaired insight ($n = 56$). Analyses comparing averaged blind ratings of work performance across the first seven weeks of a work placement indicated that the group with impaired insight had significantly greater difficulties in the area of cooperativeness, work habits, work quality, and personal presentation. When neurocognitive ability was controlled for statistically, further analyses revealed that the unaware group still demonstrated poorer performance on cooperativeness and personal presentation. This could suggest that unawareness of illness may interfere with persons' abilities to appraise their areas of need and, therefore, as a result to form working relationships with others who may be fully cognizant of their areas of need.

3. AWARENESS OF ILLNESS AS A PREDICTOR OF POORER OUTCOME

3.1. Awareness and Dysphoria

While lack of insight has been found to predict poorer medication adherence and poorer clinical, social and vocational outcomes, other research has suggested that greater awareness of schizophrenia is also linked with a range of negative outcomes. Mintz *et al.* [22] conducted a meta-analysis of 40 studies conducted from 1992 to 2001 that assessed both psychopathology and insight in schizophrenia. Inclusion criteria for this meta-analysis were study publication in an English language journal and the use of objective, reliable and valid measures of insight. The authors abstracted measures of five dimensions of insight: "individual's awareness of the mental illness, awareness of the social consequences of the disorder, awareness of the need for treatment, awareness of symptoms and attribution of symptoms to the disorder" from studies which met inclusion criteria and utilized those to create an overall insight index. The relationship of this index with positive, negative and depressive symptoms was then calculated. This analysis revealed that consistent with some of the work cited above, higher levels of insight were linked with increased positive and negative symptoms. However, at the same time, greater insight was also associated with higher levels of depressive symptoms.

Examples of research incorporated in this meta-analysis included a study by Pyne *et al.* [23] in which the authors sought to distinguish the characteristics of those with and without insight from a sample of 177 inpatients and outpatients with schizophrenia. The authors found that the 37% of their sample who did not believe they were mentally ill perceived their medication as having lesser efficacy and reported fewer depressive symptoms. Moore *et al.* [24], also included in the Mintz *et al.* meta-analysis, found that among 46 patients with schizophrenia, those with poorer insight similarly reported fewer depressive symptoms but may have also used greater levels of self deception. Depression in this sample, the authors speculated, was the result of awareness of illness and was perceived as the social "price" of having a mental disorder in the absence of a "denial defense". A third example of work included in the Mintz *et al.* analysis was a

study conducted by Warner *et al.* [25] which assessed whether 42 patients with psychosis believed they had a mental illness and then measured their self-esteem, locus of control and perceptions of self. Results indicated that persons who accepted the mentally ill label ($n = 28$) had significantly lower self-esteem and tended to perceive life events as related to forces outside of their control when compared with those who rejected the mental illness label ($n = 14$).

Finally in a more recent and methodologically sophisticated study, Drake *et al.* [26] conducted four separate assessments of symptoms and insight over 18 months in a sample of 250 patients with first episode psychosis. Using structural equation modeling, the authors reported the pattern of results suggested that increasing levels of insight were likely to have resulted in increased levels of depression over time.

3.2. Awareness and Self Image

From a somewhat different angle, Thompson [27] has explored the changes in self-concept of young adult patients suffering with psychosis. In this study participants were asked to indicate whether they viewed themselves more as a typical community resident or a typical mental patient. Two thirds of the participants described themselves as community residents while the remaining third described themselves as patients. Comparisons of these groups on a wide range of variables revealed that those who described themselves as patients were more likely to report greater psychological anguish, to be older, unmarried, and to use the support of limited social groups. The group who thought of themselves more as typical mental patients rather than community residents also reported greater adherence with medication but held little hope that they could achieve a satisfactory quality of life. In a study examining the impact of acceptance of the label of mental illness on quality of life, Kravetz *et al.* [28] found that psychiatric self-labeling was negatively correlated with quality of life, while perceived control of mental illness was positively correlated with quality of life. The authors interpreted these findings to suggest that while the acceptance of a disability may improve adherence to treatment, it can also represent a barrier to recovery as it may encourage an individual's surrender to a status of social inferiority. In a more recent study by this same group [29], a new sample of 128 participants with schizophrenia spectrum disorders was administered assessments of insight and quality of life. Analyses indicated that greater levels of awareness of illness were related to reports of poorer emotional well being, poorer vocational function, and lesser satisfaction with economic status.

3.3. Awareness and Suicide

Beyond changes in self-concept and emotional discomfort, evidence also exists linking awareness of illness to perhaps the worst of all possible outcomes, suicide. Amador *et al.* [30] for instance, found that of 218 persons with schizophrenia, the 49 who had experienced suicidal behavior and thoughts were significantly more likely to be aware of certain symptoms, including delusions and several negative symptoms than the non-suicidal persons. Surprisingly, general awareness of having a mental illness did not significantly predict suicidal tendencies, perhaps intuitively suggesting that awareness of certain symptoms of schizophrenia

is more likely to negatively impact self esteem or to affect hope for the future which could contribute to suicidality. Crumlish *et al.* [31] examined the development of insight among 101 persons with first break schizophrenia spectrum disorders over the first four years of illness. Results suggested that while insight improved over time, greater acknowledgement of illness after 6 months was significantly related to the likelihood of a suicide attempt over the following three and a half years. Evren and Evren [32] contrasted those who had attempted suicide ($n = 27$) with those who did not ($n = 33$) among a sample of 60 persons with schizophrenia. Depression, poor insight and fewer negative symptoms were significantly higher among persons who had tried to take their lives.

4. AWARENESS OF ILLNESS: THE ROLE OF THE MEANING WITHIN THE REALM OF NON-PSYCHIATRIC DISORDERS

Viewed from a distance, research on insight and outcome in schizophrenia presents a striking paradox. Lack of awareness of illness seems to place persons at risk for rejecting potentially helpful treatments, as well as for the experience of symptom exacerbation and graver levels of social and vocational dysfunction. Awareness of illness, on the other hand, is associated with dysphoria, low self-esteem, a heightened sense of hopelessness and suicidal behavior. One possible explanation for these seemingly contradictory findings is that the impact of the acceptance of schizophrenia depends on the meaning persons attach to schizophrenia [33]. Awareness of any illness is in essence not an isolated belief existing in a person's consciousness. Awareness of or the denial of an illness is a complex story or personal construction of selected events that is established within a life story. The story of an illness or a story which refutes the stories of others that one is ill is nested within a story of one's larger life and may be further imbued with any number of particular meanings given the contexts in which it is placed [34]. For example, an identical set of delusions in schizophrenia could be understood to mean that one's way of life has been eradicated and the past is meaningless or that previous dreams are still possible, and the person's survival is a reflection of family support and personal strengths. In either case, acceptance might lead to quite different outcomes regardless of its positive effect on medication adherence.

4.1. Biographical Disruption

While the impact of the meaning assigned to mental illness upon those who suffer with it has been relatively neglected by the literature in psychiatry, some work examining medical illness may provide a context for thinking about this issue. For instance, as summarized by Lambert *et al.* [35], the impact of physical illness on quality of life may be a function not only of the severity of that illness but also of the extent to which that illness is associated with a disruption in an individual person's sense of personal biography. In other words, as illness is experienced as an interruption in the flow of one's life story, that is, as dissolving the links between the past, present, and the expected future, perhaps more profound disability ensues and quality of life is eroded.

The term biographical disruption was coined by Bury [36] and used to illustrate how the perception of illness could

disrupt one's life. Biography here, in particular, refers to a person's autobiography or the story they tell themselves and others about their lives. This story presumably includes an account of current challenges, triumphs and defeats, events leading up to the present, and possible futures, all creating a picture of the unique identity of that person. The illness then is a biographical disruption when it interrupts the story, cutting off the past from present and setting the individual in motion to search for an explanation of its meaning. Based on a study of persons with rheumatoid arthritis, Bury suggested specifically, chronic illness can be especially disabling because it can be experienced as bringing one's previous life story or autobiography to a halt. Past dreams in the face of a disability or chronic illness can seem to vanish and the future to appear unknowable or closed to possibility. Thus the present moment can be seen as no longer sufficiently connected to an unfolding life.

Expanding on this idea, many others have suggested that it is not merely that chronic illness disrupts biography but that the relationship between sense of biographical disruption and illness may be bidirectional and not a matter of one phenomenon merely altering another. The effect of an illness on quality of life may, for instance, be largely a matter of how the illness is perceived relative to its context, to an individual's view, for instance, of his or her life stage and life expectancies [37]. For instance, Downe-Wamboldt *et al.* [38] assessed quality of life and its relationship with meaning of illness, perceived social resources and coping strategies in patients with lung cancer and their family members. They suggested that it is less significant that the disease process disrupts biography but more important how persons attribute meaning to the disruption and perceive it as manageable that contributes to some quality of life. It has been similarly observed by Carricaburu and Pierret [39] that one's interpretation or perception of being HIV-positive involved "reconstructing individual and collective pasts" (p. 85). In their study, they interviewed 44 HIV-positive asymptomatic men with varied social backgrounds, faced with living their lives with future uncertainty and dealing with stigmatizing social factors, and found that these participants became involved with reconstruction of their identities in order to cope with their condition. To live with HIV they had to make sense of their past and present in a different way. The process of reinterpretation and biographical reconstruction was termed biographical reinforcement and was conceptualized as providing those suffering with HIV with a present day sense of meaning needed in order to fend off adversity.

4.2. Chronic Pain and Meaning

Perhaps as much as many medical illnesses, the meanings persons attach to their chronic pain has been the object of increasing study. Charon [40] has suggested that pain must be conceptualized as more than a physiological sensation but as a phenomenon to which specific meanings are attached. She writes "the pain sufferer must be allowed to look at and describe the new self-the self with pain-so as to claim this self and to recognize its continuity with the self he or she once had been" (p. 38). As Frank [41] also observes, pain can create a "chaos narrative of illness" in which pain becomes not only meaningless but a force that strips life of meaning. The medicine here that is needed thus is a kind of "narrative medicine" which helps persons make meaning of

what is happening in the context of their lives and to “enfold the pain and save it from chaos” (p 292). Echoing this, Richardson *et al.* [37] asserts that to live with chronic pain necessitates that such pain be made sense of within the larger context of the purposes and meanings of one's life. As Richardson *et al.* write: “...stories may, therefore, be constructed and told not as simple descriptions of pain” but also “to present a particular identity and through this to legitimate pain” (p. 1583).

5. MEANING OF AWARENESS OF ILLNESS, OUTCOME AND RECOVERY IN SCHIZOPHRENIA

5.1. Stigma as a Meaning of Schizophrenia

In the section above we have presented a wide range of studies of non-psychiatric illnesses which suggest that it is the meaning that one assigns to an illness in the context of one's life which determines the effects of it on quality of life, particularly whether one can find a meaning so that the pain of that condition and one's life are not lost to chaos. Additionally it has been suggested that a reconstruction of one's narrative or life story in the face of chronic illness is necessary in order to sustain hope. With this in mind we would suggest that there may be culturally prevalent meanings which make accepting that one suffers from schizophrenia to have a devastating effect on quality of life, even though that same acceptance may lead to useful treatment outcomes and social exchange.

One does not have to look far to find reasons why persons with schizophrenia might be driven to attach particularly disruptive if not destructive meanings to their conditions. Population surveys indicate that despite increased awareness of the nature of schizophrenia many across all levels of the general public hold stereotyped beliefs about persons with this condition [42]. Categorically referred to as stigma, these beliefs include the expectation of violent and unsettling behavior as well as an inability to work or make informed decisions about essential matters [43-44]. Beyond being a matter of incorrect information, stigma may incline persons in the general public to reject, avoid, or seek social distance from those they perceive as having schizophrenia [45].

5.2. Stigma as Mitigating the Effect of Awareness of Schizophrenia

Accordingly we have recently suggested [46] that internalized stigma or the acceptance of stereotypic beliefs about mental illness may be a factor which mitigates the impact of whether awareness of illness can lead to improved quality of life. To investigate this we sought to determine whether we could: a) distinguish groups among persons with schizophrenia that varied according to level of insight and internalized stigma and b) to determine whether those different groups differed in levels of hopefulness, self-esteem, and social function. To examine this hypothesis, we gathered measures of insight, internalized stigma, hope, self-esteem and social function among 75 persons with schizophrenia spectrum disorders [46]. We then performed a cluster analysis using insight and internalized stigma scores. A cluster analysis is similar to a factor analysis but instead of separating test scores into groups it separates participants into groups based on patterns of scores.

As predicted this cluster analysis produced three groups which we labeled: Low insight/ Mild stigma (n = 23), High insight/ Minimal stigma (n = 25) and High insight/ Moderate Stigma (n = 27). Analyses of variance revealed, consistent with the hypothesis that stigma may mitigate the effects of insight, that the High insight/Moderate stigma group reported significantly poorer self-esteem and lesser hope than the group with insight who rejected stigma and the group who accepted stigma but had no insight. The High insight/ Minimal stigma group had significantly better interpersonal function on the Quality of Life Scale than either of the other two groups.

Taken together, we suggest that these results may offer some way of making sense of the contradictory findings regarding the negative effect of both awareness and unawareness of illness. In particular it may be that awareness of schizophrenia among a subgroup of persons who endorse self stigma leads directly to poorer self esteem and hope and thus poorer adaptation to illness. Concurrent with this, it may also be that persons who deny they are ill avoid demoralization, *yet also* become socially isolated and thus have equivalent difficulties adapting to their illness. Therefore, both awareness and unawareness may be possible pathways for persons with schizophrenia to move farther and farther away from health, especially if they have assigned profoundly negative meaning to their illness.

Consistent with these findings is another recent study from our group [47] which found that quantitative assessments of the richness of personal narratives from 55 participants with schizophrenia were significantly related to concurrent assessments of insight, metacognition or the ability to think about one's own thinking, and the internalization of self stigmatizing beliefs. In this study, persons with poorer metacognition and who endorsed stigmatized beliefs about mental illness told more impoverished stories of their lives regardless of their level of insight. Also consistent with this are the results of a recent study by Watson *et al.* [48] of 100 patients with schizophrenia spectrum disorders assessed within three months of a relapse. Analyses of assessments of insight, illness appraisal, and well-being suggested that appraisal of illness, but not insight was linked to the maintenance of depression, anxiety and low self-esteem.

6. CONCLUSIONS AND FINAL DIRECTIONS

In this review we have explored research suggesting that unawareness that one has schizophrenia is an impediment to recovery just as acknowledging that one has schizophrenia is an impediment to recovery. To resolve this paradox we have proposed that it may be that the impact of accepting illness is mediated by the meanings associated with that illness. Specifically, it may be that the effects of insight are mitigated by whether or not people accept the stigma associated with schizophrenia and that the acceptance or rejection of stigma might explain why being aware of illness is sometimes linked to many factors at odds for recovery including despair and low self esteem. As evidence of this possibility, we have presented results of a recent study which suggest that insight is linked with lower self-esteem only when coupled with the endorsement of stigma and that lack of insight and the endorsement of stigma may be equivalent paths to social dysfunction.

While much more research is necessary, with the support of future studies these ideas may have important clinical implications. First, alongside education about mental illness it may be useful to consider interventions that decrease internalized stigma. Warner [25], for instance, has suggested that it is just as important for interventions to assist in developing a sense of mastery as it is to help enhance insight. This is consistent with a recent intensive case study, which suggested that as a person with schizophrenia recovered in psychotherapy, he evolved a greater sense of personal agency before developing a more complex grasp of his illness [49]. It is also consistent with a study of a different sample that suggested hope was more closely tied to a sense of agency than illness awareness within the narratives of persons with schizophrenia [50]. Additionally, it is also consistent with the observations of Watson *et al.* [48] that treatments are needed which promote the development of appraisals of recovery among mentally ill persons rather urging them to accept the chronicity and severity of their condition. In line with this, future psychosocial and psychotherapeutic interventions could be directed to help persons with schizophrenia replace self-stigmatizing beliefs and transform their narratives. They might then experience themselves as active protagonists in their own lives with realistic appraisals of their strengths and deficits as well as capacities to survive devastating grief [49].

Beyond this there are many unanswered questions. For one, is it more or less difficult to create a hopeful story of schizophrenia as opposed to one characterized by despair and resignation? What is needed to be able to create, just as chronic pain sufferers do, a story of a life that continues amidst schizophrenia? Is it possible that the creation of a hopeful story requires both considerable social support and relatively intact or less compromised cognitive abilities? With increasing levels of cognitive impairments and social isolation, does it become even more difficult to reject stigma and tell a positive story of one's condition? While there is debate regarding the association between neurocognition and insight, some studies have suggested that persons with schizophrenia with graver cognitive impairments in a post acute phase of illness are more likely to deny illness [51, 52]. Do these findings reviewed above, therefore, suggest a mediating role for neurocognition? One hypothesis for future research, in particular, is that greater impairments in neurocognition do not make it difficult to construct a story of illness as much as they make it difficult to construct a story that challenges the popular stereotype that schizophrenia reflects a perpetual state of powerlessness.

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