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Social functioning as a predictor of the use of mental health resources in patients with severe mental disorder

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ABSTRACT

Previous studies have tried to determine the factors causing greater use of health resources by patients with mental disorders. These studies have essentially focused on socio-economic variables. Nevertheless, many other variables, such as social functioning, have not yet been explored. This study aims to assess the effect of social functioning on mental health service use in a sample of patients with severe mental disorder (schizophrenia, other psychotic disorders or bipolar affective disorder) in an area of Spain. The Social Functioning Scale (SFS) was administered to 172 family members of patients with a severe mental disorder who were receiving care at a community mental health unit. Analysis of bivariate logistic regression identified specific areas as predictors of the use of mental health resources over a 12-month follow-up period. The overall social functioning score predicted need for hospital admissions. In addition, interpersonal behaviour had a major role in the number of outpatient visits, while social isolation significantly predicted the need for hospitalization. These results point out the necessity for including psychosocial variables, such as social functioning in current mental health resource use models.

1. Introduction

People with a severe mental health disorder such as schizophrenia, other psychotic disorders or bipolar affective disorder usually show more signs of severity and recurrence than those found in other mental disorders. These conditions are usually related to a greater need for mental health assistance resources (Knapp et al., 2004) and increased costs (Carr et al., 2003; Somaiya et al., 2014).

In order to care for this population as efficiently as possible, adequate, reasoned planning of mental health services is crucial. Efficient, real needs-oriented planning implies the need to verify the variables that may influence use of resources.

In the last few years, several studies have focused on this need to determine factors that may influence more or less use of resources by patients with mental disorders. These studies have essentially focused on socio-economic variables such as age (Jin et al., 2003), sex (Lindamer et al., 2003; Usall et al., 2012), ethnic group (Lee et al., 2014; Mann et al., 2014), socio-economic status (Kilian et al., 2003; Tello et al., 2005), or education (Have et al., 2003; Jin et al., 2003; Kilian et al., 2003; Lindamer et al., 2003; Tello et al., 2005; Usall et al., 2012; Donisi et al., 2013).

Further research has extended the range of starting variables to include individual character variables such as diagnosis and severity (Moreno-Kustner et al., 2011), and variables related to urban context and neighbourhood (Ngamini Ngui et al., 2012; Donisi et al., 2013). The gradual inclusion of other factors allows a broader, more comprehensive view of resource-related variables.

Nevertheless, many other variables have not yet been explored, or have hardly been considered. This is the case of psychosocial variables, such as social functioning. Other studies have considered social functioning a decisive factor in disorder development, adaptation to the community environment of the patients (Rajkumar and Thara, 1989; Johnstone et al., 1990; Perlick et al., 1992), cost of the services (McCrone et al., 1998; Byford et al., 2001) and number of emergency admissions and visits (Raudino et al., 2014), so it seems to be closely linked to the severity of the disorder, and thus to a greater need for health resources. It therefore seems essential to include it in the list of factors predicting the amount and use of resources.

Some studies have already shown social functioning to be a variable affecting the number of hospital admissions and total time spent in hospital (Oiesvold et al., 2000; Lay et al., 2006). However, these studies are limited by not including other types of mental health resources, such as community resources, which are

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crucial and have significantly increased in the last few years (Pezzimenti et al., 2006; Tansella et al., 2006; Thomas and Rickwood, 2013).

It is important to note that while the studies reviewed have proved very useful in approaching a more comprehensive vision of the problem, most of them are limited by their cross-sectional design, so only descriptive conclusions can be drawn from them (Kilian et al., 2003).

An approach integrating different types of variables is therefore necessary, as well as all kinds of mental health resources, not only hospital admissions but community mental health services.

This study is part of a wider research project on social functioning in patients with severe mental disorders aimed at verifying and explaining the role of social functioning in the use of mental health resources. Our hypothesis is that the score on social functioning is a predictor of the use of mental health resources in the sense that patients with severe mental disorders with worse social functioning will make more use of resources.

The different aspects of social functioning that are the best predictors for each resource are specifically examined.

2. Method

2.1. Subjects

Participants in the study were 172 patients diagnosed with severe mental disorders: schizophrenia (F. 20 according to ICD-10), other psychotic spectrum disorders (F.21–F.29 according to ICD-10) and Type 1 bipolar disorder (F.31 according to ICD-10) who were receiving care at the same Community Mental Health Unit (CMHU), one of the six Virgen del Rocío University Hospital community mental health units in Seville. This unit serves an urban population of 125,493 people. At the time of writing, 217 patients diagnosed with severe mental disorders were being cared for. Criteria for inclusion were a severe mental disorder, age from 18 to 65 and signed informed consent. The criteria for exclusion were any other diagnosis, not within the age limits, any brain damage or mental retardation or not being hospitalized at the time of evaluation.

Finally the reasons to not participate in the study were: 31 of them did not have any relative or the questionnaire was uncompleted, 11 of them were rejected by the doctor responsible and in 6 cases, the family member refused to participate.

The diagnosis was made by the clinical psychologist or psychiatrist responsible for each patient using a clinical interview. All patients diagnosed with these disorders and receiving active treatment at the centre were included in the study.

2.2. Instrument and study measures

2.2.1. The Social Functioning Scale

The Social Functioning Scale (Birchwood et al.,1990) was designed to evaluate the most relevant areas of social functioning so that people with schizophrenia could remain in their community. It is composed of 77 items grouped into seven subscales: Withdrawal/Social engagement, with scores ranging from 0 to 15 on items such as, 'How many hours do you spend alone every day?', Interpersonal Behaviour, with scores ranging from 0 to 9 with items such as, 'How many friends do you currently have?', Prosocial Activities, with scores ranging from 0 to 66 on items such as, 'Going to the cinema', or 'Watching outdoor sports', Recreation, from 0 to 45 with items such as, 'Playing musical instruments' or 'Cooking', Independence – Performance, with scores ranging from 0 to 39 and Independence–Competence, with scores ranging from 13 to 39. Both of the last two scales include the same items, but one is answered on the basis of the patients' ability to carry out various tasks and the other is answered on the basis of the task they actually perform. Finally, Employment/Occupation, with a high score of 10 points, includes items such as 'Do you have a regular job?' Each item score ranges from 0 to 3 depending on the subscale. The assessment method is based on a series of skills or behaviours the individual may have. Higher scores always show better social functioning. For this study, the scale was filled in by patients' families, as this version has been shown to be better adjusted to the real situation of the patient rather than the version answered by the patients themselves, especially for men (Jiménez García-Bóveda et al., 2000). The psychometric properties have been examined both in the English version (Birchwood et al., 1990) and the Spanish version (Vazquez Morejon and Jiménez García-Boveda, 2000), showing results that support the validity and reliability of the scale. Internal reliability scores (Cronbach's alpha) of the Spanish version are good with an alpha of 0.85. Temporary reliability for a 3-month interval is 0.84. This Social Functioning Scale was chosen because it is often used with populations with severe mental disorders, and because of the variety of areas of functioning it overs. Furthermore, the items refer to observable and quantifiable behaviour which makes the results more objective.

2.2.2. Mental health resources use measures

The resource use variables were collected using data available from computerised Andalusian Health Service records. This software records all patients and their Mental Health Service contacts. All mental health services available were included. The following variables were considered:

2.2.2.1. Variables related to outpatient visits: total number of CMHU interventions. The CMHU is a healthcare unit serving as a referral outpatient clinic for the population diagnosed with a mental health disorder by primary attention.

2.2.2.2. Other types of outpatient programmes. Patients may also be referred to other types of outpatient programmes available for patients with severe mental disorders, such as the Mental Health Therapeutic Community (MHTC) or the Mental Health Rehabilitation Unit (MHRU). The MHTC is a unit where patients diagnosed with severe mental disorders and serious functional and social deterioration are admitted for long-term attention to stabilize their psychopathology and improve their adaptation to their environment. The MHRU is a unit where patients with chronic severe mental disorders with long evolution receive intensive social rehabilitation care in an outpatient clinic setting.

2.2.2.3. Hospital admissions during the follow-up period

2.2.2.3.1. Lavik index. A service use index summarizing the total mental health resources patients use during follow-up in a single score (Lavik, 1983): 1 day of admission = 3 points; 1 day in MHTC or one contact in MHRU = 2 points; 1 outpatient contact = 1 point.

2.3. Procedure

After provision of informed consent, the Social Functioning Scale was administered to close relatives of patients diagnosed with schizophrenia, other psychotic disorder or bipolar affective disorder who received care at a Virgen del Rocío University Hospital Community Mental Health Unit in Seville (Spain), as part of a wider social functioning and psychosis research project. Assessments were made for three consecutive years, starting from when the patients joined the centre's psychoeducational groups. Each patient was monitored for the following 12 months after the original assessment, and every contact with the mental health