International Journal of Life Sciences, Biotechnology and Pharma Research Vol. 13, No. 8, August 2024 Online ISSN: 2250-3137
Print ISSN: 2977-0122

DOI: 10.69605/ijlbpr_13.8.2024.68

ORIGINAL RESEARCH

A Study of Family Accommodation, Insight, Treatment Adherence and Disease Severity among Female Patients with Obsessive-Compulsive Disorder

Raghvendra Mahashabde[1*], Srikanth Reddy[2]

[*1]Junior Resident, Department of Psychiatry, Sri Aurobindo Medical College & Post Graduate Institute, Indore M.P., India
[2]Professor & Head of Department, Department of Psychiatry, Sri Aurobindo Medical College & Post Graduate Institute, Indore M.P., India.

Corresponding Author
Dr. Raghvendra Mahashabde
Junior Resident, Department of Psychiatry, Sri Aurobindo Medical College & Post Graduate Institute, Indore M.P., India
Email: raghv.mahashabde@gmail.com

Received: 30 April, 2024 Accepted: 09 July, 2024

ABSTRACT

Background and Aim: Family Accommodation is an important however seldomly addressed aspect of Obsessive-Compulsive Disorder. Studies worldwide have shown that Higher Family Accommodation is related to Higher Severity of OCD and Morbidity. In this study we aim to understand the factors associated with Family Accommodation and Disease Severity in Female patients of Obsessive-Compulsive Disorder. **Methods:** A cross-sectional observational study done in 36 Female Patients presenting to Outpatient Department of Psychiatry Department in a Tertiary Care Centre of Central India, during a period of Sept-2022 to Feb-2024.Patients were assessed for Socio-Demographic and Clinical Variables using Semi-Structured Proforma, Yale Brown Obsessive Compulsive Scale (YBOCS), Family Accommodation Scale – Patient Version (FAS-PV), Clinical Global Impressions – Severity Scale (CGI-S) and Clinician Rating Scale (CRS) for Treatment Adherence. Statistical Analysis: Summary Statistics, t-test, ANOVA, Correlation and Regression analysis were applied and presented. **Result:** Higher Family Accommodation Scores were related to Higher Severity of OCD, Higher Impairment in Global Functioning, Poorer Treatment Adherence and Poorer Insight. Education, Socio-Economic Status and Family's Attitude also contribute towards Family Accommodation in these patients. **Conclusion:** Family Accommodation was positively correlated with Severity of OCD and Global Impairment in Patient's Functioning. These findings pave the way for better involvement of Patient's Family in order to decrease the burden of illness and distress faced by patients and their family members.

Key words: Obsessive Compulsive Disorder, Females, India, Family Accommodation, Insight, Treatment Adherence, Correlation Analysis.

INTRODUCTION

Obsessive-Compulsive Disorder is a chronic psychiatric illness with significant impairment in patient's life both due to the time consumed as a result of the illness and consequential impairment in patients personal, family and occupational life.

An aspect of this illness that is seldomly addressed is the effect OCD has on the patient's environment, family members and the measures that are taken by the family members due to patients OCD. Family Accommodation is defined as the behavior modification done by the family members in response to patient's OC Symptoms [1]. Such behaviors range from reassurance, taking on patient's roles and responsibilities, modifying own environment, behavior and routines. Studies and Meta-Analysis of Family Accommodation and OCD have shown that there exists a positive relation between Family Accommodation and Severity of OCD [2,3], meaning higher the Accommodating Behaviors, higher the Severity of OCD.

In this study, we aimed to further understand the factors related to severity of OCD and Family Accommodation among Female Patients. Primary

DOI: 10.69605/ijlbpr_13.8.2024.68

outcome measures were defined as Severity of Illness and Family Accommodation to OCD.Primary Hypothesis - Higher Family Accommodation is related to Poor Treatment Adherence, lower insight and higher severity of OC Symptoms.

MATERIALS AND METHODS

The study was conducted in accordance with ethical principles and was approved by Institutional Ethical Review Board of Sri Aurobindo Medical College & Post Graduate Institute (SAMC & PGI), Indore where the study was conducted. All participants gave written informed consent for the study. The study followed The Strengthening and Reporting of Observational Studies in Epidemiology **(STROBE)** reporting guidelines[4].

Study Design

We employed a cross-sectional study design, patient's visiting Outpatient Clinic of Department of Psychiatry at SAMC & PGI, Indore were approached for the study. Female patients fulfilling DSM-5TR[5] diagnosis of Obsessive-Compulsive Disorder, of age group 18-65 years were included for the study. Exclusion criteria of concurrent severe psychiatric disorder was applied.According to the NMHS 2015-16, prevalence of OCD in India was 0.8%[6]. As the sample size based on prevalence estimates were less than 30, convenience sampling of OCD patients attending Outpatient Clinic were taken during the time period Sept 2022-Feb 2024. Out of 40 Female patients diagnosed with OCD, 36 patients consented for the study and fulfilled the inclusion and exclusion criteria.

Data Collection Tools

Semi-Structured Proforma was used to collect information on Age, Residence, Education, Marital Status and Socio-economic Status of the patient. Clinical Variables such as Age of Onset of OCD, Duration of Illness, History of Inpatient Hospitalization for OCD, History of Alternative Medicine Use, History of Psychological Interventions, Family Interventions and Family members accompanying the patient for their consultation were assessed.

Yale Brown Obsessive Compulsive Scale (Y-BOCS) was developed by Goodman et al in 1989 to assess for severity of OCD. Sum of Items 1-5 are calculated for Obsessions, Sum of Items 6-10 for Compulsions and Sub of Items 1-10 for YBOCS Score. Item 11 was used to measure Insight of Patients[7,8].

Clinical Global Impressions – Severity (CGI-S) is an interviewer rated 1-item ordinal scale from 0 – 6 which provides measure of overall impairment of patient's functioning. Higher scores denote greater impairment of patient's functioning[9,10].

Family Accommodation Scale – Patient Version (FAS-PV) is a 19 item measure of Family Accommodation which was adapted from the earlier Family Accommodation Scale, developed by Calvocoressi et al (1995) and has shown to have food validity and consistency with Self Rated and Interviewer Rated Versions of the Scale[1,11–14]. While most researchers have reported Family Accommodation as a singular construct, Factor Analysis done by various groups have reported validity of multi-dimensional nature of Family Accommodation [15,16], an expert group report gave a four dimension measure of Family Accommodation [17]: Direct Participation and Facilitation of OC Symptoms (Sum of items 1,2,4, 5 & 6), Avoidance of OCD Triggers (Sum of items 3, 7, 12, 13, 15 & 16), Taking on Patient's Responsibilities (Sum of items 8, 9, 10, 11 & 14) and Modification of Personal Responsibilities (Sum of items 17, 18 & 19).

Clinician Rating Scale (CRS) is a 1-item ordinal scale from 1 – 7 which is used to quantify treatment adherence by a clinician's judgement [18,19]. Better adherence is represented by higher scores. The CRS Measure has been shown to correlate against structured measures of treatment adherence such as Drug Attitude Inventory – 10 (DAI-10) and Medication Adherence Rating Scale (MARS)[20].The scale ranges from 1 – Complete Refusal, 2 – Partial Refusal, 3 – Accepts only because compulsory, or very reluctant, 4 – Occasional Reluctance, 5 – Passive Acceptance, 6 – Moderate Participation, 7 – Active Participation and shows responsibility for regimen.

STATISTICAL ANALYSIS

All statistical tests (i.e. χ^2, *t*-tests, ANOVA, Post-Hoc analysis, Pearson Correlation analysis and Multiple Regression analysis) were conducted using SPSS V27. P values less than .05 were taken as statistically significant.Mean and SD were calculated for Age of Participants, and Frequencies were calculated for Marital Status, Education, Residence. Socio-Economic Status were calculated by summation of Education of Head of Family, Occupation of Head of Family and Per Capita Income in accordance with modified Kuppuswamy Classification Scale (2021)[21].Means were calculated for Age of Onset, Duration of Illness, YBOCS Obsessions, Compulsions and YBOCS Total Scale, Family Accommodation Scale and Subdomains.Mode and Percentages were calculated for Insight (YBOCS Item 11), CGI-S. Frequency and Percentages were calculated forClinician Rating Scale, Clinical Variables related to OCD among patients and their family members.Independent t-test and ANOVA analysis was done for finding association between various Quantitative and Qualitative Variables. Pearson's correlation coefficient was calculated among Subdomains of Family Accommodation Scale, YBOCS Scale.

DOI: 10.69605/ijlbpr_13.8.2024.68

RESULT

Socio-Demographics Profile

Summary Measures of Socio-Demographic Data are presented in Table 1. Mean age of Participants was 35.78 ±10.7 Years. Majority of the patients were Married (75%), resided in Urban Areas (83.3%), had a Graduate and Higher Education (58.3%), and belonged to Middle Socio-Economic Class (66.7%).

Table 1 - Socio-Demographic Profile of Sample Population

Table. Baseline Socio-demographics of Sample Population (n = 36)	
Characteristics	**Summary Measures**
Age of Participants, mean (SD), years	35.78 (10.7)
Marital Status	
Married, No (%)	27 (75)
Unmarried, No (%)	9 (9)
Education	
Illiterate, No (%)	1 (2.8)
Secondary, No (%)	2 (5.6)
Higher Secondary, No (%)	12 (33.3)
Graduate, No (%)	20 (55.6)
Post Graduate, No (%)	1 (1.8)
Residence	
Urban, No (%)	30 (83.3)
Rural, No (%)	6 (16.7)
Socio-Economic Status	
Lower Middle Class, No (%)	8 (22.2)
Middle Class, No (%)	24 (66.7)
Upper Middle Class, No (%)	3 (8.3)
Upper Class, No (%)	1 (2.8)
Note. SD = Standard Deviation.	

Clinical Characteristics of Obsessive-Compulsive Disorder

Summary Measures for Clinical Variables are shown in Table 2. Mean Age of Onset of OCD was 28.69 ± 7.94 Years, and Mean Duration was 7.09 ± 5.1 Years. Scores of YBOCS and FAS-PV are presented further.

Table 2 - Clinical Characteristics of OCD

Table. Baseline Clinical Characteristics of Sample Population (n = 36)	
Characteristics	**Summary Measures**
Age of Onset of Illness, mean (SD), years	28.69 (7.94)
Duration of Illness, mean (SD), years	7.09 (5.1)
History of Inpatient Hospitalization due to OCD, No (%)	7 (19.4)
History of Alternative Medicine Use, No (%)	18 (50)
History of Psychological Intervention, No (%)	9 (25)
Patient's whose family members accompanied them to their doctor, No (%)	35 (97.2)
History of Family Intervention, No (%)	4 (11.1)
Insight, mode, No (%)	1, 19 (52.8)
CGI-S, mode, No (%)	3, 17 (47.2)
YBOCS	
YBOCS Obsession Scale, mean (SD)	11.92 (2.97)
YBOCS Compulsion Scale, mean (SD)	11.17 (3.2)
YBOCS Score, mean (SD)	23.08 (5.83)
Family Accommodation Scale (FAS-PV)	
Direct Participation and Facilitation of Patient's Triggers, mean (SD)	8.94 (5.44)
Avoidance of OCD Triggers, mean (SD)	10.42 (5.62)
Taking on Patient's Responsibilities, mean (SD)	6.97 (5.04)
Modification of Personal Responsibilities, mean (SD)	3.03 (2.79)
FAS Score, mean (SD)	29.6 (17.22)
Clinician Rating Scale (CRS), mode, mean (SD)	6, 4.97 (1.44)
Note. CGI-S = Clinical Global Impressions – Severity Scale, YBOCS = Yale Brown Obsessive Compulsive	

DOI: 10.69605/ijlbpr_13.8.2024.68

Scale, FAS = Family Accommodation Scale, SD = Standard Deviation, OCD = Obsessive Compulsive Disorder

Association between dimensions of family accommodation and severity of obsessive-compulsive disorder.
Correlation matrix between FAS-PV Scale, Dimensions of Family Accommodation and YBOCS Scores are shown in Table – 3. The four-dimension structure of Family Accommodation showed positive correlation among themselves and with FAS-PV Score ($p < 0.01$). FAS-PV and YBOCS showed a positive correlation of 0.436 ($p < 0.01$). Higher scores of Family Accommodation were associated with higher severity of OCD. DPFT, AOT dimensions of Family Accommodation did not show any significant correlation with YBOCS-O Subscale and YBOCS Total Score, while DPFT and AOT showed positive correlation with YBOCS-C Subscale ($p< 0.05$), indicating that Compulsions, not Obsessions may be a driving factor of Family Accommodation in Patients.

Table 3 - Correlation between FAS-PV and YBOCS

Table. Pearson Correlation for YBOCS

	DPFT	**AOT**	**TPR**	**MPR**	**FAS-PV**	**YBOCS-O**	**YBOCS-C**	**YBOCS Total**
DPFT	1							
AOT	.891**	1						
TPR	.757**	.806**	1					
MPR	.478**	.689**	.752**	1				
FAS-PV	.910**	.961**	.921**	.766**	1			
YBOCS-O	.191	.165	.466**	.383*	.333	1		
YBOCS-C	.345*	.329*	.663**	.482**	.488**	.782**	1	
YBOCS Total	.287	.265	.598**	.460**	.436**	.940**	.948**	1

Note. **Correlation Significant at 0.01levels(2-tailed), * Correlation Significant at 0.05 level (2-tailed). YBOCS = Yale Brown Obsessive Compulsive Scale, YBOCS-O = Yale Brown Obsessive Compulsive Scale – Obsessions Subscale, YBOCS-C = Yale Brown Obsessive Compulsive Scale – Compulsions Subscale, FAS-PV = Family Accommodation Scale – Patient Version, DPFT = Direct Participation & Facilitation of OC Symptoms, AOT = Avoidance of OCD Triggers, TPR = Taking on Patient's Responsibilities, MPR = Modification of Patient's Responsibilities.

Association between Socio-demographic Variables and Clinical Characteristics of OCD.
Independent Sample t-test and ANOVA analysis showed that there were no statistically significant difference measures of YBOCS and FAS-PV with Marital Status, Socio-Economic Status, History of Inpatient Hospitalization, Alternative Medicine Use, History of Psychological Intervention, Family Intervention.YBOCS-O Subscale showed significant difference in between Urban (11.47 ± 2.9) and Rural (14.17 ± 2.32); $t(34) = -2.13$, $p = .04$, with higher mean Obsessions score in Rural Population. Significant difference in Family Accommodation and Severity of OCD was seen with Education, however further subgroup analysis was not done owing to distribution.
A one-way ANOVA was done to compare Insight with FAS-PV and YBOCS, which revealed that there was statistically significant difference between at least 2 groups in MPR ($F(3, 32) = 4.5$, $p = .01$), YBOCS-O ($F(3, 32) = 7.94$, $p = <.001$), YBOCS-C ($F(3, 32) = 5.74$, $p = .003$), YBOCS Total ($F(3, 32) = 7.93$, $p = <.001$).Patients with Excellent Insight had lower scores on MPR, YBOCS – O Subscale, YBOCS – C Subscale and YBOCS – Total Scores. One-Way ANOVA also revealed that there were no significant differences in DPFT, AOT, TPR and FAS-PV Scores with Insight.

Table 4 - Association between Socio-demographic and Clinical Variables, YBOCS and FAS Scores

Table.

	FAS-PV					**YBOCS**		
	DPFT	**AOT**	**TPR**	**MPR**	**FAS-PV**	**YBOCS-O**	**YBOCS-C**	**YBOCS Total**
Marital Status	.469	.56	.936	.83	.832	.895	.644	.748
Residence (*t34)*	.484	.612	.841	.447	.978	**.04***	1	.307
Education	.075	**.014***	**<.01***	**<.01***	**<.01***	.079	**.047***	**.043***
Socio-Economic Status	**.048***	.202	.209	.296	.254	.191	.069	.085
History of Admission due to OCD	.784	.821	.948	.312	.927	.289	.2	.213
Alternative Medicine	.365	.466	.372	.861	.461	.293	.61	.415

DOI: 10.69605/ijlbpr_13.8.2024.68

Use								
History of Psychological Intervention	.509	.987	.837	.183	.923	.355	.443	.371
Family member accompanying for psychiatric consultation	.096	.059	.164	0.287	.081	.299	.569	.4
Family Intervention	.718	.622	.688	.195	.913	.771	.787	.766
Insight	.84	.376	.115	**.01***	.321	**<.01***	**<.01**	**<.01**
CRS	.086	**.**356	**.**202	.356	.317	**.01**	**.027**	**<.01**
Note. ** Correlation Significant at 0.01 levels (2-tailed), * Correlation Significant at 0.05 level (2-tailed). YBOCS = Yale Brown Obsessive Compulsive Scale, YBOCS-O = Yale Brown Obsessive Compulsive Scale – Obsessions Subscale, YBOCS-C = Yale Brown Obsessive Compulsive Scale – Compulsions Subscale, FAS-PV = Family Accommodation Scale – Patient Version, DPFT = Direct Participation & Facilitation of OC Symptoms, AOT = Avoidance of OCD Triggers, TPR = Taking on Patient's Responsibilities, MPR = Modification of Patient's Responsibilities, CRS – Clinician Rating Scale.								

Correlation Analysis showed that Global Impairment in Functioning (CGI-S) was positively correlated with Family Accommodation, r(34) = 0.634, p = <.001, indicating that Higher Family Accommodation was associated with Higher Impairment in Global Functioning of the Patient. CGI-S also showed positive correlation with YBOCS Scales and Subscales, r(34) = 0.604, p = <.01, indicating that higher severity of OCD was associated with higher impairment in Global Functioning.

Treatment Adherence (CRS) showed significant negative correlation with DPFT,r(34) = -0.382, p = .021, however did not have significant correlation with other aspects of Family Accommodation. CRS also showed significant negative correlation with YBOCS-O Scores,r(34) = -0.334, p = .047, however did not have any other significant correlation with YBOCS-C or YBOCS Total Scores.

Table 5 - Correlation analysis of Insight, Severity and Treatment Adherence with Family Accommodation and YBOCS

Table. Pearson Correlation Matrix of Family Accommodation and YBOCS Scores with CGI-S and CRS.								
	DPFT	**AOT**	**TPR**	**MPR**	**FAS-PV**	**YBOCS-O**	**YBOCS-C**	**YBOCS Total**
CGI-S	**.41***	**.454****	**.711****	**.676****	**.634****	**.571****	**.57****	**.604****
CRS	**-.382***	-.220	-.221	-.191	-.283	**-.334***	-.271	-.319
Note. ** Correlation Significant at 0.01 levels (2-tailed), * Correlation Significant at 0.05 level (2-tailed). YBOCS = Yale Brown Obsessive Compulsive Scale, YBOCS-O = Yale Brown Obsessive Compulsive Scale – Obsessions Subscale, YBOCS-C = Yale Brown Obsessive Compulsive Scale – Compulsions Subscale, FAS-PV = Family Accommodation Scale – Patient Version, DPFT = Direct Participation & Facilitation of OC Symptoms, AOT = Avoidance of OCD Triggers, TPR = Taking on Patient's Responsibilities, MPR = Modification of Patient's Responsibilities.								

A multiple regression was run to predict Family Accommodation Scores from Marital Status, Residence, Education, Socio-Economic Status, Clinical Variables, CRS, CGI-S and YBOCS. Education Status, Family members accompanying patient for consultation, Socio-economic status, CRS and CGI-S shown statistically significantly predicted FAS=PV Scores, F(18, 15) = 4.199, p = .004, R2 = 0.834, presented in Table – 6.

Table 6 – Multiple Regression Analysis of factors for Family Accommodation

Table. Multiple Regression analysis for factors affecting Family Accommodation.			
Study Variables	**FAS-PV**		
	β	**t**	***p***
Education Status	-.666	-2.36	**.032**
Did your family ever accompany you to a psychiatrist for consultation?	.542	3.833	**.002**
Socio-Economic Status	.723	2.701	**.016**
CRS	.601	2.914	**.011**
CGI-S	.518	2.533	**.023**
Note. FAS-PV = Family Accommodation Scale – Patient Version, CRS = Clinician Rating Scale, CGI-S = Clinical Global Impressions – Severity.			

DOI: 10.69605/ijlbpr_13.8.2024.68

DISCUSSION

This study was among the first to identify factors associated with severity and family accommodation of Female patients in Indian Population. We assessed 36 Female OCD Patients who were seeking treatment from a tertiary care Psychiatry Clinic. Mean age of participants were 35.78 ± 10.7 Years.Patients were predominately Married (75%), lived in Urban Areas (83.3%) were educated at Graduate level and above (58.3%) and belonged to Middle Socio-Economic Class (66.7%).

Mean age of Onset of OCD was 28.69 ± 7.94 in Females, which could be explained with studies reporting that Females may show later Age of Onset of OCD[21,22].

Association of Marital Status, Socio-Economic Status, History of Inpatient Hospitalizations, Residence and Psycho-therapies related behaviors was found to be not statistically significant. Rural Residence was associated with Higher scores of Obsessions on YBOCS (p = 0.04). Mean YBOCS Scores were 23.08 ± 5.83, with similar scores in both Obsessions11.92 ± 2.97 and Compulsions 11.17 ± 3.2. Majority of Patients reported Moderate Impairment in functioning (47.2%) and had Excellent to Good Insight (66.6%). Mean Family Accommodation Scores were high 29.6 ± 17.22 in the sample population.

DPFT showed a small correlation with Compulsion Score of YBOCS (p = <0.05), however did not show significant correlation with Obsessions Score & YBOCS Total Score. Similarly, Avoidance of Triggers (AOT) showed positive correlation with YBOCS-C (p = <0.05), however did not show significant correlation with Obsessions and Total YBOCS Score. Both Taking on Patient's Responsibilities and Modification of Patient's Responsibilities showed positive correlation with Obsessions, Compulsions and Total YBOCS Score (p = <0.01).

FAS-PV showed positive correlation with Compulsions and YBOCS Total Score (p = <0.05), however did not show any significant correlation with Obsession Subscale of YBOCS. This might indicate that Compulsions, not Obsessions may be the driving factor behind Family's Accommodating Behaviors.

Better Insight was associated with lower mean scores of Modifications of Personal Responsibilities Subscale of Family Accommodation (p = .01). We postulate that in the absence of insight in patients, family members start modifying their personal life in order to cater patient's behaviors. We also observed that patients with better insight was associated with lower severity of OC Symptoms (p = <.01).

Higher Functional Impairment was positively correlatedHigher Family Accommodation (p = <.05) and Higher YBOCS Scores (p< .01).

The Mean YBOCS scores between different levels of treatment adherence rates based on CRS showed statistically significant difference (p = <.05). Higher rating on CRS was negatively correlated with DPFT dimension of Family Accommodation (p = <.05), indicating better the treatment adherence lesser is the DPFT dimension of Family Accommodation. Higher Rating on CRS was also negatively correlated with Obsessions Score of YBOCS (p = <.05), indicating better treatment adherence was associated with lesser severity of Obsessions.

Multiple Regression analysis of factors affecting Family Accommodation showed that Education of Patient (p = .032), Socio-Economic Status (p = .016), Treatment Adherence (p = .011), Global Functioning Impairment (p = .023) and Family members accompanying the patient for psychiatric consultations (p = .002) influenced the overall Family Accommodation of patients.

CONCLUSION

Higher FA was a predictor for higher severity of OCD, higher impairment in global functioning and worse outcomes in OCD. Poor Insight and Poor Treatment Adherence has been associated with Higher FA Scores and Higher YBOCS Scores. Treatment Adherence and Family Interventions can be used to target Family Accommodation, which could lead to better treatment outcomes and better Improvement in Functioning among Female OCD Patients.

Limitations of the study

A limitation associated with this study was the cross-sectional design and convenience sampling method. The association of insight, treatment adherence, global severity, family accommodation and severity of OCD found during the study is instrumental in guiding future research and better treatment protocols for OCD. Family Accommodation was assessed by interviewing the patient themselves, hence there might be subjective bias in rating of FA. The contribution of different family members towards Family Accommodation could not be assessed, hence the information may not be representative of all family members. Association of Family Accommodation with Psychiatric Morbidity in Family was not assessed, which could be an important mediating factor for Family Accommodation.

Clinical Significance

Family Accommodation is positively correlated with Severity of OCD and Global Impairment in Patient's Functioning, leading the way of better involvement of Patient's Family in order to decrease the burden of illness and distress faced by patients and their family members.

Funding

Nil.

Conflict of Interest

There is no conflict of interests.

REFERENCES

1. Calvocoressi L, Lewis B, Harris M, Trufan SJ, Goodman WK, McDougle CJ, et al. Family accommodation in obsessive-compulsive disorder. Am J Psychiatry. 1995 Mar;152(3):441–3.

DOI: 10.69605/ijlbpr_13.8.2024.68

2. Strauss C, Hale L, Stobie B. A meta-analytic review of the relationship between family accommodation and OCD symptom severity. J Anxiety Disord. 2015 Jun;33:95–102.
3. Wu MS, McGuire JF, Martino C, Phares V, Selles RR, Storch EA. A meta-analysis of family accommodation and OCD symptom severity. Clin Psychol Rev. 2016 Apr;45:34–44.
4. von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP, et al. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. Lancet. 2007 Oct 20;370(9596):1453–7.
5. American Psychiatric Association, editor. Diagnostic and statistical manual of mental disorders: DSM-5-TR. Fifth edition, text revision. Washington, DC: American Psychiatric Association Publishing; 2022. 1050 p.
6. Murthy RS. National Mental Health Survey of India 2015–2016. Indian J Psychiatry. 2017;59(1):21–6.
7. Goodman WK, Price LH, Rasmussen SA, Mazure C, Fleischmann RL, Hill CL, et al. The Yale-Brown Obsessive Compulsive Scale. I. Development, use, and reliability. Arch Gen Psychiatry. 1989 Nov;46(11):1006–11.
8. Goodman WK, Price LH, Rasmussen SA, Mazure C, Delgado P, Heninger GR, et al. The Yale-Brown Obsessive Compulsive Scale. II. Validity. Arch Gen Psychiatry. 1989 Nov;46(11):1012–6.
9. William G. ECDEU assessment manual for psychopharmacology. US Department of Health, Education and Welface, Public Health Service, Alcohol, Drug Abuse and Mental Health Administration, National Institute of Menta Health, Psychopharmacology Research Branch, Division of Extramural Research Programs.; 1976
10. Busner J, Targum SD. The Clinical Global Impressions Scale. Psychiatry (Edgmont). 2007 Jul;4(7):28–37.
11. Calvocoressi L, Mazure CM, Kasl SV, Skolnick J, Fisk D, Vegso SJ, et al. Family accommodation of obsessive-compulsive symptoms: instrument development and assessment of family behavior. J Nerv Ment Dis. 1999 Oct;187(10):636–42.
12. Gomes JB, Cordioli A, Van Noppen B, Pato M, Wolitzky-Taylor K, Gonçalves F, et al. Family Accommodation Scale for Obsessive-Compulsive Disorder-Interviewer-Rated (FAS-IR), Brazilian Portuguese version: internal consistency, reliability, and exploratory factor analysis. Compr Psychiatry. 2015 Feb;57:155–9.
13. Wu MS, Pinto A, Horng B, Phares V, McGuire JF, Dedrick RF, et al. Psychometric properties of the Family Accommodation Scale for Obsessive-Compulsive Disorder-Patient Version. Psychol Assess. 2016 Mar;28(3):251–62.
14. Calvocoressi L, Mazure CM, Kasl SV, Skolnick J, Fisk D, Vegso S, et al. Family Accommodation Scale for Obsessive-Compulsive Disorder. 2017.
15. Albert U, Bogetto F, Maina G, Saracco P, Brunatto C, Mataix-Cols D. Family accommodation in obsessive-compulsive disorder: Relation to symptom dimensions, clinical and family characteristics. Psychiatry Res. 2010 Sep 30;179(2):204–11.
16. Flessner CA, Sapyta J, Garcia A, Freeman JB, Franklin ME, Foa E, et al. Examining the Psychometric Properties of the Family Accommodation Scale-Parent-Report (FAS-PR). J PsychopatholBehav Assess. 2009 Mar;31(1):38–46.
17. Peris TS, Bergman RL, Langley A, Chang S, Mccracken JT, Piacentini J. Correlates of Accommodation of Pediatric Obsessive-Compulsive Disorder: Parent, Child, and Family Characteristics. Journal of the American Academy of Child & Adolescent Psychiatry. 2008 Oct 1;47(10):1173–81.
18. Kemp R, Hayward P, Applewhaite G, Everitt B, David A. Compliance therapy in psychotic patients: randomised controlled trial. BMJ. 1996 Feb 10;312(7027):345–9.
19. Kemp R, Kirov G, Everitt B, Hayward P, David A. Randomised controlled trial of compliance therapy: 18-month follow-up. The British Journal of Psychiatry. 1998 May;172(5):413–9.
20. Wciórka J, Friemann K. Four measures of treatment compliance among patients recovering from psychotic episodes – a comparative study. Psychiatr Pol. 2013 Sep 26 ;47(5):759–73.
21. Majumder S. Socioeconomic status scales: Revised Kuppuswamy, BG Prasad, and Udai Pareekh's scale updated for 2021. J Family Med Prim Care. 2021 Nov;10(11):3964–7.
22. Taylor S. Early versus late onset obsessive-compulsive disorder: evidence for distinct subtypes. Clin Psychol Rev. 2011 Nov;31(7):1083–100.
23. Hühne V, Dos Santos-Ribeiro S, Moreira-de-Oliveira ME, de Menezes GB, Fontenelle LF. Towards the correlates of stressful life events as precipitants of obsessive-compulsive disorder: a systematic review and metanalysis. CNS Spectr. 2024 Apr 30;1–9.