Psychiatry Research 249 (2017) 307–310

Contents lists available at ScienceDirect

Psychiatry Research

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

Short communication

Symptom subtype and quality of life in obsessive-compulsive disorder

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ARTICLE INFO

Keywords:
Functioning
Severity
Impairment

ABSTRACT

Quality of life (QoL) is significantly impaired in OCD across several facets of life, such as social, occupational, and family functioning, subjective sense of well-being, and enjoyment of leisure activities. The present study examined the relationship between 5 symptom subtypes of OCD (contamination, symmetry, hoarding, overresponsibility for harm, and taboo) and QoL. Participants were 325 adults with OCD enrolled in the Brown Longitudinal Obsessive Compulsive Study. Hierarchical linear regression analyses indicated hoarding, contamination, symmetry, and overresponsibility for harm were associated with impairment in household functioning, enjoyment of leisure activities, social relationships, and physical health. The implications of these findings are discussed.

1. Introduction

Previous studies have demonstrated significant quality of life (QoL) impairment in obsessive-compulsive disorder (OCD) (Eisen et al., 2006; Hou et al., 2010; Kugler et al., 2013; Norberg et al., 2008; Stengler-Wenzke et al., 2006). This impairment spans several domains, including social, occupational, and family functioning, sense of well-being, and ability to enjoy leisure activities (Kugler et al., 2013; Quilty et al., 2003; Rodriguez-Salgado et al., 2006). Additionally, OCD patients consistently exhibit lower QoL in contrast to healthy and community populations, and equivalent or worse QoL compared to other psychiatric populations (Bobes et al., 2001; Bystritsky et al., 2001; Didie et al., 2007; Eisen et al., 2006; Huppert et al., 2009; Stengler-Wenzke et al., 2006).

Although research consistently highlights poor QoL in individuals with OCD, only a few studies have examined the relationship between specific OC symptom dimensions and domains of QoL. For example, Albert et al. (2010) examined health-related QoL in OCD patients and found that only 2 of the 5 symptom dimensions identified—contamination/washing, and symmetry/repeating/ordering and arranging—significantly correlated with physical and mental health components of QoL respectively on the Medical Outcomes Study 36-Item Short-Form Health Survey (SF-36; Ware and Sherbourne, 1992). Contamination/washing was the only symptom dimension that predicted health-related QoL when factors like depression and OCD severity were also considered (Albert et al., 2010). Huppert et al. (2009) found significant associations between some OCD subtypes (e.g., washing, hoarding, and obsessing), and QoL but not others (e.g., checking, ordering, and neutralizing) with depression accounting for much of the relationship between specific symptom domains and functioning. Similarly, Fontenelle et al. (2010) found that although hoarding and washing symptoms adversely impacted social functioning and physical health limitation domains, depression severity was a more robust predictor of QoL impairment on the SF-36 than OC symptom dimensions.

Although prior investigations suggest that the relationship between OC symptom dimensions and QoL domains may be largely accounted for by depression or OCD severity, they are limited by small sample sizes and have largely focused on one measure of QoL (e.g., SF-36). Therefore, the aim of the present study was to further investigate the relationship between 5 OCD symptom subtypes —contamination (contamination obsessions and cleaning compulsions), symmetry (obsessions of symmetry and repeating, counting, and ordering/arranging compulsions), hoarding (hoarding obsessions and compulsions), overresponsibility for harm (pathological doubt, somatic obsessions, and checking compulsions), and taboo (aggressive, sexual, and religious obsessions)—and 8 domains of QoL, above and beyond OCD and depression severity, in a large, clinical sample of treatment-seeking individuals with OCD.

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http://dx.doi.org/10.1016/j.psychres.2017.01.025
Received 11 February 2016; Received in revised form 31 October 2016; Accepted 6 January 2017
Available online 20 January 2017

2. Method

2.1. Participants

Participants were 325 treatment-seeking patients with primary OCD enrolled in the Brown Longitudinal Obsessive Compulsive Study (BLOCS; see Pinto et al., 2006 for a detailed description of study procedures). Briefly, individuals were included if they were age 19 or older, had a primary *DSM-IV* (American Psychiatric Association, 2000) diagnosis of OCD (defined as the disorder participants considered their biggest problem overall across their lifetime), and were treatment-seeking for OCD within the past 5 years. The only exclusion criterion was evidence of an organic mental disorder or other condition that would prevent participants from providing informed consent. Recruitment was from several psychiatric treatment settings in the Rhode Island/Southeastern Massachusetts area. The local Institutional Review Boards approved the study. Mean age at intake was 40.12 (*SD* =12.79). The sample was 98% white and 55% female.

2.2. Measures

Yale-Brown Obsessive Compulsive Scale and Symptom Checklist (Y-BOCS; Goodman et al., 1989b*)* were administered to assess severity of OCD symptoms and presence of specific obsessions and compulsions, respectively. The Y-BOCS has well-established reliability and validity (Goodman et al., 1989a, 1989b).

Modified Hamilton Rating Scale for Depression (MHRSD; Hamilton, 1960*)* was administered as a measurement of depressive symptoms and severity. The MHRSD has specific probes and anchors and has been shown to have good validity in comparison to the original HRSD and the Beck Depression Inventory (Miller et al., 1985).

Quality of Life Enjoyment and Satisfaction Questionnaire (QLESQ; Endicott et al., 1993*)*. The QLESQ is a 91-item self-report instrument with demonstrated reliability and validity, and provides a General Activities score of overall satisfaction, as well 7 domain scores: Physical Health, Emotional Well-being, Household Duties, Leisure Time Activities, Social Relations, Work, and School. Higher scores indicate greater QoL.

2.3. Data analysis

Five symptom subtypes (symmetry/ordering, hoarding, overresponsibility for harm, contamination, taboo) were derived using a principal components analysis, reported elsewhere (see Pinto et al., 2007). Relations between the predictor variables were examined using Pearson correlations (see Supplementary Table). Hierarchical linear regressions were used to compare the extent to which the OCD symptom subtypes predicted QoL domains after controlling for OCD and depression severity. OCD and depression severity were entered into the first step, with symptom subtypes added into the second step. All assumptions underlying regression were met.

3. Results

Participants reported a moderate level of OCD symptoms (*M* =20.3, *SD* =8.43) and a mild level of depression (*M*=10.42, *SD* =9.06). Mean ratings of QoL on the QLESQ were as follows: General Activities (*M* =60.90, *SD* =18.05), Physical Health (*M* =55.78, *SD* =20.16), Emotional Well-being (*M* =58.52, *SD* =20.10), Household Duties (*M* =60.65, *SD* =23.14), Leisure Activities (*M* =60.36, *SD* =19.48), Social Relations (*M* =62.45, *SD* =19.46), School (*M* =38.76, *SD* =35.36), and Work (*M* =53.74, *SD* =34.61) A series of hierarchical multiple linear regressions were conducted to investigate the association between symptom subtypes and QoL after controlling for OCD and depression severity. Hoarding (β=−0.24, $p < 0.001$) was the only symptom subtype significantly associated with household-related QoL above and beyond OCD and depression severity, F (7, 271) =9.34, $p < 0.001$. Contamination (β=−0.21, $p < 0.001$) was the only symptom subtype significantly associated with enjoyment and satisfaction in leisure activities, F (7, 280) =12.85, $p < 0.001$. Symmetry (β=−0.16, p=.004) and contamination (β=−0.12, $p < 0.05$) were significantly associated with social QoL, F (7, 283) =15.49, $p < 0.001$, whereas overresponsibility for harm (β=−11, $p < 0.05$), and contamination (β=−0.18, $p <$ 0.001) were significantly associated with health-related QoL, F (7, 282) =18.57, $p < 0.001$. Symptom subtypes were not significantly associated with work, school, or well-being QoL domains above and beyond

Table 1
Hierarchical regression analyses predicting QoL domains after controlling for OCD and depression severity.

QoL: Social					
Variable	*B*	SEB	β	R^2	ΔR^2
Step 1				0.238	
OCD severity	−0.446	0.135	−0.193***		
Depression severity	−0.787	0.126	−0.336***		
Step 2				0.277	0.039*
OCD severity	−0.157	0.153	−0.068		
Depression severity	−0.724	0.127	−0.336***		
Symmetry	−2.434	0.851	−0.164**		
Hoarding	−1.287	1.183	−0.058		
Doubt	−0.473	1.847	−0.014		
Contamination	−4.413	2.086	−0.120		
Taboo	−0.313	1.964	−0.008		
QoL Leisure					
Variable	*B*	SEB	β	R^2	ΔR^2
Step 1				0.201	
OCD severity	−0.400	0.137	−0.176**		
Depression severity	−0.724	0.129	−0.337***		
Step 2				0.243	0.043**
OCD severity	−0.157	0.156	−0.069		
Depression severity	−0.753	0.130	−0.350***		
Symmetry	−1.348	0.870	−0.091		
Hoarding	0.381	1.204	0.017		
Doubt	1.966	1.889	0.060		
Contamination	−7.590	2.107	−0.210***		
Taboo	1.380	1.992	0.038		
QoL: Household					
Variable	*B*	SEB	β	R^2	ΔR^2
Step 1				0.127	
OCD severity	−0.605	0.173	−0.224**		
Depression severity	−0.491	0.166	−0.189**		
Step 2				0.194	0.068**
OCD severity	−0.382	0.193	−0.141		
Depression severity	−0.382	0.166	−0.147		
Symmetry	−0.431	1.089	−0.024		
Hoarding	−6.146	1.503	−0.238***		
Doubt	3.327	2.358	0.085		
Contamination	−4.345	2.628	−0.101		
Taboo	−3.298	2.505	−0.075		
QoL Physical Health					
Variable	*B*	SEB	β	R^2	ΔR^2
Step 1				0.256	
OCD severity	−0.297	0.137	−0.126		
Depression severity	−0.964	0.129	−0.433***		
Step 2				0.316	0.060***
OCD severity	0.026	0.154	0.011		
Depression severity	−0.908	0.129	−0.408***		
Symmetry	−0.916	0.854	−0.060		
Hoarding	−2.243	1.184	−0.099		
Doubt	−3.762	1.862	−0.109		
Contamination	−6.826	2.088	−0.181**		
Taboo	1.658	1.974	0.043		

Note: QoL = Quality of Life
* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$