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Quality of Life and Suicidality in Obsessive Compulsive Disorder as Evaluated by WHO BREF

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ABSTRACT

Background: Obsessive Compulsive Disorder (OCD) is a chronic, distressing, anxiety disorder associated with significant functional impairment. Patient with OCD often suffer from one or more co-morbid disorders. Major depression has been the most common co-morbid syndrome. OCD in association with comorbid depressive and anxiety symptoms, increased severity of obsessions, feelings of hopelessness and past history of suicide attempts have been associated with worsening levels of suicidality. As per data Thirty-six percent of the patients of OCD report lifetime suicidal thoughts and 11% have a history of attempted suicide. There is a reasonable probability that the patient of OCD has suicidal thoughts, plans or a suicidal attempt in the past. **Methods:** This study was conducted on 50 patients diagnosed with OCD as per ICD 10 criteria, both outpatient & indoor, from department of psychiatry, Teerthanker Mahaveer Medical College & Hospital, Moradabad, Uttar Pradesh, India. A socio-demographic proforma, Hamilton Depression rating scale, Yale Brown Obsessive Compulsive Scale and WHOQOL-BREF-Hindi version were administered. **Results:** The majority of the patients suffering from OCD were below 40 years of age. The prevalence of OCD was maximum in housewives and they mostly belonged to 25-34 years age group. All the patients who had current suicidal ideation showed low scores on all the domains of Quality of life. Also, the patients who had attempted suicide in the past showed same low scores on all domains of Quality of life and both results were statistically significant. **Conclusion:** Hence the assessment of Quality of life in OCD patient is a strong predictor of suicidality in these patients.

Keywords: Obsessive Compulsive Disorder (OCD), Depression, Suicidality

INTRODUCTION

Obsessive-compulsive disorder (OCD) is a chronic, distressing, anxiety disorder associated with a significant functional impairment. OCD by definition is characterized by intrusive thoughts, impulses or mental images and repetitive behaviours or mental compulsions, which are so disturbing that they negatively affect quality of life (QOL) of the individual. OCD is characterized by recurrent recognized as excessive or unreasonable causing a marked distress, are time-consuming (>1 h/day), interfere with normal function, and are ego dystonic. Though obsessive and compulsive phenomena have been described since the fifteenth century, it was thought to be relatively rare. It was often thought to be an affliction requiring religious intervention. The clinical depiction of obsessive-compulsive phenomena has remained fairly stable over the past century since 'Esquirol' first categorized the disorder. However, description of the clinical variations of obsessions and compulsions has changed considerably in the past two decades.

Life time prevalence of OCD in general population is about 2% and in adults it varies from 1.1% to 3.9%.[1] According to the World Health Organization, OCD is the fourth most frequent psychiatric disorder, after depression, social phobia, and substance abuse.[2]

Quality of Life [QOL] is impaired in various psychiatric disorders like Schizophrenia, major depression, dysthymic disorder, minor depression, generalized anxiety disorder, panic disorder and post-traumatic stress disorder.[3] Obsessive-compulsive disorder (OCD) stands 10th among the leading cause of disability of all medical conditions in the industrialized world.[4] Patient with OCD often suffer from one or more co-morbid disorders. Major depression has been the most common co-morbid syndrome. The lifetime prevalence of depression in patients with OCD is reported between 12% and 70%, whereas the lifetime prevalence of comorbid anxiety disorders in patients with OCD was noticed

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to be 25%–75%. OCD in association with comorbid depressive and anxiety symptoms, increased severity of obsessions, feelings of hopelessness and past history of suicide attempts have been associated with worsening levels of suicidality in OCD.[5] As per data, 36% of patients of OCD reported lifetime suicidal thoughts and 11% have a history of attempted suicide.[6] There is a reasonable probability that the patients of OCD have suicidal thoughts, plans, or suicidal attempt in the past. Suicidal behaviour is the result of a complex interaction of biological, genetic, psychological, sociological, and environmental factors.[7,8] OCD is associated with a high risk for suicidal behaviour. Depression and hopelessness are the major correlates of suicidal behaviour.

According to World Health Organisation, Quality of Life (QOL) is an individual's perception of their position in life in the context and value system in which they live and in relation to their goals, expectations, standards and concern. OCD as a disorder has checkered effect on various domains of QOL in mental health. OCD mainly affects young adults, who are at peak of their productivity in all the spheres of life. Chronic Obsessive-compulsive disorder invariably leads to other comorbid psychiatric disorders which considerably worsens the quality of life leading to significant deterioration in social and work spheres.[9]

These adverse domains of QOL which negatively affect the patient's life is comparable to negative QOL observed in depressive disorders and this poor QOL can be predicted by severity of obsessions and co morbid depression.[10,11] A study which analysed the differential effect of obsessions, compulsions, and depression comorbidity on the QOL of people with OCD, the severity of obsessive phenomenon was found to predict poor QOL while the severity of compulsive acts did not have any greater impact on the evaluation of various domains of QOL and severity of Comorbid depression was the single most prominent indicator of poor QOL, representing 54% of the change.[11] Various other studies have correlated suicidality in OCD patients by using definite objective scales which only shows the current mental state and has no value in predicting future suicidality hence in our study we have tried to assess Quality of Life in Obsessive compulsive disorder and associated comorbid depressive disorder as a predictor of suicidality.

MATERIALS AND METHODS

This study which was a cross sectional observational study was conducted on 50 patients diagnosed with OCD, both outpatient & indoor, from department of psychiatry, Teerthanker Mahaveer Medical College & Hospital, Moradabad, Uttar Pradesh, India as per the International Classification of Diseases, 10 Revision criteria.

Inclusion Criteria

a. Patients of both sexes between 15-65 years of age.
b. Those patients and parents / guardians of minors who had given written informed consent regarding participation in study.
c. Patients who fulfil diagnostic criteria laid down for Obsessive compulsive disorder as per ICD 10.
d. Newly diagnosed patients of Obsessive-compulsive disorder who are not on any medication and old patients of OCD who have discontinued medication for any reason for a period of thirty days or more.

Exclusion Criteria

a. Patients having major medical/ or surgical illness.
b. Patients having a history of head injury, seizure, substance abuse prior to illness.
c. Patients suffering from mental retardation or any other cognitive dysfunction

Instruments

A self- structured Proforma having socio demographic variables of the patient.
YBOCS[12]
HAM-D[13]
WHOQOL-BREF-HINDI VERSION[14]

Data Analysis

Data was entered in Microsoft Excel 2016 and analysis was done using SPSS version 21-software. Statistical differences in proportion were calculated using the chi square test, t-test. Correlation between the various comorbidities and quality of life domains were assessed using Pearson's correlation coefficient and results have been presented using appropriate pie charts, bar charts, boxplots, scatter plots wherever applicable.

RESULTS

- Age range of patients was15 to 62 years.
- Mean age onset was 30.3 ±9.39years.
- The majority of the patients (80%) were below 40 years of age and only 20% were of above 40 years of age. [Fig 1]
- The prevalence of Obsessive-Compulsive Disorder is more common in 25-34 years (42%) age group.

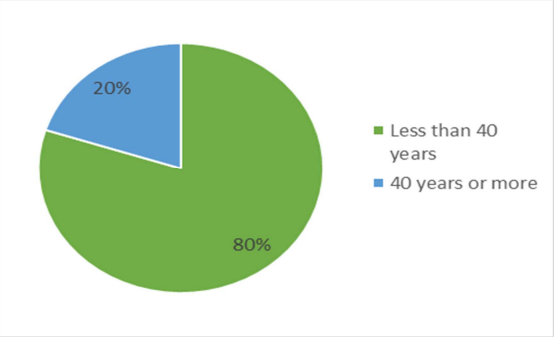

Figure 1: Pie chart showing the age distribution of Participants

Table 1: Distribution of OCD patients according to severity of their Depression

Score on HAM D	Female Number (Percentage)	Male Number (Percentage)	Chi-square and p value
Subclinical (0-7)	3 (10)	5 (25)	Chi-square value = 4.6188 P value = 0.329
Mild Depression (8-15)	7 (23.33)	6 (30)	
Moderate Depression (16-23)	4 (13.33)	4 (20)	
Severe Depression (24-31)	5 (16.67)	2 (10)	
Extreme Depression (32-40)	11 (36.67)	3 (15)	
Total	30 (100)	20 (100)	

In females' maximum (36.6%) number of participants came under very severe category of depression, whereas maximum number (30%) in males were in mild depression category. [Table 1]

Table 2: Distribution of OCD patients according to severity of their OCD (based on YBOCS total score)

OCD Severity Category	Frequency	Percentage
Subclinical (0-7)	0	0
Mild (8-15)	7	14
Moderate (16-23)	20	40
Severe (24-31)	16	32
Extreme (32-40)	7	14
Total	50	100.0

- Most of participants (40%) belonged to the moderate category of OCD on basis of total scores on YBOCS. [Table 2]

Table 3: Distribution of OCD patients according to current suicidal ideation

Current suicidal ideation	Female Number (Percentage)	Male Number (Percentage)	Chi-square and p value
Yes	11 (36.67)	2 (10)	Chi-square value = 4.4352 P value = 0.035*
No	19 (63.33)	18 (90)	
Total	30 (100)	20 (100)	

*significant

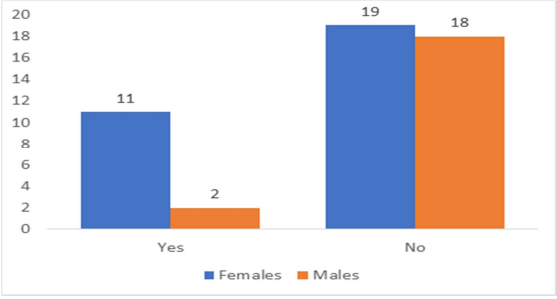

Figure 2: Bar chart showing Distribution of OCD patients according to current suicidal ideation

Current suicidal ideation was found to be present in 36% females and in 10% males and this difference in males and females was significantly different (p value 0.035). [Table 3, Figure 2]

Table 4: Distribution of OCD patients according to past history of suicidal attempts.

Past history of suicidal attempts	Female Number (Percentage)	Male Number (Percentage)	Chi-square and p value
Yes	2 (6.67)	1 (5)	Chi-square value = 0.0591 P value = 0.808
No	28 (93.33)	19 (95.0)	
Total	30 (100)	20 (100)	

Past history of suicide was present in 6.67% females and 5% males and difference was not significant. [Table 4, Figure 3]

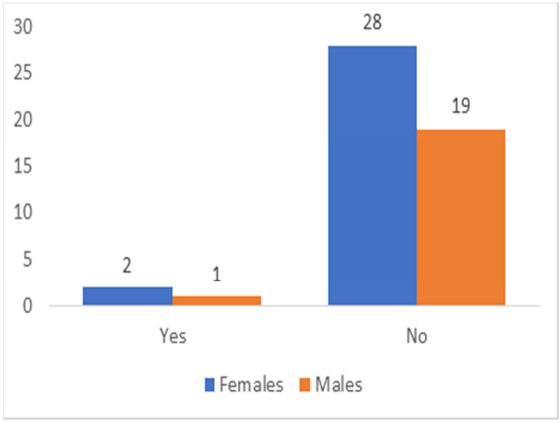

Figure 3: Bar chart showing distribution of OCD patients according to past history of suicidal attempts

Table 5: Relationship of Comorbidity of Depression in Subject and various domains of WHO-BREF

WHO-BREF Domain	No (n=9)	Yes (n=41)	t-value	p-value
Q.1 (Means and SD)	3 (0.86)	2.17 (0.80)	2.7676	0.0080
Q.2 (Means and SD)	3 (0.86)	2.14 (0.76)	2.9773	0.0045
Physical Health (Means and SD)	75.77 (10.66)	47.34 (16.55)	4.9123	<0.001
Psychological (Means and SD)	60.44 (14.51)	35.39 (15.08)	4.5388	<0.001
Social Relationships (Means and SD)	67.44 (21.34)	56.75 (20.62)	1.3997	0.1680
Environment (Means and SD)	68.22 (16.47)	65.58 (14.88)	0.4725	0.6387
Total Score Except Q.1 and Q.2 (Means and SD)	67.97 (12.80)	51.26 (12.75)	3.5566	0.0009

OCD in association with comorbid depressive disorder has a significant negative impact on all domains of quality of life and all results are statistically significant. [Table 5, Figure 4]

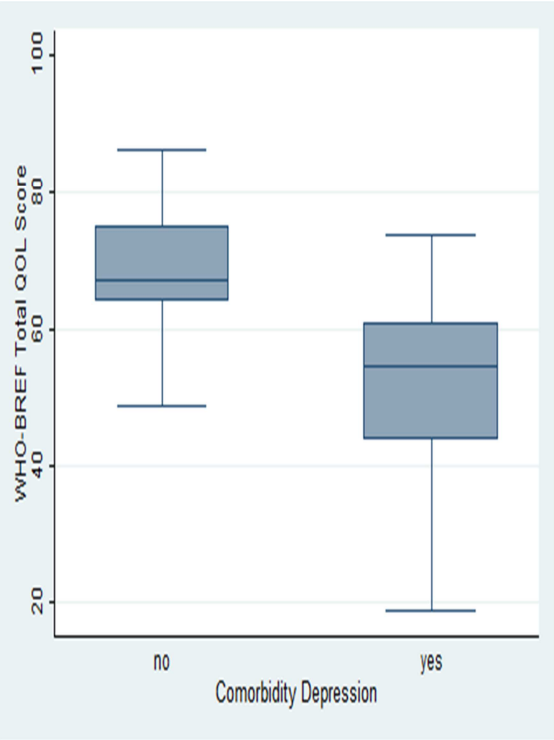

Figure 4: Box plot showing Relationship of Comorbidity of Depression in Subject and Total Score of WHO-BREF

Table 6: Relationship of Severity of Depression in Subjects and various domains of WHO-BREF

WHO-BREF Domain	Hamilton Depression Category: Normal, Mild or Moderate Depression (n=29)	Hamilton Depression Category: Severe or Very Severe Depression (n=21)	t-value	p-value
Q.1 (Means and SD)	2.82 (0.60)	1.61 (0.66)	6.6880	<0.001*
Q.2 (Means and SD)	2.75 (0.68)	1.66 (0.57)	5.9072	<0.001*
Physical Health (Means and SD)	62.72 (13.59)	38.28 (16.41)	5.7491	<0.001*
Psychological (Means and SD)	51.51 (12.35)	23.85 (9.58)	8.5577	<0.001*
Social Relationships (Means and SD)	63.82 (19.6)	51.57 (21.08)	2.1130	0.0398*
Environment (Means and SD)	69.31 (13.40)	61.57 (16.30)	1.8390	0.0721
Total Score Except Q.1 and Q.2 (Means and SD)	61.84 (10.71)	43.82 (11.61)	5.6657	<0.001*

*significant difference

Participant with severe degree of depression were having lower quality of life as compared to participant with milder form of depression. All domains of WHO-BREF were showing significant difference of means except environment domain. [Table 6, Figure 5]

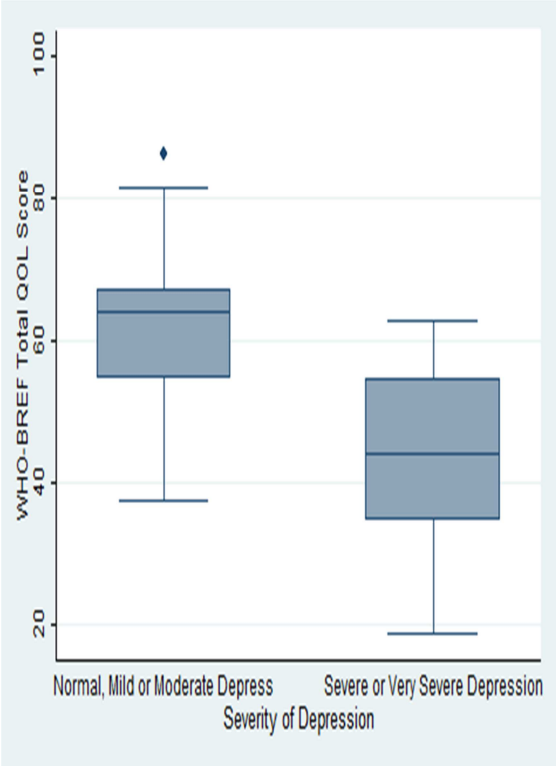

Figure 5: Box plot showing Relationship of Severity of Depression in Subject and Total Score on WHO-BREF

Table 7: Correlation of Severity of Depression and various domains of WHO-BREF

Domain	Correlation coefficient with Severity of Depression (Hamilton scale)	p-value
Q.1 (Means and SD)	-0.7386	0.0000*
Q.2 (Means and SD)	-0.6922	0.0000*
Physical Health (Means and SD)	-0.7815	0.0000*
Psychological (Means and SD)	-0.8252	0.0000*
Social Relationships (Means and SD)	-0.3344	0.0176*
Environment (Means and SD)	-0.3140	0.0264*
Total Score Except Q.1 and Q.2 (Means and SD)	-0.7271	0.0000*

All domains were showing negative Pearson correlation coefficient with significant difference. In other words, severity of depression negatively affects quality of life. [Table 7, Figure 6]

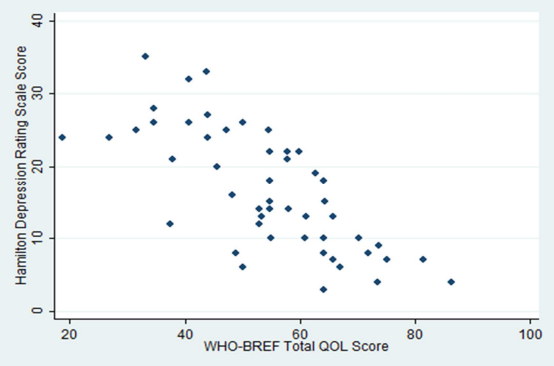

Figure 6: Scatterplot showing relationship of Severity of Depression and overall quality of life

Table 8: Relationship of Current Suicidal Ideation in Subjects and various domains of WHO-BREF

WHO-BREF Domain	No (n=37)	Yes (n=13)	t-value	p-value
Q.1 (Means and SD)	2.64 (0.71)	1.38 (0.50)	5.8567	<0.001*
Q.2 (Means and SD)	2.62 (0.68)	1.38 (0.50)	5.9768	<0.001*
Physical Health (Means and SD)	59.51 (14.87)	32.38 (15.25)	5.6204	<0.001*
Psychological (Means and SD)	46.81 (14.69)	20.23 (8.45)	6.1484	<0.001*
Social Relationships (Means and SD)	64.05 (18.98)	43.38 (19.19)	3.3682	0.0015*
Environment (Means and SD)	69.27 (13.91)	56.92 (14.85)	2.7057	0.0094*
Total Score Except Q.1 and Q.2 (Means and SD)	59.91 (10.83)	38.23 (9.67)	6.3693	<0.001*

* significant difference

The participants, who were having 'current suicidal ideation', had lower quality of life as compared to participants not having such symptom.
Means of all domain were significantly different in all domains of WHO-BREF. [Table 8, Figure 7]

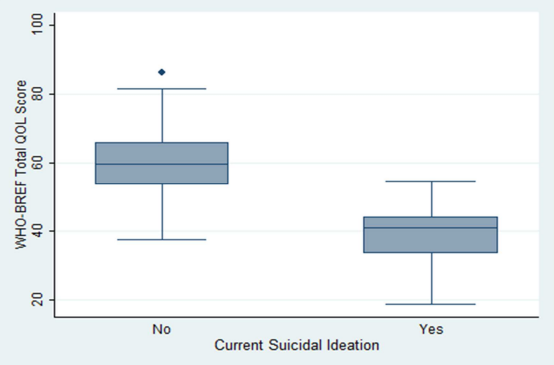

Figure 7: Box plot showing Relationship of Current Suicidal Ideation in Subjects and Total Score on WHO-BREF

Table 9: Relationship of Past history of suicidal attempt in Subjects and various domains of WHO-BREF

WHO-BREF Domain	No (n=47)	Yes (n=3)	t-value	p-value
Q.1 (Means and SD)	2.38 (0.84)	1.33 (0.57)	2.1014	0.0409*
Q.2 (Means and SD)	2.34 (0.84)	1.66 (0.57)	1.3600	0.1802
Physical Health (Means and SD)	54.21 (18.18)	25 (10.39)	2.7360	0.0087*
Psychological (Means and SD)	41.25 (17.24)	18.66 (12.50)	2.2221	0.0310*
Social Relationships (Means and SD)	59.23 (20.50)	50 (31)	0.7368	0.4648
Environment (Means and SD)	65.34 (15.10)	77.33 (9.71)	-1.3503	0.1832
Total Score Except Q.1 and Q.2 (Means and SD)	55.01 (13.96)	42.75 (15.52)	1.4675	0.1488

Past history of suicide also has negative impact on various domains of QOL and this effect was more in Q1, Physical Health and Psychological health domains as compared to social relationships and environmental domain. [Table 9, Figure 8]

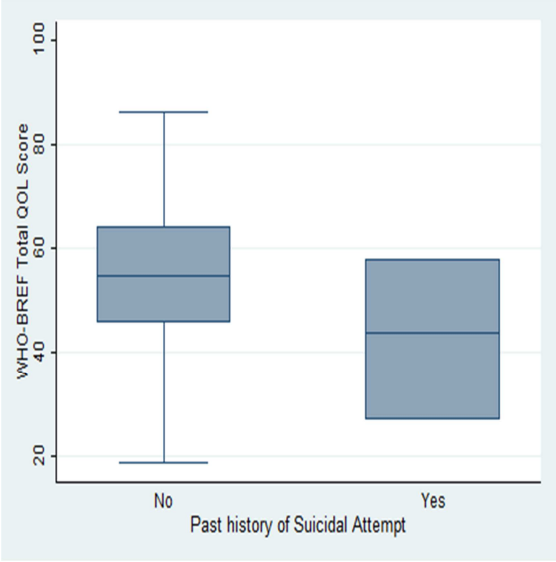

Figure 8: Box plot showing Relationship of Past history of suicidal attempt in Subject and Total Score of WHO-BREF

DISCUSSION

In current study age range of patients was 15 to 62 years and the mean age of onset was 30.3 ± 9.39 years. The majority of the patients (80%) were below 40 years of age and only 20% were of above 40 years of age. Similar age distribution of OCD

patients was also found in other studies. Vasudev R. G. et al (2015) conducted a cross sectional study on OCD patients and found that 73.3 % of patients were less than 30 years of age.[15]

Past investigators have demonstrated in OCD, QOL in psychological and social domain could be relatively more affected than different domains in view of internal distress caused by obsessions and compulsions. In our study we found that in patients experiencing OCD Psychological domain was more influenced when compared with different domains of QOL. Environmental domain of QOL did not show much impairment because OCD being a non-psychotic disorder, these patients don't perceive much difficulty in meeting ordinary demands of life. A study done by Moritz SA et al,[16] have also showed impaired QOL across a wide range of domains particularly in social and mental health aspects.

In our study we also found that presence of Current Suicidal Ideation is associated with low means in all the domains of QOL and differences were statistically significant for all of them. We also found that past history of suicidal attempt is associated with statistically low means in Q1, Physical health and psychological health domains. These results clearly show that patients who are having disturbance in QOL in more than 2 domains were more likely to have attempted suicide in the past. These findings correlate very well with the patients who are having OCD and current suicidal ideations and showing disturbance in more than two domains of QOL. This was an interesting finding in our study hence we recommend that QOL should be assessed in all the OCD patients to predict suicidality. No other researcher in the past has studied poor quality of life in 2 or more domains as a predictor of suicidality. A study done by Tenney NH et al,[17] studying the effect of pharmacological intervention on quality of life in patients with obsessive-compulsive disorder demonstrated an interesting finding that QoL improvements in persons with OCD appear to be relatively independent from the reduction of OC symptoms.

Moreover, a study by Masellis M et al,[11] also demonstrated severity of depressive symptoms rather than OCD symptoms may be a better indicator of QOL in these patients who have OCD and depression comorbidity.

CONCLUSION

All the patients who had current suicidal ideation showed significant impact on all the domains of QOL. Greater than one third of female patients suffering from OCD reported current suicidal ideation. We found that disturbance in the quality of life in more than two domains was a significant indicator of suicidality in OCD patients. Hence the assessment of Quality of life in OCD patient is a strong predictor of suicidality in these patients.

REFERENCES

1. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry 2005; 62: 593-602.
2. Murray CJL, Lopez AD. The global burden of disease. Cambridge: Harvard University Press; 1996
3. Kroenke K, Linzer M, Hahn SR, Williams JB, DeGruy FV. Health Related Quality of Life in Primary Care Patients with Mental Disorders. JAMA. 1995;274(Suppl 19):1511-7.
4. Murray CJ, Lopez AD. The Global Burden of Disease Harvard University Press. Cambridge, Massachusetts. 1996
5. Angelakis I, Gooding P, Tarrier N, Panagioti M. Suicidality in obsessive compulsive disorder (OCD): a systematic review and meta-analysis. Clinical psychology review. 2015 Jul 1; 39:1-5.
6. Zohar AH, Ratzoni G, Pauls DL, Apter A, Bleich A, Kron S, Rappaport M, Weizman A, Cohen DJ. An epidemiological study of obsessive-compulsive disorder and related disorders in Israeli adolescents. Journal of the American Academy of Child & Adolescent Psychiatry. 1992 Nov 1;31(6):1057-61.
7. World Health Organization. Multisite Intervention Study on Suicidal Behaviors, SUPRE-MISS. Geneva: WHO; 2002.
8. Maris RW. Suicide. Lancet. 2002; 360:319–26.
9. Hantouche EG, Bouhassira M, Lancrenon S, Ravily V, Bourgeois M. Prevalence of obsessive-compulsive disorders in a large French patient population in psychiatric consultation. L'Encephale. 1995;21(5):571-80.
10. Koran LM, Thienemann M, Davenport R: Quality of life in patients with obsessive compulsive disorder. Am J Psychiatry, 156: 783 – 788, 1996
11. Masellis M, Rector NA, Richter MA. Quality of life in OCD: differential impact of obsessions, compulsions, and depression comorbidity. Can J Psychiatry 2003; 48: 72-77
12. Woody SR, Steketee G, Chambless DL. Reliability and validity of the Yale-Brown Obsessive-Compulsive Scale. Behav Res Ther 1995 Jun; 33(5): 597 – 605
13. Hamilton M: A rating scale for depression: J Neurol Neurosurg Psychiatry. 23: 56, 1960
14. WHO QOL BREF- Field Trial Version December 1996. Available from: http://[9]www.who.int/mental_health/media/en/76.pdf
15. Vasudev RG, Yallappa SC, Saya GK. Assessment of Quality ofLife(QOL)in Obsessive Compulsive Disorder (OCD) and Dysthymic Disorder (DD): A Comparative Study. Journal of clinical and diagnostic research : JCDR. 2015;9(5):VC04-VC7
16. Moritz SA. Review on quality of life and depression in obsessive-compulsive disorder. CNS Spectr 2008;13(9 Suppl 14):16-22
17. Tenney NH, Denys DAJP, van Megen HJGM, Glas G, Westenberg HGM:Effect of a pharmacological intervention on quality of life in patientswith obsessive-compulsive disorder. Int Clin Psychopharm 2003, 18:29–33

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