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Quality of Life of Adolescents with Obsessive-Compulsive Disorder Attending in a Tertiary Care Hospital

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ABSTRACT:

Background: Quality of life is defined as "an individual's perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns." Obsessive-Compulsive Disorder (OCD) is associated with poor quality in various domains of life. But it is relatively unexplored in adolescent population.

Objectives: To determine quality of life of adolescents with OCD attending in a tertiary care hospital in Dhaka City of Bangladesh.

Methods: This was a cross-sectional descriptive study conducted in Bangladesh Medical University (BMU) during the period of October 2021 to September 2023. In total, 35 adolescents with OCD were purposively enrolled for the study. After taking their informed assent and consent they were interviewed using a semi-structured sociodemographic and relevant information questionnaire along with Bangla versions of the Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS) and the World Health Organization Quality of life Scale, brief version (WHOQOL-BREF). Interview was carried out in face-to-face self-report format using paper and pencil method. Ethical clearance was taken from Institutional Review Board and ethical issues were addressed throughout the study. Data were collected by the researcher and analyzed using SPSS 28.0 software. All comparisons were considered significant if $p< 0.05$.

Results: Mean age of the participants was 15.3 with 71.4% of them being in late adolescence. On CY-BOCS, mean score on obsession domain found was 10.3 and compulsion domain 9.7 with a total mean score of 20. 8.6% adolescents subjectively reported their QoL as poor and 8.6% reported their QOL as very poor. 40% participants reported being fairly dissatisfied and 11.4% reported being very dissatisfied with their health. The mean score in psychological domain of QoL was the lowest of four domains. Percentwise, 65.7% found to have poor psychological QoL, 65.7% poor social, 62.9% poor physical and 51.4% have poor environmental QoL. Age, gender and education level had varying impacts on different domains of QoL in individuals with OCD. Lastly, higher obsession, compulsion and total score in CY-BOCS negatively correlated with QoL.

Conclusions: Adolescents with OCD experience significant impairment in their quality of life. A number of factors particularly higher symptom severity is associated with poorer overall quality of life.....

Keywords: Quality of life; OCD, adolescents, Bangladesh..

INTRODUCTION

Obsessive-compulsive disorder (OCD) is a relatively common psychiatric condition in children and adolescents, with a lifetime prevalence of 1–3% [1]. It is characterized by obsessions—intrusive and distressing thoughts, urges, or images—and compulsions, which are repetitive behaviors or mental acts performed to alleviate distress..-

[2]. OCD significantly contributes to the global disease burden, ranking sixth in non-fatal health loss and among the top ten causes of YLD. It often emerges early, with 80% experiencing symptoms before 18. Onset typically occurs in late adolescence for males and early adulthood for females [3,4]. In Bangladesh, the prevalence of OCD in children and adolescents is estimated at 0.1% [5]. Quality of life (QoL) is vital in assessing chronic illnesses, including psychiatric disorders. The WHO defines it as an individual's perception of their life position within their cultural and value system, considering goals, expectations, and concerns [6]. It spans social relationships, physical health, daily functioning, economic stability, and well-being. QoL is increasingly valued as an outcome in treatment research and healthcare evaluation [7]. There are two primary approaches to assessing QoL—overall quality of life (OQOL) and health-related quality of life (HRQoL). OQOL measures a person's general satisfaction with life beyond disease-specific limitations, while HRQoL focuses on how health status affects an individual's ability to function effectively. HRQoL includes physical, psychological, and social dimensions, as well as satisfaction with treatment and future health prospects. The WHOQOL and its shorter version, WHOQOL-BREF, are widely used tools to assess these aspects [6]. Adolescence is a critical transitional period between childhood and adulthood, making young individuals particularly vulnerable to mental health disorders like OCD [8]. Research suggests that addressing HRQoL in early adolescence can help reduce long-term psychological vulnerability [9]. OCD significantly disrupts daily life, interfering with social relationships, family dynamics, education, and vocational development. Previous studies indicate that childhood OCD is associated with substantial impairments across these domains [10]. Additionally, early-onset OCD has been linked to persistent functional limitations, highlighting the need for interventions that go beyond symptom reduction to improve overall QoL [11,12]. Despite its importance, QoL in adolescents with OCD remains an underexplored research area. A meta-analysis comparing QoL in children and adolescents with OCD to healthy controls found that affected individuals reported significantly lower QoL, particularly in social and academic domains [13]. Evaluating QoL is critical for clinical practice, as treatment success is not solely defined by symptom reduction but also by improvements in overall life satisfaction and daily functioning [14]. Understanding QoL in OCD patients informs therapy by addressing psychosocial impacts. Frequent adolescent OCD cases in clinics highlight the need for QoL research. These patients and their families endure distress, with parents feeling helpless. Peer rejection, academic struggles, and social disruptions worsen QoL. Psychiatric comorbidities further complicate management for patients and providers. Given these challenges, this study aims to evaluate the quality of life and its associations with OCD severity, socio-demographic factors, and clinical profiles among adolescents with OCD attending a tertiary care hospital**METHODOLOGY & MATERIALS**

This cross-sectional descriptive study was conducted from October 2021 to September 2023 at the obsessive-compulsive disorder (OCD) Clinic, Department of Psychiatry, Bangladesh Medical University (BMU). The study included 35 adolescents diagnosed with OCD, selected through purposive sampling. Ethical approval was obtained from the Institutional Review Board, and written informed consent was secured from parents or guardians, along with informed assent from the adolescents before data collection.

Inclusion Criteria:

Adolescents aged 11 to 17 years, irrespective of sex.

Fulfillment of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria for OCD.

Exclusion Criteria:

Adolescents with any other comorbid psychiatric disorder.

Presence of any chronic physical condition.

Adolescents diagnosed with active psychotic disorder, active manic episode, intellectual disability, autism spectrum disorder, attention-deficit/hyperactivity disorder, acute substance intoxication or withdrawal, or any organic condition that might impair communication.

Data Collection Procedure

Data collection commenced after obtaining Institutional Review Board clearance. Each week, adolescents diagnosed with OCD by a consultant psychiatrist at the OCD Clinic were approached along with their caregivers to participate in the study. A structured interview was conducted with the participants, lasting approximately 40-50 minutes, in a private setting within the OCD Clinic. Socio-demographic information was collected using a semi-structured questionnaire. The Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS) was administered to assess obsessive and compulsive symptoms. The severity of obsessions and compulsions was evaluated using the respective severity items on CY-BOCS. To assess the quality of life (QoL), the WHOQOL-BREF Bangla version was administered. This self-rated instrument assesses QoL across four domains: physical

health, psychological well-being, social relationships, and environmental factors. Data were recorded on designated datasheets and later entered into SPSS for analysis. A register ledger was maintained to record participant information, and each participant was assigned a unique identification number to ensure confidentiality. All data, including completed instruments and datasheets, were securely stored in a restricted-access locker available only to the researcher.

Statistical Analysis

Data were processed and analyzed using SPSS version 28. Descriptive analysis was performed to examine the frequency distribution of socioeconomic variables and OCD characteristics. The determinants of QoL were assessed using binary logistic regression and Pearson's correlation tests. A p-value < 0.05 was considered statistically significant.

RESULT

Table 1: Baseline characteristics of adolescents with OCD participated in the study (N=35)

Variables	Frequency (n)	Percentage (%)
Age group (years)		
11-14	10	28.60
15-17	25	71.40
Mean±SD	13±2.24	
Gender		
Male	20	57.10
Female	15	42.90
Residence		
Urban	26	74.30
Rural	9	25.70
Education		
Primary	1	2.90
Secondary	30	85.70
Religion		
Islam	34	97.10
Hinduism	1	2.90
Age of onset (Mean±SD)	13.0±2.24	
Duration of disease (Mean±SD)	2.43±1.70	
Duration of untreated OCD (Mean±SD)	1.35±1.48	

Table 2: Severity of OCD according to CY-BOCS Score (N=35)

Variable	Mean±SD
Obsession	10.34±4.35
Compulsion	9.71±4.36
Total	20.06±8.52

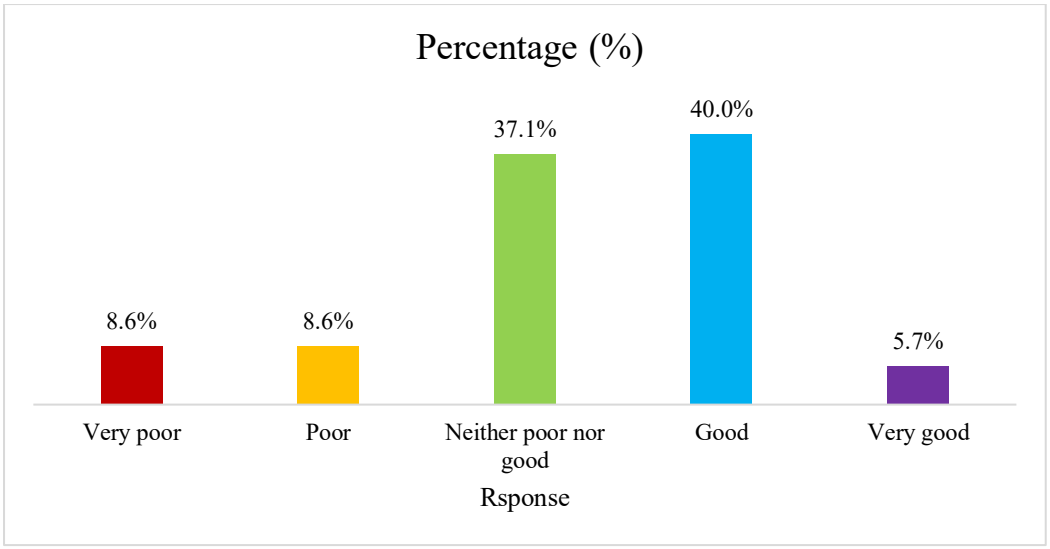

Figure 1: Response to WHOQOL-BREF question 1 (N=35)

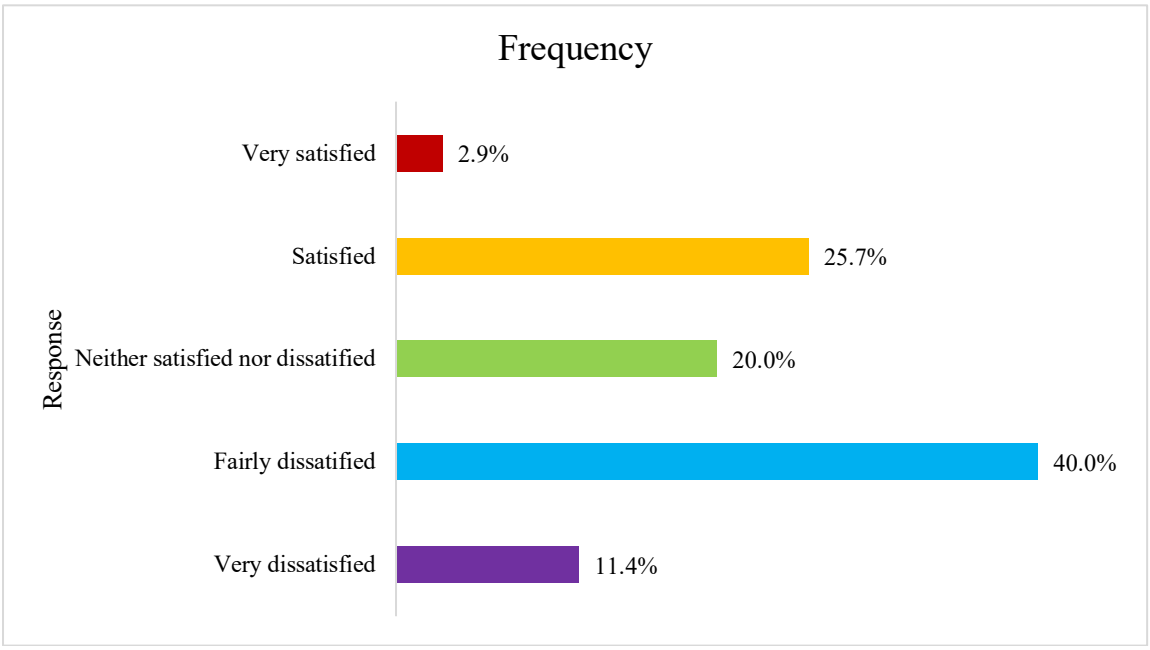

Figure 2: Response to WHOQOL-BREF question 2 (N=35)

Table 3: Quality of life of adolescents with OCD according to WHOQOL-BREF response (N=35)

Domain	Mean±SD	Poor QoL	
		n	%
Physical	51.57±18.06	22	62.90
Psychological	47.77±22.35	23	65.70
Social relationship	54.31±16.94	23	65.70
Environment	54.83±15.21	18	51.40

Table 4: Binary logistic regression analysis showing predicted probability of poor physical QoL (N=35)

Variable	Poor physical QoL		
	B	OR (95% CI)	P value
Age	2.21	9.14 (0.73-113)	0.085
Education	-2.32	0.09 (0.0-1.07)	0.098
Gender			
Male	-4.46	0.01 (0.0-0.28)	0.007*
Female	Ref.		
Residence			
Urban	-2.23	0.10 (0.0-5.57)	0.268
Rural	Ref.		
Family history			
Present	-3.36	0.03 (0.0-0.71)	0.029*
Absent	Ref.		

Table 5: Binary logistic regression analysis showing predicted probability of poor psychological QoL (N=35)

Variable	Poor physical QoL		
	B	OR (95% CI)	P value
Age	2.2	9.06 (1.09-75.19)	0.041*
Education	-2.23	0.10 (0.13-0.84)	0.034*
Gender			
Male	-2.75	0.06 (0.0-0.78)	0.064
Female	Ref.		
Residence			
Urban	-0.12	0.88 (0.09-8.04)	0.911
Rural	Ref.		
Family history			
Present	-1.58	0.20 (0.02-1.82)	0.156
Absent	Ref.		

Table 6: Binary logistic regression analysis showing predicted probability of poor social QoL (N=35)

Variable	Poor physical QoL		
	B	OR (95% CI)	P value
Age	0.26	1.30 (0.54-3.16)	0.55
Education	-0.2	0.81 (0.33-2.01)	0.66
Gender			
Male	-0.02	0.97 (0.19-4.80)	0.971
Female	Ref.		

Residence			
Urban	-0.67	0.51 (0.08-3.25)	0.477
Rural	Ref.		
Family history			
Present	-0.46	0.62 (0.13-2.88)	0.548
Absent	Ref.		

Table 7: Binary logistic regression analysis showing predicted probability of poor environmental QoL (N=35)

Variable	Poor physical QoL		
	B	OR (95% CI)	P value
Age	1.57	4.85 (1.08-21.71)	0.039*
Education	-1.67	0.30 (0.07-1.22)	0.095
Gender			
Male	-0.26	0.76 (0.12-4.61)	0.771
Female	Ref.		
Residence			
Urban	-1.67	0.18 (0.02-1.38)	0.101
Rural	Ref.		
Family history			
Present	0.43	1.54 (0.29-8.07)	0.608
Absent	Ref.		

Table 8: Correlation of WHOQOL-BREF scores with clinical profiles and CY-BOCS score

Characteristic (Year)	Physical	Psychological	Social	Environmental
Clinical profiles				
Age of onset	-0.02	-0.17	0.05	-0.12
Duration	0.01	0.05	-0.23	-0.15
Duration of untreated OCD	-0.06	0.07	0	0.04
CY-BOCS score				
Obsession	-0.53*	-0.51*	-0.12	-0.28
Compulsion	-0.55*	-0.47*	-0.26	-0.34*
Total	-0.56*	-0.51*	-0.19	-0.32

DISCUSSION

Mean age of the participants was 15.3. As we conveniently enrolled adolescents between 11 and 17 years of ages, this mean age was understandable. Two-third of our study sample were in late adolescence. It is known that OCD usually begins in adolescence. In our sample, male constituted 57.1% of the sample. This finding is in line with the fact that, although female could be affected more from adolescence onwards, males predominate in pre-pubertal OCD [15,16]. Majority of our participants were urban residents. The process of urbanization has been on the rise in Bangladesh. Previous studies have indicated that the primary factors driving internal migration from rural to urban in Bangladesh are socioeconomic factors, conflicts, and climatic conditions [17]. Also, the study hospital was located in an urban area. In our study, mean age of onset observed was 13 years. Taylor (2011) mentioned two distinct pattern of onset - early onset (mean onset 11 years) and late onset (mean onset 23 years) and cited 76% of OCD patients can be categorized as early onset [18]. In our sample, mean duration of OCD was 2.4 years and duration of untreated OCD was 1.3 years. Costa et al. conducted a large multicenter study and observed around one-third of individuals with OCD sought treatment within two years of becoming aware of their

symptoms, another one-third sought treatment between two and nine years and the remaining one-third sought treatment after ten or more years. The median length of time to treatment reported was 4 years, with an average of 7.9 years [19]. Longer delay was associated with older age, early onset of OCD symptoms, contamination/cleaning symptoms and being employed full-time. On the other hand, shorter delay in seeking treatment was associated with the presence of aggression symptoms and comorbidity with hypochondriasis. Not on patients delay in seeking help, they also are less adherent to treatment protocol. So, like our study, delay in seeking treatment is also found elsewhere. In our study, mean score on obsession domain found was 10.34 and compulsion domain 9.71 with a total mean CY-BOCS score of 20.06. Chowdhury et al. studied 5-18 years old Bangladeshi OCD patients and reported mean obsession score in CY-BOCS as 15.1 and compulsion as 14 [1]. It appears, severity of obsessive-compulsive symptoms differed based on the age of population studied and other factors. In our study, 8.6% adolescents subjectively reported their QoL as poor and 8.6% reported their QOL as very poor. In the same line, 40% participants reported being fairly dissatisfied and 11.4% reported as being very dissatisfied with their health. The mean score in psychological domain of QoL was the lowest of four domains. Lastly, more than half of the adolescents reported poor QoL in four domains. In 2017, Coluccia et al. showed that OCD had significantly lower scores in global QOL outcomes compared to controls [13]. A study found that OCD patients frequently have co-occurring mental health conditions such as tic disorders, depression, anxiety disorders and disruptive behavior disorders [20]. The combination of these conditions can intensify emotional distress, increase symptom severity and further impact overall quality of life. The constant battle with intrusive thoughts, anxiety and rituals can contribute to emotional exhaustion, decreased self-esteem and a diminished sense of well-being. Low self-esteem and wellbeing may be considered in relation to current cognitive models of OCD, which explain the emergence of compulsions as a result of misinterpretations of intrusive thoughts and inefficient coping mechanisms. Functioning in school may be affected by OCD. Obsessions and compulsions take a lot of time, which can make it difficult to focus, finish projects on time or give tasks complete attention. In a cross-sectional study done among school students in China, 81.7% children with a diagnosis of OCD showed statistically significant decline in academic performance and increasing rate of absenteeism with increased level of education [21]. Another cause of low QoL can be stigma. All psychopathology scores of OCD had a positive correlation with the self-stigma [22]. According to the literature, families of OCD sufferers fear stigma or have actually experienced it, and as a coping mechanism, they hide their loved one's disorder. Shame and guilt are two other emotions that can decrease the QoL in OCD. This can also result in unhealthy coping mechanisms such social disengagement, postponing therapy and reluctance to be honest about one's problems [23]. We observed with increasing age, psychological and environmental QoL of life deteriorates but not physical and social. The findings' regarding age is mixed. Previously some studies reported age had no relation to QoL in OCD [13]. We noticed, with increasing year of education psychological QoL decreased. Previously, it was narrated that well educated have lower levels of emotional distress (including depression, anxiety, and anger) and physical distress (including aches and pains and malaise), but also have higher levels of dissatisfaction in life [24]. Also, increasing educational level means higher age. Earlier it was discussed how age-related increase in comorbidity and academic pressure reduces QoL. In this research, females were more likely to show poor physical QoL; no gender difference observed across psychological, social and environmental domains. This finding is in line with observations from other studies [25,26]. This study also found that those with family history of psychiatric disorderes were less likely to show poor physical QoL. Though there is scarcity of similar finding in previous QOL studies done on OCD, it may be speculated that individuals whose family members are already suffering from mental health conditions, are likely to understand mental health related problems sooner, seek help more than those who do not have any kind of previous exposure to mental health symptoms, thus might have better quality in any of the domains of their lives. In our study age of onset of OCD, duration of OCD and duration of untreated OCD didn't modify QoL. Finally, we observed negative correlation between obsession, compulsion and total scores in CY-BOCS with physical, psychological and environmental QoL. This means higher OCD severity decreases QoL apart from in social domain. Previous studies found that adolescents showed negative correlations between Obsession score and total score on Y-BOCS (Yale Brown Obsessive-Compulsive Scale) and physical and psychological domains in quality of life [27]. Kaur et al. explained that the unpleasant nature of the condition and preoccupation with obsessions and compulsions to relieve the anguish brought on by obsessions can be used to explain this [28]. In conclusion, our study findings suggest that age, gender, education level and severity of OCD symptoms can have varying impacts on different domains of QoL in individuals with OCD.

Limitations of the study:

Cross-sectional design captures data at a single point, limiting causal inference and temporal analysis.

Purposive sampling may introduce bias, reducing generalizability.

Comorbid psychiatric disorders and medication use were not assessed, which could impact the OCD-QoL relationship.

Longitudinal studies are recommended for better understanding QoL changes over time in adolescents with OCD.

CONCLUSION AND RECOMMENDATIONS

In conclusion, this thesis provides valuable insights into the quality of life of adolescents with Obsessive-Compulsive Disorder attending a tertiary care hospital in Dhaka City, Bangladesh. The study found that adolescents with OCD experience significant impairment in their QoL, with more than half of the adolescents reporting poor subjective QoL and dissatisfaction with their health. Psychological domain of QoL was particularly affected, highlighting the impact of OCD on mental well-being. Higher levels of OCD symptoms, as measured by the CY-BOCS, were associated with poorer overall QoL. Age, gender and education level also had varying impacts on different domains of QoL in individuals with OCD.

RECOMMENDATIONS:

Adolescents with OCD experience reduced quality of life across all domains, requiring a biopsychosocial approach that includes treatment of co-morbid disorders, psychological intervention, and social rehabilitation. Psychoeducation for patients and families, along with involvement of family, friends, and teachers, can enhance treatment outcomes. Since OCD is a chronic condition, management should focus not only on medication but also on physical health, functioning, and social inclusion to improve overall quality of life. QoL assessment should be integrated into healthcare and research, with future studies exploring long-term impacts, treatment effectiveness, and factors influencing positive QoL outcomes.

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Conflict of interest: *No.*

Ethical approval: *The study was approved by the Institutional Ethics Committee...*

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