

QUALITY OF LIFE AND ITS CORRELATES IN PATIENTS WITH OBSESSIVE-COMPULSIVE DISORDER

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The care of patients with obsessive-compulsive disorder (OCD) has raised quality of life (QOL) issues. The purpose of this study was to compare the level of QOL between patients with and without OCD, and to examine the associations between QOL and sociodemographic data, course of illness, psychopathology, perceived social support, and treatment characteristics. The QOL levels measured with the Taiwan version of the Short Form of the World Health Organization Questionnaire on Quality of Life were compared between 57 subjects with OCD and 106 subjects without OCD. The correlates of QOL were examined among subjects with OCD. The analysis revealed that QOL scores for the general, physical, psychological and social relationship domains were lower in the OCD group than in the control group; however, no difference in the environmental domain was found. Multiple factors were associated with poor QOL in subjects with OCD, including comorbid depression, severe obsession symptoms, perceived low social support, severe adverse effects of medication, combined use of mood stabilizers, and low social status. Different domains of QOL are differently affected by OCD. The QOL of subjects with OCD was correlated to multiple factors that were specific to individual subjects and influenced by interactions with treatment and the social environment.

Key Words: depression, obsessive-compulsive disorder, quality of life, social support
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Quality of life (QOL) in patients with mental disorders is an important issue when emphasizing a more consumer-oriented and holistic view of health care [1]. QOL is defined as the individuals' perceptions of their life position in the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards and concerns. QOL is a complex and broad-ranging concept, incorporating an individual's physical health, psychological state, independence level, social relations, personal beliefs, and

relationship to salient features of the environment [2]. The concept of QOL differs from that of disability or impairment because different patients may react differently to similar levels of disability or impairment [3]. QOL has four uses in medicine: (1) for the planning of clinical care of individual patients; (2) as an outcome measure in clinical trials and health services research; (3) to assess the health needs of populations; and (4) for resource allocation [4].

Obsessive-compulsive disorder (OCD) is a chronic illness associated with a high potential for disability [5,6]. OCD has a significant negative impact on patients' social and family relationships [7-9], marital relations [7,10], learning ability [9], occupational function [7-9,11] and self-esteem [7,9], as well as increasing the risk of depression [8], suicidality [7], and alcohol and illicit drug abuse [7]. Previous studies have found



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that QOL was worse among patients with OCD than in the general population [12], or patients with depressive disorders [12], heroin dependence [12], social phobia [13], panic disorder [13] and type 2 diabetes mellitus [8]. As assessing the impact of OCD on QOL is an important aid to make decisions on how aggressively the disorder should be treated for an outcome measure, for health needs assessments of patients and for resource allocation [4], further studies are needed to examine the correlates of QOL and to develop effective strategies to improve the QOL in patients with OCD.

To date, few studies have examined the factors that influence QOL in patients with OCD. Previous studies have found that severe OCD symptoms and comorbid depression were associated with poor QOL in patients with OCD [8,13]. Antidepressant treatment was also found to improve the QOL of OCD patients [8,14]. However, patients with anxiety disorders might perceive the adverse effects of antidepressants, which can result in low medical adherence [15]. Furthermore, the adverse effects of medications negatively impact on some QOL domains of patients with panic disorders [16], depressive disorders [17], bipolar disorder [18] and schizophrenia [18]. However, little is known about the impact of adverse effects of pharmacotherapy on QOL in patients with OCD. Although selective serotonin reuptake inhibitors are first-line medications and other antidepressants, e.g. clomipramine, serotonin norepinephrine reuptake inhibitors and monoamine oxidase inhibitors are second-line medications for OCD, patients who have been unsuccessfully treated with several antidepressants are often asked to consider augmentation of selective serotonin reuptake inhibitors with an antipsychotic or a mood stabilizer [19]. The influence of augmentation by antipsychotics or mood stabilizers on the QOL of patients with OCD needs further studies.

Previous studies have found that social support can reduce the impact of chronic stress on psychological well-being [20] and improved QOL in patients with severe mental [21–23] and chronic medical illnesses [24,25]. However, the relationship between QOL and social support in patients with OCD is still unknown. Further studies are needed to examine the impact of sociodemographic characteristics and course of illness on QOL in patients with OCD.

The aims of this study were (1) to examine whether different domains of QOL are differently affected by

OCD by comparing the QOL of subjects with and without OCD; and (2) to examine the association of QOL with sociodemographic characteristics (sex, age, education level, marriage status, social status and attending religious activities), course of illness (onset age and duration of illness), psychopathology (severities of depression, obsession and compulsion), perceived social support, and treatment characteristics (adverse effects of medication and variety of medication) among subjects with OCD.

METHODS

Subjects

From February to November 2008, 65 patients with OCD were consecutively recruited from the outpatient psychiatric clinics at a medical center and a regional teaching hospital in Southern Taiwan. Of these, five patients (3 men and 2 women) refused to participate in this study. Of the 60 patients who agreed to join the study, 57 patients who had received medication for OCD in the preceding 2 weeks were included in the study; the three patients who did not receive medication were not included. A psychiatrist systematically assessed all patients to confirm the diagnosis of OCD using the structured Mini-International Neuropsychiatric Interview [26] based on the diagnostic schemes of the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders [27].

To recruit subjects for the control group, we posted an advertisement in the hospital and in newspapers to invite participation. A total of 157 persons responded to the advertisement. A psychiatrist assessed all responders systematically to determine whether they had any mood or psychotic disorders using the Mini-International Neuropsychiatric Interview [26]. Those who had OCD, mood disorders, psychotic disorders, drank alcohol more than once per month, used any illicit drugs or had low mentality were excluded. A total of 106 subjects conformed to the criteria and were recruited as the control group [18].

Survey instruments

World Health Organization Questionnaire on Quality of Life: Short Form–Taiwan version (the WHOQOL-BREF Taiwan version)

The WHOQOL-BREF Taiwan version assessed the overall rating of QOL (2 items) and four QOL domains,

including physical health (7 items), psychological (6 items), social relations (4 items) and environment (9 items) [28]. The transformed scores of the four QOL domains ranged from 4 to 20, and Cronbach's α ranged from 0.69 to 0.84 in the present study. Higher scores on the WHOQOL-BREF Taiwan version indicate a higher perceived QOL in the preceding 2 weeks.

Yale-Brown Obsessive Compulsive Scale (Y-BOCS)

Subjects underwent a semi-structured interview based on the 10-item Y-BOCS [29] to evaluate the severity of OCD symptoms in the preceding 2 weeks. Every item was rated on a 0–4 scale (0 = none, 4 = extreme). Higher total scores of the first five and second five items indicate more severe obsessions and compulsions, respectively. The Cronbach's α was 0.86 for obsessions and 0.94 for compulsions in the present study.

Taiwanese version of the Beck Depression Inventory-II (BDI-II)

The BDI-II assesses the severity of depression [30], with a total score higher than 17 indicates a depressive tendency [31]. The Cronbach's α of the Taiwanese version of the BDI-II in the present study was 0.92.

Social Support Scale (SSS)

We used the SSS, as modified by Wang [32] from the Inventory of Socially Supportive Behavior developed by Barrera and Sandler [33]. Cronbach's α for the SSS in the present study was 0.95 and the 1-week test–retest reliability was 0.92 ($p < 0.001$). Higher SSS scores indicate higher levels of perceived social support.

Questionnaire on Adverse Effects of Medication for Depression and Anxiety (QAEM-DA)

We developed the QAEM-DA, which contains 16 items, to evaluate the patients' perceived adverse effects induced by antidepressants used to treat OCD in the preceding 2 weeks [34]. The positive items were summed to represent the total severity of adverse effects of medication. Cronbach's α of the QAEM-DA in the present study was 0.79 and the 1-week test–retest reliability was 0.91 ($p < 0.001$). The QAEM-DA has been used to assess the adverse effects of antidepressants in previous studies on patients with panic disorder [16] or depressive disorders [17] with satisfactory validity [16].

Social Status Rating Scale (SSRS)

The SSRS classifies subjects' social status into classes I–V according to their education level and occupation [35]. A high category on the SSRS indicates low social status.

Subject characteristics

We recorded the sex, age, education level and marital status of participants in the OCD and control groups. Religious observation, duration of illness, age at onset of OCD, clinical diagnosis of mood disorders recorded in medical charts, and type and dose of medication were also recorded for participants in the OCD group. Based on the results of the review by Fineberg and Craig [36], participants were divided into two groups. Subjects who received 60 mg/day of fluoxetine, 60 mg/day of paroxetine, 150 mg/day of sertraline, 20 mg/day of escitalopram, 200 mg/day of fluvoxamine, 100 mg/day of clomipramine, or 300 mg/day of venlafaxine, or more, were classified as the high-dose group, while subjects who received doses of these antidepressants lower than those stated above were classified as the low-dose group.

Protocol and statistical analysis

The protocol was approved by the Institutional Review Board of Kaohsiung Medical University. Informed consents were obtained from all subjects before starting the study. A researcher explained the methods to complete the questionnaires to each participant, and then the participants completed the questionnaires by themselves. Participants also underwent a semi-structured interview based on the Y-BOCS to evaluate the severity of OCD symptoms in preceding 2 weeks.

Among subjects in the OCD and control groups, the influences of the diagnosis of OCD on the five QOL domains on the WHOQOL-BREF Taiwan version were examined using stepwise multiple linear regression analyses controlling for sex, age, education level and marriage. The relationships between the five QOL domains on the WHOQOL-BREF Taiwan version and subjects' sociodemographic data, current severity of OCD symptoms, BDI-II depression scores, perceived social support, clinical diagnosis of mood disorders, the type and doses of medications, and adverse effects of medications, were analyzed with *t* tests, analysis of variance and Pearson's correlation. Because multiple comparisons were conducted, a two-tailed *p* value of < 0.005 was considered statistically significant.

The predictive potential of variables that were significantly associated with QOL in bivariate analyses was further examined using forward stepwise multiple linear regression analysis, and a two-tailed p value of <0.05 was considered statistically significant.

RESULTS

The sociodemographic data, course of illness, psychopathology, perceived social support, level of QOL on the WHOQOL-BREF Taiwan version, and treatment characteristics are shown in Tables 1 and 2. After controlling for sex, age, education, and marriage, the OCD group had worse QOL in the general ($\beta=-0.322$, $t=-4.097$, $p<0.001$), physical ($\beta=-0.512$, $t=-7.350$, $p<0.001$), psychological ($\beta=-0.290$, $t=-3.704$, $p<0.001$) and social relationships ($\beta=-0.191$, $t=-2.495$, $p=0.014$) domains than the control group. However,

no difference was found between the two groups for the environmental domain ($\beta=0.042$, $t=0.517$, $p>0.05$).

Tables 3 and 4 present the associations between the overall rating and the four QOL domains on the WHOQOL-BREF Taiwan version and subjects' socio-demographic data, current severity of OCD symptoms, BDI-II depression scores, perceived social support, type and dose of medications, and adverse effects of medications analyzed with t tests, analysis of variance and Pearson's correlation for the OCD group. The results indicated that QOL was worse in the social relationship and environment domains for subjects with low (class V) social status than those with higher social status (classes I–IV). Participants with significant depression ($\text{BDI-II} \geq 17$) had worse QOL in the general, physical, psychological, and environment domains compared with participants without significant depression ($\text{BDI-II} < 17$). Participants who received mood stabilizers had worse QOL in the psychological, social

Table 1. Sociodemographic data, course of illness, psychopathology, perceived social support and the level of quality of life of OCD patients*

Characteristics	With OCD ($n=57$)	Without OCD ($n=106$)
Sociodemographic data		
Age (yr)	30.3±12.3 (16–70)	33.8±8.1 (18–50)
Education (yr)	13.1±3.4 (2–19)	12.0±1.1 (9–16)
Sex, male	38 (66.7)	51 (48.1)
Married	13 (22.8)	38 (35.8)
Social status on the SSRS (class V)	33 (57.9)	57 (53.8)
Regular religious observation	25 (43.9)	42 (39.6)
Course of illness		
Age at onset (yr)	23.0±8.6 (12–61)	
Duration (mo)	89.3±103.6 (3–444)	
Psychopathology		
Total BDI-II score ≥ 17	34 (59.6)	
Obsession on the Y-BOCS	9.6±3.7 (2–20)	
Compulsion on the Y-BOCS	8.7±4.7 (0–20)	
Perceived social support on the SSS	28.0±9.5 (7–45)	
Diagnosis of mood disorders		
No	35 (61.4)	
Yes	22 (38.6)	
QOL on WHOQOL-BREF		
General	5.5±1.5 (2–9)	6.5±1.3 (3–10)
Physical	12.8±1.9 (9–17)	70.5±11.9 (38–94)
Psychological	11.3±2.3 (6–17)	54.1±12.3 (25–81)
Social relationship	12.6±3.6 (5–21)	61.7±13.4 (25–94)
Environment	12.3±2.5 (5–18)	51.6±16.1 (19–75)

*Data presented as mean±standard deviation (range) or n (%). OCD=Obsessive-compulsive disorder; SSRS=Social Status Rating Scale; BDI-II=Taiwanese version of the Beck Depression Inventory-II; Y-BOCS=Yale-Brown Obsessive-compulsive Scale; SSS=Social Support Scale; WHOQOL-BREF=World Health Organization Questionnaire on Quality of Life: Short Form-Taiwan Version; QOL=quality of life.

Table 2. Treatment characteristics*

	OCD group (n=57)
Adverse effects of medications	4.9±3.8 (0–15)
Augmentation of antipsychotic or mood stabilizers	23 (40.4)
Type of antidepressants	
SSRI	42 (73.7)
TCA	3 (5.3)
SNRI	7 (12.2)
SSRI+TCA	5 (8.8)
Antidepressant dose	
Low-dose	34 (59.6)
High-dose	23 (40.4)
Types of antipsychotics	
No antipsychotic	36 (63.2)
Atypical	12 (21.0)
Typical	9 (15.8)
Combined use of mood stabilizers	
No	50 (87.7)
Yes	7 (12.3)
Chlorpromazine equivalents of antipsychotic (mg/day)	39.8±73.0 (0–300)

*Data presented as mean ± standard deviation (range) or n (%). OCD=Obsessive-compulsive disorder; SSRI=selective serotonin reuptake inhibitor; TCA=tricyclic antidepressant; SNRI=serotonin-norepinephrine reuptake inhibitor.

relationship and environment domains compared with participants who did not receive mood stabilizers. Severe obsession and compulsion symptoms and low social support were significantly associated with poor QOL in all five domains. Severe adverse effects of medications were significantly associated with poor QOL in the general, physical, psychological and environment domains. Higher chlorpromazine equivalents of antipsychotics were significantly associated with poor QOL in the social relationship domains.

We further examined the predictive potential of variables in the OCD group that were significantly associated with QOL in bivariate analyses using step-wise multiple linear regression analyses. Total BDI-II scores ≥ 17 and severe current obsession symptoms were significantly associated with poor QOL in the general and physical domains (Table 5). Total BDI-II scores ≥ 17 and combined use of mood stabilizers were significantly associated with poor QOL in the psychological domain. Low social status, perceived low social support and combined use of mood stabilizers were significantly associated with poor QOL in the

social relationship domain. Total BDI-II scores ≥ 17 , severe current obsession symptoms, perceived low social support, perceived severe adverse effects of medications and combined use of mood stabilizers were significantly associated with poor QOL in the environmental domain.

DISCUSSION

This study found that patients with OCD had worse QOL on the general, physical, psychological and social relationship domains compared with the control group, which shows that OCD negatively influenced the conditions that are essential for maintaining good QOL in these three domains. A previous study found that the general domain of the WHOQOL-BREF was positively correlated with serotonin transporter availability in male healthy controls [37]. It was speculated that the scope of global perception of QOL may overlap with the daily sense of perceived joy or happiness [37]. However, no difference in the environmental QOL domain was found between these two groups. The results of this study indicate that different domains of QOL are differently affected by OCD.

The present study found that comorbid depression, symptoms of obsession, low social status, perceived lack of social support, adverse effects of medication, and combined use of mood stabilizers were associated with poor QOL in some domains on the WHOQOL-BREF Taiwan version among patients with OCD. The results indicate that the QOL of patients with OCD is associated with multiple factors that are specific to individual subjects and is influenced by interactions with treatment and the social environment. These results should encourage clinicians to screen for these factors and, if present, intervene to improve QOL in patients with OCD.

Consistent with the results of previous studies [8,13], the present study found that severe obsession symptoms and comorbid depression were associated with poor QOL in patients with OCD. This indicates that adequate treatment of OCD and the comorbid depressive symptoms is an important step towards improving QOL. On the other hand, this study also found that adverse effects of medications predicted poor QOL in the environment domain. Because OCD has a chronic course [5], a long-term treatment is necessary for many patients with OCD. Although several types

Table 3. Associations between quality of life on the World Health Organization Questionnaire on Quality of Life: Short Form–Taiwan version and sociodemographic and treatment characteristics, and psychopathology

	General		Physical		Psychological		Social relationships		Environment	
	Mean±SD	t or F*	Mean±SD	t or F*	Mean±SD	t or F*	Mean±SD	t or F*	Mean±SD	t or F*
Sex										
Male	5.5±1.5	0.10	12.8±2.1	-0.15	11.2±2.4	-0.36	12.0±3.3	-1.74	12.2±2.8	-0.47
Female	5.5±1.5		12.8±1.7		11.5±2.2		13.7±3.9		12.5±2.2	
Married										
No	5.5±1.6	0.14	12.9±2.2	0.30	11.3±2.3	0.04	12.2±3.7	-0.47	12.3±2.4	0.04
Yes	5.4±1.3		12.7±1.9		11.3±2.4		12.8±3.6		12.3±2.6	
Regular religious observation										
Yes	5.6±1.8	-0.68	12.8±1.6	0.14	11.4±1.9	0.30	12.9±4.1	0.42	12.3±2.2	-0.09
No	5.3±1.1		12.8±2.1		11.2±2.6		12.5±3.2		12.3±2.8	
Social status										
Class I–IV	6.0±1.4	-2.36	13.5±1.8	-2.62	12.0±2.3	-2.05	14.2±3.4	-3.22†	13.3±2.6	-2.75†
Class V	5.1±1.6		12.3±1.8		10.8±2.2		11.4±3.3		11.5±2.1	
BDI-II≥17										
Yes	4.8±1.4	4.03†	12.0±1.6	-4.42†	10.4±1.9	-4.11†	11.9±4.0	-1.77	11.1±2.5	-4.89†
No	6.3±1.3		13.9±1.8		12.6±2.3		13.6±2.8		13.9±1.7	
Diagnosis of mood disorders										
Yes	4.6±1.6	2.33	12.5±1.9	-0.98	10.9±2.2	-1.15	12.0±3.2	-1.10	11.4±2.2	-2.08
No	5.7±1.5		13.0±1.9		11.6±2.5		13.1±3.9		12.9±2.7	
Type of antidepressant medication used										
SSRI	5.7±1.5	1.36	13.2±2.0	1.80	11.6±2.4	1.63	13.1±3.5	0.90	12.7±2.5	1.40
TCA	4.3±1.5		12.2±1.4		9.8±2.8		10.7±3.2		11.1±3.5	
SNRI	4.7±1.6		11.8±1.1		11.9±2.3		12.4±4.4		11.6±2.5	
SSRI+TCA	5.6±1.5		11.7±1.8		9.6±1.6		10.8±4.1		10.7±2.7	
Antidepressant dose										
Low-dose	5.1±1.4	-2.18	12.4±2.0	-1.99	11.4±2.5	0.15	12.3±3.8	-0.92	11.9±2.5	-1.27
High-dose	6.0±1.6		13.4±1.8		11.3±2.2		13.2±3.5		12.8±2.7	
Type of antipsychotic medication										
No antipsychotic	5.6±1.7	0.25	12.9±2.0	2.48	11.8±2.2	3.32	13.5±3.7	3.59	12.8±2.5	4.65
Atypical	5.3±1.4		11.9±1.1		9.8±1.8		10.4±3.2		10.4±1.7	
Typical	5.3±1.3		13.9±2.3		11.6±3.1		12.2±2.9		12.7±2.8	
Combined use of mood stabilizers										
No	5.5±1.5	0.60	12.9±1.9	1.31	11.7±2.3	3.18†	13.2±3.5	3.15†	12.7±2.4	3.39†
Yes	5.1±1.7		11.9±2.0		8.9±1.6		8.9±2.9		9.5±1.9	

*Results of t tests and analysis of variance; †p<0.005; ‡p<0.001. SD=Standard deviation; BDI-II= Taiwanese version of the Beck Depression Inventory-II; SSRI=selective serotonin reuptake inhibitor; TCA=tricyclic antidepressant; SNRI=serotonin-norepinephrine reuptake inhibitor.

Table 4. Pearson's correlations analysis (*r*) between quality of life on the World Health Organization Questionnaire on Quality of Life: Short Form–Taiwan Version and sociodemographic and treatment characteristics, course of illness, psychopathology, and perceived social support

	General	Physical	Psychological	Social relationships	Environment
Age	-0.13	0.04	-0.05	0.02	0.03
Education	0.04	-0.19	-0.01	0.09	-0.10
Onset age of illness	-0.10	-0.02	0.01	0.11	-0.02
Duration of illness	-0.19	0.05	-0.10	-0.10	0.02
Obsession on the Y-BOCS	-0.59 [†]	-0.58 [†]	-0.37*	-0.27*	-0.48 [†]
Compulsion on the Y-BOCS	-0.51 [†]	-0.55 [†]	-0.43 [†]	-0.31*	-0.41 [†]
Perceived social support	0.29*	0.20*	0.16*	0.36*	0.32*
Adverse effects of medication	-0.38*	-0.42 [†]	-0.36*	-0.13	-0.47 [†]
Chlorpromazine equivalents of antipsychotic	0.12	0.04	-0.17	-0.31*	-0.16

**p* < 0.005; [†]*p* < 0.001. Y-BOCS = Yale-Brown Obsessive-compulsive Scale.

Table 5. Variables associated with quality of life on the World Health Organization Questionnaire on Quality of Life: Short Form–Taiwan Version in stepwise multiple linear regression

	General		Physical		Psychological		Social relationships		Environment	
	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>
BDI-II ≥ 17	-0.261	-2.212*	-0.371	-3.257 [†]	-0.448	-4.068 [‡]			-0.326	-3.004 [†]
Obsession on the Y-BOCS	-0.472	-3.995 [‡]	-0.410	-3.593 [†]					-0.224	2.027*
Social status (class V)							-0.229	-1.946*		
Perceived social support							0.381	3.394 [†]	0.245	2.385*
Adverse effects of medication									-0.287	-2.645*
Combined use of mood stabilizers					-0.348	-3.162 [†]	-0.369	-3.144 [†]	-0.396	-4.048 [‡]
Adjusted R ²	0.385		0.425		0.329		0.341		0.491	
<i>F</i> value	18.325 [‡]		21.675 [‡]		14.750 [‡]		10.660 [‡]		14.485 [‡]	

**p* < 0.05; [†]*p* < 0.01; [‡]*p* < 0.001. BDI-II = Taiwanese version of the Beck Depression Inventory-II; Y-BOCS = Yale-Brown Obsessive-compulsive Scale.

of antidepressants can improve OCD symptoms, the antidepressants have different levels of adverse effects on several organs and systems [38], which may compromise patients' QOL and thus reduce adherence to treatment [15]. The findings of this study indicate that clinicians must help patients with OCD to identify and to manage the adverse effects of therapy. Frequent discussions with patients may encourage them to continue treatment and to accept the balance between the benefits and adverse effects of treatment.

This study also found that combined use of mood stabilizers was significantly associated with poor QOL in the psychological, social relationship and

environmental domains. There are several possible explanations for these associations. First, mood stabilizers may be used for augmentation in patients with severe OCD symptoms and poor response to routine antidepressant treatment, and these severe OCD symptoms compromised their QOL. Second, mood stabilizers may be used to treat mood symptoms other than OCD symptoms. Although we did not find a difference in the level of QOL between those with and without a clinical diagnosis of mood disorders, it is possible that a diagnosis of mood disorders was not recorded in the patients' charts and any unrecorded mood disorders may have compromised the level of

QOL. Third, mood stabilizers may have adverse effects that exert a negative effect on QOL. Because this study only evaluated the adverse effects of antidepressants, the association between QOL and the adverse effects of mood stabilizers needs further study.

Some studies have found that the QOL of some patients with OCD did not improve even with an improvement in OCD symptoms due to medication [14, 39]. This suggests that there are factors other than OCD symptoms that influence QOL. The findings of this study indicate that low social support was associated with poor QOL in the social relationship and environment domains in patients with OCD. Of note, patients with OCD may show dysfunction in the areas of work inside the home and functioning as a family unit [7,9], which, ironically, may reduce support from their families. To enhance family support and improve patients' QOL, it may be helpful, with the patients' permission, for clinicians to explain the characteristics of OCD and teach family members the skills necessary to help patients managing their OCD symptoms.

This study found that low social status was significantly associated with poor QOL in the social relationship domain. Because OCD has a negative impact on work ability and economic independence [7–9,11], the social status of patients with OCD may deteriorate in the course of illness, leading to impaired QOL.

The WHOQOL-BREF includes domains on life function critical to health-related QOL [40] and, as a generic scale, provides information that is comparable across patient groups and populations with different languages and cultures. Meanwhile, the WHOQOL BREF is a transcultural instrument with high face and construct validity within the specific cultural setting [41].

However, our results needed to be interpreted in light of several study limitations. First, the cross-sectional design of this study limited our ability to draw conclusions about the causal relationship between QOL and the associated factors. Second, analysis of a small sample of patients from mental health clinics may limit generalizations to other clinical units or populations. Some patients with OCD may receive no treatment or even inappropriate treatment. Third, although we examined a broad range of individual and environmental factors, some factors that may affect QOL in patients with OCD remain unmeasured. For example, the personality or coping style of the

participants and whether they received psychotherapy were not explicitly assessed in this study. Fourth, while QOL is an inherently subjective phenomenon, psychopathology may affect the mental, emotional and social judgments on which the patients' responses to the QOL instruments are based [42]. No information from family members, friends or professionals was used to confirm the participants' self-evaluation of the level of QOL in this study. Fifth, the psychological domain of the WHOQOL-BREF contains an item that inquires about negative feelings, including anxiety. For patients with OCD, it is difficult to find out whether a specific score on the psychological domain is due to a high level of anxiety or to poor QOL [43]. Several items of the WHOQOL-BREF inquire about depressive symptoms, which increases the association between QOL and total BDI-II scores.

In conclusion, the present study found that multiple factors, including adverse effects of medication, type of medication, social support, severity of obsession and depressive symptoms, and social status were associated with QOL in patients with OCD. The results should encourage clinicians to screen for these factors and, if present, intervene to improve the QOL in patients with OCD.

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強迫症患者的生活品質和其相關因子

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強迫症個案的生活品質是進行臨床照護時的重要指標。本研究的目的是在於比較具有和沒有強迫症診斷者生活品質的差異，並探討強迫症患者中生活品質和社會人口學資料、疾病病程、精神病理、社會支持和接受的治療之間的關連性。本研究以台灣簡明版世界衛生組織生活品質問卷，比較 57 位強迫症患者和 106 位無強迫症診斷的對照組個案之生活品質高低，同時調查強迫症患者的生活品質之相關因子為何。結果顯示：強迫症組個案在整體、生理、心理、社會關係等生活品質分項目皆比對照組個案較不佳，但在環境分項目上則無顯著差異。有多重因子與強迫症患者的生活品質高低具相關性，包括合併顯著憂鬱、強迫思考症狀較嚴重、感受到的社會支持程度較低、接受藥物治療所帶來的副作用較嚴重、合併情緒穩定劑治療、低社經階層等。由本研究結果可知：強迫症患者的生活品質與個案的本身狀況、接受的治療和所處的社會環境皆有相關。

關鍵詞：憂鬱，強迫症，生活品質，社會支持
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