

## Development and Validation of The Early Life Experiences and Coping Strategies Scale for Adults with Obsessive Compulsive Disorder

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### Abstract

The aim of this study was to develop and validate The Early Life Experiences and Coping strategies scale for Adult with Obsessive-Compulsive Disorder. A culturally sensitive therapeutic screening tool, designed to identify the impacts of early life factors, including parenting styles, childhood traumas and maladaptive coping strategies on the development of obsessive-compulsive tendencies in young adults specifically in the context of Pakistani Culture. The development of "ELE-CSS" followed a rigorous methodology, utilizing a mix method approach, dividing the study into five phases, that included purposive sampling in which interview were conducted from eight OCD diagnosed Patients. Succeeded by expert's content validation by clinical psychologist. The semi structured interview questions were designed in accordance to research's objective, these questions included adverse childhood experiences, parenting styles, coping strategies and family histories. Preliminary set of 29 items were refined by expert evaluation, that was

finalized for pilot study (N = 62) and explanatory factor analysis. Factor analysis identified three principal factors: “Emotional Neglect, Parental Rejection and childhood stress, Parental Control, Trauma and Avoidance and perfectionistic parenting and Coping Strategies for Illness Symptoms culminating in a 21-item scale. The scale exhibited exceptional reliability (Cronbach’s alpha = 0.71) and test-retest stability, affirming its efficacy as a tool for screening out early life experiences that had an effect on Obsessive Compulsive tendencies etiology. Moreover, evaluations of convergent and divergent validity demonstrated the scale's precision. This tool would have great clinical Implications.

**Keywords:** childhood traumas, parenting styles, obsessive-compulsive tendencies, coping strategies, scale development, Pakistani cultural factors.

## Introduction

Obsessive-Compulsive Disorder (OCD) is a chronic condition that persists throughout the lifespan, typically manifesting during puberty (Koran et al., 1996). Obsessions are defined as unwanted, distressing thoughts, images, or urges that cause significant stress, while compulsions are repetitive behaviors or mental acts performed in response to these obsessions to alleviate discomfort. These symptoms markedly impair professional and social functioning (Koran et al., 1996). Research identifies several cognitive factors contributing to obsessions, including excessive personal accountability, rumination, thought control, exaggerated danger perception, intolerance of uncertainty, and a perfectionist mindset (Paul,

2016). OCD prevalence is approximately 2-3% with a slightly higher incidence in women (female-to-male ratio of 1.5:1.0), though males may experience earlier onset (Brune, 2006). The disorder shows a hereditary component, with monozygotic twins exhibiting higher concordance rates (80-87%) than dizygotic twins (47-50%) and heritability estimates between 45-65% (Arnold et al., 2006; Hanna et al., 2005). Genes related to serotonin and dopamine neurotransmission, such as those affecting serotonin transporters and dopamine receptors, are implicated in OCD (Braun, 2008; Grados, 2003). Neurobiologically, OCD is associated with overactivity in the orbitofrontal cortex, basal ganglia, and anterior cingulate cortex, and structural anomalies in these regions have been observed (Menzies et al., 2007; Nakao et al., 2014).

Environmental factors, including childhood trauma and brain injuries, also play a significant role in OCD development. Traumatic experiences like abuse and neglect are correlated with increased OCD severity and symptom persistence (Lesmana et al., 2015; Miller & Brock, 2017). Brain injuries affecting the prefrontal cortex, cingulated gyrus, and basal ganglia can trigger OCD symptoms by disrupting executive functions and habitual behavior control (Hollander, 2008; Carlson, 2012). Parenting styles significantly influence OCD development, with authoritarian and permissive/indulgent styles linked to higher OCD risk due to excessive control, criticism, or lack of boundaries (Baumrind, 1960). Insecure attachment resulting from inconsistent or neglectful caregiving further contributes to OCD by impairing emotional regulation and fostering

maladaptive coping mechanisms (Berenbaum & James, 1994; Wu & Wu, 2006). Parental anxiety and overprotectiveness exacerbate children's anxiety, reinforcing obsessive-compulsive tendencies (Ballash et al., 2006; Barrett et al., 1996).

Theoretical models explaining OCD encompass cognitive-behavioral, psychodynamic, and neurocognitive perspectives. Cognitive-behavioral theories highlight distorted perceptions and maladaptive beliefs driving obsessions and compulsions, with Exposure and Response Prevention (ERP) as a key treatment (Salkovskis, 1985; Kim et al., 2020). Psychodynamic theories, rooted in Freud's work, associate OCD with early developmental fixations and unconscious attempts to regain control (Freud, 1905). Neurocognitive models focus on executive function deficits and hyperactive cortical-striatal-thalamocortical circuits, explaining compulsivity through impaired response inhibition and habitual behaviors (Menzies et al., 2007; Saxena et al., 1998).

OCD often co-occurs with other mental health disorders such as anxiety and depression (Doron & Kyrios, 2005). The biopsychosocial model integrates biological, psychological, and social factors, acknowledging the complex interplay that contributes to OCD's etiology and persistence (Lack, 2012). Despite extensive research, no single model fully encapsulates OCD's multifaceted nature, though various theories have advanced treatment approaches and deepened understanding of the disorder (Carr, 2008).

This study employs a mixed-model design methodology, integrating qualitative and quantitative approaches to comprehensively investigate the multifaceted etiology of obsessive-compulsive disorder (OCD), which includes neurological, genetic, and psychological factors. The research focuses on the interplay between parenting styles, childhood trauma, and OCD development, emphasizing the critical role of early life experiences in shaping mental health. Quantitative methods will assess statistical correlations, while qualitative data will provide nuanced insights into individual experiences and their perceived impact. By examining parenting styles and trauma forms associated with OCD, the study aims to identify both protective and risk factors, contributing to the development of evidence-based preventive strategies and therapeutic interventions. A key innovation is the creation of a therapeutic screening instrument designed to detect early indicators of OCD tendencies, developmental trauma, parenting styles, and coping mechanisms, offering a holistic understanding of contributing factors. This tool, filling a gap in existing assessments, will support the formulation of personalized treatment plans, advancing research and clinical practice in OCD prevention and care.

## Methodology

### Research Design

The present research used a mixed method research design, incorporating qualitative and quantitative approaches to comprehensively examine the relationship between childhood trauma, parenting styles leading to obsessive-compulsive tendencies in adulthood. For a better

understanding, in the first phase, a qualitative method of data collection and analysis was employed to delve deeper into the clients' experiences. In the second phase, a quantitative research approach was used to analyze the data and to validate the scale so, to develop the phenomenon's construct.

### **Participants and Sampling Strategy**

Data were collected from 294 participants diagnosed with OCD, (128 Male and 166 Female) selected in between the age range of 18-30 (mean age = 23.34, SD = 3.52) years through purposive sampling from different psychiatry departments of hospitals from Lahore, Pakistan. The study included participants who were formally diagnosed with obsessive-compulsive disorder (OCD) by a mental health professional, who had a history of childhood traumas, who either self-reported or had evidence of experiencing trauma in their childhood and Participants who had retrospective assessment of their experiences with their parents and caregivers and their different parenting styles. Those participants were not included in this study who had any memory impairments or cognitive limitations hindering their ability to recall and report on childhood experiences and had any other comorbid Psychiatric disorders that might significantly overshadow OCD symptoms or those participants who had little or no insight regarding their issues.

### **Measurement**

**Informed Consent Form.** It was a written form in which the purpose and objective of the study will be stated, and participants was asked for their

voluntary participation in the study.

**Demographic Information Sheet.** To carefully record the client's personal information, a demographic information sheet was made following the data needed from the client. This demographic sheet assessed certain domains of the client's life, including age, gender, birth order, family structure, educational background, occupational history, marital status, number of siblings, cultural and ethnic background, monthly income.

### **Indigenous Obsessive-Compulsive Scale for Pakistan. Obsessive-Compulsive**

Disorder Checklist was developed by Dr. Sadia Saleem and Dr. Zahid Mehmood in 2010. This scale is used to as diagnostic measure for obsessive compulsive disorder. This scale is not translated and a vigorous research procedure was carried out to develop this tool, Constructing the items from the interviews that were conducted with the OCD patients, hence it's a scale of great culture relativity. This scale has total of 27 Items, both for measuring obsession and compulsions levels in patients. The Cronbach's alpha value of OCS, was 0.855- and one-week test-retest reliability was 0.81( $p < 0.01$ ). The scale has a four Point scale on which the patients/participants of the research responded on agreement or disagreement.

- Here are two statements from The OCD checklist:
- The repetitive occurrence of dirty and sexual thoughts.
- The constant fear of getting affected by mental illnesses.

**The Rosenberg Self- Esteem Scale (Urdu).** The Rosenberg Self- Esteem Scale is a scale that is widely used psychological measure that is used to measure self-esteem, that can be described as the emotional evaluations of ones worth. This scale was developed by a sociologist Morris Rosenberg in 1965 and this was further translated in Urdu by Sardar in 2012. It is a self-report measure consisting in total of ten items related to self-esteem, with responding to their level of agreement or disagreement on four-point scale. The reliability of the Urdu version of Rosenberg self-esteem (URSES) scale was inferred by Cronbach's alpha as 0.773, and the four-week test- retest correlation coefficient was 0.808. Here are two statements from The Rosenberg Self-Esteem scale □

- I take a positive attitude towards myself.
- I feel like I possess several good qualities.

### **Stage 1: Item Generation and Domain Identification**

In this qualitative phase, an initial study plan was formulated, outlining inclusion and exclusion criteria to guide the selection of research participants for interviews. A semi-structured interview questionnaire was designed to thoroughly explore the phenomenon under investigation. Eight participants, diagnosed with obsessive-compulsive disorder (OCD) within the age range between 18-30 years, were selected from two hospitals in Lahore, Pakistan, ensuring both male and female participants were included to assess potential gender differences. Interviews, lasting between one to one and a half hours, were conducted using the semi-structured questionnaire, along with a demographic information sheet and



consent form. After transcribing the interviews, the manuscripts were analyzed through Interpretative Phenomenological Analysis (IPA), which revealed various themes. These themes were categorized into initial codes, sub-themes, and subordinate themes. Major themes identified included authoritarian parenting, neglectful parenting, sexual abuse, domestic conflicts, Emotional distancing from family members, adverse childhood experiences, and religious and avoidant coping styles. Based on these findings, a 29-item screening tool was developed and finalized for the next phase of the study.

### **Stage 2: Content Validation by Experts**

**Participants.** Five Professionals from the field of Clinical Psychology were given the item questionnaire after item generation to be rated for its content validation.

**Procedure.** Six Experts serving in the field of clinical psychology were approached for the purpose of content validity. They were requested to rate the scale for its Item clarity and content relevancy to the phenomenon in question. They viewed the clarity, accuracy, and content of items and marked each item on a scale of 1 to 5 where; Very strong =5, Strong =4, Moderate =3, Weak =2 and Very weak =1. These experts were also requested to suggest changes in the sentence structure and to rephrase items that were ambiguous, double meaning, incomprehensible or inappropriate. Experts that were approached, among them 3 were Ph.D., and two were enrolled in doctorate program. They all were serving in different areas of Psychology in field.

**Statistical Analysis.** The mean ratings of each item were computed in order to obtain the central tendency and variability of expert's ratings. The average scores for each item were calculated based on the expert's ratings. In accordance with the established criteria, items with an average score of 2.5 and below were excluded from the scale. However, none of the items fell below this threshold, and therefore, no items were removed. Instead, six items were rephrased in response to expert recommendations. All items were retained for subsequent analysis.

### Stage 3: Pilot Testing

**Participants.** Fifty-Eight Participants (28 Men and 30 women) were selected using the formula (2x1), meaning two response per items for the better analysis of the items. OCD diagnosed patients were selected through purposive sampling from the clinical population of two different hospitals of Lahore, Pakistan. The age range of participants were 18-30 (mean age = 23.80, SD = 3.19) years and they were selected through purposive sampling technique.

**Procedure.** A scale of 29 items was finalized after the content validity by the experts and three options were added as responses for the participants to respond as it was a screening tool, including (a) Yes, (b) Sometimes (c) No. A demographic sheet was attached along with the Informed consent form. It was mentioned on the informed consent form the purpose of the research. The purpose was further explained to all the participants and they were asked to sign the informed consent form after reading it thoroughly in order to gain their consent for the participation in the

research. All the important information regarding the demographics were filled by each participant in detail, the demographic form. The potential risks and benefits of the research were also elaborated to the clients, participants were instructed to choose an option on the given constructed measure that fits best in accordance to their personal experiences in the past. The aim of the pilot study was to confirm if the scale was culturally appropriate and comprehensible by the population. Furthermore, another purpose for conducting the pilot study was to rule out the major ambiguities and weaknesses and to identify any potential issues in scale administration before its finalized.

Statistical Analysis. Cronbach's Alpha was calculated to assess the internal consistency of the scale items using SPSS Version 24. The overall Cronbach's Alpha value for the 29 items of the scale was (.91), indicating excellent reliability. As the value was above the criteria of acceptable threshold, no items were excluded following the pilot study.

#### **Stage 4: Exploratory Factor Analysis**

**Participants.** One hundred and forty-four OCD diagnosed participants were (59 Men and 85 women) selected in between the age range of 18-30 (mean age = 22.01, SD = 3.26) years through purposive sampling from different psychiatry departments of hospitals from Lahore, Pakistan.

Procedure. After completion of Pilot study eight items were removed from our constructed scale. So, finalized scale consisted of 21 items that were used in this phase of exploratory factor analysis of research. Informed consent form and demographic forms were attached with the finalized

scale and in this phase of research the aim was to verify the structure of items and finalize items. It also determined how different items were grouped together and if they were measuring the construct they intended to measure. A set of observed variables (indicators) underlying the latent construct was selected. It was ensured that data meets the assumptions of factor analysis, including linearity, multivariate normality, absence of outliers, and an adequate sample size. The number of factors to be extracted was decided. This decision was based on statistical methods like the Kaiser-Guttman criterion, scree plot, or parallel analysis. A Factor extraction method, including Principal Component Analysis (PCA) and Principal Axis Factoring (PAF), was chosen. The rotation of factors was performed to simplify interpretation, including the Varimax method for achieving a more apparent factor structure. The factor loadings were reviewed, indicating the strength and direction of the relationship between each variable and the factors. The focus was on the loadings above a certain threshold (e.g., 0.3 or 0.4). Based on the factor loadings and the theoretical understanding, interpretation was made, and the factors were given meaningful names.

Statistical Analysis. SPSS Version 24 was used for exploratory factor analysis. The value of KMO was checked that indicated how accurate the data was for the analysis. To further find out the factors underlying our scale, the rotated component matrix was carried out by suppressing the value below .3.

## Stage 5: Reliability and Validity Assessment

**Participants.** One hundred and fifty OCD diagnosed (69 Men and 81 women) were selected, in between the age range of 18-30 (mean age = 24.33, SD =3.74) years those were diagnosed with obsessive compulsive disorder as this was the sample size that was recommended for the reliability and validity assessment of the scale. Participants were selected through purposive sampling from the clinical population of two different hospitals of Lahore, Pakistan.

**Internal Consistency.** Cronbach's alpha was used to measure the consistency of the responses after all the data was collected. This measured that the finalized scale items were measuring the same construct.

**Test-Retest Reliability.** Initially data from 50 participants were collected and after the time interval of two weeks, the scale was re-administered in order to determine the temporal stability of the responses, which was measured using Pearson's product- Moment Coefficient of Correlation.

### Validity Assessment

**Convergent and Discriminant Validity.** To assess the degree to which Early Life Experiences and Adult Obsessive-Compulsive Tendencies scale was theoretically related to a different measure i.e., Its convergent validity, for this purpose an established diagnostic measure determining the same content was an established diagnostic measure that was, Indigenous Obsessive-Compulsive scale for Pakistan (Saleem, 2010) was used.

To determine the Discriminant validity of the scale, The Rosenberg Self-

Esteem scale's Urdu translated version (Sardar,2012) was administered to the sample. This was carried out to establish whether two different constructs, theoretically unrelated (discriminant) are actually unrelated or not.

**Statistical Analysis.** Reliability analysis was done using Cronbach's alpha and it ensured that all the items in this scale measured the same construct. In the next step Pearson Correlation was used to determine the correlation between scales and the reliability was checked at last using the test retest. The scale was administered on the same participants on two different occasions after the passage of two weeks in order to ensure that the results have temporal stability.

The convergent and divergent validity was checked for the construct to analyze how much the construct relates to any other construct similar theoretically and how much this constructed scale differs from any other construct that is theoretically unrelated construct.

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## Results

**Table 1: Demographic Characteristics of the Study Participants.**

Variables	Frequency	Percentage
Gender		
Male	128	43.5
Female	166	56.5
Education		
Matric	162	55.1
Intermediate	73	24.8
Under Graduate	39	13.3
Graduate	16	5.4
Other	4	1.4
Religion		
Muslim	286	97.2
Christian	6	2.4
Hindu	2	0.6
Family Setup		
Joint	207	70.4
Nuclear	87	29.6
Occupation		
Unemployed	183	62.2
Job	64	21.8
Business	24	8.2
Other	23	7.8
Family Monthly Income		
10000-25000	68	23.1
25000-100000	134	45.6
1 Lakh Plus	92	31.3
Marital Status		
Married	61	20.7
Unmarried	212	72.1
Other	21	7.1
Birth Order		
First	88	29.9
Middle	126	42.9
Last	69	23.5
Only Child	11	3.7

Note. N=294

## Explanatory Factor Analysis

**Table 2: Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's test of sphericity.**

KMO				Bartlett's Test		
Early Life Experiences and Coping Strategies Scale				Chi-Square	Df	Sig.
			.78	1399.44	406	.00

Note. N = 144, p < .05

Table shows that the measure of sample adequacy i.e., Kaiser-Meyer-Olkin (KMO) is found to be .78 which is above the recommended value .5 suggesting that the sample is adequate for factor analysis. Bartlett's test is also significant.



**Table 3: Communalities for 29 items of The Early Life Experiences and Coping Strategies Scale obtained through Principal Component Analysis.**

Item No	Initial	Extraction
Item01	.48	.15
Item02	.27	.099
Item03	.57	.36
Item04	.47	.39
Item05	.45	.32
Item06	.39	.29
Item07	.46	.38
Item08	.62	.59
Item09	.51	.28
Item10	.47	.23
Item11	.51	.36
Item12	.50	.26
Item13	.50	.39
Item14	.45	.32
Item15	.61	.50
Item16	.38	.13
Item17	.47	.38
Item18	.49	.34
Item19	.58	.42
Item20	.37	.29
Item21	.37	.27
Item22	.48	.29
Item23	.38	.29
Item24	.42	.275
Item25	.37	.29
Item26	.35	.22
Item27	.42	.26
Item28	.38	.24
Item29	.44	.46

Note. Communalities >.3 are boldface, N=144

Table shows that communalities for most of the items after extraction indicating that the data is suitable for factor Analysis.

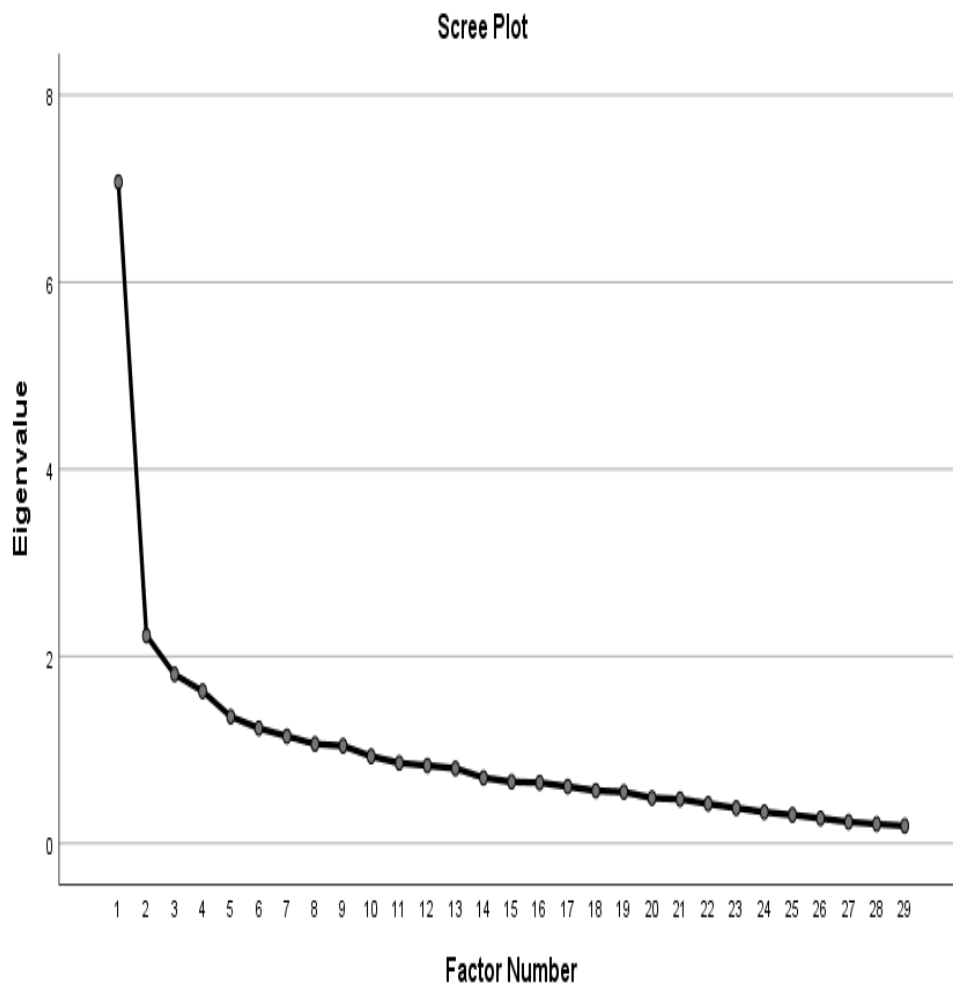


Figure 1. Scree Plot

**Table 4: Rotated Component Matrix for items of The Early Life Experiences and Coping Strategies Scale using Varimax.**

Component	1	2	3
Item01		.35	
Item03		.54	
Item04	.63		
Item06			.45
Item07	.56		
Item08	.76		
Item10		.45	
Item12		.41	
Item13	.50		
Item14		.50	
Item15	.62		
Item17	.52		
Item18	.50		
Item19	.55		
Item21		.46	
Item24		.47	
Item25			.42
Item26			.46
Item27			.46
Item28			.48
Item29			.64

Note. Values >.3 are suppressed, N=144

The table presents the factor structure after rotation, revealing three distinct factors. Items 4, 7, 8, 13, 15, 17, 18, and 19 were loaded onto Factor 1, while items 1, 3, 10, 12, 14, 21, and 24 were loaded onto Factor 2. Finally, items 6, 25, 26, 27, and 29 were loaded onto Factor 3. Additionally, items 2, 5, 9, 11, 16, 20, 22, and 23 were removed from the scale due to high loadings on multiple factors, with the difference between

loadings on two factors being less than 0.2. As a result, a 21-item scale comprising three factors was finalized following exploratory factor analysis (EFA). Each factor was named based on the qualitative analysis of the items it contained: Factor 1 was labeled “Emotional Neglect, Parental Rejection, and Childhood Stress,” Factor 2 was named “Parental Control, Trauma, and Avoidance” and Factor 3 was titled “Perfectionistic Parenting and Coping Strategies for Illness Symptoms.”

### Reliability Analysis

**Table 5: Internal Consistency of the 21 Item Early Life Experiences and Coping Strategies Scale**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.72	.72	21

Note: N=150

A Cronbach's Alpha value of 0.72 is considered to be acceptable, indicating that the scale has reasonable Internal consistency this further suggest that all the items are consistent and interrelated and are measuring the underlying concept.

**Table 6: Inter-item correlations of the 21 item Early Life Experiences and Coping Strategies Scale**

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21
01	1.																				
02	.70	1																			
03	.12	.07	1																		
04	.82	.60	.24	1																	
05	.19	.18	.15	.09	1																
06	.14	.05	.31	.17	.28	1															
07	-.03	-.00	-.08	-.04	.15	.12	1														
08	-.03	.02	-.07	-.05	.09	.09	.84	1													
09	.13	.05	.14	.06	.26	.33	.03	.07	1												
10	.00	.07	.01	.00	.19	.22	-.01	-.04	.21	1											
11	.06	-.06	.26	.07	.29	.49	.11	.11	.18	.05	1										
12	.08	-.06	.12	.12	.20	.40	.17	.21	.39	.19	.44	1									
13	.03	.01	.18	.08	.20	.42	.19	.13	.20	.22	.30	.40	1								
14	-.03	.01	.06	-.06	.26	.27	.05	-.03	.28	.87	.08	.30	.28	1							
15	.03	.06	.07	.01	-.18	.07	.25	.24	-.07	-.04	-.06	-.00	-.02	-.03	1						
16	.10	.12	.04	.16	-.02	.11	.09	.00	.07	.03	-.04	.10	.10	.03	.20	1					
17	.00	-.01	.21	.04	.16	.38	.23	.15	.14	.17	.288	.29	.91	.21	.00	.05	1				
18	.13	.22	-.11	.16	-.16	-.16	.08	.04	-.16	.05	-.19	-.08	-.02	-.03	.14	.05	-.04	1			
19	.50	.63	.06	.41	.08	-.03	.13	.14	.01	.02	-.04	-.07	.01	-.04	.06	-.10	.02	.09	1		
20	.22	.19	.08	.09	.11	.03	.06	-.03	-.10	.12	-.02	-.25	-.07	.13	.18	.04	-.09	-.05	.17	1	
21	.01	.08	-.05	-.02	-.07	-.12	.20	.13	-.07	.08	-.05	-.02	-.02	.15	.09	.18	-.06	-.01	.05	.21	1

Note. N=150

**Table 7: Test-Retest Reliability of The Early Life Experiences and Coping Strategies scale**

Scale	R	Significance
Early Life Experiences and Coping Strategies Scale	.88	.00

Note. \*\*. Correlation is significant at the 0.01 level (2-tailed), N=50

The value of r (.88) is above the recommended value. Table shows high positive correlation indicating high temporal stability of the scale.

## Validity Assessment

**Table 8: Convergent and Divergent validity of The Early Life Experiences and Coping Strategies scale.**

Variables	R	Significance
Obsessive-Compulsive Disorders Checklist	.75	.00
Rosenberg Self Esteem	-.08	.35

Note. \*\*. Correlation is significant at the 0.01 level. N=150

The table shows that Obsessive Compulsive Disorder Checklist scale has a strong positive correlation ( $r = .75$ ) which indicates that that the items of both scales are strongly correlated to each other. Whereas, Rosenberg self-esteem scale has a weak correlation ( $r = -.08$ ) with Obsessive-Compulsive Tendencies Scale indicating that the items of both scales are not related to each other.

## Discussion

This study sought to provide a culturally pertinent framework for evaluating obsessive compulsive tendencies, that is both reliable and valid for the clinical population of Pakistan. The instrument was explicitly developed as a therapeutic screening tool for identifying diverse parental styles and childhood traumas that may influence the onset of obsessive compulsive tendencies, ultimately resulting in the onset of obsessive-compulsive disorder (OCD). This study's results indicate that the newly constructed scale is a reliable and relevant tool specifically designed for the cultural context of Pakistan's clinical population.

Factors were named after the qualitative analysis of the items in each factor. So, factor 1, was named “Emotional Neglect, Parental Rejection and Childhood Stress”, as there were items that represented these and this title for factor 1 suited best. The name of the Factor 2 was decided “Parental Control, Trauma and Avoidance Coping” and at last factor three was titled “Perfectionistic Parenting and coping strategies for Illness symptoms”.

### **Factor 1: Emotional Neglect, Parental Rejection and Childhood Stress Emotional Turmoil and OCD Development**

Early childhood experiences, such as emotional neglect, parental rejection, and stress, are significant risk factors for developing Obsessive-Compulsive Disorder (OCD). These early experiences can disrupt emotional regulation, leading to increased anxiety and vulnerability to OCD. Parenting styles also play a role, with emotionally supportive parenting acting as a protective factor, while neglectful or authoritarian parenting increases the likelihood of OCD (Smotri, 2012).

### **Authoritative Parenting Styles**

The combination of High expectations and emotional support could be a potential trigger for anxiety, which may lead to obsessive and compulsive behaviors, especially in children who are sensitive to stress and pressure. However, emotional support can mitigate the risk of developing anxiety disorders hence, acting as a protective factor. This parenting approach requires further exploration through comprehensive research, especially within the Asian collectivist, cultural context.

## **Neglectful Parenting**

Barlow in 1998 grounded his research in Bowlby attachment theory, revealing that children lacking healthy attachments or whose parents are emotionally disengaged or negligent exhibit elevated anxiety levels compared to those with nurturing, warm and supportive parents. Smotri, also acknowledged that dismissed warmth or affection and insufficient support traits in Parenting styles are linked to the onset of obsessive-compulsive disorder (Smotri, 2012).

## **Emotional Distancing from Family Members**

The stigma around mental health, along with emotional detachment among family members, might contribute to the onset of OCD. Rapee emphasized the crucial influence of parenting on the development of anxiety and obsessive-compulsive disorder. Parenting practices such as over protectiveness, harsh criticism, and emotional distancing foster an environment that inhibits children's development of effective coping strategies for stress (Rapee, 1997).

## **Adjustment Issues in Childhood**

Family dynamics, characterized by elevated parental expectations and the repercussions of divorce or familial discord, pose considerable emotional challenges for children. Exposure to domestic violence and trauma associated with conflict, particularly among poorer socioeconomic groups, intensifies these challenges. Furthermore, the rising influence of social media may exacerbate these emotional challenges. Excessive parental expectations or academic pressure may induce feelings of inadequacy in



children, while exposure to familial conflict, abuse, or neglect can engender insecurity (Pace et al., 2011).

### **Family Conflicts**

Familial discord frequently impedes emotional regulation, prompting individuals to engage in compulsive activities to attain some sort of control or alleviate worry. When family members exhibit emotional detachment or criticism, individuals with OCD may perceive their compulsions as the sole means to achieve emotional equilibrium or prevent additional emotional distress.

### **Domestic Conflicts**

Family upheavals, such as divorce or separation, increase the likelihood of anxiety and sadness, which can appear as obsessive-compulsive behaviors as coping mechanisms (Richmond and Stocker, 2006). According to social learning theory, children watch and mimic their parents' maladaptive habits, such as compulsive acts. Parents' mental health, which includes diseases such as anxiety and depression, promotes the development of OCD in children, perpetuating a cycle of maladaptive coping techniques (Connell & Goodman, 2002).

### **Factor 2: Parental Control, Trauma, and Avoidance**

Excessive parental control, childhood trauma, and avoidance behaviors are significant contributors to the development of OCD. Restrictive parenting reduces emotional regulation and increases anxiety, which may lead to obsessive-compulsive behaviors as coping mechanisms (Shapiro et al., 2017). Traumatic experiences, such as abuse or neglect, exacerbate

emotional dysregulation and result in maladaptive coping strategies, including compulsive behaviors (Rosen et al., 2018). Avoidance, a common response to trauma and parental control, perpetuates the cycle of obsessive behavior (Salkovskis, 1999).

### **Overprotective Parenting**

Maternal over protection, also referred to as "MOMISM," refers to excessive control and intervention into a child's life. Overprotective moms obsessively oversee their children, shield them from tiny threats, and make decisions for them. This conduct originates from a desire for control and emotional fulfillment, depriving children of critical experiences that promote independence and emotional growth. As a result, overprotected youngsters may have anxiety, dependence, and difficulties asserting themselves or making independent judgments (Hoover, 1984).

### **Authoritarian Parenting**

Authoritarian parents prioritize obedience and punishment over emotional support, fostering an environment of dread and emotional neglect (Baumrind, 1966). This parenting style may cause children to internalize perfectionism and anxiety, feeling that mistakes are undesirable, a cognitive pattern seen in OCD (Hibbard & Walton, 2014). Lack of nurturing and flexibility, along with unreasonable expectations, might impede emotional control, resulting in obsessive-compulsive symptoms (Uji et al., 2014).

### **Sexual Abuse**

Child sexual abuse (CSA) significantly increases the risk of OCD,

particularly contamination obsessions and compulsive behaviors. CSA survivors often develop emotional dysregulation, guilt, and perfectionism, which manifest in compulsive behaviors to relieve distress (Pitman, 1993). Trauma-related guilt and anxiety worsen emotional regulation, increasing OCD risk (Saunders et al., 1991).

### **Bullying by Siblings**

Family members who react negatively or reject the child may worsen their anxiety, while sibling bullying from envy, impatience, or neglect can worsen their emotional discomfort and reinforce obsessive behaviors. Positive sibling relationships, however, can offer emotional support and reduce OCD symptoms (McGuire et al., 2015).

### **Autonomy vs. Shame and Doubt**

Overprotective or critical parenting can lead to guilt, insecurity, and an inflated sense of responsibility, which can lead to obsessive and compulsive behaviors (Rachman, 1993). Overprotective and critical parenting can cause anxiety-driven compulsions as youngsters try to control their environment (Salkovskis et al., 1999). Emotionally neglected children may struggle with autonomy and self-efficacy, making them more susceptible to OCD (Abramowitz, 2006).

### **Factor 3: Perfectionist Parental Figures and Coping Strategies for Illness Symptoms**

This factor discusses how perfectionist parental figures influence OCD onset and how individuals cope with their symptoms. Maladaptive coping strategies like avoidance and diversion provide short-term relief but

ultimately reinforce OCD symptoms (Salkovskis, 1999).

### **Perfectionist Parental Figures**

Perfectionism, both as a trait and parenting style, is closely linked to OCD. Perfectionist parents, through high demands and criticism, foster maladaptive perfectionism, leading to OCD symptoms like obsessive thinking and compulsive behaviors (Flett & Hewitt, 2002). This parenting style promotes fear of failure, intolerance of uncertainty, and a reluctance to accept imperfection, which can lead to anxiety and OCD (Shafran et al., 2002).

### **Escape/Avoidance Coping**

Experience avoidance (EA) is a coping strategy used to avoid distressing thoughts and feelings, reinforcing OCD symptoms. Families can enhance avoidance behaviors, leading to maladaptive responses and compulsive behaviors. Perfectionist or overprotective parenting contributes to avoidance, preventing emotional habituation and coping, which perpetuates OCD (Pollock & Carter, 1999).

### **Pharmacological Coping**

SSRIs are key in treating OCD, regulating serotonin levels, while Cognitive Behavioral Therapy (CBT) with Exposure and Response Prevention (ERP) addresses both biological and psychological factors (Koran et al., 2007). However, in Pakistan, patients often resist pharmacological treatments due to side effects and cultural stigmas surrounding mental health treatment.

### **Personal Hygiene and Self-Care Coping Strategy**

Excessive personal hygiene, especially in contamination fears, is a

common OCD coping strategy. However, compulsive behaviors like hand-washing and cleaning can worsen OCD over time, interfering with daily activities and leading to isolation (Flessner et al., 2006).

### **Religious Coping**

Religious coping can provide comfort for those with OCD, but it may also reinforce OCD symptoms when it becomes compulsive, such as through excessive prayer or ritualistic behaviors (Lebowitz et al., 2014). While religious coping offers a sense of control, it can become maladaptive, heightening anxiety and distress (Salkovskis, 1999).

### **Thought Postpone Coping Strategy**

The "Thoughts Postponed" strategy involves delaying engagement with obsessive thoughts, providing temporary relief but ultimately exacerbating OCD. Cognitive avoidance increases anxiety and reinforces compulsions as the postponed thoughts resurface with greater urgency (Salkovskis, 1999). This method can perpetuate the OCD cycle and complicate effective treatment.

### **Conclusion**

The development of the Early Life Experiences and Adult Obsessive-Compulsive Tendencies Scale represents a significant advancement in understanding the environmental and psychological factors contributing to obsessive-compulsive tendencies, particularly within Pakistani culture. This tool offers a comprehensive framework for assessing diverse parenting styles, early traumas, and coping strategies in individuals with obsessive-compulsive disorders. By focusing on early life experiences, the

scale addresses a crucial gap in research, providing deeper insights into the onset of obsessive-compulsive tendencies in young individuals. The scale's development was methodologically rigorous, incorporating purposive sampling for patient interviews, content validation, a pilot study, and factor analysis to ensure its reliability and validity. A key strength of the scale is its high reliability, with a Cronbach's alpha of 0.71, indicating strong internal consistency. The scale's stability was further validated by solid test-retest reliability, confirming its clinical applicability. Furthermore, the scale's validity was supported by high correlations with existing culturally relevant measures of obsessive-compulsive disorder, such as the Obsessive-Compulsive Disorder Checklist.

### **Limitations and Recommendations for Future Research**

While the current study made valuable contributions, it also faced several limitations. One significant limitation was restricted of sample to hospitals in Lahore, making the results less generalize to broader populations. Additionally, the majority of participants came from lower socioeconomic backgrounds and had limited educational experience. Future research should aim to include a more diverse sample, incorporating individuals from various socioeconomic and educational backgrounds, as well as a broader age range. Furthermore, future studies should aim to collect data from a more diverse array of cultural backgrounds, ensuring greater representation of minority ethnicities and religions. The cross-sectional design of this study limited the ability to track participants over time. A longitudinal approach, coupled with qualitative methods, would provide

deeper insights into the evolving nature of OCD and its relationship with early life experiences. Finally, to enhance the scale's applicability across different cultural contexts, future research should focus on translating and validating the scale in various linguistic and cultural settings. This would facilitate a broader understanding and comparison of OCD tendencies across diverse environments.

## References

- Abramowitz, J. S. (2006). The psychological treatment of obsessive—compulsive disorder. *The Canadian Journal of Psychiatry*, 51(7), 407-416. <https://doi.org/10.1177/070674370605100702>
- Arnold, P. D., Sicard, T., Burroughs, E., Richter, M. A., & Kennedy, J. L. (2006). Glutamate transporter gene SLC1A1 associated with obsessive-compulsive disorder. *Archives of general psychiatry*, 63(7), 769-776. [10.1001/archpsyc.63.7.769](https://doi.org/10.1001/archpsyc.63.7.769)
- Ballash, N., Leyfer, O., Buckley, A. F., & Woodruff-Borden, J. (2006). Parental control in the etiology of anxiety. *Clinical child and family psychology review*, 9, 113-133. [10.1007/s10567-006-0007-z](https://doi.org/10.1007/s10567-006-0007-z)
- Bandura, A., Adams, N. E., & Beyer, J. (1977). Cognitive processes mediating behavioral change. *Journal of personality and social psychology*, 35(3), 125. [org/ 10.1037/00223514.35.3.125](https://doi.org/10.1037/00223514.35.3.125)
- Barrett, P. M., Dadds, M. R., & Rapee, R. M. (1996). Family treatment of childhood anxiety: a controlled trial. *Journal of consulting and clinical psychology*, 64(2), 333. <https://doi.org/10.1037/0022-006X.64.2.333>
- Baumrind, D. (1966). Effects of authoritative parental control on child

behavior. *Child development*, 887-907. <https://doi.org/10.2307/1126611>

Berenbaum, H., & James, T. (1994). Correlates and retrospectively reported antecedents of alexithymia. *Psychosomatic medicine*, 56(4), 353-359. <https://doi.org/10.1097/00006842-199407000-00011>

Braun, C. M., Léveillé, C., & Guimond, A. (2008). An orbitofrontostriatopallidal pathway for morality: Evidence from postlesion antisocial and obsessive-compulsive disorder. *Cognitive Neuropsychiatry*, 13(4), 296-337. <https://doi.org/10.1080/13546800802088580>

Brown, T. A., Chorpita, B. F., & Barlow, D. H. (1998). Structural relationships among dimensions of the DSM-IV anxiety and mood disorders and dimensions of negative affect, positive affect, and autonomic arousal. *Journal of abnormal psychology*, 107(2), 179. <https://doi.org/10.1037/0021-843X.107.2.179>

Brune, M. (2006). The evolutionary psychology of obsessive-compulsive disorder: the role of cognitive metarepresentation. *Perspectives in biology and medicine*, 49(3), 317-329. [10.1353/pbm.2006.0037](https://doi.org/10.1353/pbm.2006.0037)

Carlson, S. (2012). Obsessive-Compulsive Disorder. *The LGBT Casebook*, 161.

Carr, S. N., & Francis, A. J. (2008). Do early maladaptive schemas mediate the relationship between childhood experiences and avoidant personality disorder features? A preliminary investigation in a non-clinical sample. *Cognitive therapy and research*, 34, 343-358. [10.1007/s10608-009-9250-1](https://doi.org/10.1007/s10608-009-9250-1)



- Connell, A. M., & Goodman, S. H. (2002). The association between psychopathology in fathers versus mothers and children's internalizing and externalizing behavior problems: a meta-analysis. *Psychological bulletin*, 128(5), 746. <https://doi.org/10.1037/00332909.128.5.746>
- Doron, G., & Kyrios, M. (2005). Obsessive compulsive disorder: A review of possible specific internal representations within a broader cognitive theory. *Clinical psychology review*, 25(4), 415-432. <https://doi.org/10.1016/j.cpr.2005.02.002>
- Flessner, C. A., Berman, N., Garcia, A., Freeman, J. B., & Leonard, H. L. (2009). Symptom profiles in pediatric obsessive-compulsive disorder (OCD): The effects of comorbid grooming conditions. *Journal of anxiety disorders*, 23(6), 753-759. <https://doi.org/10.1016/j.janxdis.2009.02.018>
- Flett, G. L. (2002). Perfectionism and maladjustment: An overview of theoretical, definitional, and treatment issues. *American Psychological Association*. <https://doi.org/10.1037/10458-001>
- Freud, S. (1905). On psychotherapy. *Standard edition*, 7(267), 64-145.
- Grados, Marco A., et al. "Glutamate drugs and pharmacogenetics of OCD: a pathway-based exploratory approach." *Expert opinion on drug discovery* 8.12 (2013): 1515-1527. <https://doi.org/10.1517/17460441.2013.845553>
- Hanna, G. L., Himle, J. A., Curtis, G. C., & Gillespie, B. W. (2005). A family study of obsessive-compulsive disorder with pediatric probands. *American Journal of Medical Genetics Part B: Neuropsychiatric*

Genetics, 134 (1),1319. <https://doi.org/10.1002/ajmg.b.30138>

Hibbard, D. R., & Walton, G. E. (2014). Exploring the development of perfectionism: The influence of parenting style and gender. *Social Behavior and Personality: an international journal*, 42(2), 269-278. <https://doi.org/10.2224/sbp.2014.42.2.269>

Hollander, E., Braun, A., & Simeon, D. (2008). Should OCD leave the anxiety disorders in DSM-V? The case for obsessive compulsive-related disorders. *Depression and anxiety*, 25(4), 317-329. <https://doi.org/10.1002/da.20500>

Hoover, C. F., & Insel, T. R. (1984). Families of origin in obsessive-compulsive disorder. *The Journal of nervous and mental disease*, 172(4), 207-215. [10.1097/00005053-198404000-00004](https://doi.org/10.1097/00005053-198404000-00004)

Kim, T., Kwak, S., Hur, J. W., Lee, J., Shin, W. G., Lee, T. Y., ... & Kwon, J. S. (2020). Neural bases of the clinical and neurocognitive differences between early-and late-onset obsessive-compulsive disorder. *Journal of Psychiatry and Neuroscience*, 45(4), 234-242. <https://doi.org/10.1503/jpn.190028>

Koran, L. M. (2007). Obsessive-compulsive disorder: an update for the clinician. *Focus*, 5(3), 299-313. <https://doi.org/10.1176/foc.5.3.foc299>

Koran, L. M., Thienemann, M. L., & Davenport, R. (1996). Quality of life for patients with obsessive-compulsive disorder. *The American journal of psychiatry*, 153(6), 783-788. doi. <https://doi.org/10.1176/ajp.153.6.783>

Lack, C. W. (2012). Obsessive-compulsive disorder: evidence-based treatments and future directions for research. *World journal of psychiatry*, 2(6), 86. PMID: 24175173

Lebowitz, E. R., Omer, H., Hermes, H., & Scahill, L. (2014). Parent training for childhood anxiety disorders: The SPACE program. *Cognitive and behavioral practice*, 21(4), 456-469. <https://doi.org/10.1016/j.cbpra.2013.10.004>

Lesmana, C. B. J., Suryani, L. K., & Tiliopoulos, N. (2015). Cultural considerations in the treatment of mental illness among sexually abused children and adolescents: The case of Bali, Indonesia. *New directions for child and adolescent development*, 2015(147), 109116. <https://doi.org/10.1002/cad.20092>

McGuire, S., Palaniappan, M., & Larribas, T. (2015). The sibling relationship as a source of shared environment. *Gene-environment interplay in interpersonal relationships across the lifespan*, 83-95. [https://doi.org/10.1007/978-1-4939-2923-8\\_4](https://doi.org/10.1007/978-1-4939-2923-8_4)

Menzies, L., Achard, S., Chamberlain, S. R., Fineberg, N., Chen, C. H., Del Campo, N., ... & Bullmore, E. D. (2007). Neurocognitive endophenotypes of obsessive-compulsive disorder. *Brain*, 130(12), 3223-3236. <https://doi.org/10.1093/brain/awm205>

Miller, M. L., & Brock, R. L. (2017). The effect of trauma on the severity of obsessive-compulsive spectrum symptoms: A meta-analysis. *Journal of anxiety disorders*, 47, 29-44. <https://doi.org/10.1016/j.janxdis.2017.02.005>

Nakao, T., Okada, K., & Kanba, S. (2014). Neurobiological model of obsessive-compulsive disorder: Evidence from recent neuropsychological and neuroimaging findings. *Psychiatry and clinical*

neurosciences, 68(8), 587-605. <https://doi.org/10.1111/pcn.12195>

Pace, T. W., & Heim, C. M. (2011). A short review on the psychoneuroimmunology of posttraumatic stress disorder: from risk factors to medical comorbidities. *Brain, behavior, and immunity*, 25(1), 6-13. <https://doi.org/10.1016/j.bbi.2010.10.003>

Paul, S., Simon, D., Endrass, T., & Kathmann, N. (2016). Altered emotion regulation in obsessive-compulsive disorder as evidenced by the late positive potential. *Psychological medicine*, 46(1), 137-147. <https://doi.org/10.1017/S0033291715001610>

Pitman, R. K. (1993). Posttraumatic obsessive-compulsive disorder: A case study. *Comprehensive Psychiatry*, 34(2), 102-107. [https://doi.org/10.1016/0010440X\(93\)90054-8](https://doi.org/10.1016/0010440X(93)90054-8)

Pollock, R. A., & Carter, A. S. (1999). The familial and developmental context of obsessivecompulsive disorder. *Child and adolescent psychiatric clinics of North America*, 8(3), 461-479. [https://doi.org/10.1016/S1056-4993\(18\)30164-0](https://doi.org/10.1016/S1056-4993(18)30164-0)

Rachman, S. (1993). Obsessions, responsibility and guilt. *Behaviour research and therapy*, 31(2), 149-154. [https://doi.org/10.1016/0005-7967\(93\)90066-4](https://doi.org/10.1016/0005-7967(93)90066-4)

Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behaviour research and therapy*, 35(8), 741-756. [https://doi.org/10.1016/S00057967\(97\)00022-3](https://doi.org/10.1016/S00057967(97)00022-3)

Richmond, M. K., & Stocker, C. M. (2006). Associations between family cohesion and adolescent siblings' externalizing behavior. *Journal of family Psychology*, 20(4), 663. <https://doi.org/10.1037/0893->

3200.20.4.663

Rizwan, M., Malik, S., Malik, N. J., & Siddiqui, R. S. (2017). Urdu Rosenberg self-esteem scale: an analysis of reliability and validity in Pakistan. *Sociol Int J*, 1(2), 00010.

Rosen, T. E., & Lerner, M. D. (2018). Error-related brain activity and anxiety symptoms in youth with autism spectrum disorder. *Autism Research*, 11(2), 342-354. <https://doi.org/10.1002/aur.1898>

Saleem, S., & Mahmood, Z. (2010). The development of an indigenous Obsessive-Compulsive Scale. *FWU Journal of Social Sciences*, 4(1), 39.

Salkovskis, P. M. (1985). Obsessional-compulsive problems: A cognitive-behavioural analysis. *Behaviour research and therapy*, 23(5), 571-583. [doi.https://doi.org/10.1016/0005-7967\(85\)90105-6](https://doi.org/10.1016/0005-7967(85)90105-6)

Salkovskis, P. M. (1999). Understanding and treating obsessive—compulsive disorder. *Behaviour research and therapy*, 37, S29-S52. [https://doi.org/10.1016/S00057967\(99\)00049-2](https://doi.org/10.1016/S00057967(99)00049-2)

Saunders, E. A. (1991). Rorschach indicators of chronic childhood sexual abuse in female borderline inpatients. *Bulletin of the Menninger Clinic*, 55(1), 48. PMID: 2009409

Saxena, S., Brody, A. L., Schwartz, J. M., & Baxter, L. R. (1998). Neuroimaging and frontalsubcortical circuitry in obsessive-compulsive disorder. *The British Journal of Psychiatry*, 173(S35), 26-37. <https://doi.org/10.1192/S0007125000297870>

Shafran, R., Cooper, Z., & Fairburn, C. G. (2002). Clinical perfectionism: A cognitive— behavioural analysis. *Behaviour research and therapy*,

40(7), 773-791.

- Shapiro, M. O., Short, N. A., Morabito, D., & Schmidt, N. B. (2020). Prospective associations between intolerance of uncertainty and psychopathology. *Personality and individual differences*, 166, 110210. <https://doi.org/10.1016/j.paid.2020.110210>
- Smorti, M. (2012). The impact of family on obsessive compulsive disorder in children and adolescents: Development, maintenance, and family psychological treatment. *International Journal of Advances in Psychology*, 1(3), 86-94. [Http://hdl.handle.net/11568/834949](http://hdl.handle.net/11568/834949)
- Van Grootheest, D. S., Cath, D. C., Beekman, A. T., & Boomsma, D. I. (2005). Twin studies on obsessive-compulsive disorder: a review. *Twin Research and Human Genetics*, 8(5), 450-458. <https://doi.org/10.1375/twin.8.5.450>
- Whiteside, S. P., Port, J. D., & Abramowitz, J. S. (2004). A meta-analysis of functional neuroimaging in obsessive-compulsive disorder. *Psychiatry Research: Neuroimaging*, 132(1), 69-79. <https://doi.org/10.1016/j.pscychresns.2004.07.00>
- Wu, K. D., Clark, L. A., & Watson, D. (2006). Relations between obsessive-compulsive disorder and personality: Beyond Axis I–Axis II comorbidity. *Journal of anxiety disorders*, 20(6), 695-717. <https://doi.org/10.1016/j.janxdis.2005.11.001>