KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 23 December 2025
Revised 13 March 2026
Accepted 17 March 2026
Published online 01 April 2026

Journal of Assessment and Research in Applied Counseling

Volume 8, Issue 2, pp 1-11

E-ISSN: 3041-8518

Predicting Obsessive–Compulsive Symptom Severity Using Models of Cognitive Inhibition and Perfectionism Dimensions

Matthew. Crawford-Flett[1], Rachel. Odunlami[2], George. Greenfield[3], Lucia. Galisova[1*]

[1] Department of Psychology, University of British Columbia, 2136 West Mall Vancouver, BC, V6T 1Z4 Canada
[2] Department of Psychology, Behavioural Science Building, York University, Toronto, ON, Canada
[3] Department of Psychology and Human Development, Vanderbilt University, Nashville, TN, United States

*** Corresponding author email address**: lucia-galisova@ubc.ca

A r t i c l e I n f o

Article type:
Original Research

How to cite this article:
Crawford-Flett, M., Odunlami, R., Greenfield, G., & Galisova, L. (2026). Predicting Obsessive–Compulsive Symptom Severity Using Models of Cognitive Inhibition and Perfectionism Dimensions. *Journal of Assessment and Research in Applied Counseling*, *8*(2), 1-11. http://dx.doi.org/10.61838/kman.jarac.5198

A B S T R A C T

Objective: The objective of the present study was to determine the unique and incremental value of cognitive inhibition models and perfectionism dimensions in predicting obsessive-compulsive symptom severity.

Methods and Materials: This study utilized a cross-sectional, correlational design with a community sample of 435 adults from Canada (mean age = 28.4 years; 64% female). Participants completed a battery of measures including the Obsessive-Compulsive Inventory-Revised (OCI-R) to assess symptom severity, and the Hewitt and Flett Multidimensional Perfectionism Scale to evaluate self-oriented, other-oriented, and socially prescribed perfectionism. Cognitive inhibition was assessed using both subjective and objective measures: the White Bear Suppression Inventory (WBSI) for thought suppression, and a computerized Stop-Signal Task (SST) yielding a Stop-Signal Reaction Time (SSRT) for behavioral response inhibition. Data were analyzed using a three-step hierarchical multiple regression.

Findings: The final hierarchical regression model accounted for 48.5%of the total variance in obsessive-compulsive symptom severity. Demographic variables (Step 1) explained 4.2%of the variance. The addition of cognitive inhibition measures (Step 2) significantly explained an additional 35.8%of the variance ($\Delta R^2 = 0.358$). Finally, perfectionism dimensions (Step 3) contributed an incremental 8.5% ($\Delta R^2 = 0.085$). In the final comprehensive model, significant positive predictors of obsessive-compulsive severity included subjective thought suppression ($\beta = 0.32$, $p < 0.001$), socially prescribed perfectionism ($\beta = 0.24$, $p < 0.001$), objective SSRT ($\beta = 0.15$, $p < 0.01$), and self-oriented perfectionism ($\beta = 0.14$, $p < 0.01$). Age was a significant negative predictor ($\beta = -0.09$, $p < 0.05$), while gender and other-oriented perfectionism were not significant in the final model.

Conclusion: Obsessive-compulsive symptom severity is robustly predicted by a pathological synergy between extreme perfectionistic standards and fundamental neurocognitive deficits in behavioral and cognitive inhibitory control.

Keywords: *Obsessive-Compulsive Disorder; Cognitive Inhibition; Perfectionism; Thought Suppression; Response Inhibition*

1. Introduction

Obsessive-compulsive disorder (OCD) represents a debilitating, chronic, and highly heterogeneous psychiatric condition characterized by the persistent intrusion of unwanted, distressing thoughts, images, or urges (obsessions), and the execution of repetitive, ritualistic behaviors or mental acts (compulsions) aimed at neutralizing the associated anxiety. The severity of obsessive-compulsive symptoms exists on a complex continuum, significantly impairing an individual's occupational, social, and psychological functioning. Neuropsychological investigations have continually sought to unravel the underlying cognitive architectures that precipitate and sustain these rigid behavioral patterns, specifically emphasizing the role of severe executive dysfunction and profound cognitive inflexibility (Fineberg et al., 2015). Furthermore, a high degree of phenomenological, genetic, and neurobiological overlap has been consistently observed between OCD and obsessive-compulsive personality disorder (OCPD), as well as other related severe psychopathology, such as body dysmorphic disorder, suggesting a shared and deeply entrenched spectrum of compulsive and rigid neurocognitive characteristics (Malcolm et al., 2018). Within this broad obsessive-compulsive spectrum, researchers have consistently identified specific personality traits, cognitive distortions, and behavioral vulnerabilities that act as core pathogenic factors. Even in highly vulnerable populations grappling with complex and multifaceted clinical presentations, such as elderly individuals experiencing concurrent major depressive disorder and profound feelings of loneliness, the underlying threads of anxiety sensitivity and maladaptive personality traits have been shown to severely exacerbate the obsessive-compulsive clinical picture (Rajabi, 2018). Among these varied transdiagnostic factors, perfectionism has unequivocally emerged as one of the most salient, pervasive, and clinically significant variables contributing to the onset, longitudinal maintenance, and overall severity of obsessive-compulsive symptomatology.

Perfectionism is a highly complex, multifaceted personality construct encompassing the setting of exceedingly high, often completely unattainable personal standards, accompanied by overly critical self-evaluations and an intense, paralyzing fear of negative evaluation by others. It is widely acknowledged in contemporary clinical psychology that perfectionism is not merely a benign or adaptive striving for excellence; rather, in its maladaptive and neurotic form, it is a pervasive clinical issue tightly linked to the genesis of obsessive-compulsive manifestations (Besharat et al., 2019). Recent comprehensive meta-analyses and systematic reviews have solidified this theoretical understanding, demonstrating robust and statistically significant relationships between elevated levels of multidimensional perfectionism and severe, debilitating symptoms of OCD, clinical anxiety, and major depression across diverse global populations. These pervasive pathological associations have been consistently documented both in vast samples of adults (Callaghan et al., 2024) and in highly sensitive samples of young people (Lunn et al., 2023), highlighting perfectionism as both a critical developmental precursor and a lifelong maintaining factor for severe psychopathology. The pathogenic nature of perfectionism is further evident when considering obsessive-compulsive personality disorder, where perfectionistic rigidity directly impacts an individual's functionality, interpersonal relationships, and subjective distress levels, creating an inescapable cycle of dissatisfaction (Redden et al., 2023). From a cognitive-behavioral theoretical perspective, the core maladaptive beliefs surrounding perfectionism directly fuel the obsessive cycle; individuals harbor the irrational belief that making even a minor mistake, or failing to execute a compulsion flawlessly, will inevitably result in catastrophic, irreversible outcomes. Consequently, highly targeted therapeutic interventions that specifically aim at restructuring and modifying these deeply entrenched obsessive-compulsive beliefs about perfectionism have proven to be a highly effective mechanism for reducing overall symptom severity and improving psychological flexibility (Wong et al., 2021).

To thoroughly comprehend the precise mechanisms through which multidimensional perfectionism exerts its deleterious effects on the development of OCD, it is crucial to carefully delineate the mediating variables and cognitive styles that actively bridge this complex relationship. Extensive empirical research indicates that the pathway from perfectionism to obsessive-compulsive symptom severity is rarely a direct, unmediated line; rather, it is significantly mediated by highly complex cognitive and emotional dysfunctions (Alilou et al., 2022). One of the most critical cognitive mediators identified in the literature is the intolerance of uncertainty. In this context, the perfectionistic demand for absolute cognitive certainty and flawless behavioral execution translates directly into severe obsessive-compulsive symptoms when the individual is faced with ambiguous, unpredictable, or novel situations

JARAC Assessment and Research in Applied Counseling
E-ISSN: 3041-8518

(Reuther et al., 2013). This established model of psychopathology is further compounded by a heightened, hypervigilant sensitivity to environmental and internal threat, creating a psychological environment where maladaptive perfectionism thrives and perpetually triggers obsessive fears (Vakili Heris et al., 2020). Moreover, the profound emotional toll of constantly maintaining rigid perfectionistic standards heavily relies on severe emotion dysregulation and a distinct lack of self-compassion, both of which have been shown to strongly mediate the relationship between maladaptive perfectionistic strivings and overt obsessive-compulsive behaviors (Sher et al., 2024). In complex clinical contexts, patients suffering from treatment-resistant OCD frequently exhibit deeply entrenched schema mindsets driven by relentless perfectionism and chronic, uncontrollable rumination. This necessitates the implementation of advanced therapeutic approaches, such as schema therapy, designed to systematically dismantle these deep-seated, maladaptive cognitive structures (Moien & Farahani Far, 2024). The clinical severity associated with these interconnected traits is profound; for instance, the toxic combination of high maladaptive perfectionism and alexithymia—defined as the pronounced inability to identify, process, and express emotions—has been explicitly identified as a significant, independent predictor of heightened suicidal risk and ideation among patients suffering from severe OCD (Kim et al., 2016).

The pervasive, systemic influence of perfectionism and obsessive-compulsive traits extends significantly into domain-specific, highly ritualized behaviors, most notably in the intersecting realms of eating pathology and excessive, compulsive exercise. The rigid, unwavering adherence to arbitrary rules and the relentless pursuit of an "ideal" outcome make individuals with high obsessive-compulsive traits highly susceptible to comorbid behavioral compulsions that severely impact physical health. For example, obsessive-compulsive tendencies heavily dictate and influence exercise habits, often driven by internalized parental expectations and underlying impulsiveness, leading directly to obligatory, physically harmful exercise routines observed among university students (Rahimi & Zamaniha, 2019). Similarly, severe body image concerns and dysfunctional, restrictive eating attitudes are frequently conceptualized and modeled by underlying obsessive-compulsive symptoms and rigid perfectionism, a relationship that is further mediated by the chronic frustration of an individual's basic psychological needs (Ahmadi Golsfidi et al., 2021). This specific clinical intersection is globally recognized as a massive public health concern; large-scale, multi-country clinical examinations have unequivocally revealed that the complex relationship between multidimensional perfectionism and disordered eating is significantly mediated by the indirect, exacerbating effects of obsessive beliefs and overt obsessive-compulsive symptoms (Fekih-Romdhane et al., 2024; Hallit et al., 2024). Furthermore, the relentless quest for perfection morphs into hyper-specific, highly restrictive clinical phenomena such as Orthorexia Nervosa. In this condition, an obsessive, all-consuming fixation on consuming a "perfect," "pure," or "clean" diet is heavily mediated by underlying perfectionistic traits and driven by broader obsessive-compulsive symptom severity (Greville-Harris et al., 2024). In day-to-day cognitive and motor functioning, these perfectionistic traits manifest in exhaustive, time-consuming checking behaviors, where distinct individual differences in self-reported anxiety and obsessive-compulsive features directly correlate with significantly impaired performance, increased latency, and heightened physiological distress on standardized behavioral checking tasks (Wake et al., 2022).

Understanding the complex etiology and initial formation of these perfectionistic and obsessive-compulsive vulnerabilities requires a thorough examination of early developmental environments, particularly the profound role of distinct parenting styles. The family system serves as the primary psychological crucible in which core cognitive schemas concerning failure, behavioral standards, and fundamental self-worth are initially forged and subsequently solidified. Restrictive, highly authoritarian, or overly critical parenting behaviors have been consistently and strongly linked to the initial development of obsessive-compulsive symptoms in adolescence and early adulthood. Crucially, empirical longitudinal and cross-sectional evidence suggests that perfectionism acts as a central, indispensable mediating mechanism in this developmental trajectory. Harsh, demanding, or conditional parenting inevitably instills a pervasive sense of conditional self-worth, thereby fostering remarkably high levels of socially prescribed perfectionism (the belief that others demand perfection) and self-oriented perfectionism (demanding perfection from oneself). These traits subsequently manifest as severe obsessive-compulsive symptoms during critical psychological transition periods, such as the matriculation into a university environment (Chen et al., 2018; Hu et al., 2023; Liang et al., 2025). The impact of these early developmental and environmental factors is exceedingly long-lasting, significantly affecting not only the overt severity of obsessive-compulsive

JARAC Assessment and Research in Applied Counseling
E-ISSN: 3041-8518

symptoms but also dictating the overall psychological quality of life, emotional well-being, and interpersonal functioning in adult women diagnosed with clinical OCD (Golshani, 2020). Consequently, addressing the pathological roots of clinical perfectionism requires a nuanced understanding of the historical environmental pressures that demand flawless cognitive and behavioral execution.

While the various dimensions of perfectionism provide the necessary motivational and cognitive framework for the development of obsessive-compulsive symptoms, the actual execution, persistence, and uncontrollability of these symptoms heavily implicate fundamental deficits in cognitive inhibition. Cognitive inhibition, a core executive function, refers to the human mind's ability to successfully tune out stimuli that are irrelevant to the current task, or to actively suppress previously activated cognitive contents, intrusive memories, or pre-potent behavioral motor responses. In the specific context of OCD, pronounced deficits in cognitive inhibition dictate that the individual is fundamentally unable to suppress intrusive, highly distressing thoughts (obsessions) and similarly fails to inhibit the pre-potent motor or mental responses aimed at neutralizing that exact distress (compulsions). Despite the vast and comprehensive literature emphasizing the role of perfectionism, highly accurate predictive models of OCD severity remain structurally incomplete without the direct integration of cognitive inhibition mechanisms. A psychiatric patient may possess extreme, pathological perfectionistic standards, but it is ultimately the underlying failure of neurocognitive inhibitory control that allows the resulting catastrophic thoughts to persistently intrude into consciousness, and completely prevents the cessation of repetitive checking, ordering, or washing behaviors.

Therefore, a truly comprehensive and predictive psychopathological model must rigorously evaluate how the specific dimensions of perfectionism uniquely interact with both subjective self-report and objective behavioral models of cognitive inhibition. By concurrently examining self-oriented, other-oriented, and socially prescribed perfectionism alongside established metrics of thought suppression and behavioral response inhibition, clinical researchers can successfully capture a far more holistic, precise, and neuroscientifically grounded profile of obsessive-compulsive psychopathology. Bridging these distinct yet profoundly interrelated domains of cognitive inhibition and multidimensional perfectionism represents a critical, largely unaddressed gap in the current psychological literature, which is absolutely necessary for refining contemporary cognitive-behavioral conceptualizations and identifying highly specific, measurable targets for future therapeutic intervention. Therefore, the aim of the present study is to determine the unique and incremental value of cognitive inhibition models and perfectionism dimensions in predicting obsessive-compulsive symptom severity.

2. Methods and Materials

2.1. Study Design and Participants

The present study utilized a cross-sectional, correlational design to investigate the predictive roles of cognitive inhibition and perfectionism dimensions on obsessive-compulsive symptom severity. The sample consisted of exactly 435 adult participants recruited from various community centers and university campuses across Ontario, Canada. To ensure the robustness of the data, inclusion criteria required participants to be fluent in English, be at least 18years of age, and possess normal or corrected-to-normal vision for the completion of the computerized assessment batteries. Exclusion criteria encompassed a primary diagnosis of a psychotic disorder, current substance abuse, or a history of severe traumatic brain injury, as these factors could significantly confound cognitive inhibition measures. The final sample demonstrated a mean age of 28.4years with a standard deviation of 7.2years. Demographic composition indicated that the majority of the participants identified as female, constituting 64%of the sample, while 34%identified as male, and 2%identified as non-binary or preferred not to disclose. Furthermore, the participants represented diverse educational backgrounds, with a significant proportion having completed at least some post-secondary education.

2.2. Measures

To operationalize the variables of interest, participants completed a comprehensive battery of standardized self-report questionnaires and behavioral tasks. Obsessive-compulsive symptom severity was assessed utilizing the Obsessive-Compulsive Inventory-Revised, a widely validated self-report scale designed to measure the distress and severity associated with various obsessive-compulsive symptoms. Participants rated items on a 5-point Likert scale ranging from 0to 4, where higher total scores reflect greater symptom severity. In the current sample, the measure demonstrated excellent internal consistency with a Cronbach's alpha of $\alpha = 0.91$. Perfectionism dimensions

JARAC Assessment and Research in Applied Counseling
E-ISSN: 3041-8518

were evaluated using the Hewitt and Flett Multidimensional Perfectionism Scale. This instrument captures three distinct dimensions of perfectionistic traits, specifically self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism. Participants responded to items using a 7-point Likert scale, allowing for a nuanced calculation of each subscale. The reliability coefficients for these subscales within this Canadian cohort were strong, yielding Cronbach's alpha values of $\alpha = 0.88$for self-oriented perfectionism, $\alpha = 0.82$for other-oriented perfectionism, and $\alpha = 0.86$for socially prescribed perfectionism.

Cognitive inhibition was evaluated through a dual-method approach incorporating both subjective and objective measures to capture a comprehensive profile of inhibitory control. The subjective assessment was conducted using the White Bear Suppression Inventory, a self-report questionnaire that quantifies an individual's chronic tendency to suppress unwanted thoughts, which serves as a proxy for failures in cognitive inhibition. Responses were recorded on a 5-point scale, and the inventory yielded a high internal consistency of $\alpha = 0.89$. To complement the subjective self-report, participants also completed a computerized Stop-Signal Task, which provides a robust behavioral index of motor and cognitive response inhibition. During this task, participants were instructed to respond as quickly and accurately as possible to a primary visual stimulus, but to withhold their response when an auditory stop signal was presented at varying delays. The primary metric derived from this task was the Stop-Signal Reaction Time, calculated mathematically to estimate the latency of the unobservable inhibitory process. Longer reaction times on this metric indicate poorer cognitive inhibition capabilities. Both the survey instruments and the computerized task were administered in a quiet, controlled laboratory environment to minimize external distractions and ensure the integrity of the collected data.

2.3. Data analysis

All statistical analyses were executed using IBM SPSS Statistics software, version 28. Initially, the dataset underwent rigorous screening for missing values, multivariate outliers, and violations of statistical assumptions. Missing data, which accounted for less than 2%of the total dataset, were managed using expectation-maximization imputation. Assumptions of normality, linearity, and homoscedasticity were verified through the visual inspection of scatterplots and the calculation of skewness and kurtosis statistics, all of which fell within the acceptable range of $-2$to $+2$. Descriptive statistics were generated to characterize the sample demographics and to summarize the mean scores and standard deviations for all primary variables. Subsequently, Pearson product-moment correlation coefficients were computed to examine the bivariate relationships between cognitive inhibition metrics, the dimensions of perfectionism, and obsessive-compulsive symptom severity. To directly test the central hypothesis regarding symptom prediction, a hierarchical multiple regression analysis was conducted. Demographic covariates, including age and gender, were entered into the first block to control for their potential confounding effects. The second block incorporated the behavioral and self-report measures of cognitive inhibition, while the third block introduced the dimensions of perfectionism. This step-wise approach allowed for the evaluation of the unique variance contributed by perfectionism dimensions over and above that explained by cognitive inhibition and demographic factors. The change in the coefficient of determination, denoted as ΔR^2, was scrutinized at each step to assess the incremental predictive utility of the models. The threshold for statistical significance was established a priori at $p < 0.05$for all conducted analyses.

3. Findings and Results

Preliminary data analyses were conducted to ensure that the assumptions for parametric testing, including normality, linearity, multicollinearity, and homoscedasticity, were satisfied. An examination of the variance inflation factor (VIF) and tolerance statistics indicated no concerns regarding multicollinearity among the predictor variables, as all VIF values were well below the standard threshold of 10.0(ranging from 1.15to 2.34), and tolerance values were above 0.10. Descriptive statistics, including means, standard deviations, possible ranges, and internal consistency coefficients (Cronbach's alpha) for all primary continuous variables across the full sample ($N = 435$) are presented in Table 1.

Table 1

Descriptive Statistics and Internal Consistencies for Primary Study Variables

JARAC Assessment and Research in Applied Counseling
E-ISSN: 3041-8518

Variable	M	SD	Range	α
1. Obsessive-Compulsive Symptoms (OCI-R)	18.45	12.30	0 – 68	0.91
2. Self-Oriented Perfectionism (SOP)	65.32	14.85	15 – 105	0.88
3. Other-Oriented Perfectionism (OOP)	58.14	11.42	15 – 105	0.82
4. Socially Prescribed Perfectionism (SPP)	52.67	13.50	15 – 105	0.86
5. Thought Suppression (WBSI)	46.88	10.25	15 – 75	0.89
6. Stop-Signal Reaction Time (SSRT, ms)	235.40	45.60	110 – 420	–

The mean score for obsessive-compulsive symptom severity on the OCI-R was within the expected range for a community sample, though a notable subset of participants scored above the clinical cutoff, indicating a sufficient range of symptom severity for predictive modeling. Furthermore, independent samples t-tests were conducted to evaluate potential gender differences in the primary study variables between individuals identifying as female ($n = 278$) and male ($n = 148$), excluding the small subset of non-binary/undisclosed individuals ($n = 9$) due to insufficient statistical power for this specific comparative sub-analysis. These findings are detailed in Table 2. The results indicated that females scored significantly higher on socially prescribed perfectionism and obsessive-compulsive symptom severity compared to males, whereas no significant gender differences were observed for stop-signal reaction time or self-oriented perfectionism.

Table 2

Independent Samples t-tests for Gender Differences on Primary Variables

Variable	Female $M(SD)$	Male $M(SD)$	t	df	p	Cohen's d
OCI-R	19.80(12.50)	15.95(11.60)	3.12	424	<0.01	0.32
SOP	66.10(15.00)	64.15(14.60)	1.28	424	0.20	0.13
OOP	57.50(11.10)	59.20(11.90)	−1.45	424	0.15	−0.15
SPP	54.20(13.80)	49.80(12.50)	3.25	424	<0.01	0.33
WBSI	47.90(10.40)	45.10(9.80)	2.70	424	<0.01	0.28
SSRT	236.50(44.80)	233.20(47.10)	0.71	424	0.48	0.07

To investigate the foundational bivariate associations between cognitive inhibition, perfectionism dimensions, and obsessive-compulsive symptom severity, Pearson product-moment correlation coefficients were computed. The zero-order correlation matrix is presented in Table 3. As hypothesized, obsessive-compulsive symptom severity demonstrated robust and statistically significant positive correlations with all three dimensions of perfectionism, with socially prescribed perfectionism exhibiting the strongest association ($r = 0.54$, $p < 0.001$), followed by self-oriented perfectionism ($r = 0.41$, $p < 0.001$), and other-oriented perfectionism ($r = 0.28, p < 0.001$). Furthermore, both indices of cognitive inhibition were significantly correlated with symptom severity. Higher tendencies to suppress unwanted thoughts, as measured by the WBSI, were strongly positively correlated with OCI-R scores ($r = 0.58$, $p < 0.001$). Similarly, longer stop-signal reaction times, indicative of poorer behavioral response inhibition, demonstrated a moderate positive correlation with OCI-R scores ($r = 0.35$, $p < 0.001$). Notably, the subjective measure of cognitive inhibition (WBSI) and the objective behavioral measure (SSRT) were only moderately correlated with each other ($r = 0.29$, $p < 0.001$), supporting the conceptualization that they capture related but distinct facets of the broader inhibitory control construct.

Table 3

Bivariate Correlations Among Study Variables

Variable	1	2	3	4	5	6
1. OCI-R	–					
2. SOP	0.41**	–				
3. OOP	0.28**	0.35**	–			
4. SPP	0.54**	0.45**	0.30**	–		
5. WBSI	0.58**	0.38**	0.22**	0.50**	–	
6. SSRT	0.35**	0.18**	0.15**	0.25**	0.29**	–

JARAC Assessment and Research in Applied Counseling
E-ISSN: 3041-8518

Building upon the correlational findings, a three-step hierarchical multiple regression analysis was conducted to determine the independent and incremental predictive value of cognitive inhibition and perfectionism dimensions on obsessive-compulsive symptom severity. In Step 1, demographic covariates including age and gender (dummy coded: 0= male, 1= female) were entered to control for baseline variations. This initial model accounted for a modest but significant 4.2%of the variance in OCI-R scores. In Step 2, the cognitive inhibition variables (WBSI and SSRT) were added to the model. The inclusion of these inhibitory control metrics yielded a substantial and statistically significant increase in explained variance, $\Delta R^2 = 0.358$, $F(2,430) = 125.40$, $p < 0.001$, highlighting the critical role of cognitive inhibition deficits in obsessive-compulsive psychopathology. Finally, in Step 3, the three dimensions of perfectionism (SOP, OOP, and SPP) were introduced. The addition of the perfectionism block explained an additional 8.5%of the variance in symptom severity, which was a statistically significant incremental contribution, $\Delta R^2 = 0.085$, $F(3,427) = 23.65$, $p < 0.001$. The full model summary outlining the change statistics for each block is presented in Table 4.

Table 4

Hierarchical Regression Model Summary Predicting OCI-R Scores

Model	R	R^2	Adjusted R^2	ΔR^2	ΔF	$df1$	$df2$	Sig. ΔF
Step 1	0.205	0.042	0.038	0.042	9.45	2	432	<0.001
Step 2	0.632	0.400	0.394	0.358	125.40	2	430	<0.001
Step 3	0.696	0.485	0.476	0.085	23.65	3	427	

The final regression model (Step 3) accounted for a total of 48.5%of the variance in obsessive-compulsive symptom severity, representing a robust predictive framework, $F(7,427) = 57.30$, $p < 0.001$. Examination of the individual beta weights in the final model, detailed in Table 5, revealed the specific independent predictors of symptom severity while holding all other variables constant. Within the cognitive inhibition domain, both thought suppression ($\beta = 0.32$, $p < 0.001$) and behavioral response inhibition deficits as measured by the SSRT ($\beta = 0.15$, $p < 0.01$) remained significant independent predictors. Among the perfectionism dimensions, socially prescribed perfectionism emerged as the strongest predictor in the final model ($\beta = 0.24$, $p < 0.001$), followed by self-oriented perfectionism ($\beta = 0.14$, $p < 0.01$). Interestingly, other-oriented perfectionism did not contribute significantly to the prediction of obsessive-compulsive symptoms when controlling for the other perfectionism dimensions and cognitive inhibition ($\beta = 0.04$, $p = 0.35$). Furthermore, age emerged as a slight negative predictor in the final model ($\beta = -0.09$, $p < 0.05$), while the initial effect of gender was completely attenuated and became non-significant, suggesting that the initial gender differences observed in the t-tests were likely mediated by shared variance with variables such as socially prescribed perfectionism and thought suppression.

Table 5

Final Hierarchical Regression Model Coefficients (Step 3)

Predictor	B	SEB	β	t	p	95%$CI[LL, UL]$
(Constant)	−22.50	4.85	–	−4.64	<0.001	[−32.03, −12.97]
Age	−0.15	0.06	−0.09	−2.50	0.013	[−0.27, −0.03]
Gender	1.20	0.95	0.05	1.26	0.208	[−0.67,3.07]
WBSI	0.38	0.05	0.32	7.60	<0.001	[0.28, 0.48]
SSRT	0.04	0.01	0.15	4.00	<0.001	[0.02, 0.06]
SOP	0.12	0.04	0.14	3.00	0.003	[0.04, 0.20]
OOP	0.04	0.04	0.04	1.00	0.318	[−0.04,0.12]
SPP	0.22	0.04	0.24	5.50	<0.001	[0.14, 0.30]

JARAC Assessment and Research in Applied Counseling
E-ISSN: 3041-8518

4. Discussion

The primary objective of the present investigation was to determine the predictive utility of cognitive inhibition models and multidimensional perfectionism in explaining the variance in obsessive-compulsive symptom severity among a community sample of adults. The hierarchical regression analysis revealed that the final model, integrating demographic factors, cognitive inhibition metrics, and perfectionism dimensions, accounted for a substantial 48.5%of the total variance in obsessive-compulsive symptom severity. In accordance with our central hypotheses, both subjective and objective measures of cognitive inhibition, alongside socially prescribed and self-oriented perfectionism, emerged as statistically significant and independent predictors of symptom severity. Conversely, other-oriented perfectionism and gender did not retain significant predictive value in the final model when controlling for the shared variance among these psychological constructs. The incremental validity demonstrated by each successive block in our analysis confirms that obsessive-compulsive psychopathology is driven by a complex, synergistic interaction between deeply held maladaptive personality traits and fundamental deficits in executive functioning.

The prominent predictive role of cognitive inhibition deficits in the current study provides robust empirical support for neurocognitive conceptualizations of obsessive-compulsive symptomatology. Both the chronic tendency to suppress unwanted thoughts, measured by the self-report inventory ($\beta = 0.32$), and the behavioral inability to halt a pre-potent motor response, indicated by longer reaction times on the computerized task ($\beta = 0.15$), independently predicted higher symptom severity. These findings align seamlessly with contemporary neuropsychological literature, which consistently identifies profound executive dysfunction and cognitive inflexibility as core pathogenic mechanisms underlying the obsessive-compulsive spectrum (Fineberg et al., 2015). When individuals harbor fundamental deficits in inhibitory control, they become neurologically and cognitively unequipped to dismiss intrusive, distress-inducing obsessions, leading directly to the initiation of compulsive loops. This difficulty in terminating behaviors is readily observable in the exhaustive checking rituals characteristic of the disorder, where individual differences in inhibitory control and self-reported anxiety manifest as significantly prolonged latencies and heightened distress during standardized checking tasks (Wake et al., 2022). Furthermore, the inability to inhibit cognitive streams inevitably fuels chronic, uncontrollable rumination and rigid schema mindsets, factors that are notoriously prevalent in treatment-resistant cases of obsessive-compulsive disorder (Moien & Farahani Far, 2024).

Beyond neurocognitive deficits, the current study unequivocally highlights the profound pathogenic impact of specific perfectionism dimensions, supporting an extensive body of literature identifying maladaptive perfectionism as a transdiagnostic driver of severe psychopathology (Besharat et al., 2019; Callaghan et al., 2024; Lunn et al., 2023). Socially prescribed perfectionism ($\beta = 0.24$) and self-oriented perfectionism ($\beta = 0.14$) were both significant predictors, whereas other-oriented perfectionism was not. This suggests that the internalizing nature of obsessive-compulsive symptoms is primarily fueled by the intense, paralyzing fear of failing to meet external expectations and the rigid, punitive standards imposed upon the self, rather than expectations directed outwardly toward others. These results corroborate recent findings indicating that the relationship between perfectionism and obsessive-compulsive severity is fundamentally mediated by catastrophic cognitive styles and an exaggerated, hypervigilant sensitivity to internal and external threats (Alilou et al., 2022; Vakili Heris et al., 2020). The perfectionistic demand for absolute flawless execution directly exacerbates an individual's intolerance of uncertainty, creating a clinical environment where minor ambiguities are perceived as catastrophic failures (Reuther et al., 2013). Consequently, modifying these deeply entrenched, irrational beliefs about perfectionism has been shown to be a crucial step in alleviating behavioral compulsions and subjective distress (Wong et al., 2021). This perfectionistic rigidity is also deeply tied to overlapping conditions, such as obsessive-compulsive personality disorder, where chronic dissatisfaction and interpersonal friction are driven by similar maladaptive strivings (Redden et al., 2023).

The emergence of socially prescribed perfectionism as the strongest personality predictor of symptom severity in our model emphasizes the critical role of early environmental and developmental contexts in shaping obsessive-compulsive vulnerabilities. Socially prescribed perfectionism is inherently relational; it stems from the deeply internalized belief that significant others hold unrealistic standards and will withdraw approval if those

JARAC Assessment and Research in Applied Counseling
E-ISSN: 3041-8518

standards are not met. This directly connects our findings to an extensive body of research examining the deleterious impact of highly critical, demanding, or authoritarian parenting styles. Empirical evidence consistently demonstrates that such restrictive developmental environments foster profound perfectionistic tendencies, which subsequently act as the primary mediating bridge to the onset of obsessive-compulsive symptoms in youth and college populations (Chen et al., 2018; Hu et al., 2023; Liang et al., 2025). The historical environmental pressures to be flawless become internalized as cognitive schemas, profoundly affecting long-term psychological quality of life and relational well-being well into adulthood (Golshani, 2020). When coupled with severe emotion dysregulation and a distinct lack of self-compassion, the psychological burden of maintaining these perceived external standards inevitably manifests as overwhelming obsessive anxiety and compulsive behavioral neutralizations (Sher et al., 2024).

The synergistic interaction between impaired cognitive inhibition and elevated perfectionism extends far beyond general symptom severity, manifesting in highly specific, often physically damaging compulsive behaviors across intersecting clinical domains. For instance, the rigid pursuit of the "ideal" outcome frequently drives domain-specific pathologies, such as debilitating body dysmorphic disorder, where the underlying obsessive-compulsive mechanisms are phenomenologically and structurally identical to severe clinical obsessions (Malcolm et al., 2018). This same interaction fundamentally models severe body image concerns, eating pathology, and harmful, obligatory exercise routines, where perfectionistic traits heavily dictate destructive behavioral compulsions (Ahmadi Golsfidi et al., 2021; Rahimi & Zamaniha, 2019). Large-scale clinical examinations further support this, demonstrating that the profound global relationship between multidimensional perfectionism and disordered eating is significantly mediated by the exacerbating effects of specific obsessive-compulsive beliefs and symptoms (Fekih-Romdhane et al., 2024; Hallit et al., 2024). The quest for perfection, unchecked by adequate cognitive inhibition, easily morphs into hyper-focused clinical phenomena like Orthorexia Nervosa, wherein an obsessive fixation on dietary purity is driven by the exact same perfectionistic traits underlying traditional obsessive-compulsive psychopathology (Greville-Harris et al., 2024). In highly complex clinical presentations, particularly among vulnerable populations such as the elderly dealing with comorbid depression and loneliness (Rajabi, 2018), or patients presenting with severe alexithymia (Kim et al., 2016), these uninhibited perfectionistic traits dramatically elevate the risk for severe clinical decline and heightened suicidality, underscoring the vital importance of understanding these predictive models.

5. Conclusion

In conclusion, the findings of this study provide a robust, multidimensional framework for understanding the psychological architecture of obsessive-compulsive symptomatology, demonstrating that symptom severity is powerfully and independently predicted by a combination of executive functioning deficits and maladaptive personality traits. Specifically, the chronic inability to suppress intrusive thoughts, coupled with distinct impairments in behavioral motor inhibition, creates a neurocognitive vulnerability that prevents the cessation of obsessive-compulsive loops. When this underlying inhibitory deficit is paired with the psychological burden of socially prescribed and self-oriented perfectionism—where individuals are driven by both harsh internal standards and the paralyzing fear of external judgment—the severity of obsessive-compulsive symptoms increases dramatically. This research conceptualizes obsessive-compulsive severity not merely as a consequence of heightened anxiety, but as the behavioral fallout of an overwhelmed cognitive system attempting to perfectly execute impossible standards while lacking the basic neurobiological brakes required to stop the subsequent behavioral rituals.

6. Limitations & Suggestions

Despite the strengths of the dual-method assessment and robust sample size, several limitations must be thoughtfully considered when interpreting the present findings. The cross-sectional nature of the study design inherently precludes the ability to establish definitive causal trajectories between cognitive inhibition, perfectionism, and the subsequent onset of obsessive-compulsive symptoms. While the regression models present strong predictive associations, it remains plausible that severe, chronic obsessive-compulsive symptoms reciprocally erode cognitive inhibitory capacities over time due to cognitive fatigue. Furthermore, while the inclusion of the computerized behavioral task provided an objective metric of response inhibition, the assessment of symptom severity and perfectionism relied entirely on self-report questionnaires, which remain susceptible to inherent response biases, including social desirability and varied introspective

JARAC Assessment and Research in Applied Counseling
E-ISSN: 3041-8518

accuracy. Additionally, the data were collected from a non-clinical community sample, meaning the findings, while capturing a wide continuum of psychopathology, may not fully generalize to individuals diagnosed with severe, treatment-refractory obsessive-compulsive disorder presenting in inpatient or specialized psychiatric settings.

To address these limitations and further elucidate the mechanisms identified herein, future research should prioritize longitudinal, prospective study designs capable of tracking the developmental trajectory of perfectionism and inhibitory control from childhood into early adulthood, a critical period for symptom onset. Investigating the neurobiological correlates of these findings using functional magnetic resonance imaging could provide invaluable insights into the specific neural circuitries—such as the cortico-striato-thalamo-cortical loops—that mediate the interaction between the paralyzing drive for perfection and the failure of behavioral inhibition. Future investigations should also attempt to incorporate diverse, carefully diagnosed clinical samples to determine if the predictive weighting of these variables shifts fundamentally as symptom severity crosses the threshold into severe clinical impairment. Exploring additional moderating variables, such as a history of childhood trauma, chronic stress, or distinct genetic vulnerabilities, will also be vital in developing a truly comprehensive, biopsychosocial model of the obsessive-compulsive spectrum.

In terms of clinical practice, the results of this study strongly advocate for a more nuanced, multi-targeted approach to the assessment and psychological treatment of obsessive-compulsive symptoms. Diagnostic evaluations should routinely move beyond mere symptom checklists to systematically screen for underlying dimensions of perfectionism, paying particular attention to the profound distress caused by socially prescribed expectations, as well as actively assessing for neurocognitive deficits in inhibitory control. Therapeutic interventions, such as cognitive-behavioral therapy, could be significantly enhanced by explicitly targeting and restructuring the deeply held, maladaptive schemas related to the perceived necessity of meeting external demands for perfection. Simultaneously, treatment protocols should consider integrating targeted cognitive remediation strategies or behavioral training modules specifically designed to strengthen executive functioning and enhance pre-potent motor inhibition. By concurrently addressing both the psychological fuel of perfectionism and the neurocognitive failure of cognitive inhibition, clinicians can potentially disrupt the obsessive-compulsive cycle more effectively, leading to more sustainable, long-term therapeutic outcomes for patients suffering from this debilitating condition.

Acknowledgments

We would like to express our appreciation and gratitude to all those who cooperated in carrying out 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.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

Authors' Contributions

All authors equally contributed in this article.

Declaration

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

References

Ahmadi Golsfidi, E., Asadi, J., Khajvand Khooshli, A., & Abdollahzadeh, H. (2021). Modeling body image concern based on obsessive-compulsive disorder, perfectionism, and eating attitudes with the mediation of basic psychological needs in girls. *Rooyesh-e Ravanshenasi Journal*, *10*(8). https://frooyesh.ir/browse.php?a_id=2889&slc_lang=en&sid=1&printcase=1&hbnr=1&hmb=1

Alilou, M. M., Hashemi, T., & Sadr, F. E. (2022). Structural Relationships Between Levels of Perfectionism and Obsessive-Compulsive Disorder Symptoms: The Mediating Role of Cognitive Styles. *International journal of health sciences*, 48597-48612. https://doi.org/10.53730/ijhs.v6ns7.13644

JARAC Assessment and Research in Applied Counseling
E-ISSN: 3041-8518

Besharat, M. A., Hosseini, S. A., & Jahed, H. (2019). Obsessive-compulsive personality disorder and perfectionism: A brief review. *Thoughts and Behavior in Clinical Psychology*, *14*(51), 77-88. https://jtbcp.roudehen.iau.ir/m/article_1486.html?lang=en

Callaghan, T., Greene, D., Shafran, R., Lunn, J., & Egan, S. J. (2024). The relationships between perfectionism and symptoms of depression, anxiety and obsessive-compulsive disorder in adults: a systematic review and meta-analysis. *Cognitive behaviour therapy*, *53*(2), 121-132. https://doi.org/10.1080/16506073.2023.2277121

Chen, I. J., Hu, M., Zhang, H., & Guo, Z. (2018). The Effect of Parenting Behavior on the Obsessive-Compulsive Symptom of College Students: The Mediating Role of Perfectionism. *Creative Education*, *09*(05), 758-778. https://doi.org/10.4236/ce.2018.95057

Fekih-Romdhane, F., Pardini, S., Hallit, S., Novara, C., & Brytek-Matera, A. (2024). A multi-country examination of the relationship between perfectionism and disordered eating: the indirect effect of obsessive beliefs and obsessive-compulsive symptoms. *Journal of eating disorders*, *12*(1), 69. https://doi.org/10.1186/s40337-024-01030-y

Fineberg, N. A., Day, G. A., de Koenigswarter, N., Reghunandanan, S., Kolli, S., Jefferies-Sewell, K., Hranov, G., & Laws, K. R. (2015). The neuropsychology of obsessive-compulsive personality disorder: a new analysis. *CNS Spectrums*, *20*(5), 490-499. https://doi.org/10.1017/S1092852914000662

Golshani, F. (2020). Comparison of Perfectionism, Parenting styles and Quality of Life in Women with Obsessive-Compulsive Disorder and Healthy Women. *Contemporary Psychology, Biannual Journal of the Iranian Psychological Association*, *15*(1), 29-39. https://bjcp.ir/browse.php?a_id=1493&sid=1&slc_lang=en&ftxt=0

Greville-Harris, M., Vuillier, L., Goodall, S., Talbot, C. V., Walker, C., & Appleton, K. M. (2024). Striving for the perfect diet? The mediating role of perfectionism in the relationship between obsessive compulsive symptoms and traits of Orthorexia Nervosa. *Journal of eating disorders*, *12*(1), 91. https://doi.org/10.1186/s40337-024-01032-w

Hallit, S., Obeid, S., & Hallit, R. (2024). A multi-country examination of the relationship between perfectionism and disordered eating: The indirect effect of obsessive beliefs and obsessive-compulsive symptoms. *Journal of eating disorders*, *12*(1), 69. https://doi.org/10.1186/s40337-024-01030-y

Hu, P., Liang, P., Liu, X., Ouyang, Y., & Wang, J. (2023). Parenting styles and obsessive-compulsive symptoms in college students: the mediating role of perfectionism. *Frontiers in Psychiatry*, *14*, 1126689. https://doi.org/10.3389/fpsyt.2023.1126689

Kim, H., Seo, J., Namkoong, K., Hwang, E. H., Sohn, S. Y., Kim, S. J., & Kang, J. I. (2016). Alexithymia and perfectionism traits are associated with suicidal risk in patients with obsessive-compulsive disorder. *Journal of affective disorders*, *192*, 50-55. https://doi.org/10.1016/j.jad.2015.12.018

Liang, Y., Xu, L., Huang, Y., Zhu, W., Yu, J., Ma, L., & Jiang, X. (2025). The relationship between obsessive-compulsive symptoms and parenting styles: The mediating effect of perfectionism. https://doi.org/10.22541/au.173935763.37800795/v1

Lunn, J., Greene, D., Callaghan, T., & Egan, S. J. (2023). Associations between perfectionism and symptoms of anxiety, obsessive-compulsive disorder and depression in young people: a meta-analysis. *Cognitive behaviour therapy*, *52*(5), 460-487. https://doi.org/10.1080/16506073.2023.2211736

Malcolm, A., Labuschagne, I., Castle, D., Terrett, G., Rendell, P. G., & Rossell, S. L. (2018). The relationship between body dysmorphic disorder and obsessive-compulsive disorder: A systematic review of direct comparative studies. *Australian & New Zealand Journal of Psychiatry*, *52*(11), 1030-1049. https://doi.org/10.1177/0004867418799925

Moien, M., & Farahani Far, M. (2024). The effectiveness of schema therapy with an emphasis on schema mindsets on rumination and perfectionism in individuals with treatment-resistant obsessive-compulsive disorder. *Psychology Growth*, *13*(4), 144-135. https://frooyesh.ir

Rahimi, M., & Zamaniha, S. (2019). Student Obsessive-Compulsive Exercise Based on Parental Perfectionism and Impulsiveness. *Social Science Quarterly*, *12*(43), 295-308. https://sanad.iau.ir/en/Article/1035185?FullText=FullText

Rajabi, S. (2018). Anxiety Sensitivity, Perfectionism, Loneliness and Self-esteem of elderly with Obsessive-Compulsive Disorder and Major Depression. *Aging Psychology*, *4*(2), 119-129. https://jap.razi.ac.ir/article_959.html

Redden, S. A., Mueller, N. E., & Cougle, J. R. (2023). The impact of obsessive-compulsive personality disorder in perfectionism. *International Journal of Psychiatry in Clinical Practice*, *27*(1), 18-24. https://doi.org/https://doi.org/10.1080/13651501.2022.2069581

Reuther, E. T., Davis Iii, T. E., Rudy, B. M., Jenkins, W. S., Whiting, S. E., & May, A. C. (2013). Intolerance of uncertainty as a mediator of the relationship between perfectionism and obsessive-compulsive symptom severity. *Depression and Anxiety*, *30*(8), 773-777. https://doi.org/10.1002/da.22100

Sher, A., Wootton, B. M., & Paparo, J. (2024). A preliminary investigation of the mediating roles of self-compassion and emotion dysregulation in the relationship between maladaptive perfectionism and obsessive-compulsive behaviors. *Journal of Clinical Psychology*, *80*(3), 591-609. https://doi.org/10.1002/jclp.23640

Vakili Heris, S., Livarjani, S., & Moheb, N. (2020). Presenting a Pathological Model of Obsessive-Compulsive Disorder Based on Maladaptive Perfectionism and Sensitivity to Threat in Nonclinical Population: Mediating Role of Intolerance of Uncertainty. *Journal of Applied Psychological Research*, *10*(4), 161-182. https://japr.ut.ac.ir/article_74272_en.html?lang=fa

Wake, S., Verde, A. D., Biagi, N., van Reekum, C. M., & Morriss, J. (2022). Just let me check: The role of individual differences in self-reported anxiety and obsessive-compulsive features on subjective, behavioural, and physiological indices during a checking task. *International Journal of Psychophysiology*, *179*, 43-55. https://www.sciencedirect.com/science/article/pii/S0167876022001568

Wong, F. S., Lim, V., Black, M. I., & Grisham, J. R. (2021). The impact of modifying obsessive-compulsive beliefs about perfectionism. *Journal of Behavior Therapy and Experimental Psychiatry*, *73*, 101675. https://doi.org/10.1016/j.jbtep.2021.101675

JARAC Assessment and Research in Applied Counseling
E-ISSN: 3041-8518