

Structural Equation Modeling of Insecure Attachment Styles and Moral Sensitivity with Obsessive Beliefs Based on the Mediating Role of Fear of Self and Self-Ambivalence

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ABSTRACT

Obsessive-Compulsive Disorder (OCD) is a complex and debilitating psychological disorder in which obsessive beliefs constitute its core. Therefore, identifying the underlying factors influencing these beliefs is of considerable importance.

Objective: This study aimed to apply structural equation modeling to examine the complex relationships among insecure attachment styles (anxious and avoidant), moral sensitivity, and obsessive beliefs, with fear of self and self-ambivalence as mediating variables. A total of 452 university students in Tehran (predominantly female, aged 18–24, undergraduate level) participated in the study using convenience sampling. Data were collected using the Obsessive Beliefs Questionnaire (OBQ), the State Adult Attachment Measure (SAAM), the Ethical Sensitivity Scale Questionnaire (ESSQ), the Fear of Self Questionnaire (FSQ), and the Self-Ambivalence Measure (SAM). The data were analyzed using structural equation modeling based on partial least squares (PLS-SEM). The results indicated that insecure attachment styles—particularly the anxious type—were positively and directly predictive of obsessive beliefs, whereas moral sensitivity was negatively and directly predictive of obsessive beliefs. Additionally, fear of self and self-ambivalence played partial mediating roles in these relationships. Specifically, insecure attachment indirectly influenced obsessive beliefs through increased fear of self and self-ambivalence, whereas moral sensitivity indirectly influenced obsessive beliefs through decreasing these mediators. The model demonstrated strong goodness of fit and satisfactory predictive power, highlighting the complex interaction between self-related, attachment-related, and moral variables in the psychopathology of obsessive beliefs. These findings open new avenues for understanding the etiology and designing targeted preventive and therapeutic interventions in the field of Obsessive-Compulsive Disorder.

Keywords: structural equation modeling, insecure attachment styles, moral sensitivity, obsessive beliefs, fear of self, self-ambivalence

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Introduction

Obsessive-Compulsive Disorder (OCD) is a chronic and disabling condition characterized by persistent intrusive thoughts (obsessions) and repetitive behaviors or mental acts (compulsions) performed in response to those thoughts. While OCD has long been conceptualized within cognitive-behavioral frameworks, recent models have emphasized the centrality of dysfunctional self-related beliefs and emotional vulnerabilities in the maintenance of symptoms (1, 2). One particularly relevant domain of vulnerability pertains to individuals' internal representations of themselves, such as fear of self and self-ambivalence, which have been increasingly implicated in the pathogenesis of OCD (3-5). These constructs are intertwined with early attachment patterns and moral sensitivities, suggesting a complex interaction between interpersonal, cognitive, and affective domains in OCD-related symptomatology.

Attachment theory offers a powerful lens through which to understand emotional regulation and internal representations of the self, especially in the context of mental disorders. Insecure attachment styles—particularly anxious and avoidant styles—have been consistently associated with vulnerability to OCD symptoms (6, 7). Individuals with anxious attachment tend to display heightened fear of abandonment, excessive reassurance seeking, and hyperactivation of negative self-beliefs, while avoidantly attached individuals often suppress emotional needs and exhibit a diminished capacity for intimacy (8, 9). These patterns of attachment have been linked with the development of dysfunctional self-schemas, including the fear of self, a construct reflecting the perception that one's inner thoughts, desires, or impulses are dangerous or morally reprehensible (10, 11).

Fear of self, in particular, has been proposed as a key cognitive-affective mediator linking early attachment insecurity to OCD. It is conceptualized as the belief that one's internal mental content could cause harm or reflect core moral defectiveness, thereby triggering excessive guilt and anxiety (12, 13). Studies have shown that fear of self is significantly associated with the severity of obsessive thoughts, particularly those of a repugnant or unacceptable nature, and is amenable to therapeutic change (4, 14). Moreover, empirical evidence suggests that insecure attachment styles, especially the anxious subtype, predict increased levels of fear of self and self-ambivalence, the latter defined as conflicting beliefs and emotions about one's own self-worth or moral identity (2, 15).

Self-ambivalence has emerged as another important variable in understanding OCD symptomatology. It refers to an unstable or contradictory sense of self, in which the individual oscillates between inflated and devalued self-perceptions (16, 17). This internal conflict exacerbates cognitive dissonance and emotional distress, increasing the likelihood of engaging in compulsive behaviors as a means of restoring moral or personal clarity. Empirical investigations have documented a positive association between self-ambivalence and both intrusive thoughts and compulsive behaviors, highlighting its potential role as a mediator between attachment insecurity and obsessive beliefs (15, 18).

Another important but often overlooked factor in this multifaceted relationship is moral sensitivity. Defined as the ability to recognize and evaluate moral issues and the consequences of one's actions, moral sensitivity has been identified as a significant psychological construct in OCD research (19, 20). Individuals with high moral sensitivity may be more vulnerable to the distress associated with intrusive thoughts due to their heightened concern about causing harm or violating ethical standards. While this may intensify

obsessive concerns in some cases, moral sensitivity could also serve a protective role by reinforcing internal moral frameworks and promoting constructive cognitive processing (21, 22).

Research into the intersection of moral sensitivity and OCD symptoms has produced mixed findings, suggesting the need for models that incorporate moderating or mediating mechanisms such as fear of self. For instance, Tabatabayi and Najafi (2022) found that moral sensitivity was negatively associated with obsessive-compulsive symptoms when fear of self was statistically controlled, suggesting that moral discernment alone does not necessarily predispose individuals to OCD unless it coexists with a fear-based interpretation of the self (19). This aligns with emerging theories that propose moral cognitions can be either protective or pathogenic depending on the broader cognitive-affective context in which they occur (20).

The theoretical framework of feared possible selves—internal representations of who one fears becoming—also provides valuable insight into how moral and attachment-related processes interact in OCD (1). According to Aardema and Wong (2020), feared selves serve as powerful motivational constructs that shape behavior and cognition, particularly when coupled with insecure attachment and self-rejection (1). These internal images can be rigid and extreme, reflecting early interpersonal experiences in which conditional acceptance or moral condemnation was prominent. Consequently, individuals with heightened moral sensitivity and insecure attachments may be particularly vulnerable to constructing feared selves that center on moral unworthiness or dangerous intent, thus intensifying obsessive beliefs (3, 10).

Furthermore, attachment insecurity has also been associated with reduced emotional regulation, diminished empathy, and poor conflict resolution skills—all of which exacerbate internal self-conflict and reduce adaptive responses to distressing thoughts (9, 23, 24). These deficits often manifest as experiential avoidance, a maladaptive coping strategy in which individuals attempt to escape or suppress unwanted internal experiences. Experiential avoidance has been shown to mediate the relationship between attachment styles and the severity of OCD symptoms (25), reinforcing the need for integrated models that capture the emotional, cognitive, and interpersonal dimensions of the disorder.

In light of these findings, the present study proposes and tests a comprehensive structural model in which insecure attachment styles (anxious and avoidant) and moral sensitivity serve as independent variables, obsessive beliefs as the dependent variable, and fear of self and self-ambivalence as mediators.

Methods and Materials

Study Design and Participants

The present study is classified as basic research in terms of its objective and is a quantitative study in terms of data type. The research design was descriptive-correlational based on a moderated mediation model. The statistical population included all university students in Tehran during the 2024–2025 academic year. Considering that the theoretical model includes six observed variables, a maximum of 21 parameters could be estimated. According to Kline's (2023) recommendation of at least 20 participants per parameter, the initial sample size was estimated at 420 participants. Taking into account a potential 10% dropout rate, the final sample size was determined to be 452 participants, selected using a convenience sampling method.

Inclusion criteria were: enrollment in the 2024–2025 academic year, providing informed consent to participate in the study, absence of a diagnosed acute psychological disorder by a specialist (based on self-report), and not taking psychoactive medication (based on self-report).

Exclusion criteria included: distorted questionnaire responses and withdrawal from participation in the study. These criteria were assessed prior to sharing the questionnaire link.

Data Collection

Obsessive Beliefs Questionnaire (OBQ): This 20-item questionnaire was developed by the Obsessive Compulsive Cognitions Working Group (2001) to assess the role of cognitive structures in the etiology and persistence of OCD. The OBQ includes four cognitive subdomains that cover key cognitive dimensions in OCD. It has demonstrated high internal consistency ($\alpha = 0.92$), split-half reliability ($r = 0.94$), and test-retest reliability ($r = 0.82$) (Obsessive Compulsive Cognitions Working Group, 2001). Its criterion validity with the Maudsley Obsessional-Compulsive Questionnaire was reported as $r = 0.82$. In the study by Ashouri and Bazazian (2022), Cronbach's alpha was reported as 0.86. In the present study, the Cronbach's alpha was calculated at 0.782.

State Adult Attachment Measure (SAAM): Developed by Gillath et al. (2009), this 21-item scale assesses three adult attachment styles—secure, avoidant, and anxious—using a five-point Likert scale. Each subscale includes seven items. Gillath et al. (2009) reported adequate convergent and discriminant validity, with internal consistency coefficients (α ranging from 0.83 to 0.87) and test-retest reliability (ranging from 0.51 to 0.59). In the study by Saadian et al. (2012), the psychometric properties of the Persian version were examined, and construct, convergent, and criterion validity were reported as satisfactory. Cronbach's alpha for the Persian subscales ranged from 0.48 to 0.72. In the present study, the overall Cronbach's alpha was calculated at 0.707.

Ethical Sensitivity Scale Questionnaire (ESSQ): Developed by Tirri and Nokelainen (2007), this instrument assesses ethical sensitivity. The short 16-item version was validated in Iran by Gholami and Tirri (2012), and it includes four dimensions: care through interpersonal relationships, perspective-taking, moral problem recognition, and awareness of consequences. Tirri and Nokelainen (2007) reported good convergent and criterion validity, with a Cronbach's alpha of 0.88. Gholami and Tirri (2012) reported strong construct validity and a Cronbach's alpha of 0.90. In the present study, the Cronbach's alpha was calculated at 0.847.

Fear of Self Questionnaire (FSQ): This 20-item instrument was developed by Aardema et al. (2013) to assess fear-based perceptions of the self. Aardema et al. (2013) reported a Cronbach's alpha of 0.89, and satisfactory correlations with psychological distress and obsessive thought measures (both $r = 0.61$). In the Persian version, Ghasemi et al. (2021) reported a Cronbach's alpha of 0.94 and test-retest reliability of 0.86. Masoumian et al. (2023) also reported a Cronbach's alpha of 0.97 and high test-retest validity. In the current study, the Cronbach's alpha was calculated at 0.928.

Self-Ambivalence Measure (SAM): This 19-item self-report instrument was originally developed by Bhar and Kyrios (2007) based on the concept of self-ambivalence proposed by Guidano and Liotti. It assesses experiences of uncertainty, internal conflict, and preoccupation with self-related thoughts. The SAM includes two factors: ambivalence about self-worth (13 items) and moral ambivalence (6 items). The developers reported adequate test-retest reliability and Cronbach's alpha coefficients above 0.80 for both clinical and non-clinical samples (Bhar & Kyrios, 2007). Tischer et al. (2014) identified three factors: ambivalence about self-worth, moral ambivalence, and collective self-awareness. In Iran, Dadfarnia and Mousavian (2020) reported four factors—conflicting thoughts about the self, polarized self-view, concern

about others' judgment, and preoccupation with self-worth—and a Cronbach's alpha of 0.91. In the present study, the Cronbach's alpha was calculated at 0.868.

After receiving the necessary ethical approval from the Research Ethics Committee of the University of Science and Culture, the questionnaires were uploaded to the Porsline online platform and made available to participants digitally. Prior to beginning the questionnaires, participants were provided with comprehensive information regarding the voluntary nature of participation and the purpose of the study (emphasizing the promotion of human well-being and ethical integrity). Upon giving informed consent, participants received the questionnaire link. At the start of each questionnaire, instructions were provided, noting that there were no right or wrong answers. Participants were also informed that non-participation would bear no consequences and that they could withdraw at any time during the process; this was clearly communicated during the consent process. Participants were assured of confidentiality and privacy both during and after the study. The questionnaires were anonymous, and personal information was used solely for research purposes. If desired, participants were offered the option to be informed of the study results.

Data analysis

Descriptive statistics (frequency, percentage, mean, and standard deviation), Pearson correlation, and moderated mediation modeling were used to analyze the data. All analyses were performed using SPSS version 27 and SmartPLS version 3, with a significance level set at 0.05.

Findings and Results

The majority of the study sample consisted of females (78.1%). Regarding age, the highest frequency was in the 18–24 age group (61.2%). Additionally, in terms of education level, an overwhelming majority (83.6%) held a bachelor's degree. This demographic composition primarily consisted of young, undergraduate students. Table 1 presents the mean, standard deviation, minimum, and maximum values of the study's main variables, illustrating the distribution status of each variable in the analyzed sample.

Table 1. Descriptive Statistics of Study Variables

Variable	Subscale	Min	Max	Mean	SD
Moral Sensitivity		17.00	59.00	36.352	8.997
	Perspective-Taking	4.00	20.00	11.016	3.348
	Care through Interpersonal Relations	4.00	20.00	7.727	2.916
	Recognition of Consequences	4.00	18.00	8.719	2.956
Obsessive Beliefs	Moral Problem Recognition	4.00	20.00	8.891	2.858
		35.00	126.00	79.914	15.657
	Threat	5.00	35.00	19.003	6.253
	Perfectionism	5.00	35.00	22.513	6.151
	Excessive Responsibility	5.00	35.00	21.354	5.798
Insecure Attachment Styles	Importance and Control of Thoughts	5.00	35.00	17.044	6.375
		23.00	89.00	55.711	10.793
	Anxious	13.00	49.00	33.508	7.468
	Avoidant	7.00	40.00	22.203	7.432
Self-Ambivalence		28.00	95.00	61.388	13.480
	Self-Worth Ambivalence	18.00	65.00	40.745	9.759
	Moral Ambivalence	6.00	30.00	20.643	4.874
Fear of Self		20.00	100.00	50.320	17.754

Using boxplot analysis, data points located more than three box-lengths beyond the whiskers were identified as outliers and removed. Consequently, 68 data points were excluded, and the remaining 384 data points were included in the final analysis.

The Kolmogorov–Smirnov test indicated that the significance level for all variables was below 0.05, thus rejecting the assumption of normal distribution.

Multicollinearity assumptions were tested using Variance Inflation Factor (VIF) and Tolerance Index. The results showed that for all variables, VIF values were below 10 and tolerance values were above 0.1, indicating no multicollinearity issues among the variables.

Homoscedasticity was examined by analyzing the standardized residual scatter plot. The presence of symmetry around the zero line and the absence of any discernible pattern indicated homoscedasticity.

Given the absence of outliers, lack of multicollinearity, presence of homoscedasticity, and non-normality of data distribution, variance-based structural equation modeling using Partial Least Squares (PLS) was employed to test the hypotheses.

In the first step, the reliability and validity of the measurement model were assessed to verify the relationships among constructs.

For reliability, all calculated Cronbach's alpha and Composite Reliability (CR) values exceeded 0.70 (Hair, 2019), indicating satisfactory reliability of the instruments.

For validity, confirmatory factor analysis revealed that all subscales had factor loadings above 0.30 and significance levels below 0.05 (Kline, 2023), indicating adequate construct validity.

Convergent validity was confirmed using the Average Variance Extracted (AVE) criterion. All AVE values were above 0.50, indicating that at least 50% of the variance of each construct was accounted for by its indicators.

Discriminant validity was examined using the Fornell-Larcker (1981) criterion. The diagonal elements (square roots of AVE) in the matrix were greater than the off-diagonal elements in their respective columns, confirming discriminant validity.

Additionally, the Heterotrait-Monotrait Ratio (HTMT) proposed by Henseler et al. (2015) was calculated, and values ranged between 0.266 and 0.795, all below the 0.90 threshold, further confirming discriminant validity.

Table 2. Path Coefficients, t-values, and p-values for the Structural Model

Path	Type	Path Coefficient (β)	t-value	p-value
Insecure Attachment → Obsessive Beliefs	Direct	0.417	6.552	< .001
Moral Sensitivity → Obsessive Beliefs	Direct	-0.243	-3.068	< .001
Insecure Attachment → Fear of Self → Obsessive Beliefs	Indirect	0.269	3.091	< .001
Insecure Attachment → Self-Ambivalence → Obsessive Beliefs	Indirect	0.229	2.808	< .001
Moral Sensitivity → Fear of Self → Obsessive Beliefs	Indirect	-0.100	-2.116	< .001
Moral Sensitivity → Self-Ambivalence → Obsessive Beliefs	Indirect	-0.094	-2.008	< .001

After validating the measurement model and due to the violation of the normality assumption, PLS-based structural modeling was applied. Path coefficients, R-squared values, and the Stone-Geisser criterion were assessed.

The path coefficients from insecure attachment styles and moral sensitivity to obsessive beliefs were 0.417 and -0.243, respectively ($p < .001$; $t = 6.552$ and $t = -3.068$). These results indicate that insecure attachment

styles significantly and positively, and moral sensitivity significantly and negatively, predict obsessive beliefs with over 99% confidence.

Among insecure attachment subscales, anxious attachment had the highest factor loading (0.801) compared to avoidant attachment (0.741).

Among moral sensitivity subscales, “recognition of consequences” had the highest factor loading (0.802), followed by moral problem recognition (0.780), care through interpersonal relations (0.717), and perspective-taking (0.693).

Using the bootstrap method, the indirect path coefficients between insecure attachment and obsessive beliefs through fear of self and self-ambivalence were 0.269 and 0.229, respectively, both positive and significant ($p < .001$; $t = 3.091$ and $t = 2.808$).

The Variance Accounted For (VAF) for these mediations was 0.392 and 0.354, respectively, indicating partial mediation.

The indirect path coefficients between moral sensitivity and obsessive beliefs through fear of self and self-ambivalence were -0.100 and -0.094, respectively, both negative and significant ($p < .001$; $t = -2.116$ and $t = -2.008$).

The VAF values for these mediations were 0.292 and 0.279, respectively, again indicating partial mediation.

The model's predictive power was assessed using the R-squared (R^2) values for dependent variables. Based on Chin's (1998) criteria—0.19 (weak), 0.33 (moderate), and 0.67 (strong)—the results showed that all R^2 values for dependent variables exceeded 0.33, indicating moderate to strong predictive power.

Furthermore, predictive relevance was evaluated using the Q^2 statistic. According to Henseler et al. (2015), values of 0.02, 0.15, and 0.35 indicate weak, moderate, and strong predictive relevance, respectively. The Q^2 values for endogenous constructs were all above 0.15, confirming adequate predictive relevance.

Lastly, model fit was evaluated using the Goodness of Fit (GOF) index (see Table 2). The GOF value for the model was 0.535. Given that 0.01, 0.25, and 0.36 indicate weak, moderate, and strong fit, respectively, this value represents a strong model fit.

Table 3. Global Model Fit Indices

	R^2	Q^2	GOF	SRMR	NFI
Value	>0.33	>0.15	0.535	0.096	0.724
Threshold	>0.33	>0.15	>0.36	<0.10	>0.60
Model Fit Assessment	Acceptable	Acceptable	Strong	Acceptable	Acceptable

Discussion and Conclusion

The present study aimed to model the relationship between insecure attachment styles and moral sensitivity with obsessive beliefs, while examining the mediating roles of fear of self and self-ambivalence in a non-clinical population of university students. The results revealed that insecure attachment styles—especially the anxious subtype—positively predicted obsessive beliefs, while moral sensitivity negatively predicted them. Furthermore, both fear of self and self-ambivalence partially mediated these relationships. These findings underscore the multifaceted psychological underpinnings of obsessive-compulsive cognitions and support integrated theoretical frameworks that emphasize interpersonal, moral, and self-related vulnerabilities in the development of obsessive beliefs.

The positive and significant relationship observed between insecure attachment styles and obsessive beliefs aligns with a substantial body of literature highlighting the role of attachment insecurity in OCD-related phenomena. Particularly, anxious attachment was found to have a stronger predictive power than avoidant attachment. This is consistent with studies demonstrating that anxiously attached individuals are more prone to hyperactivating strategies, such as excessive worry, fear of abandonment, and heightened vigilance toward internal and external threats—all of which facilitate the formation of obsessive thoughts (6–8). Moreover, the link between insecure attachment and OCD symptoms has been explained in part through the role of maladaptive internal working models that generate negative self-evaluations and promote an overvaluation of responsibility (2, 22). The current findings further support the argument that insecure attachment patterns, especially anxious ones, act as vulnerability factors for obsessive cognitions.

In contrast, moral sensitivity was found to be negatively associated with obsessive beliefs. This suggests that individuals with higher levels of ethical awareness and greater concern for the impact of their actions may be better equipped to contextualize intrusive thoughts and manage internal distress, thus reducing the likelihood of developing maladaptive obsessive beliefs. Although moral sensitivity has traditionally been viewed as a possible risk factor for OCD due to its association with heightened guilt and harm avoidance, recent findings suggest that when not coupled with fear of self, moral sensitivity may serve a regulatory and protective function (19, 20). These results are in line with prior studies emphasizing the importance of evaluating the cognitive-affective context within which moral judgments occur, particularly the presence or absence of internalized fear-based self-perceptions (9, 21).

A major contribution of this study is its demonstration of the mediating role of fear of self in the relationship between insecure attachment and obsessive beliefs. This finding supports the theoretical assertion that internalized fears about one's own moral character or harmful potential—referred to as fear of self—can bridge the gap between early attachment-related vulnerabilities and the development of obsessive cognitions (1, 4). Consistent with the findings of Ashoori and Bazzazian (2022), fear of self appears to be a significant psychological mechanism through which individuals with insecure attachment come to interpret intrusive thoughts as morally significant, thereby giving rise to obsessive patterns (11). This fear is rooted in the notion of "feared possible selves"—dreaded self-concepts that individuals attempt to avoid at all costs due to their perceived danger or immorality (1, 10). The activation of such feared selves in the context of perceived moral transgressions can create cognitive dissonance and compel compensatory behaviors, such as mental checking or thought suppression.

Self-ambivalence was also identified as a significant mediator between both insecure attachment and moral sensitivity on the one hand, and obsessive beliefs on the other. Self-ambivalence reflects contradictory and fluctuating evaluations of self-worth, and it often emerges in individuals with unstable or conditional self-concepts (16, 17). The current results confirm previous findings indicating that self-ambivalence is not only correlated with OCD symptoms but also functions as a pathway through which deeper psychological vulnerabilities exert their influence (15, 18). Individuals high in self-ambivalence may struggle to interpret intrusive thoughts in a coherent or self-compassionate manner, thereby amplifying their distress and increasing the likelihood of obsessive belief formation.

Moreover, the partial mediating roles of fear of self and self-ambivalence suggest that these constructs do not act in isolation but rather as interrelated processes contributing to OCD symptomatology. Previous

research has highlighted how self-ambivalence can exacerbate fear of self by increasing uncertainty about one's moral standing and amplifying the salience of feared possible selves (3, 13). The present findings add empirical support to this conceptualization, emphasizing the importance of integrating both mediators into a broader cognitive-affective model of obsessive beliefs.

It is also notable that the model demonstrated acceptable to strong predictive power based on the coefficients of determination (R^2) and the predictive relevance indices (Q^2). This supports the robustness and applicability of the proposed model in understanding the structural interplay between attachment, moral cognition, and self-related beliefs. Additionally, the Goodness-of-Fit index (GOF) exceeded the threshold for strong model fit, reinforcing the validity of the structural relationships identified.

This study's findings also resonate with research examining the role of early developmental experiences, such as childhood maltreatment and trauma, in shaping attachment styles and vulnerabilities related to OCD (22, 24). Children who experience conditional caregiving or moral invalidation may internalize fears about their intrinsic worth and develop compensatory cognitive mechanisms aimed at moral control or avoidance of imagined harm. These internal working models are then reinforced over time, especially in environments lacking secure attachment and emotional validation. The pathway from early attachment insecurity to maladaptive self-concepts—and ultimately to obsessive beliefs—thus reflects a dynamic and developmental process.

Another implication of the current findings concerns the dual nature of moral sensitivity in OCD. While some researchers have argued that moral concern can predispose individuals to excessive guilt and pathological doubt, this study found that, in the absence of self-related fears and instability, moral sensitivity may instead buffer against obsessive beliefs. This finding challenges the traditional deficit model and encourages a strengths-based approach that acknowledges the adaptive potential of ethical awareness in emotion regulation and meaning-making processes (19, 20).

In sum, the results of this study offer a nuanced perspective on the interaction between attachment insecurity, moral cognition, and self-related vulnerabilities in the development of obsessive beliefs. They validate a multifactorial model in which fear of self and self-ambivalence serve as key mediating constructs, translating relational and moral vulnerabilities into psychopathological cognitive patterns. This model enriches our understanding of OCD's etiology and provides a comprehensive framework for therapeutic interventions targeting self-concept and attachment repair alongside symptom management.

Despite its valuable insights, the present study has several limitations. First, the cross-sectional design limits the ability to infer causality among the variables. While the proposed model is grounded in strong theoretical frameworks, longitudinal data would be necessary to confirm the directionality of the observed relationships. Second, the reliance on self-report measures introduces the possibility of response biases, such as social desirability or inaccurate self-perception. Third, the sample consisted exclusively of university students, which may limit the generalizability of the findings to clinical populations or individuals from different age groups or cultural backgrounds. Furthermore, although rigorous statistical techniques such as structural equation modeling were employed, the study did not account for potential moderators such as gender, religiosity, or exposure to trauma, which could influence the dynamics among the studied variables.

Future studies should consider using longitudinal or experimental designs to establish causal links and temporal sequences among attachment styles, self-related constructs, and obsessive beliefs. It would also be

beneficial to replicate the model in clinical populations diagnosed with OCD, as well as in diverse demographic groups to examine cultural and contextual factors. In addition, incorporating other potentially relevant variables—such as perfectionism, thought-action fusion, or metacognitive beliefs—could enrich the explanatory power of the model. Neuroscientific or psychophysiological methods could also be used to explore the neural correlates of fear of self and self-ambivalence in individuals with high obsessive-compulsive traits.

Therapists working with individuals exhibiting obsessive-compulsive symptoms should consider assessing not only the presence of obsessive beliefs but also the underlying attachment patterns and self-related vulnerabilities such as fear of self and self-ambivalence. Interventions aimed at strengthening secure attachment, fostering self-compassion, and resolving internal moral conflicts may prove particularly effective. Integrating emotion-focused and schema-based approaches with cognitive-behavioral therapy may help target the deeper self-conceptual issues that maintain obsessive thinking. Additionally, psychoeducation that normalizes intrusive thoughts while promoting ethical reasoning free from excessive self-condemnation could enhance treatment outcomes and reduce the intensity of obsessions.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

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

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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