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Causality Orientations among Individuals with First-Episode Psychosis

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Abstract

There is growing recognition that motivation among individuals with psychosis may influence both participation in and response to psychosocial interventions. Consequently, there is an increasing call for organizing treatment settings in ways that increase motivation among individuals with psychosis. However, empirical evidence suggests that whether a specific setting/event promotes motivation depends upon individuals' idiosyncratic interpretation (i.e., causality orientation) of that setting/event. Thus, the goal of this study is examine causality orientations among individuals with first-episode psychosis and compare these to causality orientations among individuals without psychosis. Our results suggest that, similar to persons without psychosis, individuals with first-episode psychosis show a bias toward interpreting environmental events and personal behavior as determined by personal choice/goals. However, the magnitude of this bias is smaller among individuals with first-episode psychosis, such that they are more likely to perceive events as uncontrollable or regulated by external factors than individuals without psychosis.

There is growing recognition that motivation among individuals with psychosis may influence both participation in and response to psychosocial interventions (Choi & Medalia, 2010). Consequently, there is an increasing call for organizing treatment settings in ways that increase motivation among individuals with psychosis (Mancini, 2008). However, empirical evidence suggests that whether exposure to a specific setting/event promotes greater motivation depends upon individuals' idiosyncratic interpretation (i.e., causality orientation) of that setting/event (Deci & Ryan, 1985).

Research outside of the psychosis literature (Deci & Ryan, 1985) has identified three well-enduring causality orientations: [i]autonomy (i.e., viewing environmental events and personal behavior as determined by personal choice/goals); [ii]controlled (i.e., perceiving environmental events and personal behavior as governed by external regulations); and [iii]impersonal (i.e., perceiving oneself as unable to influence personal behavior or environmental events). Individuals with stronger autonomy orientations are particularly

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responsive to intrinsic motivational factors and are drawn to environments that offer greater opportunities for choice/self-determination. Conversely, individuals with greater controlled orientations are more motivated by extrinsic reinforcers, and such individuals often prefer environments that will provide external controls to regulate their behavior. Finally, a greater impersonal orientation is associated with a lower response to both intrinsic and extrinsic motivational factors (Deci & Ryan, 1985).

Thus, the goal of this study is to examine causality orientations among individuals with first-episode psychosis and compare these to causality orientations among individuals without psychosis.

Methods

Participants

Forty-seven individuals with first-episode psychosis (42 men and 5 women; mean age=21.91 years) were recruited from the Specialized Treatment Early in Psychosis (STEP) Program (Srihari et al., 2009). STEP inclusion criteria include: (i) DSM-IV diagnosis of a schizophrenia-spectrum or affective disorder with psychosis; (ii) <8 weeks of lifetime treatment with antipsychotic medication; (iii) duration of psychosis < 5 years [*median*=16.00 weeks]; (iv) ages 16–45; and (v) no evidence of mental retardation.

Measure

The General Causality Orientation Scale [GCOS;(Deci & Ryan, 1985)] contains 17 vignettes which describe achievement or social situations and are followed by three different interpretations of the situation: autonomy, controlled, and impersonal. Subjects rate their predilection to make each interpretation on a seven-point scale from (1)very unlikely to (7)very likely. Among our sample, GCOS scores were not associated with severity of positive, negative, depressive, or general symptoms assessed using the Positive and Negative Syndrome Scale (Kay, Fiszbein, & Opler, 1987).

Procedures

Individuals with first-episode psychosis completed the GCOS as part of the STEP Program assessment battery. To compare these data to causality orientations among individuals without psychosis, we identified all published studies ($N=35$) that have used the 17-item, 7-point response scale GCOS among individuals with no identified psychosis. A list of these studies is available from the authors upon request. From these studies, we obtained data for 6859 individuals with no identified psychosis (mean age=23.60; 68% of the total sample). We calculated means and standard deviations for GCOS subscales weighted by the number of subjects in each study.

Results

Table 1 lists means and standard deviations for GCOS subscales. Among individuals with first-episode psychosis, autonomy scores were greater than scores for both the controlled

$[t(46)=7.19; p<0.001]$ and impersonal orientation $[t(46)=8.84; p<0.001]$. Additionally, controlled orientation scores were greater than impersonal scores $[t(46)=4.39; p<0.001]$.

Individuals without psychosis displayed the same general pattern of GCOS scores, with autonomy greater than controlled and controlled greater than impersonal. However, individuals with first-episode psychosis had lower autonomy scores $[t(5668)=-4.85; p<0.001]$ and higher controlled $[t(6758)=3.46; p=0.001]$ and impersonal scores $[t(4662)=7.94; p<0.001]$ than individuals without psychosis.

Discussion

Similar to persons without psychosis, our results suggest that individuals with first-episode psychosis show a bias toward interpreting environmental events and personal behavior as determined by personal choice and goals. However, the magnitude of this bias is smaller among individuals with first-episode psychosis, such that they are more likely to perceive events as uncontrollable or regulated by external factors than individuals without psychosis.

Our findings comport with calls to organize psychiatric services in ways that facilitate intrinsic motivation among patients (Mancini, 2008). To date, a number of strategies have been identified to promote intrinsic motivation among individuals with psychosis, including allowing individuals to establish personalized treatment goals and highlighting the link between treatment activities and individuals' recovery goals (Medalia & Choi, 2009). Concurrently, though, our results suggest that clinical services for first-episode psychosis may need to be prepared to address the elevated need of individuals with first-episode psychosis for external reinforcement of behavior and correction of perceived limited ability to control personal behavior. Strategies to address these needs within the context of psychosocial interventions are available. For example, external reinforcement for treatment participation can be promoted via contingency management (Tidey, O'Neill, & Higgins, 2002), whereas correction of perceived limited ability to control personal behavior can be facilitated through skill building activities (Williams & Levitt, 2007).

Of note, our study did suffer from some limitations—most notably a sample comprised predominantly of men who were early in the course of a psychotic illness. Thus, it is unclear whether our findings may extend to women with psychosis or individuals with longstanding psychosis. Additionally, due to inconsistent reporting of subjects' demographic data in past studies using the GCOS, we were unable to examine whether these individuals differed from subjects with first-episode psychosis on potentially important variables (e.g., years of education). Future research will ideally address these limitations through continued investigation of motivational science concepts within the study of psychotic disorders.

References

- Choi J, Medalia A. Intrinsic motivation and learning in a schizophrenia spectrum sample. *Schizophrenia Research*. 2010; 118:12–19. [PubMed: 19716270]
- Deci EL, Ryan RM. The general causality orientations scale: Self-determination and personality. *Journal of Research in Personality*. 1985; 19:109–134.
- Kay SR, Fiszbein A, Opler LA. The positive and negative syndrome scale for schizophrenia. *Schizophrenia Bulletin*. 1987; 13:261–276. [PubMed: 3616518]

- Mancini AD. Self-determination theory: A framework for the recovery paradigm. *Advances in Psychiatric Treatment*. 2008; 14(5):358–365.
- Medalia A, Choi J. Cognitive remediation in schizophrenia. *Neuropsychology Review*. 2009; 19:353–364.
- Srihari VH, Breitborde NJ, Pollard J, Tek C, Hyman L, Frisman LK, Woods SW. Public-academic partnerships: Early intervention for psychotic disorders in a community mental health center. *Psychiatric Services*. 2009; 60:1426–1428. [PubMed: 19880454]
- Tidey JW, O'Neill SC, Higgins ST. Contingent monetary reinforcement of smoking reductions, with and without transdermal nicotine, in outpatients with schizophrenia. *Experimental and Clinical Psychopharmacology*. 2002; 10:241–247. [PubMed: 12233984]
- Williams DC, Levitt HM. Principles for facilitating agency in psychotherapy. *Psychotherapy Research*. 2007; 17:66–82.

Table 1

Means and Standard Deviations for GCOS Subscales

	First-Episode Psychosis	Individuals Without Psychosis
Autonomy	4.92±0.99	5.30±0.53 n=5623
Controlled	4.11±0.87	3.80±0.61 n=6713
Impersonal	3.48±0.83	2.71±0.66 n=4617