Patients with OCD report lower quality of life after controlling for expert-rated symptoms of depression and anxiety

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ABSTRACT

Background: One to three percent of the adult population suffers from obsessive-compulsive disorders (OCD). Previous studies have also shown that, compared to controls, patients with OCD report a lower QoL. The latter is associated with self-rated symptoms of depression and anxiety. The aim of the present study was to compare the quality of life of OCD patients with that of healthy controls, while introducing expert-rated symptoms of depression and anxiety as covariates. Gender was also taken into account as an additional associated factor.

Method: A total of 100 patients diagnosed with OCD (mean age: 32 years; 64% females) and healthy 100 controls (mean age: 31 years; 59% females; no discernible psychiatric disorder) took part in the present cross-sectional study. All participants completed questionnaires covering socio-demographic characteristics and dimensions of QoL. Experts rated participants' symptoms of OCD (Yale-Brown Obsessive-Compulsive Scale), anxiety (Hamilton Anxiety Rating Scale) and depression (Hamilton Depression Rating Scale).

Results: Compared to healthy controls, patients with OCD reported a lower QoL, and had higher symptoms of depression and anxiety. This pattern was particularly pronounced among female patients with OCD. QoL was lower in patients with OCD, even when controlling for depression and anxiety. Results from binary logistic regressions showed that female gender, low QoL and higher symptoms of OCD, depression and anxiety together predicted status as patient with OCD.

Conclusions: Compared to healthy controls, patients with OCD have a poorer quality of life and this is independent of depression or anxiety, and is particularly pronounced among female patients. Thus, treatment of OCD might take into account patients' comorbidities and gender.

1. Introduction

Worldwide, prevalence rates for obsessive-compulsive disorders (OCD) range from 1% to 3% (Hirschtritt et al., 2017; Ruscio et al., 2010). Typically, patients with OCD may report time-consuming, distressing and impairing persistent intrusive thoughts (obsessions), repetitive and ritualistic behaviors (compulsions), excessive anxiety, poor insight, and strong avoidance behavior, but such individual differences are also found in everyday life (Hirschtritt et al., 2017; Ruscio et al., 2010). The differences in symptoms concern the intensity, frequency and duration of anxiety and avoidance, along with degree of insight

into the disease (American Psychiatric Association, 2013). Furthermore, compared to previous editions, the DSM 5 no longer defines OCD as an anxiety disorder, but classes it as a disease in itself, while the overlap between OCD and comorbid tics and hording are emphasized (Hirschtritt et al., 2017). Dramatically, patients with OCD have a higher number of disability adjusted life-years (DALYs; the number of years lost to disability) than both to those who are healthy and patients with, for example, multiple sclerosis or Parkinson's Disease (Hirschtritt et al., 2017).

It is possible that the higher number of DALYs may be associated with a lower quality of life (QoL). Koran et al.'s seminal works on QoL

among patients with OCD (Koran, 2000; Koran et al., 1996) investigated and reported that suffering from OCD was related to a dramatically decreased QoL. Likewise, Hollander (1996) reported that, compared to healthy people, patients with OCD were at increased risk of a poor quality of life, impoverished social interaction, and loss of employment. Hollander et al. (2010) employed the SF-36 (Ware and Sherbourne, 1992), a self-rating questionnaire to assess dimensions of quality of life such as limitations in physical activities because of health problems, limitations in social activities because of physical or emotional problems, bodily pain, general mental health (psychological distress and well-being), limitations in routine role activities because of emotional problems, and general health perceptions (see below for detailed descriptions). Hollander et al. (2010) compared the QoL outcomes of 921 OCD patients with normative data for the healthy population and showed that, compared to the normative data, patients with OCD had significantly lower scores. Similar patterns of results were reported by Schwartzman et al. (2017), Fontenelle et al. (2010) and Eisen et al. (2006). Additionally, both Fontenelle et al. (2010) and Eisen et al. (2006) reported that self-rated symptoms of depression and anxiety were strongly associated with patients' quality of life. Kugler et al. (2013) took the important step of introducing self-reported symptoms of depression as mediator and showed that these symptoms mediated the association between poor QoL and OCD symptom severity. We took this observation into account in the decision to assess symptoms of depression and anxiety. To minimize a rating bias, symptoms of depression and anxiety were assessed by experts, and we introduced these symptoms as possible confounders.

Last, systematic reviews and meta-analyses have been carried out on the QoL indices of pediatric (Coluccia et al., 2017) and adult patients diagnosed with OCD (Macy et al., 2013) and of healthy controls (Coluccia et al., 2016). The reviews concluded that both pediatric and adult patients with OCD scored lower on QoL indices than healthy controls. Importantly, Coluccia et al. (2016) also found that female patients had lower QoL indices than male patients. We took this observation into account, introducing gender as an additional factor in the present study. The introduction of this factor also seemed warranted given that Mathis et al. (2011) have reported gender-specific differences in OCD-related patterns. Thus, compared to female patients with OCD, male patients were more frequently single, their disease onset was earlier in life, and the course of disease was longer, and associated with greater impairments in social life. Additionally, the content of obsessive thoughts was characterized more by religious, sexual and aggressive themes. In contrast, female patients reported more symptoms of contamination and cleaning, along with higher rates of comorbid eating and impulse-control disorders. However, we also note that Mathis et al. (2011) did not comment on possible gender differences as regards QoL.

Finally, all of the studies of the QoL of patients with OCD have been performed in Western countries. A further aim of the present study was therefore to assess QoL among patients with OCD in Iran.

Overall, there is evidence that, compared to healthy controls, patients with OCD have a poorer QoL. In the present study, we expanded on previous work, in that 1) we minimized patients' rater bias and assessed symptoms of depression and anxiety by experts' ratings, and 2) we included these symptoms of depression and anxiety as possible confounders. In addition, 3) gender was introduced as a factor, as there is currently little research on gender-related differences in QoL in patients with OCD.

Three hypotheses and one research question were formulated. First, following others (Coluccia et al., 2016; Fontenelle et al., 2010; Hollander et al., 2010; Koran, 2000; Koran et al., 1996; Macy et al., 2013), we anticipated that patients with OCD would have lower scores for QoL and higher scores for depression and anxiety than healthy controls. Second, following Coluccia et al. (2016) we expected that female patients with OCD would have lower scores for QoL and higher scores for depression and anxiety than male patients. Third, following Eisen et al. (2006) and Kugler et al. (2013), we expected that

differences in QoL scores between patients with OCD and controls would disappear when controlling for depression and anxiety. With the research question, we explored to what extent dimensions of QoL, gender, anxiety and depression could predict status whether or not a patient with respect to OCD.

2. Methods

2.1. Procedure

Outpatients diagnosed with OCD from the Farshchian Psychiatric Hospital in Hamadan (Iran) and healthy controls drawn from the hospital and university staff were approached to participate in the present cross-sectional and questionnaire-based study. All eligible participants were informed about the study aims and the anonymous data handling. Next, all participants gave their written informed consent and completed a booklet of questionnaires covering socio-demographic and illness-related information, and quality of life (SF-36; see below). Experts rated participants' symptoms of obsessive-compulsive disorders, anxiety, and depression (see details below). The entire study lasted from April 2016 to June 2017; it was approved by the Review Board of the Hamadan University of Medical Sciences (Hamadan, Iran) and was executed in accordance with the rules laid down in the Declaration of Helsinki.

2.2. Samples

2.2.1. Patients diagnosed with obsessive-compulsive disorders

A total of 258 patients with OCD were approached and assessed against inclusion and exclusion criteria (see inclusion and exclusion criteria below). Inclusion criteria were as follows: (1) diagnosis by a psychiatrist of current OCD according to the DSM 5 (American Psychiatric Association, 2013); (2) Yale–Brown Obsessive Compulsive Scale (Y-BOCS; Goodman et al., 1989) score of 15 points or higher (see below); (3) no comorbid psychiatric disorders, except for diagnosis of a mild to moderate major depressive disorder, and no substance use disorder (SUD) of tobacco or cannabis or benzodiazepines; (4) no neurological, or other somatic disorders, as ascertained from patients' reports and their medical records; (5) age between 18 and 65 years; (5) willing and able to participating in the study, and (6) written informed consent (see also Table 1).

Exclusion criteria were: (1) acute psychosis and (2) acute suicidality (3) severe MDD and severe SUD of opioids, amphetamines/methamphetamines. The nature of the current treatment regimen (psycho-pharmacological treatment, psychotherapy, neuromodulation; combinations of such treatments) was not an exclusion criterion.

2.2.2. Healthy controls

Healthy controls were recruited by advertisements on the homepage of the hospital and the University of Hamadan, and by word-of-mouth; during weekly staff meetings, staff members from different wards and departments of the university were encouraged to participate in the study and to ask and encourage other staff members to take part. Inclusion criteria were as follows: (1) age between 18 and 65 years; (2) no psychiatric disorders, as ascertained by a thorough neuropsychiatric interview (Sheehan et al., 1998) conducted by trained psychiatrists and clinical psychologists; (3) no somatic illnesses, as ascertained by a thorough medical interview; (4) written informed consent.

2.3. Tools

2.3.1. Socio-demographic and illness-related information

Participants completed a questionnaire covering socio-demographic information including age, gender, civil status, highest level of education completed, and current employment status. Patients additionally provided illness-related information: duration of illness (years), current