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Psychopharmacological Treatment and Quality of Life in Obsessive Compulsive Disorder

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Abstract

Objective: *Obsessive-compulsive disorder (OCD) is an illness that influences considerably familial, academic, occupational, and social functioning of patients. In this study, we aimed to investigate the impact of psychopharmacological treatment on quality of life in patients with OCD.*

Method: *Using the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), Hamilton Depression Rating Scale (HDRS), and the World Health Organization Quality of Life Measurement Instrument, Short Form, Turkish Version (WHOQOL-Bref TR), we assessed 53 patients that met the DSM-IV criteria for OCD to establish baseline values. The patients were consecutively assigned to receive sertraline (100-200 mg/day), fluvoxamine (200-300 mg/day), or paroxetine (40-80 mg/day). We reassessed 36 (68%) of the initial group after 12 weeks.*

Results: *The scores for obsession, compulsion and depression severity at follow-up were significantly lower than the baseline scores. There was no significant difference between the pre- and post-treatment quality of life domain scores. While psychological health scores at follow-up were significantly associated with baseline HDRS scores ($r= –0.35$, $P< 0.05$), social relationship scores at follow-up were significantly associated with baseline social relationship scores ($r= 0.63$, $P< 0.001$) and compulsion scores ($r= –0.37$, $P< 0.05$). Regression analyses revealed that social relationship score at follow-up was associated with baseline compulsion severity, whereas other follow-up quality of life domain scores were not predicted by any baseline variable.*

Conclusions: *Clinical viewpoint and objective evaluations should be essential in the evaluation of treatment outcome, and quality of life studies may be important complement to clinical researches.*

Key Words: *Obsessive-compulsive disorder, psychopharmacology, selective serotonin reuptake inhibitors, quality of life, psychological health, treatment*

INTRODUCTION

For many years, morbidity, mortality, and survival assessments have been used to assess well-being or to measure health (Eser et al., 1999a). These terms refer to the objectively detected effects of physiological or mental illness, or dysfunction on an individual (Suser, 1990). Paralleling this approach, in most studies investigating therapy response rates in mental disorders and the factors related to response, the variables of interest have also been evaluated quantitatively (Gill and Feistein, 1994). In recent years it has been revealed that this approach is not adequate for the evaluation and measurement of well-being, and in response, the subjective evaluation of the patient, in terms of the negative effects of a physiological or mental pathology, and patient's insight have gained more importance (Lehman et al., 1983). Therefore, efforts to measure well-being and quality of life have increased, and various aspects of health, such as socio-economic factors, social relationships, have also been included in the evaluation (WHOQOL Group 1994; Eser et al., 1999; World Health Organization 1997).

Obsessive-compulsive disorder (OCD), which includes cognitive, emotional, and behavioral components, is a debilitating chronic disease that affects a patient's familial, occupational, and social functionality (Hollander et al., 1998). It is the fourth most common of the psychiatric disorders, after phobias, substance use, and affective disorders (Karno et al., 1988). In research conducted in Turkey, its lifetime prevalence was reported to be 2.5%-6.2% and its 12-month prevalence 0.5%-5.6% (Doğan et al., 1995; Erol et al., 1997; Kırpınar et al., 1997; Çilli et al., 2004).

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Although in recent years important developments in the pharmacological treatment of OCD have been achieved, 40%-60% of patients do not show adequate response to treatment (McDonough and Kennedy, 2002). Although the frequency of OCD in the general population is high and the disorder causes significant loss of functioning, many cases have received inadequate treatment, and hence economic and social burden of disorder increases. According to World Health Organization (WHO) data, OCD is tenth in the general classification among the physical and mental diseases that have a negative effect on functionality, and it places fifth place among women between the ages of 15 and 44 years (World Health Organization, 1999). Based on this perspective, the relationship between OCD and quality of life has begun to attract more attention in recent years. In cross sectional studies about quality of life in OCD, it has been reported that psychological health, social relationships, and the level of independence are the most affected domains (Koran et al., 1996; Bobes et al., 2001). Bobes et al. (2001) reported that the functionality of OCD patients and schizophrenia patients are affected in a similar degree, whereas Stengler-Wenzke et al. (2006) reported that the negative effects on psychological health and social relationships were worse in OCD patients than for the patients with schizophrenia.

Data about quality of life in OCD is thought to have the potential to increase our understanding of the disorder's nature, improve the doctor-patient relationship, identify appropriate treatment options, and aid in monitoring and comparing treatment methods. Research about the effect of treatment on quality of life in OCD patients is lacking, and no such studies have been conducted in Turkey; therefore, the aim of the present study was to investigate the effect of treatment on quality of life in OCD patients that sought psychiatric treatment for the first time. Furthermore, the relationship between post-treatment quality of life and the pre-treatment variables expected to be associated with post-treatment quality of life were investigated.

METHODS

The study sample consisted of 53 consecutive adult OCD patients that presented to the outpatient clinic of Selçuk University Hospital (13 male [25%]; 40 female [75%]; mean age: 32.7 ± 12.2 years). The inclusion criteria were as follows: a) OCD diagnosis based on DSM-IV criteria, b) no history of head trauma, neurological disorder, or mental retardation, c) not diagnosed with schizophrenia, any psychotic disorder, or substance dependence or abuse, d) not diagnosed with a chronic disease that might significantly affect quality of life (cancer, renal insufficiency, diabetes mellitus, ischemic heart disease, cardiac insufficiency, epilepsy, asthma, etc.), e) aged between 18 and 60 years, f) literate, g) not pregnant or nursing an infant, h) seeking psychiatric treatment for the first time and not having received any psychotropic drugs during the previous 2 months (administered by a non-psychiatrist physician).

Materials

Structured Clinical Interview for DSM-IV (SCID-I)

SCID-I is a semi-structured clinical interview tool designed to screen for DSM-IV Axis-I disorders (First et al., 1997). It allows the evaluation of such variables as duration of disorder, family history, and the presence of physical diseases. The Turkish adaptation and reliability of SCID-I were studied by Çorapçıoğlu et al. (1999).

Yale-Brown Obsession Compulsion Scale (Y-BOCS)

Y-BOCS was developed by Goodman et al. (1989) to evaluate the type and severity of obsessive-compulsive symptoms. The scale is administered by an interviewer and is composed of 19 items, but only the first 10 items (except for item 1b and 6b) are used to calculate the total score. The score for each item ranges between 0 and 4. The scale also has a Symptom Check List for the evaluation of symptom distribution. Patient insight is assessed by item 11. The Turkish adaptation, and validity and reliability studies were conducted by Karamustafalıoğlu et al. (1993) and Tek et al. (1995), respectively.

Hamilton Depression Rating Scale (HDRS)

HDRS was developed by Hamilton (1960) to evaluate the severity of depressive symptoms and was subsequently given a structured format by Williams (1978). In the present study its 17-item form was used. Question scores range from 0 to 4 and it is administered by an interviewer. Its validity and reliability studies for the Turkish population were carried out by Akdemir et al. (1996).

WHO Quality of Life Measurement Instrument, Short Form, Turkish Version (WHOQOL-BREF TR)

WHOQOL-BREF-TR is an assessment tool that was initially developed by WHO, with the contribution of 15 centers from various countries, for the subjective evaluation of quality of life (WHOQOL Group, 1994).

Table I. Some sociodemographic and clinical characteristics of the study sample.

	n = 36
Gender n (%)	
Female	28 (77.8)
Male	8 (22.2)
Marital Status n (%)	
Single	13 (36.1)
Married	21 (58.3)
Divorced-widow	2 (5.6)
Education n (%)	
Primary school	18 (50.0)
Middle school	11 (30.6)
University	7 (19.4)
Age, Average ± SD	31.6 ± 11.3
Age of onset, Average ± SD	23.2 ± 9.5
Duration of disorder (years), Average ± SD	8.4 ± 9.9
Axis-I Comorbidity, n (%)	23 (63.8)
Major depression	15 (41.6)
Bipolar disorder	1 (2.7)
Dysthymic disorder	5 (13.8)
Panic disorder	5 (13.8)
General anxiety disorder	8 (22.2)
Social phobia	6 (16.7)
Simple phobia	8 (22.2)
Post traumatic stress disorder	4 (11.1)
Body dysmorphic disorder	2 (5.5)

It is composed of 26 questions in 4 domains (World Health Organization, 1997). The 4 domains are physical health, psychological health, social relationships, and environment. It measures how a person perceives and the symptoms of physical or mental diseases and what kinds of interactions there are between the disease, physical activity, and environment. The questions measure the severity and frequency of the patient's experiences and interpretation about those experiences. The physical domain consists of questions about daily activities, dependence on medication and treatment, energy and exhaustion, mobility, pain and discomfort, sleep and rest, and capacity to work. The psychological domain consists of questions about positive and negative feelings, self-esteem, body image and external image, personal beliefs, and attention. The social relationships domain consists of questions about relationships with others, social support, and sex life. The environmental domain of the scale consists of questions about the home environment, physical security and safety, financial resources, availability of health services, leisure activities, physical environment, and transportation. The domain scores can be calculated separately between 4 and 20 or between 0 and 100 (WHOQOL Group 1998). There is no total score for the scale. In this study the score range of 4-20 was used. The validity and reliability of the Turkish form was studied by Eser et al. (1999 a,b).

Procedure and Statistical Analysis

Initially, all the patients were evaluated for OCD and any other DSM-IV Axis-I disorder with SCID-I, YBOCS, WHOQOL-BREF TR, and HDRS. In all, 2 patients were excluded from the study due to concomitant severe physical disease (one of them had epilepsy and the other one had chronic renal insufficiency), 2 patients were excluded due to a concomitant psychotic disorder diagnosis (one of them suffered from brief psychotic disorder and the other suffered from schizophreniform disorder), 1 patient was excluded due to illiteracy, and 1 patient was excluded because he declined to participate. All of the patients that agreed to participate in the study and provided written consent were administered sertraline 100-200 mg/day, fluvoxamine 200-300 mg/day, or paroxetine 40-80 mg/day, according to their sequence of referral. None of the patients received any other supplementary treatment or structured psychotherapy. We re-assessed 68% of the patients (n= 36) 12 weeks later and 4 were excluded from the study due to drug side effects, 3 were excluded due to irregular use of medication, 6 were excluded because they didn't come to their follow-up appointments, and 4 were excluded because it was not possible to obtain their quality of life data during the course of the study. Of all the patients that completed the study, 31% with paroxetine (n= 11), 31% with fluvoxamine (n= 11), and 38% with sertraline (n = 14). During re-assessment the patients were administered YBOCS, WHOQOL-BREF TR, and HDRS. All of the evaluations, both baseline and follow-up, were administered by a psychiatrist with 5 years of experience. In order to evaluate the difference between pre- and

Table II. Comparison of pre- and post-treatment measurements.

	Pre-treatment (Mean ± SD)	Post-treatment (Mean ± SD)	Statistical analyses
YBOCS Obsession	13.0 ± 3.0	8.7 ± 3.7	t = 7.2, P < 0.001
YBOCS Compulsion	13.5 ± 2.9	8.6 ± 5.0	t = 7.6, P < 0.001
YBOCS Total	26.2 ± 5.0	17.2 ± 8.3	t = 8.7, P < 0.001
HDRS	11.1 ± 6.7	5.9 ± 5.0	t = 8.9, P < 0.001
Physical Health	12.5 ± 2.7	12.2 ± 3.8	t = 0.3, P > 0.05
Psychological Health	11.2 ± 2.5	10.6 ± 3.6	t = 0.8, P > 0.05
Social Relationships	11.6 ± 3.0	11.3 ± 4.0	t = 0.4, P > 0.05
Environment	12.5 ± 1.9	13.1 ± 2.9	t = –1.2, P > 0.05

YBOCS: Yale-Brown Obsession Compulsion Scale, HDRS: Hamilton Depression Rating Scale.

post-treatment conditions, t-test in dependent groups was applied. The relationship between post-treatment quality of life and pre-treatment variables were investigated, first with two-way Pearson's correlation analysis and then with multiple regression analysis (standard method). Taking into consideration the fact that some of the variables to be included in the regression analysis would be unaffected by treatment (e.g. gender, duration of disease), in choosing the variables to be included in the analysis a significant relationship between the pre-treatment and post-treatment conditions in correlation analyses was not required. Within this context, regression analysis was performed in which variables, such as duration of disease, gender, pre-treatment YBOCS total score, HDRS score, insight score, and presence of any other axis-I diagnosis, which were expected to be correlated with post-treatment quality of life, were taken as independent variables and the post-treatment quality of life domain score was taken as a dependent variable. In these analyses categorical variables were coded as dummy variables and included in the analyses.

RESULTS

The sociodemographic characteristics and some clinical variables of the sample are shown in Table I. Of the 36 patients that completed the study, 8 were male (22%), 28 were female (78%), and the average age was 31.6 ± 11.3 years. In all, 23 patients (63.8%) had a concomitant axis-I disorder at the time of initial evaluation.

Pre- and post-treatment YBOCS obsession, compulsion, and total scores, HDRS score, and WHOQOL-BREF TR domain scores, and the comparative statistics between the 2 measurements (pre- and post-treatment) are shown in Table II. Post-treatment YBOCS obsession, compulsion, and total scores, and HDRS score were significantly lower than pre-treatment scores. None of the quality of life domains were significantly different between the pre- and post-treatment.

Although there were no differences between the pre- and post-treatment assessments in terms of quality of life, in keeping with the study design, the relationship between the level of post-treatment quality of life and the pre-treatment variables were investigated. Correlation coefficients between the post-treatment quality of life domain scores and pre-treatment variables are presented in Table III. The results showed a significant negative correlation was found between physical health and HDRS score (r= –0.35, P< 0.05). There was a significant positive correlation between the pre- and post-treatment social relationship scores (r= 0.63, P< 0.001), whereas there was a negative correlation between post-treatment social relationship score and initial compulsion score (r= –0.37, P< 0.05). The other correlations were not significant. Gender, duration of disorder, severity of obsessions and compulsions, level of insight, severity of depressive symptoms, and the presence of a comorbid diagnosis were included in multiple regression analysis as independent variables, and post-treatment quality of life domain scores were included in multiple regression analysis as dependent variables. Results showed that only the pre-treatment social relationship score was significantly correlated with pre-treatment compulsion severity (r= 0.48,

Table III. Correlation coefficients between post-treatment quality of life domain scores and pre-treatment variables.

	Physical Health (PST)	Psychological Health (PST)	Social Relationships (PST)	Environment (PST)
Duration of Disorder (PRT)	0.27	0.30	0.14	0.01
YBOCS Obsession (PRT)	–0.25	–0.28	–0.03	0.08
YBOCS Compulsion (PRT)	–0.08	0.14	–0.37*	–0.06
YBOCS Total (PRT)	–0.15	–0.27	–0.24	0.02
Insight (PRT)	–0.07	–0.09	–0.16	–0.06
HDRS (PRT)	–0.11	–0.35*	–0.19	–0.16
Physical Health (PRT)	0.14	0.14	0.10	0.22
Psychological Health (PRT)	0.31	0.17	0.06	0.33
Social Relationships (PRT)	0.11	0.13	0.63**	0.27
Environment (PRT)	0.25	0.17	0.20	0.29

YBOCS: Yale-Brown Obsession Compulsion Scale, HDRS: Hamilton Depression Rating Scale, PRT: pre-treatment, PST: post-treatment.
*P < 0.05, **P < 0.001.

R^2= 0.23, change in F= 1.18, B= 0.69, SH= 0.29, β= –0.51, t = –2.33, P< 0.05). No pre-treatment variable was observed to be a significant predictor of other post-treatment quality of life domain scores.

Because the ratio of patients that dropped out of the study (n= 17, 32%) was relatively high, we conducted analysis to determine if this group of patients constituted a different group of patients in terms of various disease characteristics and quality of life. Therefore, the following parameters were compared between the patients who completed the study and those that dropped out: gender, duration of disease, obsession, compulsion, and total disease severity at baseline, severity of depressive symptoms, level of insight, and quality of life. The pre-treatment compulsion scores of the patients who were not followed-up were significantly higher (15.4 ± 1.9) than those of the patients that completed the study (13.5 ± 2.9) (t= 2.45, df= 1, P< 0.05). No other differences were noted between the other variables (other results have not been shown).

DISCUSSION

The aim of this study was to investigate the effect of psychopharmacology on short-term quality of life in OCD patients. At the end of this study, when the results of the psychopharmacological treatment were objectively evaluated, it was seen that there was a significant decrease in symptom severity scores; however, no differences were observed in the subjective quality of life evaluations. Correlation analysis revealed that post-treatment psychological health domain score significantly correlated with pre-treatment depression severity; whereas, the social relationship score correlated with the pre-treatment social relationship score and compulsion severity. Multiple regression analysis showed that the only significant correlation was between pre-treatment compulsion severity and post-treatment social relationships score.

There are 3 previous studies that evaluated the effect of various treatment approaches. In the first study (Bystritsky et al., 1999) the effect of a 6-week treatment program (medication and behavioral therapy) on treatment-resistant patients' quality of life was investigated. It was found that as a result of treatment the patients demonstrated significant improvements in the areas of general activity, social relationships, and health perception. Tenney et al. (2003) investigated the effect of 12-week long paroxetine and venlafaxine treatment on quality of life. The authors reported a significant improvement in quality of life with both treatments; however, they did not find a significant difference between the 2 treatments. They found that when the same patients

were regrouped as treatment responders and non-responders, the improvement in quality of life was not different between the 2 groups. They reported that the improvement in quality of life was not associated with the improvement in obsessive-compulsive symptoms and they interpreted this improvement as a placebo effect. Furthermore, they pointed out that treatment studies of longer duration were needed to test if this effect would disappear. In another study, by Moritz et al. (2005), the researchers reported significant improvement in all quality of life domains as a result of 10-week psychopharmacological and cognitive behavioral treatment (CBT); however, they found that this improvement was mostly associated with improvement in depression severity. In their study, in contrast to previous studies, the authors observed no difference between the patients' pre- and post-treatment quality of life. We found that, as a novel finding, higher pre-treatment compulsion severity was correlated with lower post-treatment social relationships domain.

As mentioned before, a significant portion of OCD patients do not respond to medical treatment. In recent years the combination of psychopharmacology with CBT has virtually become the standard in OCD treatment. It is known that CBT and other psychosocial approaches enhance the efficacy of medical treatment (McLeod 1997). In the present study only the effect of psychopharmacological treatment was evaluated. It has been suggested that, in the face of OCD's negative impact on the individual and society, any treatment process that lacks a psychosocial approach would not be capable of adequately alleviating the negative effects of the disease. In contrast to previous studies, in the present study the lack of psychosocial or cognitive-behavioral treatment approaches could explain the fact that there were no significant differences between pre- and post-treatment quality of life. Furthermore, it can be speculated that the patients' interpretations of quality of life could have been negatively influenced by economic, social, and cultural factors. OCD patients may have to face negative consequences when they enter treatment, such as dependence on medication, frequent hospital visits, having to obtain drug prescriptions, pressure from their relatives and doctors to continue treatment, and drug side effects. One study reported that 78% of patients still experienced a certain amount of distress although their symptoms had decreased, 52% had familial and social difficulties, 44% had difficulties with work, 24% suffered from drug side effects, and only 11% did not report any problems (Hollander et al., 1998). We think that the lack of significant improvement in quality of life during the post-treatment period can be explained by these factors.

In our study, as a result of regression analysis, it was thought that the correlation between pre-treatment compulsion severity and post-treatment social relationship score could have various reasons. The negative effects of compulsions are experienced more subjectively, whereas the effects of compulsions can be experienced both subjectively and socially. Additional problems, such as inter-familial communication problems caused by OCD, difficulties in sexual life and leisure time activities, and feelings of guilt, influence the psychological and social functioning of both the patient and family members (Freund and Steketee, 1989; Emmelkamp et al., 1990; Black et al., 1998).

In a study by Cooper (1996) 87% of patient families reported that ritual behaviors (compulsions) had become very tiresome. In more than one third of the families, there were changes in the home arrangement based on the disease symptoms (Calvocoressi et al., 1995). It has been suggested that none of these negative factors can be improved by psychopharmacological treatment alone without psychosocial approaches focusing on the patient's social problems and CBT, which mainly aims to reduce compulsions. Furthermore, the finding that the baseline compulsion severity of patients that dropped out of the study was higher than those of the patients that completed the study supports this interpretation.

There are a few points that need to be underlined about this study. As in all physical and mental disorders, while assessing the results of treatment applications, scales that reflect the severity of the disease at hand and laboratory values are fundamental. YBOCS, which is an evaluation tool for the assessment of disease severity in OCD that has found worldwide acceptance, can only measure the severity of obsessive-compulsive symptoms. However, patient interpretation of the quality of life tends to be general; it is not based on the effect of obsessions and compulsions. From this perspective, this study's finding that disease severity decreased with treatment, while quality of life did not change, should not be regarded as an inconsistency. It is thought that by developing an OCD-specific tool for the assessment of quality of life these differences would disappear. Such a disease-specific quality of life assessment could focus the patient's interpretation about his/her situation due to OCD. Clinicians and researchers could then benefit from subjective evaluations that would support objective approaches while evaluating treatment results. Quality

of life assessments should not be regarded as the opposite of the clinical perspective and objective morbidity evaluations. It can be thought that by using evaluations that are solely based on a subjective perspective as the main measurement, it might not be possible to objectively assess disease severity.

The limitations of the present study also need to be mentioned. The most important limitation of the study was the fact that 32% of the patients were excluded due to various reasons and it was not possible to follow-up these cases. Another limitation is the fact that SSRIs have specific pharmacological characteristics, although they have similar effect and side effect profiles. From this perspective, the administration of different SSRIs as if they were the same drug limits the study further. It should also be considered that our results can not be generalized to all OCD patients seeking treatment due to small sample size.

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