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Associations of self-esteem, dysfunctional beliefs and coping style with depression in patients with schizophrenia: A preliminary survey

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ABSTRACT

Psychological models of depression in schizophrenia have proposed that cognitive structures (e.g., self-esteem, dysfunctional beliefs) may have a role in the development and maintenance of depression. However, it has not been clear what the characteristics of these cognitive structures were in people with schizophrenia and whether they have an independent association with depression, especially in those from a Chinese cultural background. The present investigation examined 133 people with schizophrenia and 50 healthy controls and indicated that compared to the controls people with schizophrenia showed lower self-esteem, higher levels of dysfunctional beliefs and negative coping styles. Multiple linear regression analysis revealed that only low frustration tolerance, problem solving and self-blame were found to be the independent correlates of depression in schizophrenia. Results are discussed with the view of clinical implications of cognitive formulation and therapy for schizophrenia in China.

1. Introduction

Depression often occurs at different phases of schizophrenia. This is important not only because it contributes significantly to personal suffering, but also because it exacerbates deficits in psychosocial functioning, increases rates of relapse or rehospitalisation and commonly precedes attempted and completed suicide (Mulholland and Cooper, 2000; Siris, 2000). A number of studies have attempted to explore possible reasons for the onset of depression following schizophrenia. For instance, previous studies have suggested that depression is intrinsic to schizophrenia (Häfner, 2005). Some researchers proposed that dopamine blockade by a neuroleptic drug could lead to anhedonia or depression (Harrow et al., 1994), while others suggested that genetic factors as well as imbalances in the neurotransmitters, neurodevelopmental abnormalities, social environment, personality traits and life events may be involved in the development of depression (Klein et al., 2011; Lee et al., 2010). Evidence from drug trials has suggested that depression in schizophrenia is not primarily neuroleptic induced (Bandelow et al., 1990). At the same time, some researchers have suggested that depression can result from a psychological reaction to the psychotic illness itself (Birchwood et al., 1993). In recent years, this psychological conceptualisation of depression in schizophrenia has being increasingly recognised (Birchwood et al., 2000b) and stress-vulnerability models have been developed to explain the relationship between depression and schizophrenia (Siris, 2000).

1.1. Self-esteem

Low self-esteem has been suggested as a significant factor that increases the vulnerability to depression (Beck, 1987). Low self-esteem has also been shown to be associated with many mental health problems including schizophrenia (Kesting et al., 2011). Many patients with schizophrenia frequently have negative self-image, often accept stereotypes about mental illness and can attract criticism from significant others (Yanos et al., 2008). They are then vulnerable to self stigma, which leads to further reduction in their hopes for the future and their self-esteem (Wittorf

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et al., 2010). It is understandable that the experience of psychosis can lead to lowered self-esteem as the patient role is often experienced as shameful and stigmatised, which results in perceived low social status and self-identification (Gumley et al., 2006). Low self-esteem is a likely product of psychosis, rendering the individual at risk of depression and forming self-defeating or self-critical beliefs: these potentially maintain symptoms and further increase the burden of the disorder (Berna et al., 2011; Schimansky et al., 2010). Some researchers have proposed that individuals with schizophrenia who show low self-esteem have a marked tendency towards depression (Borras et al., 2009).

1.2. Dysfunctional beliefs

Birchwood et al. (1993) demonstrated that depression may occur in response to people's negative perceptions about their illness. The person with schizophrenia may feel frustrated at being unable to control or prevent his mental illness. People with schizophrenia may also believe that the illness is uncontrollable and overwhelming. Karatzias et al. (2007) found that depression in people with schizophrenia was associated with a greater feeling of entrapment. They tended to pessimistically anticipate the secondary handicaps of illness, feel defeated and hopeless as a result of threats to their future, including unemployment, loss of important attachments or friendship, underachievement and threats to their individual social ranking or importance.

These negative beliefs may, in part, be related to the person's original psychological characteristics and cognitive vulnerabilities. Beck's model of depression (1976) proposed that depression was linked to a set of underlying negative core beliefs resulting from early life experiences. This 'schema' about the self, the world and the future leads to a negative perception of day to day events which, in turn, has an impact on affect and behaviour. Comparisons of people with schizophrenia with and without depression uncovered psychosocial factors that were relevant to the presence of depression including early parental loss and life events which are likely to influence the development of an individual's belief system (Roy, 1986). Gumley et al. (2006) proposed that the experience of psychosis as a negative life event may activate underlying negative beliefs. Garety et al. (2001) also found that emotional processes in people with schizophrenia were related to early adverse experiences. Early adversity was linked to a cognitive vulnerability, characterised by negative schematic models of the self and others, such as the belief in low frustration tolerance, e.g. "I am weak" and "I am vulnerable", or overgeneralization beliefs, e.g. "I am ill so my whole life is ruined". Personal beliefs about self and illness may represent a more general vulnerability factor to the development of depression in people with schizophrenia.

1.3. Coping style

Improper coping style is an important factor associated with depression in schizophrenia patients (Vauth et al., 2007). Patients with schizophrenia tend to use maladaptive coping styles, which are unhelpful and subsequently can lead to a great perception of personal failure and distress (Cooke et al., 2007). Vauth et al. (2007) suggested that improper coping styles might also act as a maintaining factor for negative mood in patients with schizophrenia. Catastrophic appraisals and problematic coping behaviours, such as giving up as a means of avoiding potential failure, may actually act as a barrier to help seeking from family, friends and even professional services (Gumley et al., 2006).

Cultural factors could also impact an individual's coping style. The Chinese tradition of withstanding hardship, high tolerance for distressing circumstances, a strong sense of interdependence with family and social support plus emotional control, all may discourage patient's help-seeking behaviour (Yanos et al., 2008).

Although much research has been carried out in recent years, dysfunctional beliefs, self-esteem, and coping styles have not all been considered in one single piece of research. It still remains unclear about the level of these factors in people with schizophrenia, and how these factors are associated with depression. Furthermore, the majority of previous studies have been limited to Western countries. There is growing evidence that cultural factors can influence a range of phenomena in schizophrenia (Young, 2010). Culture shapes various aspects of the self including feelings of self-esteem, self-belief and coping styles (Tsai et al., 2001). Therefore, many problems have remained unconsidered especially in samples of Chinese people with schizophrenia.

The present study had two aims: first, to compare self-esteem, dysfunctional beliefs and coping styles between people with schizophrenia and healthy control subjects; second, to explore the associations between dysfunctional beliefs, self-esteem, coping styles and the symptoms of depression. Findings from the study could increase understanding of the characteristics of cognitive structures and formulation of symptoms of depression in schizophrenia, which can ultimately inform treatment strategies. Notably, they could help clinicians to conceptualize and design the suitable psychosocial therapy methods for Chinese people with schizophrenia.

2. Method

2.1. Participants

This study was part of a project validating the Chinese version of the Schizophrenic Symptoms Attribution Questionnaire (SAQS) in China and testing the effect of Behavioural Cognitive Therapy (CBT) for schizophrenia. A total of 133 people were consecutively recruited by psychiatrists with at least five-year clinical experience from outpatient clinics and inpatient wards at a university teaching psychiatric hospital in Beijing, China. Subjects were selected if they satisfied the following inclusion criteria: met DSM-IV diagnostic criteria for schizophrenia; aged between 18 and 60 years old; stabilised on antipsychotic medication treatment for at least 4 weeks; able to comprehend the instruments used in this study; no major medical conditions and were able to provide written informed consent for participation in this study. People who had co-morbid substance misuse or dependence or an Axis II or III diagnosis, or had previously received cognitive-behavioural therapy were excluded.

Fifty people with no mental health problems were recruited as a control group by advertising in the local area for this study. They completed the Chinese version of Zung Self-rating Depression Scale (SDS) (Wang et al., 1999) and were also screened by a trained psychiatrist to exclude those with a psychiatric diagnosis. The mean score for SDS within this group was 34 and each person got a total score of less than 40. The controls were matched with the patient group according to age ($\pm$3 years), sex and education ($\pm$2 years).

2.2. Measures

Basic socio-demographic characteristics (age, sex, education, marital status, and employment status) and clinical characteristics (length of illness and severity of illness) were collected during an interview. Psychotic symptoms were measured using the Positive and Negative Syndrome Scale (PANSS)—Chinese Version (Wang et al., 1999). It was used only for the group with schizophrenia. The PANSS is a 30-item rating instrument examining the severity of symptoms of schizophrenia. Psychotic symptoms consist of two subscales: a positive syndrome scale and a negative syndrome scale. Depression was rated using the depression subscale of Positive and Negative Syndrome (PANSS-D) which was obtained based on four symptoms: depression (G6), guilt feelings (G3), somatic concern (G1), and anxiety (G2) (Fannon et al., 2009). The raters had been trained well and had been found to have good inter-rater reliability (Intraclass Correlation Coefficients=0.89).

Self-esteem was assessed using the Rosenberg Self-Esteem Scale (RSES)—Chinese version (Wang et al., 1999). The RSES is the most frequently-used self-esteem measure in China. It consists of 10 items and four score points for each item ranging from 1 (strongly disagree) to 4 (strongly agree). A high total score indicates high positive self-esteem (range=10–40). Among 10 items, there are 5 items (items 2, 5, 6, 8 and 9) that need to be reverse scored in the original Chinese version. When it was tested in a Chinese population in mainland China,