



Paranoid individuals with schizophrenia show greater social cognitive bias and worse social functioning than non-paranoid individuals with schizophrenia



Amy E. Pinkham^{a,b,*}, Philip D. Harvey^{c,d}, David L. Penn^{e,f}

^a School of Behavioral and Brain Sciences, The University of Texas at Dallas, Richardson, TX, 75080

^b Department of Psychiatry, University of Texas Southwestern Medical School, Dallas, TX, 75390

^c Department of Psychiatry and Behavioral Sciences, University of Miami Miller School of Medicine, Miami, FL, 33136

^d Research Service, Bruce W Carter VA Medical Center, Miami, FL, 33125

^e Department of Psychology, University of North Carolina, Chapel Hill, NC, 27599

^f Australian Catholic University, Melbourne, VIC 3065

ARTICLE INFO

Article history:

Received 1 October 2015

Received in revised form 29 October 2015

Accepted 2 November 2015

Available online 13 January 2016

Keywords:

Social cognition

Attributions

Functional outcome

Paranoia

ABSTRACT

Paranoia is a common symptom of schizophrenia that may be related to how individuals process and respond to social stimuli. Previous investigations support a link between increased paranoia and greater social cognitive impairments, but these studies have been limited to single domains of social cognition, and no studies have examined how paranoia may influence functional outcome. Data from 147 individuals with schizophrenia were used to examine whether actively paranoid and non-paranoid individuals with schizophrenia differ in social cognition and functional outcomes. On measures assessing social cognitive bias, paranoid individuals endorsed more hostile and blaming attributions and identified more faces as untrustworthy; however, paranoid and non-paranoid individuals did not differ on emotion recognition and theory of mind tasks assessing social cognitive ability. Likewise, paranoid individuals showed greater impairments in real-world interpersonal relationships and social acceptability as compared to non-paranoid patients, but these differences did not extend to performance based tasks assessing functional capacity and social competence. These findings isolate specific social cognitive disparities between paranoid and non-paranoid subgroups and suggest that paranoia may exacerbate the social dysfunction that is commonly experienced by individuals with schizophrenia.

© 2016 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Paranoia is the most commonly reported delusion among individuals diagnosed with schizophrenia spectrum illnesses (Bentall et al., 2009) and is evident in almost 50% of individuals seeking initial help for a psychotic disorder (Sartorius et al., 1986; Veling et al., 2007). Despite the high prevalence of this symptom, not all patients experience paranoia, and recent work suggests that there may be important differences in the ways in which paranoid and non-paranoid individuals with schizophrenia process social information. For example, non-paranoid patients have shown better emotion recognition performance than paranoid patients (An et al., 2006; Russell et al., 2007; Williams et al., 2007), perhaps due to a tendency for paranoid patients to inaccurately identify neutral facial expressions as anger (Pinkham et al., 2011a). A number of studies have also

demonstrated a link between paranoia and making hostile and blaming attributions for social events both in healthy individuals (Combs et al., 2007; Fornells-Ambrojo & Garety, 2009) and among patients with schizophrenia (Aakre et al., 2009; Combs et al., 2009). Finally, impairments in theory of mind have been shown to significantly relate to increased paranoid ideation (Bentall et al., 2009; Harrington et al., 2005). As these findings suggest, disproportionately greater social cognitive impairment and bias may be important predictors of the maintenance and worsening of paranoid thinking (Bentall et al., 2009; Freeman, 2007; Lysaker et al., 2010).

While the work reviewed above has collectively examined many primary domains of social cognitive processing (i.e. emotion recognition, attributional style, and theory of mind), no study has examined multiple domains within the same sample. Doing so will allow identification of a social cognitive profile that will isolate those areas most influenced by paranoia and that may be useful in forming hypotheses about where and when during the stream of social cognitive processing paranoia plays the greatest role. Given that interventions targeting social cognition seem promising (Kurtz et al., *in press*), awareness of specific differences between symptom-based

* Corresponding author at: School of Behavioral and Brain Sciences, The University of Texas at Dallas GR41, 800 W. Campbell Rd., Richardson, TX, 75080. Tel.: +1 972 883 4462; fax: +1 972 883 2491.

E-mail address: amy.pinkham@utdallas.edu (A.E. Pinkham).

<http://dx.doi.org/10.1016/j.scog.2015.11.002>

2215-0013/© 2016 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

subgroups will also likely be useful for developing individualized treatments that may provide maximal benefit.

Further, despite the fact that paranoia by definition involves a profound disruption in interpersonal functioning (Bentall et al., 2001) and that paranoia should have considerable consequences for social behavior (Combs & Penn, 2004), little is known about how paranoia affects functional outcomes. These outcomes span a number of areas including the ability to execute activities relevant for daily living (i.e. functional capacity) as well as those that are more highly dependent on social abilities and social involvement (i.e. social competence and real-world functioning) (McKibbin et al., 2004). Numerous studies examining paranoid thinking in the general population have established a link between increased paranoia and poorer social outcomes (Freeman et al., 2011; Martin & Penn, 2001; Olfson et al., 2002; Rossler et al., 2007). However, with the exception of one study by our group showing slightly lower social functioning scores for paranoid relative to non-paranoid patients (Pinkham et al., 2008), there has been no work specifically examining how paranoia relates to functional outcomes among individuals with schizophrenia or whether paranoia may differentially affect these outcomes. As social and functional impairments are well established in schizophrenia (Pinkham et al., 2011b), it is possible that paranoia may exacerbate these difficulties, particularly within areas that require social interaction.

The current study aims to address these limitations by examining differences between paranoid and non-paranoid individuals with schizophrenia across multiple domains and measures of social cognition and functional outcome. Using data from phase 3 of the Social Cognition Psychometric Evaluation Study (SCOPE; Pinkham et al., 2014; Pinkham et al., 2015), we tested the following hypotheses: 1) paranoid individuals will show poorer performance than non-paranoid individuals on emotion processing and theory of mind tasks and will endorse more hostile and blaming attributions, and 2) paranoid individuals will show reduced social competence and real-world functioning relative to non-paranoid individuals but groups will not differ on functional capacity. Given that functional capacity refers to an individual's ability to perform key tasks of daily living that do not rely heavily on social interaction (e.g. paying bills) (Green et al., 2008), we expected that these functional abilities would be intact but that the implementation of these skills in social situations would be impaired in paranoid individuals.

2. Methods

2.1. Participants

Data from the first study visit of 147 individuals with schizophrenia or schizoaffective disorder were analyzed. Participants were recruited from three study sites, Southern Methodist University (SMU), the University of Miami Miller School of Medicine (UM), and the University of North Carolina at Chapel Hill (UNC). SMU participants were recruited from Metrocare Services, a nonprofit mental health services provider for Dallas County, TX, and other area clinics. UM recruitment took place at the Miami VA Medical Center and the Jackson Memorial Hospital-University of Miami Medical Center. UNC individuals were recruited from the Outreach and Support Intervention Services (OASIS) program and Caramore, a structured support program for individuals with severe mental illness. At all sites, diagnoses were confirmed with the Mini International Neuropsychiatric Interview (Sheehan et al., 1998) and Structured Clinical Interview for DSM Disorders Psychosis Module (First et al., 2002).

Symptom severity was assessed with the Positive and Negative Syndrome Scale, and ratings on the suspiciousness/persecution item (P6) were used to divide participants into two groups: paranoid (P-SCZ; $n = 81$) and non-paranoid (NP-SCZ; $n = 66$). Individuals

scoring 4 or higher, indicating clinically significant levels of paranoid ideation, were assigned to the P-SCZ group, and those individuals scoring 1 or 2, indicating the absence or only sub-clinical levels of paranoia, were assigned to the NP-SCZ group. Participants from the larger SCOPE database scoring a 3 on this item ($n = 56$) were not included in the current analyses. This rating indicates the lack of persecutory delusions but the presence of a distrustful attitude with a limited impact, and therefore the presence or absence of paranoia is unclear. Groups did not differ in gender ($\chi^2 = .63, p = .43$), race ($\chi^2 = 9.39, p = .05$), ethnicity ($\chi^2 = 2.11, p = .15$), diagnosis ($\chi^2 = .48, p = .49$), age ($t(145) = .50, p = .62$), education ($t(145) = 2.26, p = .23$), or IQ as estimated by the WRAT-3 Reading subscale ($t(145) = 1.50, p = .14$). Groups also did not differ in cognitive abilities as assessed with a subset of the MATRICS Consensus Cognitive Battery (Nuechterlein et al., 2008) that included the following tests: Trail Making Test, Part A; Brief Assessment of Cognition in Schizophrenia: Symbol Coding; Category Fluency; Animal Naming; Letter-Number Span; and the Hopkins Verbal Learning Test-Revised (Wilks' $\lambda = .973, F(5, 140) = 0.77, p = .58$). Medication type did significantly differ between groups ($\chi^2 = 14.05, p = .01$) with more individuals in the P-SCZ group not taking an antipsychotic. Paranoid participants also had greater severity of positive ($t(145) = 10.55, p < .001$), negative ($t(145) = 2.11, p = .04$), and general symptoms ($t(145) = 6.94, p < .001$); however these differences did not remain significant after controlling for paranoia ratings (all $p > .63$). Demographic and clinical characteristics are presented in Table 1.

2.2. Measures

Full descriptions of the social cognitive and functional outcome measures have been published recently (Pinkham et al., 2015). Briefly, the social cognitive measures assessed four general domains. Attribitional style/bias was evaluated with the Ambiguous Intentions and Hostility Questionnaire (AIHQ; Combs et al., 2007), which yields scores for a hostility bias, an aggression bias, and a blame score. Emotion recognition was assessed with the Bell Lysaker Emotion Recognition Task (BLERT; Bryson et al., 1997) and the Penn Emotion Recognition Test (ER-40; Kohler et al., 2003). Social perception was measured with the Relationships Across Domains test (RAD; Sergi et al., 2009). Mental state attribution, or theory of mind, was assessed with the Reading the Mind in the Eyes Test (Eyes; Baron-Cohen et al., 2001), the Awareness of Social Inferences Test, Part III (TASIT; McDonald et al., 2003), and the Hinting Task (Hinting; Corcoran et al., 1995). Participants also completed the Trustworthiness Task (Trust; Adolphs et al., 1998), which assesses the ability to make complex social judgments of trustworthiness from facial images but does not fall cleanly into any of the four domains noted above. All of the social cognitive measures are performance-based tasks that are scored as the total number correct with the exception of AIHQ and Trust. These latter two tasks assess social cognitive biases and are indexed by average ratings. For AIHQ, higher scores are indicative of greater bias, and for Trust, lower scores indicate more ratings of untrustworthiness.

Assessments of functional outcome also covered multiple domains. Functional capacity was evaluated with the UCSD Performance-Based Skills Assessment, Brief (UPSA-B; Mausbach et al., 2007), which measures the financial and communication skills necessary for community living. Social competence was assessed with the Social Skills Performance Assessment (SSPA; Patterson et al., 2001), a role-play measure designed to assess several social skills such as fluency, interest in the conversation, and negotiation ability. Real-world functional outcome was assessed with the informant-rated Specific Levels of Functioning Scale (SLOF; Schneider & Struening, 1983). Informants were high contact clinicians, family members or close friends who reported on the social functioning (interpersonal

Download English Version:

<https://daneshyari.com/en/article/4191748>

Download Persian Version:

<https://daneshyari.com/article/4191748>

[Daneshyari.com](https://daneshyari.com)