




Modeling Obsessive Beliefs Based on Parenting Styles, Cognitive-Attentional Syndrome, and Inferential Confusion with the Mediating Role of Fear of Self

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ABSTRACT

The present study aimed to model obsessive beliefs based on parenting styles, cognitive-attentional syndrome, and inferential confusion, with the mediating role of fear of self in individuals diagnosed with obsessive-compulsive disorder (OCD). This descriptive-correlational study was conducted on a sample of 130 individuals clinically diagnosed with OCD, who were referred to psychology clinics and psychiatric offices in Shiraz, Iran. Participants were selected using convenience random sampling. Data were collected using validated instruments, including the Obsessive Beliefs Questionnaire (OBQ), Fear of Self Questionnaire, Parent-Child Relationship Questionnaire, Cognitive-Attentional Syndrome Scale (CAS-91), and Inferential Confusion Questionnaire. Data were analyzed using structural equation modeling (SEM) in AMOS, and the significance of direct and indirect effects was tested through bootstrapping procedures. Model fit was assessed using multiple indices including RMSEA, CFI, GFI, and TLI. Results showed that parenting styles ($\beta = 0.52$), cognitive-attentional syndrome ($\beta = 0.44$), and inferential confusion ($\beta = 0.65$) had significant total effects on obsessive beliefs ($p < .001$), with fear of self mediating all relationships. The direct effect of fear of self on obsessive beliefs was also significant ($\beta = 0.32$, $p < .001$). The explained variance for obsessive beliefs was 54%, and for fear of self was 45%. All model fit indices indicated an excellent model fit ($\chi^2/df = 1.87$; CFI = 0.97; GFI = 0.93; RMSEA = 0.06). The findings highlight the pivotal role of fear of self as a mediating psychological mechanism linking cognitive vulnerabilities and parenting styles to obsessive beliefs in individuals with OCD. The integrated model offers valuable insights for enhancing assessment and intervention strategies by targeting underlying self-related beliefs and maladaptive parenting influences.

Keywords: Obsessive beliefs, fear of self, parenting styles, cognitive-attentional syndrome, inferential confusion, obsessive-compulsive disorder (OCD)

1. Introduction

Obsessive-Compulsive Disorder (OCD) is a chronic and debilitating psychological condition characterized by intrusive, unwanted thoughts (obsessions) and repetitive behaviors or mental rituals (compulsions) aimed at neutralizing the anxiety caused by those thoughts. Although the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) classifies OCD as a discrete disorder within the broader category of obsessive-compulsive and related disorders (OCDs), scholars continue to debate the heterogeneity of OCD symptoms and their relationship with associated cognitive structures and emotional vulnerabilities (Abramowitz, 2018). Global prevalence rates of OCD show significant variation, but meta-analytic findings suggest a lifetime prevalence of approximately 2–3% in general populations, with higher prevalence among women (Fawcett et al., 2020). In Iran, the prevalence rate is similarly high, which has prompted a surge in psychological research exploring contributing and mediating variables associated with the disorder (Sarokhani et al., 2016).

Contemporary research has increasingly focused on the role of maladaptive cognitive constructs—particularly obsessive beliefs, fear of self, and inferential confusion—as critical factors in the onset and persistence of OCD symptoms (Fernandez et al., 2021; Llorens-Aguilar et al., 2022). One notable construct, “fear of self,” refers to an individual’s anxiety regarding unacceptable impulses or traits they may possess, which can contribute to internalized shame and reinforce intrusive thoughts (Parsons & Alden, 2022). Research has shown that fear of self mediates the relationship between obsessive cognitions and various symptom dimensions of OCD, including relationship-centered obsessions and sexuality-related obsessions (Fernandez et al., 2021). These internal experiences are often compounded by dysfunctional reasoning patterns such as inferential confusion—where subjective beliefs override objective evidence—further fueling obsessive cycles (Norman et al., 2016).

Parenting styles have also emerged as significant contributors to the development of OCD-related symptoms, especially in childhood and adolescence (Peng et al., 2021; Rohmalimna et al., 2022). Authoritarian and overcontrolling parenting has been associated with increased perfectionism and fear of mistakes in children, traits commonly seen in individuals with OCD (Hu et al., 2023). In line with this, Pratyusha and Jacob (2021) found that rigid and punitive parenting correlates with heightened obsessive-compulsive

symptomatology among adolescents in clinical populations (Pratyusha & Jacob, 2021). In an Iranian context, perceived parental control and lack of warmth have been shown to predict higher levels of obsessive-compulsive symptoms, with obsessive beliefs acting as a mediating factor (Mashhadi et al., 2022). This is consistent with the idea that early environmental experiences, especially those involving parenting, can shape core cognitive schemas and belief systems that predispose individuals to psychopathological processes like OCD (Amirzahedi, 2019).

In terms of neurocognitive underpinnings, recent neuroimaging research has revealed abnormalities in both the structural and functional connectivity of the cortico-striato-thalamo-cortical (CSTC) circuits in individuals with OCD (Bruin et al., 2019). These findings support the hypothesis that attentional bias and hyper-responsivity to threat-related stimuli are central to the disorder’s maintenance (Mullen et al., 2021). Such attentional patterns may be linked to a broader cognitive-attentional syndrome (CAS), which encompasses worry, rumination, and mental control strategies and has been proposed as a transdiagnostic process across anxiety-related disorders, including OCD (Reuman et al., 2018). Within this framework, the individual attempts to suppress or neutralize distressing thoughts through compulsive behaviors, which paradoxically reinforces the frequency and distress of those thoughts over time.

In addition to individual cognition and familial context, the role of sociocultural factors in shaping OCD symptomatology and help-seeking behaviors has garnered growing attention. Cultural attitudes toward mental health, stigma, and access to treatment significantly affect diagnosis and intervention outcomes (Williams & Jahn, 2017). For instance, African American adolescents with OCD often face unique barriers such as cultural mistrust of mental health services and underrepresentation in clinical research (Williams & Jahn, 2017). In other regions, religious and moralistic upbringing may amplify moral obsessions, scrupulosity, and associated compulsive behaviors (Sachs & Erfurth, 2018). These culturally embedded dimensions complicate the universality of existing OCD models and necessitate culturally sensitive adaptations of assessment tools and therapeutic interventions.

The fear of losing control has also been identified as a central cognitive theme in OCD, often reinforcing compulsive behaviors aimed at regaining perceived order and predictability (Sandstrom et al., 2024). Control-related beliefs—particularly those concerning thought-action fusion

and inflated responsibility—serve as core components of the dysfunctional belief systems in OCD, making them important targets for cognitive-behavioral therapy (CBT). Indeed, control beliefs may operate both as proximal triggers and maintaining factors in OCD's symptomatology, making their identification crucial for both prevention and intervention (Sandstrom et al., 2024).

Recent empirical models of OCD emphasize the mediating role of perfectionism and fear of self between parenting and symptom expression, suggesting that the pathway from early environmental experiences to clinical presentation is neither direct nor uniform (Hu et al., 2023). For example, adolescents raised under high expectations and conditional regard may internalize the belief that their worth is contingent upon error-free performance, a notion that resonates strongly with perfectionistic standards and obsessive ideation (Peng et al., 2021). These patterns of interaction are further reinforced by cultural and familial reinforcement mechanisms, suggesting that parenting styles act as both formative and transformative agents in the etiology of OCD (Sudhir et al., 2021).

In light of these findings, the current study aims to model obsessive beliefs based on parenting styles, cognitive-attentional syndrome, and inferential confusion, with the mediating role of fear of self.

2. Methods and Materials

2.1. Study Design and Participants

The objective of the present study was to model obsessive beliefs based on parenting styles, cognitive-attentional syndrome, and inferential confusion, with the mediating role of fear of self in individuals diagnosed with Obsessive-Compulsive Disorder (OCD). This study adopted a descriptive-correlational design. The statistical population included all individuals referred to counseling clinics and psychiatrists' offices in Shiraz who had been diagnosed with OCD. The sample consisted of 130 individuals referred to psychology clinics and psychiatrists' offices in Shiraz, who had been clinically diagnosed with OCD by a psychiatrist. Sampling was conducted using convenience random sampling.

2.2. Measures

Obsessive Beliefs Questionnaire: This questionnaire was developed by the Obsessive Compulsive Cognitions Working Group (OCCWG) in 2005 and evaluates

pathogenic dimensions within the cognitive domain. It contains 44 items on a 7-point Likert scale, with scores ranging from 1 to 7 per item. The original version of this instrument includes subscales such as responsibility for harm and injury, threat estimation, perfectionism and need for certainty, and importance and control of thoughts. Internationally, Diedrich et al. (2016) adapted a German version of the English original. Reliability was assessed in three instances in that study, with Cronbach's alpha ranging from .92 to .93. In Iran, the reliability of the Persian version was calculated using Cronbach's alpha and yielded a coefficient of .91. In the current study, Cronbach's alpha will be used to assess reliability.

Revised Inferential Confusion Questionnaire: This is a unidimensional instrument consisting of 30 items developed by Aardema and colleagues in 2005. Scoring is done on a 6-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (6). The total score ranges from 30 to 180, with higher scores indicating greater inferential confusion. The purpose of this instrument is to evaluate the tendency to override reality-based perceptions with subjective probability-based interpretations. Pozza, Torrini, and Dèttore (2018) examined its psychometric properties in an Italian sample, confirming its unidimensional structure via factor analysis. Cronbach's alpha was reported as .97. In Iran, convergent validity was supported by a correlation of $r = .43$ with the Padua Inventory – Washington State University Revision. Cronbach's alpha was .92. In the current study, Cronbach's alpha will also be employed to determine reliability.

Cognitive-Attentional Syndrome Scale – CAS-91: This 16-item scale was developed by Wells et al. in 2009 to assess the activation of cognitive-attentional syndrome (CAS). Two items assess the frequency of worry and attentional focus on threatening stimuli. The next six items measure the frequency of coping strategies used to manage negative emotions and thoughts. These eight items are rated on an 8-point Likert scale from 0 to 8. The remaining eight items assess the degree of belief in metacognitive beliefs regarding CAS, rated from 0 to 100. The total score ranges from 0 to 128, with higher scores indicating greater CAS activation. Fergus, Bardeen, and Orcutt (2012) reported a Cronbach's alpha of .78. In the Persian version, factor analysis confirmed the structural validity, and Cronbach's alpha was reported as .89. In this study, reliability will be calculated using Cronbach's alpha.

Fear of Self Questionnaire: This 20-item instrument was designed by Aardema et al. (2013) to assess fear-based

perceptions of the self. Responses are rated on a 6-point scale ranging from “strongly disagree” (1) to “strongly agree” (6). The developers validated an 8-item unidimensional version in a nonclinical sample with relevance to obsessive dimensions. Factor analysis conducted in Canada, Australia, and Italy demonstrated strong internal consistency (Cronbach’s alpha ranging from .89 to .97), high test-retest reliability (.89 to .97), and acceptable convergent and divergent validity. In the current study, reliability will be measured using Cronbach’s alpha.

Parent-Child Relationship Questionnaire: This is an indigenous questionnaire developed by Bagheri in 2011 to assess the quality of the parent-child relationship. It includes 8 dimensions within the exogenous variable: rigidity, instability, control and restriction, overindulgence, formality, enmeshment, conditional worth, and indifference–abandonment. The scale contains 48 items rated on a 5-point Likert scale from “strongly disagree” to “strongly agree,” with scores ranging from 1 to 5. Cronbach’s alpha was reported as .96, and content and face validity were confirmed by experts. Exploratory and confirmatory factor analyses indicated acceptable model fit. In the study by Arabian, Abolma’ai, and Pasha Sharafi (2015), Cronbach’s alpha was .90. In the current study, reliability will be evaluated using Cronbach’s alpha.

Obsessive-Compulsive Inventory: This 42-item inventory assesses symptoms of obsessive and compulsive behaviors (e.g., washing, checking, doubt, orderliness, intrusive thoughts, hoarding, and neutralizing). Responses are rated on a 5-point Likert scale (0 to 4). Foa, Kozak, Salkovskis, Coles, and Amir (1998) demonstrated that individuals with OCD scored significantly higher on this inventory compared to those with generalized social phobia, PTSD, and normal controls. Internal consistency coefficients ranged from .86 to .95, and test-retest reliability from .84 to .90. The instrument has shown strong correlations (.65 to .81) with other OCD-related self-report measures ($p < .001$). The psychometric properties of this inventory have been well-supported in student populations (Simmonds, Thorpe, & Elliott, 2000). In Iranian student samples, the revised version demonstrated an internal consistency of .85 for the total scale, with subscale alphas ranging from .50 to .72. In the current study, Cronbach’s alpha will be used to assess reliability.

2.3. Data Analysis

In the present study, data analysis was conducted using structural equation modeling (SEM) with the help of AMOS software to test the proposed conceptual model. Prior to hypothesis testing, descriptive statistics including means, standard deviations, skewness, and kurtosis were calculated to assess the normality of the data. Pearson correlation coefficients were then used to examine the bivariate relationships among the main variables. To evaluate the direct, indirect, and total effects within the structural model, path analysis was applied. The significance of indirect effects was tested using the bootstrap method with 5,000 resamples to ensure robust estimation. Additionally, several goodness-of-fit indices were employed to assess the overall model fit, including the chi-square to degrees of freedom ratio (χ^2/df), Comparative Fit Index (CFI), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Tucker-Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA). All analyses were conducted at a significance level of $p < .01$.

3. Findings and Results

Demographic data indicated that 32 participants (24.6%) were in the age range of 18–23 years; 26 participants (20%) were aged 24–29 years; 23 participants (17.7%) were in the range of 30–35 years; 25 participants (19.2%) were in the range of 36–41 years; and finally, 24 participants (18.5%) were aged 42–47 years. In terms of education, 19 participants (14.6%) had less than a high school diploma; 38 participants (29.2%) had a high school diploma; 4 participants (3.1%) had an associate degree; 47 participants (36.2%) held a bachelor’s degree; 19 participants (14.6%) had a master’s degree; and finally, 3 participants (2.3%) held a doctoral degree. According to the results presented in the table, 34 participants were male (26.2%) and 96 were female (73.8%). Additionally, 75 participants were single (57.7%), and 55 were married (42.3%).

This section presents the descriptive statistics of the study variables. These statistics provide a clear overview of participants’ performance on the study variables and thus facilitate the path for hypothesis testing. Accordingly, the means, standard deviations, minimum and maximum scores of the variables in the sample group are first presented, followed by the zero-order correlation matrix among the research variables. Based on this, Table 1 presents the mean, standard deviation, skewness, and kurtosis for the research variables.

Table 1

Descriptive Indices of the Research Variables' Scores

Variables	Mean	SD	Min	Max	Skewness	Kurtosis
Parenting Styles	157.47	34.71	48	232	-0.30	0.63
Cognitive-Attentional Syndrome	79.31	22.79	0	120	-0.92	0.85
Inferential Confusion	128.03	32.49	41	180	-0.83	0.25
Fear of Self	73.96	22.83	20	117	-0.45	-0.94
Obsessive Beliefs	213.61	40.80	107	297	-0.45	-0.47

According to Table 1, the mean scores were as follows: parenting styles ($M = 157.47$), cognitive-attentional syndrome ($M = 79.31$), inferential confusion ($M = 128.03$), fear of self ($M = 73.96$), and obsessive beliefs ($M = 213.61$). The values of skewness and kurtosis for all research variables were within the acceptable range of -1 to $+1$, indicating that the data distribution for each variable

approximated normality. Therefore, the data analysis can be performed using parametric tests.

This section examines the bivariate relationships between observed variables using Pearson correlation coefficients. Table 2 presents the results in the form of a zero-order correlation matrix among the study variables.

Table 2

Correlation Matrix Between Research Variables

Variables	1	2	3	4	5
1. Fear of Self	1				
2. Cognitive-Attentional Syndrome	0.63	1			
3. Parenting Styles	0.33	0.44	1		
4. Inferential Confusion	0.60	0.62	0.44	1	
5. Obsessive Beliefs	0.62	0.60	0.48	0.62	1

The results in the table indicate statistically significant relationships between the research variables. Analysis revealed that obsessive beliefs were significantly correlated with fear of self ($r = 0.62$, $p < .01$), cognitive-attentional syndrome ($r = 0.60$, $p < .01$), parenting styles ($r = 0.48$, $p < .01$), and inferential confusion ($r = 0.62$, $p < .01$). Pearson correlation analysis confirmed significant positive relationships among parenting styles, cognitive-attentional syndrome, inferential confusion, and fear of self with obsessive beliefs. The strongest observed correlation was between fear of self and inferential confusion, with a correlation coefficient of $r = 0.62$.

Before conducting the main analyses, the assumptions underlying parametric statistical procedures were examined and confirmed. The normality of the data distributions was assessed through skewness and kurtosis indices for all major

variables, which fell within the acceptable range of -1 to $+1$, indicating approximately normal distributions. Linearity and homoscedasticity were visually inspected using scatterplots, which showed no evidence of violation. Additionally, multicollinearity was assessed by calculating the Variance Inflation Factor (VIF) and tolerance values, all of which were within acceptable thresholds ($VIF < 10$, tolerance > 0.1), suggesting no significant multicollinearity among predictors. Thus, the data met the necessary assumptions for conducting parametric analyses such as Pearson correlation and structural equation modeling.

To test the research hypotheses, the direct effects of exogenous and mediating variables on the endogenous variable were first examined, followed by a discussion regarding the confirmation or rejection of the direct hypotheses.

Table 3*Summary of Estimated Coefficients in the Tested Model (Direct Effects)*

Variables	Estimate	Standardized Estimate	Standard Error	t
Direct effect of Parenting Styles on:				
→ Fear of Self	0.02	0.04	0.72	
→ Obsessive Beliefs	0.21	0.05	3.09	
Direct effect of Cognitive-Attentional Syndrome on:				
→ Fear of Self	0.37	0.08	3.41	
→ Obsessive Beliefs	0.14	0.06	1.69	
Direct effect of Inferential Confusion on:				
→ Fear of Self	0.37	0.06	2.75	
→ Obsessive Beliefs	0.26	0.04	3.06	
Direct effect of Fear of Self on:				
→ Obsessive Beliefs	0.32	0.04	3.86	

This section discusses the indirect hypotheses of the study. First, the results of the data analysis are presented in

Table 4, followed by a step-by-step evaluation of each indirect hypothesis.

Table 4*Estimated Coefficients for Indirect Effects*

Predictor Variables	Mediator	Criterion Variable	β	S.E.	t	p
Parenting Styles / Cognitive-Attentional Syndrome / Inferential Confusion	Fear of Self	Obsessive Beliefs	0.26	0.04	5.93	.001

Table 5*Estimated Coefficients for Separate Indirect Effects*

Predictor Variables	Mediator	Criterion Variable	β	S.E.	t	p
Parenting Styles	Fear of Self	Obsessive Beliefs	0.31	0.08	4.63	.001
Cognitive-Attentional Syndrome			0.30	0.05	3.64	.001
Inferential Confusion			0.39	0.08	4.99	.001

Main Hypothesis: Fear of self mediates the relationship between parenting styles, cognitive-attentional syndrome, and inferential confusion with obsessive beliefs. As shown in Table 4, the indirect effect of parenting styles, cognitive-attentional syndrome, and inferential confusion on obsessive beliefs is $\beta = 0.26$ and statistically significant at $p = .001$ with $t = 5.93$. It is noteworthy that this indirect effect occurs through the mediating role of fear of self. Therefore, the main hypothesis of the study regarding the indirect effects of these variables on obsessive beliefs through fear of self is confirmed ($\beta = 0.26$, $p = .001$).

First Sub-Hypothesis: Fear of self mediates the relationship between parenting styles and obsessive beliefs. As shown in Table 5, the indirect effect of parenting styles on obsessive beliefs is $\beta = 0.31$ and statistically significant at $p = .001$ with $t = 4.63$. This indirect effect is mediated by fear of self. Therefore, the first sub-hypothesis is supported ($\beta = 0.31$, $p = .001$).

Second Sub-Hypothesis: Fear of self mediates the relationship between cognitive-attentional syndrome and obsessive beliefs. As shown in Table 5, the indirect effect of cognitive-attentional syndrome on obsessive beliefs is $\beta = 0.30$ and statistically significant at $p = .001$ with $t = 3.64$. This indirect effect is mediated by fear of self. Thus, the second sub-hypothesis is confirmed ($\beta = 0.30$, $p = .001$).

Third Sub-Hypothesis: Fear of self mediates the relationship between inferential confusion and obsessive beliefs. As shown in Table 5, the indirect effect of inferential confusion on obsessive beliefs is $\beta = 0.39$ and statistically significant at $p = .001$ with $t = 4.99$. This indirect effect is mediated by fear of self. Accordingly, the third sub-hypothesis is confirmed ($\beta = 0.39$, $p = .001$).

One of the additional parameters estimated in the analysis was the **total effects**, which result from the combination of direct and indirect effects. In some cases, variables exert only direct or only indirect effects on one another; in such situations, the total effect equals either the direct or the

indirect effect. Since the direct and indirect effects of all variables have already been presented in the relevant tables, and all research variables demonstrate either direct or

indirect effects, a separate table for total effects is omitted here to avoid redundancy. The following section compares the direct, indirect, and total effects of the variables.

Table 6

Direct, Indirect, and Total Effect Coefficients on Obsessive Beliefs

Variables	Direct Effect	Indirect Effect	Total Effect
Parenting Styles	0.21	0.31	0.52
Inferential Confusion	0.26	0.39	0.65
Cognitive-Attentional Syndrome	0.14	0.30	0.44
Fear of Self	0.32	—	0.32

The results in the above table indicate that the total effect of parenting styles on obsessive beliefs is 0.52, which is higher than the direct effect of parenting styles on obsessive beliefs (0.21). Similarly, the total effect of inferential confusion on obsessive beliefs is 0.65, which exceeds the direct effect of 0.26. Finally, the total effect of cognitive-

attentional syndrome on obsessive beliefs is 0.44, higher than its direct effect of 0.14.

The explained variance for each mediator and dependent variable was examined next. The table below presents the proportion of variance explained for the variables in the tested model.

Table 7

Explained Variance of Dependent Variables

No.	Variables	Explained Variance
1	Fear of Self	0.45
2	Obsessive Beliefs	0.54

The results of Table 7 show that 54% of the variance in obsessive beliefs is explained by the predictor variables in the model, and 45% of the variance in fear of self is similarly accounted for.

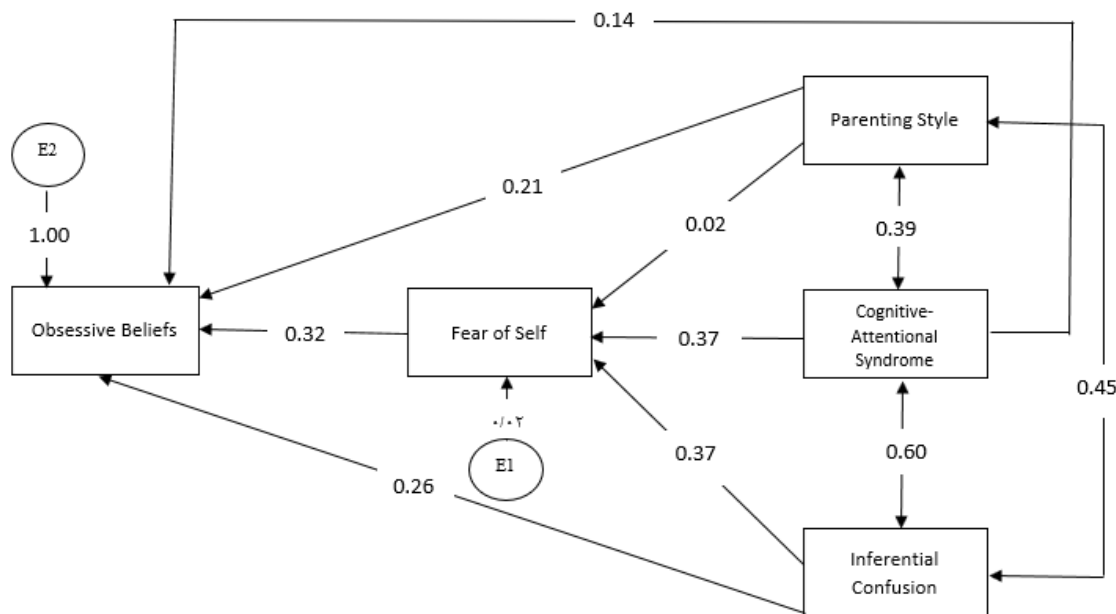
To assess the fit of the research model, several established indices were used, and the results are presented in Table 8. The first index examined was the chi-square divided by degrees of freedom (normalized chi-square), which was calculated as 1.87. Since this value falls within the acceptable range (less than 3), it indicates a good model fit. The Comparative Fit Index (CFI), which compares the target model to an independence model, was 0.95—above the

threshold of 0.90—indicating excellent fit. The Goodness of Fit Index (GFI), which reflects the proportion of variance and covariance explained by the model, was 0.93, which also exceeds the acceptable value of 0.90. The Adjusted Goodness of Fit Index (AGFI), which adjusts the GFI based on model complexity and sample size, was 0.98, again indicating a strong fit. The Tucker-Lewis Index (TLI) was 0.91, and the Confirmatory Fit Index (CFI) was 0.97—both surpassing the conventional cutoff of 0.90. Finally, the Root Mean Square Error of Approximation (RMSEA) was 0.06, which is below the threshold of 0.08, further confirming good model fit.

Table 8

Final Model Fit Indices

Fit Index	χ^2/df	GFI	NFI	AGFI	TLI	CFI	RMSEA
Value	1.87	0.93	0.95	0.98	0.91	0.97	0.06
Acceptable	<3	>0.90	>0.90	>0.90	>0.90	>0.90	<0.08

Figure 1*Final Research Model*

4. Discussion and Conclusion

The present study aimed to model obsessive beliefs based on parenting styles, cognitive-attentional syndrome, and inferential confusion with the mediating role of fear of self. The results demonstrated that all three predictors—parenting styles, cognitive-attentional syndrome, and inferential confusion—had significant direct and indirect effects on obsessive beliefs, with fear of self functioning as a powerful mediator in all pathways. These findings align with theoretical models that emphasize the interplay between environmental influences, cognitive vulnerabilities, and emotional self-representations in the development of obsessive-compulsive symptomatology.

First, the finding that parenting styles significantly predict obsessive beliefs both directly and indirectly through fear of self is consistent with a growing body of literature suggesting that early relational experiences significantly contribute to the formation of dysfunctional cognitive schemas. Authoritarian and controlling parenting styles have been found to contribute to perfectionism and conditional self-worth, which in turn foster obsessive thought patterns and behaviors (Hu et al., 2023; Peng et al., 2021). Moreover, the results reaffirm previous findings by Mashhadi et al. (2022), who reported that perceived negative parenting styles significantly predicted obsessive-compulsive symptoms via maladaptive belief systems (Mashhadi et al.,

2022). In addition, the Iranian study by Amirzahedi et al. (2019) also supports these findings, demonstrating that parenting schemas are closely linked to the emergence of OCD symptoms among students (Amirzahedi, 2019). These studies collectively highlight the enduring impact of familial dynamics on cognitive vulnerability to OCD.

Secondly, cognitive-attentional syndrome (CAS) was found to have both a direct and indirect effect on obsessive beliefs, mediated by fear of self. This finding reinforces the relevance of metacognitive models that consider worry, rumination, and threat-monitoring as central processes in the maintenance of OCD symptoms (Reuman et al., 2018). In particular, CAS contributes to persistent monitoring of internal threat cues, amplifying the salience of intrusive thoughts and leading to heightened emotional distress and compensatory behaviors. The study's results are in line with findings from Mullen et al. (2021), who observed attentional biases in individuals with OCD through eye-tracking analysis, suggesting that cognitive-attentional mechanisms play a key role in sustaining obsessional thoughts (Mullen et al., 2021). Furthermore, the link between CAS and fear of self is conceptually plausible, as sustained cognitive focus on internal threats may cultivate a distorted and threatening self-concept, reinforcing fear-based avoidance and compulsions (Fernandez et al., 2021).

Inferential confusion also emerged as a robust predictor of obsessive beliefs. It not only exerted a direct effect on these beliefs but also showed a significant indirect effect through fear of self. This is consistent with previous work by Norman et al. (2016), which emphasized inferential confusion as a core reasoning deficit in OCD, where individuals rely more on subjective possibility than objective evidence when evaluating threats (Norman et al., 2016). This type of thinking fosters distorted appraisals of personal responsibility and control, which are central features of obsessive-compulsive ideation. Sandstrom et al. (2024) further highlighted the role of control beliefs in OCD, suggesting that individuals with a heightened need for control are more vulnerable to cognitive distortions such as inferential confusion (Sandstrom et al., 2024). When these distorted beliefs are internalized, they may contribute to fear of self, particularly if the person begins to associate intrusive thoughts with evidence of their "true self," as suggested in the work by Llorens-Aguilar et al. (2022) (Llorens-Aguilar et al., 2022).

The mediating role of fear of self was found to be significant in all three predictive pathways, suggesting that this variable acts as a central psychological mechanism linking early experience and cognitive vulnerabilities to obsessive beliefs. This finding supports previous research that identified fear of self as a key predictor of various OCD dimensions, such as relationship and sexual obsessions (Fernandez et al., 2021; Parsons & Alden, 2022). Parsons and Alden (2022) emphasized how internalized shame and fear regarding one's identity or morality can heighten the frequency and intensity of obsessional thoughts (Parsons & Alden, 2022). Similarly, the work of Llorens-Aguilar et al. (2022) demonstrates that individuals with OCD often describe themselves in terms of feared or undesirable traits, suggesting that fear of self is more than a secondary emotion—it is a cognitive-affective schema embedded in the psychopathology of OCD (Llorens-Aguilar et al., 2022).

The variance explained in the model (54% for obsessive beliefs and 45% for fear of self) further validates the structural coherence of the proposed model. These findings support the idea that obsessive-compulsive symptoms are multifactorial in origin and that meaningful variance can be accounted for by examining the intersection of cognitive distortions, emotional regulation deficits, and socialization experiences. Additionally, our findings are consistent with neuropsychological models of OCD, which show structural and functional abnormalities in brain areas responsible for cognitive control, self-referential thinking, and emotional

regulation (Bruin et al., 2019). These models offer a neurobiological basis for the cognitive-affective interactions observed in the present study.

Moreover, the present study provides further evidence that OCD-related beliefs are not simply products of current anxiety states but are shaped by longstanding cognitive and emotional tendencies. This distinction has significant clinical implications, as it underscores the need for integrative interventions that target not only the symptomatic behaviors but also the underlying belief systems and emotional schemas that sustain them. For instance, cognitive-behavioral therapy (CBT) protocols that include modules on maladaptive beliefs and fear of self may be particularly effective for individuals with severe or treatment-resistant OCD.

Despite growing evidence supporting the role of parenting and cognitive variables in OCD, sociocultural factors must also be considered. Cultural expectations around obedience, shame, and success can influence both parenting practices and how individuals process intrusive thoughts. In many collectivist cultures, for example, deviations from social or familial norms may be experienced as deeply threatening to self-concept, exacerbating fear of self and increasing susceptibility to obsessional concerns (Rohmalimna et al., 2022; Sachs & Erfurth, 2018). Additionally, cultural taboos surrounding sexuality or religious practices may intensify moral obsessions and self-monitoring behaviors, particularly among adolescents and young adults (Pratyusha & Jacob, 2021; Williams & Jahn, 2017). These factors must be acknowledged when interpreting the generalizability of the present findings.

This study is not without limitations. First, the use of self-report questionnaires may introduce response biases, including social desirability and subjective misinterpretation of items. Second, the cross-sectional design of the study precludes any inference about causal relationships between variables. While structural equation modeling can estimate indirect pathways, longitudinal data are needed to confirm the temporal order of the relationships. Third, the sample was limited to individuals diagnosed with OCD in Shiraz, Iran, which may constrain the cultural and demographic generalizability of the findings. Lastly, biological or neurodevelopmental factors—though relevant to OCD—were not included in the model and should be integrated in future multifactorial analyses.

Future studies should employ longitudinal and experimental designs to better establish causality among parenting styles, cognitive-affective vulnerabilities, and

obsessive beliefs. It would also be beneficial to include physiological or neurocognitive measures (e.g., fMRI, EEG) to triangulate self-report data with objective indices of cognitive functioning. Cross-cultural comparisons could also enrich the understanding of how sociocultural contexts influence fear of self and obsessive beliefs. Moreover, future research could explore the moderating role of gender, as studies have shown gender-specific patterns in OCD symptom presentation and cognitive processing.

Clinicians working with OCD populations should assess not only the content of obsessions and compulsions but also the underlying cognitive-affective schemas such as fear of self. Interventions that target perfectionism, shame, and distorted self-beliefs may enhance treatment efficacy. Psychoeducation for families—particularly around parenting styles—may also be beneficial in early intervention and prevention efforts. Tailoring cognitive-behavioral interventions to include culturally sensitive components can improve engagement and reduce treatment resistance, especially in populations where mental health stigma or authoritarian parenting norms prevail.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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