Psychiatry Research 209 (2013) 333–339

Contents lists available at ScienceDirect

Psychiatry Research

journal homepage: www.elsevier.com/locate/psychres

Anticipated discrimination is related to symptom severity, functionality and quality of life in schizophrenia

Alp Üçok [a,*], Gülşah Karadayı [a], Birgül Emiroğlu [a], Norman Sartorius [b]

[a] Department of Psychiatry, Istanbul Faculty of Medicine, Istanbul University, Istanbul Millet Street, Capa 34390, Istanbul, Turkey
[b] Chemin Colladon, 1209 Geneva, Switzerland

ARTICLE INFO

Article history:
Received 20 June 2012
Received in revised form
6 February 2013
Accepted 17 February 2013

Keywords:
Schizophrenia
Stigma
Anticipated discrimination
Functionality
Quality of life

ABSTRACT

The aim of this study is to evaluate a possible relationship between the level of anticipated discrimination with severity of symptoms and functionality. We included 103 patients with schizophrenia. Severity of symptoms was measured by PANSS and Calgary Depression Scale for Schizophrenia. Quality of life (QL) and functionality were measured by using QLS, PSP and Functional Remission of General Schizophrenia Scale (FROGS). Anticipated/experienced discrimination was evaluated with four selected items from Discrimination and Stigma Scale.

First, variables related to each item were determined by using *t*-test and later the variables that have an independent contribution to anticipated discrimination subscale of DISC were evaluated with linear regression analysis. Results showed that those who stated that they felt the need to conceal their diagnosis more had shorter duration of illness, lower PANNS scores, higher scores on professional performance subscale of QLS, a lower number of suicide attempts and higher current employment rates. Participants who reported that they had been avoided or shunned more had higher depression scores. While patients with lower level of functionality tended to stop themselves more, patients with high level of functionality tended to conceal their diagnosis.

1. Introduction

Discrimination refers to the behavioral consequences of stigma, which act to the disadvantage and social exclusion of the people affected (Thornicroft, 2006; Thornicroft et al., 2007; Sartorius and Schulze, 2008). Perceived and anticipated discrimination have been found to be widespread among people with schizophrenia (Link et al., 2001). In a recent study, 69.4% of the participants with schizophrenia reported moderate or high levels of perceived discrimination (Brohan et al., 2010).

Employment is one of the areas in which discrimination frequently occurs in patients with schizophrenia (Angermeyer et al., 2004). Link et al. (2001) reported that 74% of the patients believe that employers will discriminate against psychiatric patients, while 81% had similar expectations about dating relationships. However, only 36% of his sample had a diagnosis of schizophrenia. Lee et al. (2005) reported that over 50% of the patients anticipated stigma and about 55% concealed their illness. In our recent international study, it was observed that almost two-thirds of the 732 participants with schizophrenia reported that they had stopped themselves from applying for work, training or education because of anticipated discrimination. 72% of them also reported that they felt the need to conceal their diagnosis (Thornicroft et al., 2009).

Despite the fact that experience of stigma and discrimination are common for patients with schizophrenia, it is not clear whether those experiences are the sole results of being diagnosed with "schizophrenia". In addition to the diagnosis of schizophrenia, level of functionality and severity of symptoms might also be predictive in determination of anticipated stigma and discrimination. It can be postulated that those two factors can increase the level of anticipated discrimination by both causing the patients to be recognized and stigmatized by others more easily, and reducing the self-esteem, self-respect.

Markowitz (1998) reported that stigma is related to depressive-anxiety types of symptoms, but not to psychotic symptoms. Lysaker et al. (2007) found that stigma is associated with concurrent positive and emotional discomfort symptoms and degree of social contact. They also reported that within the sub-group of patients with a higher rate of negative symptoms and poor attention, level of self-esteem was lower, while the level of self-stigma was higher (Lysaker et al., 2009). Also, level of disability, positive symptoms and depression are some clinical features, which were found to be positively related to anticipated discrimination for people with schizophrenia (Ertugrul and Ulug, 2004). On the other hand, Dickerson et al. (2002) and Lv et al.

* Corresponding author. Tel./fax: +90 2125310309.
E-mail address: alpucok@gmail.com (A. Üçok).

0165-1781/$ - see front matter © 2013 Elsevier Ireland Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.psychres.2013.02.022

(2013) reported that rather than positive or negative symptoms, socio-economic variables were related to the extent of stigma and discrimination experiences in patients with schizophrenia.

Rosenfield (1997) is one of the first authors who reported a relationship between stigma and low quality of life. Staring et al. (2009) reported that the associations of insight with low quality of life, and negative self-esteem are moderated by stigma. According to these authors, patients with good insight accompanied by stigmatizing beliefs have the highest risk of experiencing low quality of life and negative self-esteem. Lundberg et al. (2007) reported that people with a higher degree of global functioning perceived less discrimination against themselves. Perlick et al. (2001) reported that concerns about the stigma associated with mental illness reported by patients during an acute phase of bipolar illness predicted poorer social adjustment. In three recent studies, self-stigma, and stigma perception were also reported to be related to a lower level of quality of life in patients with schizophrenia (Kondrat and Early, 2011; Tang and Wu, 2012; Tseng et al., 2012). In another recent study, Park et al. (2013) reported that internalized stigma was correlated with depression and quality of life, but not with negative symptoms. On the other hand, Yildiz et al. (2012) stated that self-stigma is associated with severity of clinical symptoms in patients with major depressive disorder, but did not find such a relationship amongst patients with schizophrenia. Besides these cross-sectional studies, relationship between stigma and functionality was also studied in a longitudinal design. The results suggest that self-stigma is progressive and negatively correlated with self-esteem, hope, social and vocational functioning (Yanos et al., 2010; Corrigan et al., 2011; Yanos et al., 2012).

The aim of this study was to evaluate the relationship between anticipated discrimination and level of functioning, quality of life and severity of symptoms in people with schizophrenia. We hypothesized that there is a negative relationship between level of anticipated discrimination and quality of life.

2. Methods

2.1. Participants

We included outpatients in Istanbul Faculty of Medicine, Psychiatry Department, who were diagnosed with schizophrenia on the basis of DSM-IV criteria. Among these patients, we excluded the ones who had a relapse in the last 3 months, and the ones with epilepsy, or a history of head trauma and those with an inability to speak the local language clearly. The range of age was between 18 and 60 yr. 107 patients who were treated at the outpatient treatment unit with periodical appointments (mostly once a month) were invited to take part in the research study based on their successive order of application. 2 patients refused to be involved in the study, 1 patient could not complete the scales due to the language problem and 2 patients withdrew their informed consents. The data of the remaining 103 (61 men) patients were evaluated. Due to the inclusion criteria of not having a relapse within the last 3 months, the sample was composed of patients with a stabilized clinical state, and a moderate level of positive and negative symptom severity (Table 1). The average duration of education was longer than the average of patients with schizophrenia in Turkey (Alptekin et al., 2005). We believe that this situation is partly due to the fact that patients with a longer duration of education tend to prefer university hospitals instead of state mental hospitals. For example, 2 patients in our sample were medical doctors and their duration of education was 17 yr. The average age of the patients was slightly below the average age observed in a previous multi-center, broad sample study (i.e. 34.5 yr, Ucok et al., 2007).

2.2. Measures and procedure

Socio-demographic data, history of illness and clinical course characteristics were assessed with a semi-structured interview form. We used Structured Clinical Interview for Diagnosis-I (SCID-I; First et al., 1997) to diagnose all the patients. Level of functionality and quality of life were assessed with Personal and Social Performance (PSP) scale (Morosini et al., 2000), the Quality of Life Scale (QLS; Heinrichs et al., 1984), the Functional Remission of General Schizophrenia Scale (FROGS; Llorca et al., 2009). Calgary Depression Scale for Schizophrenia (CDSS; Addington et al., 1992) was used to assess the level of depression.

2.2.1. Positive and negative syndrome scale

Severity of clinical symptoms was evaluated by the Turkish version of Positive and Negative Syndrome Scale (PANSS; Kay et al., 1987; Kostakoglu et al., 1999). This scale includes 30 items: positive and negative subscales are each formed by a set of 7 items, and psychopathology subscale is comprised of 16 items. Each item is scored between 0 and 6 and higher PANSS scores indicate higher symptom severity.

2.2.2. Quality of life scale

QLS was designed to assess deficit symptoms by Heinrichs et al. (1984) within the domains of interpersonal relations, instrumental role, intrapsychological foundations (psychological wellbeing) and common objects and activities of everyday life. It provides information on symptoms and functioning within the preceding 4 weeks. Each item is rated on a 7-point scale, where high scores like 5 or 6 indicate normal or unimpaired functioning and scores of 1 or 0 reflect severe impairment in functioning. QLS is applied to the participants by the researchers.

Table 1
Clinical and socio-demographic characteristics of the study sample.

	Mean	**Standard deviation**
Age	31.49	9.94
Age of onset	22.08	5.84
Duration of illness (yr)	9.91	8.01
Number of hospitalizations	1.57	1.90
Education (yr)	12.44	2.89
EFRS total score	65.39	11.40
PSP total score	64.62	12.51
QLS total score	76.47	19.70
CDSS total score	5.60	4.72
PANSS positive symptoms	14.76	5.95
PANSS negative symptoms	15.57	5.65
PANSS general symptoms	31.82	9.57
PANSS total score	62.29	18.30
Patient's rating of own functional remission status (%)	63.87	22.02
The functional remission status rating of relative/partner (%)	57.77	19.22
	Type	(%)
Gender	Male	59.8
	Female	40.2
Marital status	Single	91.7
	Other	8.3
Employment	Employed	37.3
	Not employed	62.7