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Determinants of self-esteem in early psychosis: The role of perceived social dominance

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ABSTRACT

Self-esteem plays a role in the formation and maintenance of symptoms and in the recovery from psychotic illness. This study examines the relative contribution of perceived social dominance and other known predictors in determining self-esteem in 102 individuals in an early intervention program for psychosis. Regression analysis demonstrated that scores on the Perceived Relational Evaluation Scale (PRES), depressed mood, social dominance, gender and positive symptoms significantly contributed to the prediction of scores on the Rosenberg Self-esteem Scale (RSES), whereas self-stigma and negative symptoms did not. Our study suggests that low self-esteem in early psychosis can be understood in part as a reflection of low levels of perceived social value and status.

1. Introduction

Self-esteem appears to influence the development of and recovery from psychotic symptoms (Bentall et al., 1994; Garety et al., 2001; Hafner et al., 2005; Yanos and Moos, 2007; Morrison et al., 2013). Individuals with psychosis often have poor self-esteem (Ciufolini et al., 2015; Pruessner et al., 2011), which is associated with higher severity of positive symptoms (Barrowclough et al., 2003; Kesting and Lincoln, 2013; Smith et al., 2006; Thewissen et al., 2008). Past research suggests that negative symptoms are also associated with poor self-esteem over time (Jones et al., 2010; Lincoln et al., 2011; Palmier-Claus et al., 2011).

Research on self-esteem in individuals experiencing psychosis has focused on stigma internalization (Norman et al., 2012; Werner et al., 2008; Yanos et al., 2008) and co-morbid depression (Baumeister et al., 2003; Chen et al., 2013; Silverstone and Mahnaz, 2003); however, other factors shown to influence self-esteem in the general population have not been extensively investigated among individuals with psychosis. One such factor is the extent to which individuals sees others as valuing them (Leary and Baumeister, 2000; Leary and Downs, 1995). Previous work by our research group (Norman et al., 2012) has demonstrated that perceived relational value is a predictor of self-esteem in early psychosis. Frank and Davidson (2012) have also noted that individuals with psychotic illness emphasize the importance of being valued by others in determining self-esteem. An alternative approach to social determinants of self esteem emphasizes the importance of perceived ability to dominate and influence others (Barkow, 1980; Leary et al., 2001; Raskin et al., 1991). It is postulated that such a relationship evolved as a consequence of the importance of dominance in determining ancestral reproductive success (Barkow, 1975). The role of perceived social dominance in self-esteem among individuals with psychotic illnesses has yet to be examined.

Here we examine the relative contribution of social dominance and other known predictors in predicting self-esteem in early psychosis. Given the aforementioned literature reporting on the importance of perceived social dominance and relational value in non-clinical samples, we hypothesize that these two factors will significantly contribute to prediction of self-esteem in a population with psychosis, beyond the predictors (self-stigma and co-morbid depression) that have been the foci of past research in this area.

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2. Methods

2.1. Participants

Participants were 102 patients of the Prevention and Early Intervention Program for Psychoses (PEPP) in London, Canada. PEPP treats primarily non-affective, first episode psychotic disorders. This sample was characterized in a previous paper (MacDougall et al., 2015). Participants provided informed consent as approved by Western University Health Sciences Research Ethics Board.

2.2. Measures

2.2.1. Self-esteem

Self-esteem was assessed using the Rosenberg Self-esteem Scale (RSES; Rosenberg, 1965). The 10-item RSES is widely used for assessing self-esteem and has been used in samples with psychosis (Barrowclough et al., 2003; Lecomte et al., 1999; Romm et al., 2011). The RSES showed good reliability with an alpha coefficient of 0.87.

2.2.2. Perceived Relational Evaluation

The Perceived Relational Evaluation Scale (PRES; Norman et al., 2012, 2013) assessed participants' perceptions of the extent to which they are valued by others. Respondents indicated on a 7-point scale, their agreement with statements reflecting perceptions of how much others value them. They completed 3 parallel 24-item scales, one each for relationships with family, friends and acquaintances, and relationships in general. Items begin with the stems “Members of my family…”, “My friends and close acquaintances…”, or “People in general…” ending with suffixes such as: “…think I do not have much to offer”, “…value my opinions”, etc. Positively and negatively worded items are included. Higher scores on the PRES are indicative of more positive perceived valuation. Alpha coefficients for the three subscales varied between 0.94 and 0.95. The three subscales were combined, by adding standardized scores, into a composite score (composite PRES).

2.2.3. Social Dominance

Following Leary et al. (2001) precedent, social dominance was assessed using the dominance subscale of Gough and Heilbrun's (1983) Adjective Checklist (ACL-Dominance). Respondents compared themselves to others on 6 adjective-items reflecting dominance (e.g., dominant, assertive, strong) or submissiveness (e.g., timid, submissive, weak) using a 5-point scale (1=“much less than others”, 5=“much more than others”). The measure showed an alpha coefficient of 0.73.

2.2.4. Self-Stigma

Stigma was assessed using the Self-Stigma of Mental Illness Scale subscale “self-concurrence” (SSMI-SC; Corrigan et al., 2006). SSMI-SC assesses the degree to which negative stereotypes about people with serious mental illness are seen as applying to oneself, which is the component of the self-stigma process postulated to have direct harmful effect on self-esteem (Corrigan et al., 2006). It included 10 items with the word stem “Because I am being treated at PEPP for a mental illness…” followed by items such as “…I am below average intelligence”, “…I am dangerous”, etc. Responses were made on a 9-point scale (1=“strongly disagree” and 9=“strongly agree”). The slight modification to the stem to refer specifically to being treated for a mental illness as opposed to the original wording of “Because I have a mental illness” was intended to minimize the role of agreement with diagnosis in determining responses. The self-concurrence scale yields an alpha coefficient of 0.85.

2.2.5. Depressed Mood

Depression was assessed using the Profile of Mood States short-form depression subscale (POMS-D; Curran et al., 1995; Schacham, 1983). POMS is a 37-item self-report scale asking respondents to rate, on a 5-point scale, the degree to which items describe their mood. POMS-D has been previously used to measure depressed mood in people with psychotic disorders (Chiappelli et al., 2014) and in the current sample demonstrated an alpha coefficient of 0.87.

2.2.6. Positive and Negative Symptoms

Assessment of symptoms was completed using the clinician rated 34-item Scale for the Assessment of Positive Symptoms (SAPS; Andreasen, 1984) and 25-item Scale for the Assessment of Negative Symptoms (SANS; Andreasen, 1983). Both were completed by experienced clinicians blinded to participants' responses on the self-report measures. Raters had demonstrated good inter-rater reliability (intraclass correlation coefficient of at least 0.80).

2.3. Analysis

Initially, in order to assess which of the predictors (composite PRES, ACL-Dominance, SSMI-SC, POMS-D, SAPS, SANS and gender) make an independent contribution to the prediction of self esteem they were entered simultaneously into a linear regression model. Age of respondent was not included as it was not significantly related to self-esteem or any of the predictors of interest. Variables that were independent predictors of RSES were entered into a stepwise multiple regression model predicting RSES in order to determine their relative importance. Relative importance of predictors was calculated using Lorenzo-Seva et al. (2010) syntax for Johnson's (2000) relative weight procedure. The procedure calculates the proportional contribution each predictor makes to a model's R^2 value, accounting for inter-correlations between predictors (Lorenzo-Seva et al., 2010). Analyses were conducted using SPSS 21.0.

3. Results

Bivariate correlation analysis demonstrated significant correlations between RSES and SSMI-SC ($r(82)=-0.51$, $p<0.001$), composite PRES, ($r(82)=0.61$, $p<0.001$), ACL-Dominance ($r(82)=0.54$, $p<0.001$), gender ($r(82)=-0.22$, $p=0.046$), SAPS, ($r(82)=-0.30$, $p=0.006$), SANS, ($r(82)=-0.29$, $p=0.006$), and POMS-D, ($r(82)=-0.59$, $p<0.001$). In addition, average score on the RSES was significantly higher for males than for females (3.0 versus 2.7, $t=2.04$, $p<0.050$). SSMI-SC was correlated $-.23$ ($p<0.05$) with ACL-Dominance and $-.66$ ($p<0.001$) with composite PRES and the latter two measures had a correlation of.35 ($p<0.01$).

When all potential predictors of self-esteem were entered simultaneously into a regression model for self-esteem, only composite PRES, POMS-D, ACL-Dominance, gender, and SAPS emerged as significant independent predictors. The results of collinearity diagnostics were all acceptable (i.e., all variance inflation factors were less than 2). Stepwise multiple regression was conducted (Table 1) to assess the relative importance of predictors. Composite PRES was the single most important predictor, followed, in order, by POMS-D, ACL-dominance, gender and SAPS. The final model accounted for over 59% of the variance in RSES. No other variables (e.g., SANS, SSMI-SC) added significantly to prediction of RSES scores. Johnson's relative weight analysis demonstrated that composite PRES accounted for 33.2%, 95% CI [18.4, 46.7] of the model, followed by ACL-Dominance (26.1%, 95% CI [11.8, 40.4]), POMS-D (25.5%, 95% CI [16.1, 37.6]), and SAPS (8.7%, 95% CI [2.5, 18.2]), with the smallest contribution from gender (6.5%, 95% CI [0.9, 17.6]).

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