

Social anxiety and the shame of psychosis: A study in first episode psychosis

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Abstract

Social anxiety disorder (SaD) or social phobia is a co-morbid affective disorder in schizophrenia, present in up to one in three individuals. We employ ‘social rank’ theory to predict that one pathway to social anxiety in schizophrenia is triggered by the anticipation of a catastrophic loss of social status that the stigma of schizophrenia can entail. A group of 79 people with a first episode of psychosis were assessed for social anxiety: hypotheses were tested comparing 23 socially anxious and 56 non-anxious patients on measures of cognitive appraisals of shame/stigma of psychosis and perceived social status, controlling for depression, psychotic symptoms and general psychopathology. Participants with social anxiety experienced greater shame attached to their diagnosis and felt that the diagnosis placed them apart from others, i.e., socially marginalised them and incurred low social status. We propose a stigma model of social anxiety that makes testable predictions about how the shame beliefs may contaminate social interaction and thereby exacerbate and maintain social phobia.

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Introduction

Social anxiety disorder (SaD)/social phobia has become recognised in recent years as one of the most prominent of the Axis I disorders in DSMIV (Bogels & Tarrier, 2004), with a lifetime prevalence of 13.3%. It is the third most common psychiatric disorder after depression (17%) and alcohol dependence (14%) (Kessler et al., 1994) and has a 12-month prevalence rate of 2.3% (Lampe, Slade, Issakidis, & Andrews, 2003). As part of this emerging picture, it is now well established that SaD is also a significant problem for people with schizophrenia, with a co-morbid diagnosis present in 36% of consecutively referred outpatients (Pallanti, Quercioli, & Hollander, 2004).

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One possible reason for the elevated rate of SaD in this group is that it is a core component of the syndrome of schizophrenia per se. Thus, as the illness develops, social anxiety will increase in line with the positive and negative symptoms. However, there is little evidence for this view: Pallanti et al. (2004) found that social anxiety was unrelated to positive or negative psychotic symptoms. A second possibility is that social anxiety is a pre-morbid, developmental disorder that is a vulnerability marker for schizophrenia. There is some evidence for this: Johnstone, Ebmeier, Miller, Owens, and Lawrie (2005) and Owens, Miller, Lawrie, and Johnstone (2005) found 'situational anxiety' to be among the best predictors of later psychosis in their high-risk sample, although it diminished at the first psychotic episode. A third possibility is that SaD emerged as a psychological reaction to psychosis (Birchwood, 2003). There is evidence for this from the study by Pallanti et al. (2004) which found that SaD emerges during the recovery period.

A framework for understanding the process by which SaD may arise as a psychological reaction to psychosis was developed by Birchwood Iqbal, Chadwick, & Trower, (2000). This prospective study of post-psychotic depression (PPD) found 36% of participants experienced PPD during the 'recovery' period following an episode of psychosis. This rate rose to 50% after the first episode and was linked to cognitive appraisals of the diagnosis and was not an epiphenomenon of psychosis symptoms (Birchwood et al., 2000; Iqbal, Birchwood, Chadwick, & Trower, 2000). Evidence that it was the meaning given to the psychotic episode, came from the finding that it was the cognitive appraisals of psychosis involving loss of social role, shame and enforced low social status, that predicted those who later developed PPD (Iqbal et al., 2000). This study also found that those individuals with PPD revealed a *heightened* awareness of their illness (insight), underlining that it was their illness that was salient in their thinking. In a similar vein, we have proposed that it is loss of perceived social standing, shame, adverse social identity, and fear of stigma (with its consequences of social rejection) that provides one pathway to SaD in this group (Birchwood, 2003).

A key requirement for such a view would be evidence that those who have experienced psychosis are stigmatised in our society, and that those with schizophrenia are highly attuned to such stigma. In fact there is substantial evidence showing that mental illness, particularly schizophrenia, carries severe social stigma, and that many of those diagnosed, internalise this stigma and suffer shame and diminished self-esteem (Birchwood, Mason, Macmillan, & Healey, 1993; Corrigan, 1998; Corrigan & Kleinlein, 2005). It is of course likely that perceived stigma may not always accord with the 'objective' stigma experienced in some social groups. When individuals feel threatened in potentially hostile, rejecting environments (being devalued and marginalised) this will alert them to their low relative rank, their lack of social power to protect themselves, and activate various defensive emotions and strategies (Brown, Harris, & Hepworth, 1995; Gilbert, 1992, 2004; Iqbal et al., 2000). These threats are not new on the evolutionary stage, and many mammals have to cope with down-rank threat and risk of group marginalisation/exclusion. Thus there have evolved a number of defenses that are attuned to, and respond to, such threats—social anxiety being one (Gilbert, 2002). The theory that focuses on these elements of threat-defence has been labelled 'social rank' theory (e.g., Gilbert, 2002).

Social rank theory suggests that some forms of social competition (for acceptance in social groups, access to resources, allies and sexual partners) are linked to the ability to be attractive to others, to be chosen and/or included. Those deemed unattractive, for whatever reason, are at risk of being either passively avoided (not chosen or included) or actively rejected (Gilbert, 2002). In this approach, social anxiety is focused on: (a) a belief that one has to compete for one's own social place, e.g., for friendships, sexual partners, that is impress others; but (b) in attempting to do this one will be seen as boring and/or incompetent, that is rendered unattractive in some way and thus will be passively ignored or avoided, or actively rejected (Gilbert & Trower, 2001).

These social anxiety-based beliefs are magnified in people with problems associated with schizophrenia, by the problem of stigma. Stigma refers to a set of culture-wide beliefs that indicate how different attributes of people should be judged and treated (Kurzban & Leary, 2001). Stigmas typically relate to attributes that are seen as threats to the social cohesion of a group, or can be used to devalue individuals and keep them from participating and sharing, and to justify exploitation, exclusion or reduce resources being allocated to them (Kurzban & Leary, 2001). Thus in societies where mental illness is highly stigmatised (Crisp, 2003), social anxiety in schizophrenia may be to be triggered by the *anticipation* of a catastrophic loss of social status that the stigma of 'becoming a schizophrenic' often entails (Estroff, 1989). Whereas socially anxious people in general may fear in vivo performance difficulties *during* an encounter that will mark them as in some way

inferior, stigma operates *before* an encounter. For example, body disfigurements, race, gender (Pinel, 1999) as well as mental illness, can lead people to fear being allocated to a stigmatised group and rejected even before they have a chance of a performance or can express themselves. The knowledge that stigmatised groups exists within the culture can lead people to fear being allocated to that group—so-called stigma consciousness (Pinel, 1999). They may still be anxious about their own presentations during actual interactions but in addition they fear being discovered and allocated a low rank social position due to membership of a stigmatised group—seen as ‘one of them’ rather than ‘one of us’.

The defensive reactions to being observed also play a crucial role in exacerbating and maintaining the effects of stigma. For example, Smart and Wegner (1999) manipulated the concealing and non-concealing of an eating disorder. When engaged in interactions, people attempting to conceal ‘the disorder’ had more anxiety and more intrusive negative thoughts than non-concealers. Major and Gramzow (1999) explored concealment and fear of stigma for an abortion. Concealers had greater distress, made more efforts at thought suppression but had more intrusive thoughts. Those with disfigurements, who use concealment and avoidance strategies, tend to have more anxiety, loss of valued roles, and fear of developing intimate relationships (Kent & Thompson, 2002).

Given that schizophrenia is a highly stigmatised disorder in many societies (Haghighat, 2001) it is understandable that people can come to fear that their diagnosis will be the lens through which others will relate to them. This ‘lens’ will contain all the cultural stereotypes. Furthermore, those who suffer from it may internalise the social stereotypes and appraise *themselves* as socially unattractive (Birchwood et al., 1993, 2000; Rooke & Birchwood, 1998) and of low personal worth (Corrigan & Kleinlein, 2005). The consequence is the person will continually monitor for threat, both what others are thinking/doing and what self is displaying (Trower & Gilbert, 1989). Concerns that their displays (e.g., nonverbal behaviour, speech flow) can ‘give them away’ as mentally ill, with continual efforts to conceal, and present well, increases intrusions and anxiety in social encounters (Smart & Wegner, 1999) leading to potentially negative feedback. Thus we argue that when people with psychosis enter the social arena, the fear of discovery and of revealing their diagnosis is a powerful source of social threat leading them to monitor the signals they send out to others (Birchwood, 2003) and experiencing the kind of interpersonal performance difficulties outlined by Gilbert and Trower (2001) and Clark and Wells, (1995). The only study to evaluate the effects of stigma on social performance is that of Francis and Penn (2001). Against their own prediction, they found no effect of a stigmatising situation, but acknowledged that the laboratory-based situation in their study may not have been perceived as particularly stigmatising. No measures of social anxiety were taken (the study focused mainly on the variable of insight).

We predict that this heightened anxiety will arise after the *first* episode of psychosis, since this will be the point in time that the vulnerable individual will experience for the first time the stigma of diagnosis, and the consequent challenge to their perceived social acceptance will be at its greatest (Birchwood, 2003). No study has directly evaluated whether people with a *first* episode of psychosis (a) have elevated prevalence of SaD and (b) are characterised by anxiety-generating self-perceptions of stigma as predicted by social rank theory. Gumley, O’grady, Power, and Schwannauer (2004) found that a subgroup of 19 patients with SaD, selected out of a sample of 144, scored higher on the Personal Beliefs about Illness Questionnaire (PBIQ; Birchwood et al., 1993) on self blame, entrapment and shame, than a matched subgroup of 19 selected for having no co-morbid disorders. Although a relatively small sub-sample of participants with a long history of relapsing psychosis, it does, however, provide important preliminary evidence of our theory of ‘post-psychotic’ social anxiety in psychosis.

In the present study, we ascertain a substantial epidemiologically based sample of participants within 6 months following a first episode of psychosis. The rate and severity of social anxiety is determined and compared with (i) previous studies of social anxiety in psychosis, and (ii) studies of social anxiety in populations without psychosis.

The following hypotheses were tested:

Hypothesis 1. Social anxiety in psychosis will not be a by-product of positive or negative psychosis symptoms and will not be accounted for by pre-morbid interpersonal difficulty.

Hypothesis 2. Participants with social anxiety will (i) appraise their psychosis as a shameful diagnosis and will (ii) perceive others as shaming them and issuing ‘put-downs’ in day-to-day interactions.

Hypothesis 3. Participants with social anxiety will (i) perceive their illness to be indelible and inescapable and (ii) believe they have an enforced low social status or ‘rank’.

Studies of PPD have found a link between greater awareness of illness and depression; while this is not an essential part of the hypothesis under test here, we take the opportunity to assess insight, anticipating greater awareness in those with social anxiety.

Method

Sampling

Participants were recruited from an epidemiological survey of first episode psychosis presenting to mental health services in the inner city of Birmingham, UK (population: 210,000, Jarman Index +28, signifying a population in the top 20% most socially deprived in the UK). Inclusion criteria required patients to conform to ICD-10 (WHO, 1992) criteria for schizophrenia or related disorders (F20–29), age 16–30, without a primary diagnosis of substance misuse or organic disorders.

Instruments

Social anxiety

The Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998) is a 20-item scale measuring anxiety in interpersonal encounters. It is widely used in the social phobia literature and has received extensive validation (Peters, 2000). Using a cut off score of 36, the SIAS has been shown to discriminate between social anxiety, other anxiety disorders and community samples, with a sensitivity of 0.93, specificity of 0.66, PPV of 0.84 and NPV of 0.72 (Peters, 2000).

The Fear of Negative Evaluation Scale (FNE; Watson & Friend, 1969) is a 12 item self-report scale assessing concerns about being negatively evaluated by others. Used extensively in social phobia research, it accesses evaluative cognitions believed to maintain social phobia (Cox & Swinson, 1995).

Psychosis

The Positive and Negative Syndrome Scale (PANSS; Kay, Oplar, & Lindenmayer, 1987) includes scales of positive symptoms, negative symptoms and general psychopathology and is used widely in schizophrenia research. The insight scale (IS; Birchwood et al., 1994) was used to measure insight into psychosis and includes dimensions of awareness of illness, ability to re-label aberrant experience as symptoms of psychosis and belief in need for treatment. The retest reliability is $r = 0.90$ and Cronbach's $\alpha = 0.75$. The IS scale is widely used in schizophrenia research and compares favourably with interviewer based assessment (Young, Campbell, & Zakzanis, 2003).

Depression

The Calgary Depression Scale for Schizophrenia (CDSS; Addington, Addington, & Maticka-Tyndale, 1993) is a nine-item observer-rated measure specifically designed for schizophrenia, minimising contamination by negative symptoms and the extrapyramidal side effects of neuroleptics. It is strongly correlated with the BDI ($r = 0.91$) and is responsive to change in psychosis (Trower et al., 2004).

Cognitive appraisals of psychosis

The PBIQ (Birchwood et al., 1993) measures patients' beliefs about their psychotic illness and its impact on their future goals and roles (loss), social status (shame), social marginalisation (group fit) and the extent to which their illness is perceived to trap the individual, preventing him from asserting his/her aspired identity and role (entrapment). This measure has been widely used to study patients' adaptation to psychosis (e.g., Iqbal et al., 2000) and has extensive psychometric validation (Birchwood et al., 1993) including retest reliabilities of the scales from 0.77 to 1.0 and Cronbach's α from 0.68 to 0.77.

Shame

Shame can be distinguished in two forms: external and internal (Gilbert, 1998). External shame is focused on the shame one feels when one realises that ‘others’ are judging the self negatively. Internal shame relates to self-focused feeling and judgements. The Other as Shamer Scale (OAS) was designed as a measure of external shame and adapted from Cook’s (1996) Internalised Shame Scale (ISS) (Goss, Gilbert, & Allan, (1994) The OAS comprises 18 self-report items, each consisting of a statement such as ‘Other people put me down a lot’, and a Likert scale: 0 = never, 1 = seldom, 2 = sometimes, 3 = frequently, 4 = almost always. Participants are instructed to respond in terms of the frequency with which they experience the feeling expressed in each statement. The scores for each item are summed in order to calculate a total OAS score. Higher scores indicate higher levels of external shame.

The reliability of the ISS (Cook, 1996), items of which were modified to form the OAS, is high; Cronbach’s α was reported at 0.94, and 5 week test-retest reliability at 0.94 (Goss et al., 1994). Cronbach’s α for the OAS (this sample) was 0.90. The OAS has only a moderate correlation with Fear of Negative Evaluation ($r = .57$ students; $r = .52$ clinical group; Gilbert, 2000) but higher correlations with a number of other measures of shame, in both student and clinical populations (Gilbert, 2000). Thus, external shame overlaps with, but is different to, FNE.

Social rank

The Social Comparison Scale (SCS) was designed to assess perceived social status. It employs a simple 11-item measure originally designed for use with depressed people (Allan & Gilbert, 1995). The scale utilises a semantic differential methodology whereby participants respond on a scale of 1–10; for example, “In relation to others I feel ...” (e.g., Incompetent 1–10 Competent).

This scale has been used in a number of studies, including psychosis, with good reliability (e.g., Allan & Gilbert, 1997; Birchwood, Meaden, Trower, Gilbert, & Plaistow, 2000b; Gilbert & Allan, 1998). The internal reliability of this scale is 0.80 and retest reliability 0.77 (Birchwood et al., 2000b).

Pre-morbid functioning

The Pre-morbid Adjustment Scale (PAS) (Cannon-Spoor, Potkin, & Wyatt, 1982) was developed to evaluate the degree to which individuals achieve developmental goals during given periods of their life prior to the onset of psychosis. Functioning is retrospectively assessed in four major areas: social accessibility or isolation, peer relationships, ability to function outside of the nuclear family, and capacity to form intimate socio-sexual relationships. Evaluations are made for the following time periods: childhood (up to 11 years), early adolescence (12–15 years), late adolescence (16–18 years), and adulthood (19 years and beyond). There is also a ‘general’ section, but this was not used in the current study. Only those periods which pre-date the onset of psychotic symptoms by 6 months are assessed.

The information required was gained through interviews with both clients and relatives where possible. Each item is rated by the interviewer on a scale between 0, indicating functioning considered to be healthy, and 6, indicating the least healthy form of adaptation. Anchor points are provided by descriptive phrases.

For each time period, a score is calculated by dividing the sum of the item scores by the sum of the possible scores for those items. Items for which there is no available information are thus prevented from influencing scores. An overall ‘sumscore’ may then be found by calculating the mean of the subscale scores. Both the overall scores and the subscale scores are thus presented within a range of 0–1, higher scores indicating poorer levels of pre-morbid adjustment.

Cannon-Spoor et al. (1982) reported inter-rater reliability to be high for this measure ($r = 0.85$). The validity of the PAS was inferred from its ability to differentiate between groups of normal controls and individuals with schizophrenia, and between outpatients and chronically hospitalised clients. It was also able to predict the type of illness onset and is the ‘measure of choice’ for pre-morbid functioning in the literature.

The self-report appraisal measures were scored blind to the interview based measures of psychosis, anxiety, depression and pre-morbid status.

Results

The sample

A total of 103 individuals were identified and invited to participate, of whom 79 (77%) consented. Reasons for refusal were not sought, in line with ethical approval. On available demographic data there were no differences between those consenting and refusing.

Twenty three (29%) of the sample were socially anxious using the Peters (2000) criteria. There were no differences between the social anxiety and no social anxiety groups on demographic, psychosis or pre-morbid characteristics (Table 1). The social anxiety group was significantly more depressed (effect size = 0.64) and, in keeping with this classification, was rated as significantly more anxious (effect size = 0.7) and socially avoidant (effect size = 0.91) on the PANSS general psychopathology scale (Table 1).

In Table 2, we compare the results from the present sample with published data from leading studies of social phobia.

These data show the strong similarity between the present first episode of psychosis sample and the only other published study in (chronic) schizophrenia of Kingsep, Nathan and Castle, (2003): the SIAS, FNE and CDSS means and SDs are very similar. These data are also comparable with those reported for non-psychotic social anxiety in three studies using the same measures listed in Table 2.

Thus, overall the severity of social anxiety (SIAS, FNE) in the present sample is comparable with that reported in leading studies of social phobia.

Hypothesis 1: Social anxiety, psychosis symptoms and pre-morbid interpersonal functioning

The PANSS data (Table 2) showed that symptoms of psychosis were not linked to social anxiety. There were no significant correlations between social anxiety (SIAS) and PANSS positive ($r = -0.28$) or negative ($r = 0.01$) symptoms. This held for the sample as a whole, as well as the SaD subgroup. Data from the PAS show no evidence that ‘post-psychotic’ social anxiety was associated with gross disruption of pre-morbid social or interpersonal functioning. In particular, the PAS subscale ‘peer relations’ which documents the level of interpersonal engagement in adolescence, showed no difference between the social anxiety and non-anxious groups.

The results held when the schizophrenia (F20) group was analysed alone.

Hypothesis 2: Shame and social rejection

In order to protect against Type-II errors, this hypothesis was tested by comparing the groups with a MANOVA entering PBIQ *shame*, and *group fit* variables together with the OAS shame scale. The multivariate test was highly significant ($F = 9.7$, $p < 0.001$); this difference was maintained once CDSS depression and PANSS positive and negative symptoms were controlled by entering them as covariates.

Univariate comparisons revealed that each of the PBIQ variables and the OAS contributed toward this predicted effect ($p < 0.001$). The effect size of these differences is ‘high’ (Cohen, 1988)—see Table 3. These results held when the schizophrenia (F20) was analysed alone.

In order to determine the relative influence of the appraisal variables, the PBIQ variables group fit, shame, and the OAS shame scale were entered as predictors in a forward stepwise logistic regression with presence vs. absence of social anxiety as dependant variable. In order to exclude the possibility that the association between the appraisal variables and social anxiety might be attributable to a common feature of depression, CDSS was entered first as a forced choice entry. The results (Table 4) revealed that PBIQ shame (about psychosis) was the major predictor with an odds ratio (O.R) of 1.8.

Although the predictors were inter-related, multi-collinearity is unlikely to be a problem as the S.E. of the parameter estimates in the model are relatively low (< 2), (Tabachnick & Fidell, 2001, p. 558).

Table 1
Socio-demographic and clinical characteristics of the groups

	Social Anxiety	No-Social Anxiety	<i>p</i>
<i>N</i>	23	56	
Age at onset	23.8 (4.7)	22.7 (5.8)	n.s.
Gender			
M	17	44	n.s.
F	6	12	
Ethnicity			
White	14	22	n.s.
Black	0	6	
Asian	6	24	
Other	3	4	
Living conditions			
Parents	14	41	n.s.
Partner	4	4	
Alone	3	5	
Other	2	6	
ICD-10 diagnosis			
Schizophrenia (F20)	17	35	n.s.
Acute/transient (F23)	2	11	
Schizo-effective (F25)	4	9	
Other (F29)	1	1	
Premorbid function (PAS)			
Early adolescence (total)	0.28 (0.13)	0.24 (0.19)	n.s.
Late adolescence (peer relations)	0.29 (0.16) 1.5 (1.3)	0.25 (0.13) 1.2 (1.2)	n.s. n.s.
Duration of untreated psychosis (DUP) days	276.3 (396)	355 (754)	n.s.
Depression (CDSS)	9.7 (5.9)	5.9 (3.7)	<i>p</i> < .01
Positive symptoms (PANSS)			
Delusions	11.7 (2.9)	14.1 (5.0)	n.s.
Suspiciousness and persecution	2.86 (.7)	2.9 (1.2)	n.s.
Negative (PANSS)	16.6 (6.5)	15.6 (5.3)	n.s.
General psychopathology (PANSS)	38.3 (9.8)	33.3 (7.5)	< .05
Anxiety	3.3 (1.7)	2.4 (0.9)	< .01
Social avoidance	3.3 (1.1)	2.3 (1.1)	< .01
Insight (IS)			
Total	9.5 (3.2)	9.2 (2.4)	n.s.
Awareness	2.9 (1.2)	2.3 (1.3)	<i>p</i> = 0.05
Relabel	2.9 (1.2)	3.0 (1.0)	n.s.
Need for treatment	3.2 (1.1)	3.3 (1.1)	n.s.

Hypothesis 3: Entrapment by psychosis and enforced low social rank

The socially anxious group perceived their psychosis to be less controllable and more entrapping (multivariate $F = 15.6$, $p < 0.001$)—see Table 3. Both variables contributed equally to this effect ($p < 0.001$) and the effects remained when depression (CDSS) and PANSS positive and negative scales were entered as covariates ($p < 0.01$).

It was predicted that this enforced entrapment with a shameful diagnosis would lead to perceived loss of social status. The socially anxious group perceived themselves to have lower social status (SCS) compared to

Table 2
Comparison of SIAS, FNE and CDSS scales in studies of social phobia with and without psychosis^a

	Present sample		Kingsepp et al. (2003)	Hackmann, Clark, and McManus (2000)	Peters (2000)	Mattick and Clarke (1998)		
	Social phobia	No social phobia	Schizophrenia with social phobia	Social phobia	Social phobia	Other anxiety disorder	Social phobia	Community
SIAS	51.9 (11.9)	19.6 (8.8)	48.5 (10.0)	42.6 (13.5)	55.2 (12.9)	29.5 (17.3)	34.6 (16.4)	18.8
FNE	44.7 (9.5)	27.7 (9.4)	46.9 (8.4)	23.3 (7.9)	n/a	n/a	n/a	n/a
DSS	9.7 (5.9)	5.9 (3.8)	9.3 (3.4)	—	—	—	—	—

^aData are mean (SD).

Table 3
Descriptive statistics for shame and social rank variables

	Social anxiety (<i>n</i> = 23)	No social anxiety (<i>n</i> = 56)	Effect size
PBIQ ^a			
Shame	16.5 (3.2)	12.9 (2.5)	1.1
Group fit	13.6(5.3)	10.3(2.6)	0.6
Entrapment	16.9 (3.3)	13.3 (3.7)	0.9
Control	14.4 (2.5)	11.4 (2.2)	1.1
OAS ^b	38.3 (14.9)	18.1 (13.4)	1.2
SCS ^c	26.0 (8.4)	35.4 (6.7)	1.1
FNE ^d	44.6 (9.5)	27.7 (9.4)	—

^aPersonal Beliefs About Illness Questionaire.

^bOther as Shamer Scale.

^cSocial Comparison Scale.

^dFear of Negaqtive Evaluation Scale.

Table 4
Logistic regression results^{a,b}

Variable	Wald	<i>p</i>	O.R (95% C.I.) ^c
PBIQ Shame	4.3	0.038	1.4 (1.1–1.8)
PBIQ Group fit	5.6	0.018	1.3 (1.1–1.7)
OAS	4.3	0.039	1.1 (1.0–1.2)

^aDependent variable is social anxiety present (*n* = 23) vs. absent (*n* = 55).

^bThe Hosmer and Lemerlow test was N.S ($\tau^2 = 5.7$, 8 df) indicating a good fit.

^c85% of patients were correctly classified.

the non-anxious group ($F = 27.4$, $p < 0.001$). Again, this remained significant after depression and positive and negative symptoms (PANSS) were entered as covariates ($p < 0.01$). These results held when the schizophrenia (F20) group was analysed alone. The Social Rank (SCS) and Shame (OAS) scales contain items that may suggest overlapping queries (e.g., “other people put me down a lot” (OAS); “In relation to

others I feel incompetent” (SCS)). If so, this would raise the possibility that the testing of Hypotheses 2 and 3 would not be differentiated. The correlation between the SCS and OAS was -0.19 (N.S) indicating that the scales are accessing orthogonal dimensions.

Discussion

The study has identified a substantial subgroup (29%) of a representative sample of young people with a first episode of psychosis, who reported marked anxiety in interpersonal encounters. The severity of social anxiety was on a par with that of clinical groups with non-psychotic social anxiety disorder. In keeping with the findings of Pallanti et al. (2004), these data suggest that this social anxiety is not secondary to the main psychosis symptoms. Furthermore, social anxiety appeared to be elevated *following* the first episode, as members of this group showed no greater difficulty in (retrospectively assessed) peer relations (as measured by the PAS) than the non-anxious group prior to the episode. However, as suggested in the introduction, it is probable that many of these participants had latent pre-morbid anxiety and depression which acted as a source vulnerability (Owens et al., 2005), disposing them to react with severe social anxiety to the psychotic episode. Such vulnerability may be specific or non-specific. Non-specific anxiety may sensitise attention to sources of threat—following the onset of psychosis, this may revolve around the threat of social rejection. A specific vulnerability may be a pre-existing interpersonal anxiety that becomes focussed on (populated by) social stigma concerns. However this is a hypothesis that remains to be tested in the high-risk group.

In this study, we were able to demonstrate that the socially anxious subgroup carried all the hallmarks of non-psychotic social phobia: they expressed strong fear of negative evaluation by others (FNE); were significantly more depressed on interview (CDSS); and displayed higher levels of non-psychotic ‘general psychopathology’ (PANSS). The study used the SIAS methodology, widely used in social phobia, to classify the sample, and not formal ICD/DSM diagnosis. This was justified given the hypothesis testing nature of the research and the extensive data on the strong discriminant validity of the SIAS (Peters, 2000). The validity of the grouping criteria is further supported by the large and significant difference between the groups on PANSS anxiety and social avoidance. Any diagnostic error in the SIAS would work against the hypotheses. We are careful in the study to use the term social anxiety rather than social phobia or social anxiety disorder when referring to our groups. The PANSS measures were taken during the same interview on which the self-report scales were administered so preventing their mutual continuation (the self report scales scoring was undertaken at the conclusion of the study). The PANSS data revealed that neither delusions nor suspiciousness/persecution were correlated with social anxiety and avoidance, providing evidence against the possibility that social anxiety is a direct consequence of psychosis. The same applied to negative symptoms, which, while present in the sample, did not distinguish the groups. In addition, the socially anxious group reported *greater* awareness of their diagnosis on the insight scale, which implies that concerns about the diagnosis are salient in the minds of the person with social phobia and psychosis. If the presence of social anxiety simply reflects the presence of more severe hallucinations and persecutory delusions, insight might be expected to be *lower* in the social anxiety group, not higher as observed here.

Results from the first hypothesis confirmed that the socially anxious group experienced greater shame attached to their diagnosis and felt that the diagnosis placed them apart from others, i.e., socially marginalised them. The social anxiety group perceived others to be shaming and ‘putting them down’ according to the OAS. These results support our prediction that, compared to non-psychotic social anxiety, where the focus is on in-vivo performance (e.g., Clark & Wells, 1995), the socially anxious psychotic group have an additional fear of being allocated to a stigmatised group and of thus being ‘discovered’, shamed, looked down upon and rejected, with consequent efforts to conceal the diagnosis (Corrigan, Markowitz, & Watson, 2004)

Results for the second hypothesis suggest that the social anxiety group, viewed their illness as both difficult to control and to escape from. This enforced entrapment with a stigmatising social identity can be resolved using a number of defensive postures. Denial or low acceptance of illness is one such posture which we found to be higher in those with no social anxiety, echoing similar results in PPD (Iqbal et al., 2000). Another is active social avoidance, again documented in the present study. A third is acceptance and internalisation of a

new social identity ('schizophrenic patient') that comes to define the self in social encounters and confers subordinate social status that we observed in this study, as measured by the SCS. The SCS measure does not enquire whether low social status is a result of the diagnosis; it may be a pre-morbid belief; for example, feelings of low self-esteem and inferiority have been identified as a risk factor for psychosis in a population based study (Krabbendam, Janssen, & Bak, 2002). Importantly, the ANCOVA showed that low perceived social status was not simply a mood-linked appraisal.

The demographic profile of the anxiety groups deserves comment. While there was no overall, significant, diagnostic difference between the groups (Table 1), 17/23 (74%) of the social anxiety group received a schizophrenia diagnosis vs. 35/56 (63%) of the non-anxious group; conversely a schizophrenia diagnosis was over-represented in the no social anxiety group (20% vs. 9%). The main findings were unaffected when the analyses were conducted on the schizophrenia group alone. Nevertheless, this raises some interesting possibilities. The schizophrenia diagnosis may be more stigmatising than others in the spectrum and further fuel the processes under test in this study. On the other hand, this may be taken as evidence that social anxiety is also a core feature of the schizophrenic process. These possibilities are not mutually exclusive. Another demographic trend of interest was the apparent under-representation of Asian and Black people in the social anxiety group; while ethnicity was not overall significantly different, the finding that 17% of Black/Asians were socially anxious compared to 39% of the white group, raises the question of under-reporting among the UK's ethnic minorities. This is unlikely to be a language issue since all patients from ethnic minorities were second-generation and fluent in English.

This raises the possibility of lower stigma in these communities or alternatively, greater sensitivity to stigma in ethnic minority groups and consequent denial. If the latter is true, our figures for the overall rate of social anxiety would underestimate the true morbidity; but also this would add support to our contention that stigma processing is in operation in the development of social anxiety. Overall, it should not be surprising to find that stigma processes and demography interact. This area deserves further investigation.

These shame and social rank appraisals have also appeared as prospective predictors of PPD (Birchwood et al., 2000). The question is raised as to the specificity of these appraisals for SaD vs. PPD. Social anxiety and depression are closely linked phenomena in non-psychotic young people, both prospectively and retrospectively (Stein, Fuetsch, & Muller, 2001); and, in the present sample, SIAS and CDSS correlated $r = 0.58$. Social rank theory would predict that loss would be the best predictor of depression (Brown et al., 1995) and that shame and outsider status would be better predictors of social anxiety (Gilbert and Trower, 2001). These reflect the findings in PPD (Birchwood et al., 2000) vs. those for social anxiety in the present study. Nevertheless, this raises the possibility PPD as conventionally defined is not a 'pure strain' phenomenon but overlaps with social anxiety.

Overall these data suggest that the socially anxious group harbour many concerns about their diagnosis and its consequences. After controlling for depression, they report a high(er) awareness of the illness, considerably greater shame about the diagnosis and believe that others look down on them and marginalise them, and feel that their diagnosis is an indelible problem from which escape is difficult.

The question arises: are these shame-based appraisals merely by-products of their manifest depression/distress? The social phobic group were significantly more depressed. This is well established in non-psychotic social phobia, particularly in young people (Stein et al., 2001). It is possible that depressed mood biases all appraisals leading individuals to view their psychosis as shameful, uncontrollable and entrapping. However, this possibly seems unlikely given that the hypotheses were upheld even when depression was statistically controlled. A further possibility is that the presence of social phobia per se itself biases these kinds of appraisals. In other words, socially phobic individuals will recruit evidence to support or rationalise their social disengagement, including for example, the perceived shamefulness of their mental illness.

This possibility is difficult to resolve with these data and goes to the heart of the hypotheses—are the shame appraisals causal, maintaining or the effect of social anxiety? The study has moved to 'first base' in that the predictions arising from the proposed model were not rejected and were not simply mood driven. To go further requires greater clarity about how shame about the stigma of diagnosis could contaminate social interaction sufficient to lead to and maintain social phobia; this can then generate testable predictions in a longitudinal study such as that of Birchwood et al. (2000). To this end we propose the following stigma processing model of social anxiety.

Stigma processing model of social anxiety in psychosis

We have emphasised that, even before people develop a psychosis they will have been socialised into giving ‘meaning to madness’ and thus internalised culture-wide stigmatised beliefs about the illness/experiences. Once a person has experienced an episode they are then vulnerable to feeling devalued because they may feel they now are a member of the stigmatised group. As such, they may fear others seeing and judging them through the lens of the stigmatising stereotype and may believe that rejection is never far away. Gilbert and Trower (2001) suggest that when socially anxious people anticipate or enter social arenas, they tend to *first* judge that the interactions will be competitive and socially ranked rather than cooperative and non-ranked, in which one must impress others to be accepted. Believing that others *will* judge the self and choose to accept or reject, include or exclude, attention then becomes self-focused on how others are viewing the self (Clark & Wells, 1995). In the case of stigma, however, the person has an additional concern to try to conceal and not be located in stigmatised group; that is, not to be ‘discovered’ as ‘schizophrenic’ or ‘mad’.

Once a person believes the other *is* thinking of them in these down-rank, stigmatising terms, they may take up different defensive positions. One response is to become angry, aggressive and/or avoidant (Gilbert, 2002; Tangney, Wagner, Barlow, Marschall, & Gramzow, 1996). The other response (the focus of this paper) is one of fear and anxiety. In this context the defensive or ‘safety’ behaviours are ones of submissive inhibition and withdrawal/avoidance. The submissive defence may increase self-focused monitoring that further magnifies anxiety and its disruptive effect on self-presentation, thus ‘contaminating’ the interaction.

In Fig. 1, we elaborate a stigma processing model drawing on Gilbert and Trower (2001) and Clark and Wells (1995) models of social anxiety and Gilbert’s (2002) model of shame. These embody proposals about the way shame focussed appraisals can contaminate social interaction. In terms of the process, patients first become aware of social attitudes to mental illness and symptoms. Second are concerns of how others may locate him/her now that he/she has (or has had) symptoms i.e., as a member of a stigmatised group and risk social ridicule and/or marginalisation. She/he then fears potentially de-valuing judgment and loss of status in the eyes of others in his social milieu (other-to-self focus). Attention shifts to an image of self, generated from proprioceptive information to draw inferences about how he appears to others (self-self focus: ‘I’m tense and shaky—I must look weird’), thus there is less focus on external cues and valid feedback from the environment. This then leads to a conviction (catastrophic shaming belief) that others see him/her as ‘one of them’ (mentally ill group). Finally, she/he uses safety behaviours in an attempt to reduce perceived threat but which function

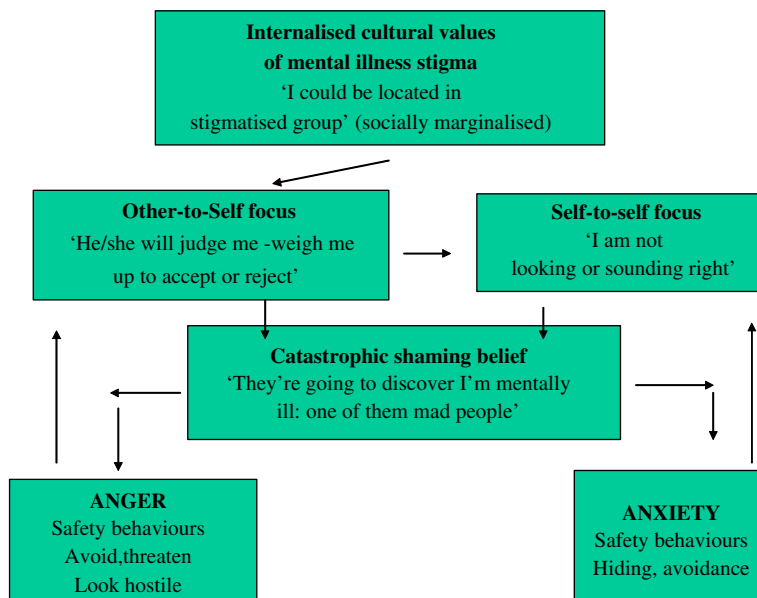


Fig. 1. A stigma model of social anxiety in schizophrenia.

to prevent belief disconfirmation and make the patient behave in ways that ‘contaminate’ the interaction (e.g., withdrawal, distraction, shame behaviour). This sets up a vicious circle centred around increasingly catastrophic thinking and dysfunctional safety behaviour.

Testing of the model will require measurement of the ‘hot cognitions’ which will not only be negative and evaluative in nature, but will refer specifically to the individual’s mental illness. Second, the self-generated images will be constructed from verbal as much as physiological cues. Safety behaviours will function to prevent discovery and include avoidance of topics that might betray the individual’s diagnosis and lowered social status (e.g., reference to employment, mental illness, etc.). We are currently testing this model by comparing young people with social anxiety and psychosis with their age-matched peers with social phobia alone.

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