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Comparison of insight and clinical variables in homeless and non-homeless psychiatric inpatients in China

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ABSTRACT

There are no published data on insight in homeless patients with psychiatric disorders in China. This study examined insight in homeless and non-homeless Chinese psychiatric inpatients in relation to demographic and clinical variables. A total of 278 homeless and 222 non-homeless inpatients matched in age and gender were included in the study. Demographic and clinical characteristics were collected based on a review of medical charts and a clinical interview with standardized instruments. Insight was evaluated with the Insight and Treatment Attitudes Questionnaire. Altogether 20.5% of homeless inpatients and 43.7% of the non-homeless controls had good insight. Compared with homeless inpatients with impaired insight, homeless inpatients with good insight had higher physical quality of life, longer duration of illness and less severe positive and negative symptoms. Impaired insight appeared more common in homeless psychiatric inpatients in China. Further studies should address the need for effective therapeutic interventions that promote homeless patients' insight.

1. Introduction

Despite a lack of consensus, the operational definition of homelessness include two fundamental aspects (Argeriou et al., 1995); place i.e. living outside one's own house, and time which varies from one night to one year (Herman et al., 1998; Chinese Ministry of Civil Affairs, 2003). Homelessness is significantly associated with psychiatric disorders (Fazel et al., 2008; Zhong et al., 2015; Ran et al., 2016). For example, a survey in Germany found that 73% of homeless men had psychiatric disorders (Längle et al., 2005). A nationwide cohort study in Denmark found that 58.2% of homeless women and 62.4% of men had psychiatric disorders (Nielsen et al., 2011). On the other hand, homelessness can also be an adverse outcome for many psychiatric patients (Folsom et al., 2005). The risk of homelessness in psychiatric patients was estimated to be 25–50% higher than that of the general population over the entire lifespan (Susser et al., 1997; Greenberg and Rosenheck, 2010).

Insight is defined as the awareness of suffering from mental illness, the consequences of the illness and the acceptance of pharmacotherapy and psychosocial interventions (Xiang et al., 2012). In order to engage patients in treatment and improve the outcome of mental illness, it is important to promote insight in psychiatry (Karow et al., 2008; Gerretsen et al., 2017). Compared to non-homeless patients, homeless patients with psychiatric disorders usually have poorer social support networks, lower income and inadequate pharmacotherapy (Lehman et al., 1997; Ran et al., 2006). Therefore understanding the nature of

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insight and its contributing factors is essential to improve treatment strategies and illness outcome. Although quality of life (QOL) is a fundamental and meaningful outcome measure of the effectiveness of pharmacotherapy and psychosocial interventions (Xiang et al., 2010; An et al., 2016), no studies to our knowledge have examined the impact of insight on the QOL of homeless patients.

This study set out to compare insight in homeless and non-homeless Chinese inpatients with psychiatric disorders in relation to demographic and clinical variables including QOL.

2. Methods

2.1. Study settings and participants

The study was part of a project examining service quality of homeless patients with severe mental illness in China (Cao et al., 2017). Homeless patients with psychiatric disorders were consecutively recruited from the inpatient departments of Huizhou Veteran Hospital and Shenzhen Kangning Hospital in China. Shenzhen Kangning Hospital is a public psychiatric hospital with 630 beds, of which 100 beds are allocated for homeless patients. There are 300 psychiatric beds in Huizhou Veteran Hospital provided for homeless adults and veterans. The non-homeless inpatient controls, matched to age and sex, were recruited from the other wards of Shenzhen Kangning Hospital. Patients were recruited if they fulfilled the following entry criteria: (1) aged 18 years or older, (2) Chinese ethnicity, (3) having the ability to communicate and comprehend the content of the interview, and (4) agreeing to provide informed consent to participate in the study. The research protocol was approved by the Bio-medical Ethics Panel of the two hospitals.

In China homeless shelters provided services for 3,517,000 homeless individuals, while psychiatric hospitals admitted 65,000 homeless patients in 2014 (Ministry of Civil Affairs of China, 2015). In our study the term ‘homeless psychiatric inpatient’ refers to an individual who “has no ability to manage food and accommodation, has no relatives, no minimum accommodation guarantee, ongoing wandering or begging in cities” prior to the admission to a psychiatric hospital. This definition is consistent with that of the Chinese Ministry of Civil Affairs (Chinese Ministry of Civil Affairs, 2003) and was adopted in clinical practice in the two hospitals.

2.2. Data collection

Patients’ basic socio-demographic and clinical data were collected by two psychiatrists with a standard data collection sheet. ICD-10 diagnoses in the medical records were classified into three categories: schizophrenia or other psychotic disorders (F20-29) (thereafter: schizophrenia), mood disorders (F30-39) and other psychiatric diagnoses. Only the principal diagnosis was recorded in cases where there were more than one psychiatric diagnoses.

Insight was evaluated using the Insight and Treatment Attitudes Questionnaire (ITAQ)-Chinese version (McEvoy et al., 1981; Gao et al., 1998) that has been validated in Chinese schizophrenia patients. The ITAQ is a semi-structured scale with 11 questions measuring awareness of illness, and attitudes toward treatment. Higher scores reflect better insight. Following Startup's criteria (Startup, 1996), ‘good insight’ was defined as an ITAQ total score equal to or greater than 15 points. An ITAQ total score less than 15 was defined as ‘impaired insight.’.

Psychotic symptoms were assessed with the Brief Psychiatric Rating Scale (BPRS)-Chinese version (Zhang, 1984). The severity of depressive symptoms was assessed with the Montgomery-Asberg Depression Rating Scale-Chinese version (MADRS) (Zhong et al., 2011). QOL was defined as 'an individual's perception of one's position in life in relation to goals, expectations, standards and concerns in the context of the culture and value systems in which one lives’ (WHO, 1998). In our study, QOL was evaluated using the 12-Item Short Form Health Survey (SF-12)- Chinese version (Lam et al., 2005). This is a self-report measure on QOL with physical component scores (PCS) and mental component scores (MCS) (Larson, 2002).

Two interviewers were trained to administer the above instruments in 20 psychiatric patients. The intra-class correlation coefficients between the two interviewers on the instruments were higher than 0.75.

2.3. Statistical analysis

Data analyses were performed with SPSS 21.0 for Windows. Comparisons between homeless and non-homeless patients, and between homeless patients with impaired and good insight with regards to demographic and clinical data were conducted using Mann-Whitney *U* test, two independent samples *t*-test or Chi-square test. Insight was compared between the homeless and non-homeless patients with analysis of covariance (ANCOVA) after adjusting for the potentially confounding effects caused by covariates. ANCOVA was also used to compare QOL between the homeless patients with impaired and good insight after controlling for covariates. Multiple logistic regression analysis was used to examine independent correlates of good insight in homeless patients. The significance level was set at 0.05 (two-sided).

3. Results

A total of 320 homeless inpatients and 283 non-homeless controls were consecutively screened. Two hundred and seventy-eight homeless and 222 non-homeless patients satisfied the entry criteria and completed the assessment; 20.5% and 43.7%, respectively, had good insight.

Table 1 presents the demographic and clinical characteristics by homelessness. There were significant differences between the two groups with regard to ITAQ total ($F_{(1, 488)} = 18.0$, $p < 0.001$), the awareness of illness ($F_{(1, 488)} = 16.9$, $p < 0.001$) and attitudes toward treatment subscales ($F_{(1, 488)} = 17.1$, $p < 0.001$) after adjusting for the potentially confounding effects of covariates.

Table 2 compares the demographic and clinical characteristics between good and impaired insight group within the homeless inpatients. ANCOVA revealed that patients with good insight had higher physical component scores ($F_{(1, 268)} = 4.1$, $p = 0.04$) compared to those with impaired insight, but no difference was found in terms of the mental component scores of QOL ($F_{(1, 268)} = 0.1$, $p = 0.70$) between the two groups. Multiple logistic regression analysis revealed that longer duration of illness and less severe positive and negative symptoms were independently associated with good insight in homeless patients (Table 3).

4. Discussion

This was the first study to compare the level of insight in relation to clinical and QOL variables in homeless and non-homeless psychiatric inpatients. Using Startup's criteria (Startup, 1996), 20.5% of the homeless inpatients versus 43.7% of the non-homeless psychiatric controls had good insight. Xiang et al. (Xiang et al., 2012) examined 139 clinically stable non-homeless psychiatric patients using the Startup's criteria and found 23.7% had good insight. Similar results were observed (24.4–27%) in other studies (Thompson et al., 2001; Keshavan et al., 2004) although different insight measures were used. The significantly lower percentage of good insight in the homeless inpatients in this study suggests that poor insight is very common in homeless patients. Insight is a multidimensional concept involving recognition of mental illness, the consequences of the illness and the treatment needed (McGorry and McConville, 1999; Wang et al., 2011). The contributing factors to poor insight in psychiatric patients are multifactorial. Commonly reported correlates include severe depressive and psychotic symptoms (Mintz et al., 2003), use of antipsychotic