Available online at www.sciencedirect.com
ScienceDirect
Schizophrenia Research 94 (2007) 119 – 127
SCHIZOPHRENIA RESEARCH
www.elsevier.com/locate/schres

Sexual functioning, psychopathology and quality of life in patients with schizophrenia

Xiaoduo Fan [a,b,*], David C. Henderson [a,b], Elaine Chiang [c], Leah B. Namey Briggs [a], Oliver Freudenreich [a,b], A. Eden Evins [a,b], Corinne Cather [a,b], Donald C. Goff [a,b]

[a] *Schizophrenia Program, Department of Psychiatry, Massachusetts General Hospital, Boston, MA, United States*
[b] *Harvard Medical School, Boston, MA, United States*
[c] *Worcester Academy, Worcester, MA, United States*

Received 24 December 2006; received in revised form 26 April 2007; accepted 30 April 2007
Available online 22 June 2007

Abstract

Objective: The present study was to characterize relationships among sexual functioning, schizophrenia symptoms and quality of life measures. In addition, sexual functioning was compared among patients treated with different antipsychotic agents.
Methods: Outpatient subjects were assessed using the Positive and Negative Symptom Scale (PANSS), the Changes in Sexual Functioning Questionnaire (CSFQ) and the Hamilton Rating Scale for Depression (HAMD). Quality of life was assessed using two different instruments: observer-rated Heinrich's Quality of Life Scale (QLS) and self-rated The Behavior and Symptom Identification Scale (BASIS).
Results: One hundred twenty-four patients with schizophrenia or schizoaffective disorder were enrolled in the study. Eight-six patients (69%) completed at least part of the CSFQ assessment, which generated at least one valid subscale score. High rates of sexual impairment were found in both male and female patients (65%–94% across different subscales). For males, higher scores on the PANSS-positive subscale were associated with a lower frequency of sexual activity ($p=0.04$). For females, higher scores on the PANSS-positive subscale and PANSS-general psychopathology subscale were significantly associated with more difficulty in both sexual arousal and orgasm (p's<0.05). For both males and females, there were no significant relationships between any CSFQ subscale measures and the quality of life measures (p's>0.05). No significant differences were found among three antipsychotic treatment groups (clozapine, olanzapine or typical agents) on any CSFQ subscale measures or quality of life measures after controlling for PANSS total scores (p's>0.05).
Conclusions: Effective treatment strategies still need to be developed to address sexual dysfunction and quality of life in patients with schizophrenia.

Keywords: Schizophrenia; Sexual functioning; Quality of life

1. Introduction

Sexuality is an important part of human life. However, for those suffering from severe mental illnesses such as schizophrenia, sexual functioning has received little

* Corresponding author. Freedom Trail Clinic, 25 Staniford Street, Boston, MA 02114, United States. Tel.: +1 617 912 7800; fax: +1 617 723 3919.
E-mail address: xfan@partners.org (X. Fan).

0920-9964/$ - see front matter © 2007 Elsevier B.V. All rights reserved.
doi:10.1016/j.schres.2007.04.033

attention in both clinical care and research (Kelly and Conley, 2004). Patients with schizophrenia may feel uncomfortable raising the subject because of cultural barriers or due to mistrust of clinicians. Clinicians may be reluctant to discuss sexual concerns with patients because of the fear that bringing up sexual issues might exacerbate symptoms of schizophrenia or slow recovery (Pinderhughes et al., 1972). In addition, some clinicians may view sexual complaints as relatively minor when addressing symptoms associated with severe mental illness (Dossenbach et al., 2005). From a research perspective, studying sexual dysfunction in patients with schizophrenia is methodologically complex. Sexual functioning may involve one or more areas of the sexual response cycle: sexual interest (libido), arousal (vaginal lubrication or erectile function), or orgasm (Gitlin, 1994). Each of these three areas can be affected by the illness or by medication. For some patients, antipsychotic treatment may improve sexual functioning secondary to the improvement of psychiatric symptoms; for other patients, antipsychotic treatment may cause a worsening of sexual functioning even if the agent is effective in treating their psychiatric illness.

Limited existing data suggest that sexual dysfunction is common in patients with schizophrenia. In a sample of 55 outpatients with schizophrenia treated with conventional antipsychotic agents, Ghadirian et al. (1982) reported sexual dysfunction in 54% of males and 30% of females. Sullivan et al. estimated 30–60% patients with schizophrenia had sexual dysfunction (Sullivan and Lukoff, 1990). In a study (Aizenberg et al., 1995) that included 20 drug-free male schizophrenia patients, 51 antipsychotic-treated male schizophrenia patients and 51 healthy controls, a high frequency of sexual dysfunction was reported in both patient groups. Impairments in arousal (erection) and orgasm were reported mainly in treated patients. However, reduction in the frequency of sexual thoughts was reported mainly in untreated patients. A more recent study using a self-completed gender-specific questionnaire found sexual dysfunction in 82% of men and 96% of women with schizophrenia (Macdonald et al., 2003).

Quality of life and level of functioning have become increasingly important concepts when assessing treatment outcome for patients with schizophrenia (Malla et al., 2006). It is generally agreed that sexual functioning and satisfaction should be an essential part of quality of life (Mallis et al., 2006). One recent study found that sexual dysfunction in male patients with schizophrenia was associated with diminished quality of life, decreased occurrence of romantic relationships, and reduced intimacy when relationships are established (Olfson et al., 2005).

The purpose of our study was to examine the prevalence of sexual dysfunction in an urban community outpatient sample with schizophrenia, also to characterize the associations between various aspects of sexual functioning and schizophrenia symptoms as well as quality of life measures. In addition, sexual functioning was compared among those patients on clozapine, olanzapine or typical antipsychotic agents.

2. Methods

2.1. Subjects

The study was part of a cross-sectional study evaluating psychopathology and quality of life in patients with schizophrenia. Potential subjects were referred to the study by their primary clinicians in the clinic, and were told that the sexual functioning assessment was optional as part of a comprehensive assessment battery. The study was conducted at an urban community mental health outpatient center. The patient population consists largely of patients with low socioeconomic status and chronic mental illnesses. Diagnosis of schizophrenia or schizoaffective disorder was confirmed by a research psychiatrist using the Structured Clinical Interview for DSM-IV (SCID) (Spitzer et al., 1992). The study was approved by the local institutional review board. Written informed consent was obtained from all participants.

2.2. Measures

Clinical symptoms were assessed using the Positive and Negative Symptom Scale (PANSS), which includes Positive Symptom, Negative Symptom, and General Psychopathology subscales (Kay et al., 1987, 1989). The Hamilton Rating Scale for Depression (HAMD) (Hamilton, 1960), which is a 24-item observer-rated scale, was used to assess depressive symptoms. HAMD is one of the most widely used instruments for the clinical assessment of depressive states and is often used in studies involving patients with schizophrenia.

Sexual functioning was assessed using the Changes in Sexual Functioning Questionnaire (CSFQ). The CSFQ is a validated clinical interview based instrument designed to measure global sexual dysfunction as well as dysfunction associated with each phase of the sexual response cycle (Clayton et al., 1997a). The CSFQ comprises 36 items for men and 35 items for women with the first 21 items applying to both men and women. The subject is asked to rate his or her current functioning level on a 5-point Likert scale. The CSFQ provides subscales, which correspond to the phases of the sexual response cycle and can be scored