Trends in Attributional Style, Insight, and Symptom Severity in Inpatients with Serious Mental Illness

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Introduction

Insight is the ability to understand one's own illness and its consequences. It is commonly disrupted in schizophrenia. Lack of insight has been implicated in increased hospital admissions, decreased medication adherence, and decreased social functioning in this group. Overall symptom severity and certain subtypes of schizophrenia may be inversely associated with insight. Attributional style may also contribute to lack of insight in people with serious mental illnesses (SMI). Previous studies have noted that inpatients with schizophrenia often exhibit an exaggerated self-serving bias, meaning that they attribute positive outcomes to themselves but negative outcomes to other people or situations. People with SMI often attribute negative events to other people rather than circumstances.

This study explores the relationship between attributional style, insight, and symptom severity in inpatients with SMI to explicate how consumers may respond to treatment based upon individual differences.

Method

This study utilized an archival clinical database from 1991 to 2004, containing measures collected from inpatients in a psychiatric rehabilitation program with diagnoses including schizophrenia spectrum disorders, bipolar disorder, and disabling mood or personality disorders who had had difficulty transitioning into the community.

Three measures completed by direct care staff in the program were analyzed: the Brief Psychiatric Rating Scale (BPRS), Internal, Personal, and Situation Attributions Questionnaire (IPSAQ), and Insight Scale. An exploratory factor analysis was conducted on the original 16 items of the BPRS using unweighted least squares and varimax rotation. The resulting factors (Anergia, Anxiety/ Depression, Lack of Rapport, and Thought Disturbance) were included in the main analyses. Correlations and regression analyses were conducted to examine the relationship between Thought Disturbance items from the Brief Psychiatric Rating Scale (BPRS) and index scores of the IPSAQ and the Insight Scale.

Results

A stepwise multiple regression analysis examined the relationship between *Thought Disturbance* (BPRS Factor 1) and index scores of the IPSAQ and Insight Scale. As shown in Table 1, results revealed that the *Personal Negative* subscale of the IPSAQ significantly predicted Thought Disturbance, $R^2 = .068$, $F(1, 57) = 4.182$, $p = .045$. This indicates that individuals with SMI who tend to attribute negative events to something about themselves are more likely to have thought disturbance, after controlling for all other variables in the model.

A stepwise multiple regression examined the relationship between *Suspiciousness* (BPRS item 9) and index scores of the IPSAQ and Insight Scale. As shown in Table 1, results revealed that the *Personal Positive* subscale of the IPSAQ and the *Relabeling Symptoms* subscale of the Insight Scale significantly predicted *Suspiciousness*, $R^2 = .156$, $F(2, 56) = 5.179$, $p = .009$. This indicates that individuals who are more likely to attribute positive events to something about another person are predicted to present with higher levels of suspiciousness, and people who less likely to label their symptoms as related to their illness are also predicted to present with higher levels of suspiciousness. A model including the *Personal Positive* subscale of the IPSAQ, the *Relabeling Symptoms* subscale of the Insight Scale, and their interaction improved variance accounted for by the model, $R^2 = .110$, F change $(1, 55) = 8.202$, $p = .006$. As shown in Figure 1, among individuals who are less likely to label their symptoms as part of their illness, those who are more likely to attribute the cause of positive events to other people tend to be more suspicious; among individuals who are more likely to label their symptoms as part of their illness, tendency to attribute the cause of positive events to other people does not predict suspiciousness.

A stepwise multiple regression analysis examined the relationship between *Unusual Thought Content* (BPRS item 11) and index scores of the IPSAQ and Insight Scale. Results revealed that the *Personal Negative* and *Situational Negative* subscales of the IPSAQ and the *Relabeling Symptoms* subscale of the Insight Scale significantly predicted *Unusual Thought Content* (BPRS item 11), $R^2 = .206$, $F(3, 54) = 4.679$, $p = .006$. As shown in Table 1, the model's regression weights indicate that individuals with SMI who attribute the cause of negative events to other people or situational factors are more likely to have unusual thought content, after controlling for all other variables in the model. Additionally, individuals who more often label their behavior or symptoms as related to their illness are less likely to have unusual thought content, after controlling for all other variables in the model. Including the interactions between these subscales did not improve the variance accounted for by the model, $p > .05$.

Discussion and Implications

These initial results indicate that aspects of attributional style and insight can predict severity of symptoms. Increased tendency to attribute the cause of negative events to personal factors is associated with thought disturbance generally. Increased tendency to attribute the cause of positive events to other people is associated with increased suspiciousness among people with a decreased ability to label symptoms as part of a mental illness; but increased ability to label symptoms as part of a mental illness is associated with reduced suspiciousness, regardless of the tendency to attribute the cause of positive events to other people. Moreover, individuals who attribute negative events to something about themselves or something about the situation are more likely to have unusual thought content, as are individuals who were less able to identify their symptoms as an aspect of their illness. Although these results are preliminary, they indicate that the relationships between attributional style, insight, and symptom severity are complex. Elements of the self-serving bias contribute to symptom severity, as well as other elements of attributional style and insight. If symptom severity can be reliably predicted from insight and attributional style, this could be an important evaluative marker, useful for treatment, and later, as researchers come to understand how constructs like attributional style and insight are related to genetics, could be used for diagnosis and prognosis.

The inclusion of measures such as the IPSAQ and the Insight Scale when assessing consumers with serious mental illness is becoming more important as psychologists begin to understand the breadth of how these types of psychological constructs effect and predict symptoms. If attributional style and insight individually and dyadically predict current symptoms, they may also predict prognosis and future symptoms. Using current assessment scores could be useful to determine treatment needs for a client's illness over the long-term trajectory of their illness.

Figure 1.

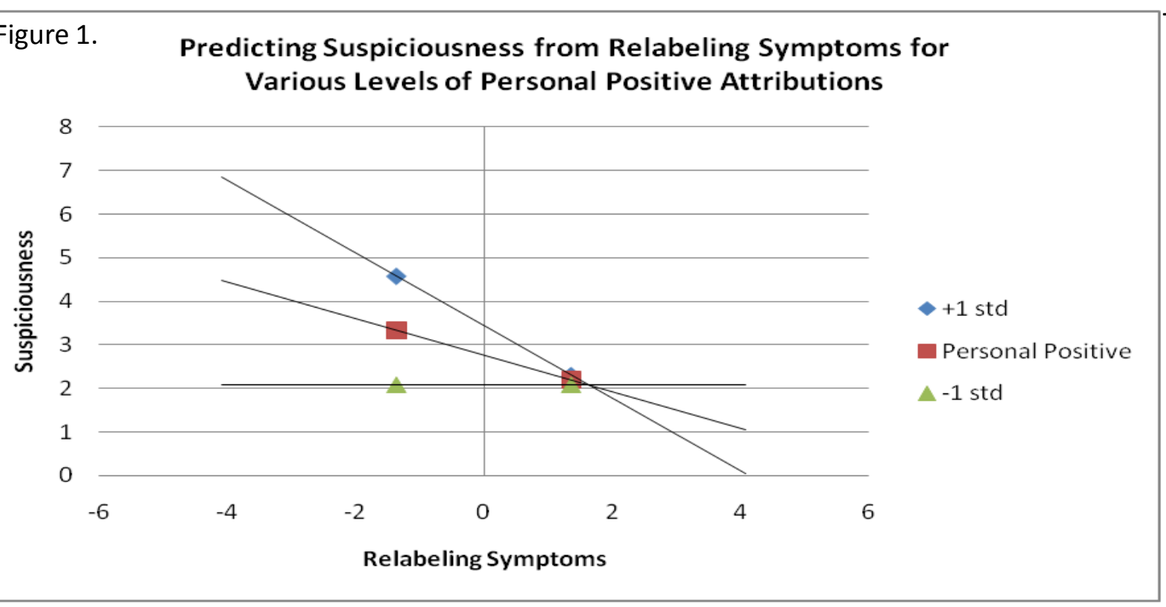

Table 1. Notable stepwise multiple regression results

Criterion	Significant Predictors: Measure	Significant Predictors: Subscale	r (with criterion)	p (for r)	β	p (for β)
Thought Disturbance	IPSAQ	Personal Negative	.261	.023	.261	.045
Suspiciousness	IPSAQ	Personal Positive	0.239	0.034	.403	0.002
	Insight Scale	Relabeling Symptoms	-0.257	0.025	.339	0.006
		Interaction	-0.239	.034	.344	0.006
Unusual Thought Content	IPSAQ	Personal Negative	0.279	0.017	.354	0.006
	IPSAQ	Situational Negative	0.157	0.119	.262	0.041
	Insight Scale	Relabeling Symptoms	-0.233	0.039	.284	0.024