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Prediction of Generalized Anxiety Disorder Based on Self-Handicapping with the Mediating Role of Worry

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A B S T R A C T

Objective: The objective of this study was to examine whether self-handicapping predicts generalized anxiety disorder (GAD) symptoms and to investigate the mediating role of worry in this relationship.

Methods and Materials: This descriptive-correlational study was conducted among 395 young adults in Tehran, selected through stratified random sampling based on the Morgan and Krejcie sample size table. Participants completed standardized self-report instruments including the Self-Handicapping Scale (SHS), the Penn State Worry Questionnaire (PSWQ), and the Generalized Anxiety Disorder 7-item Scale (GAD-7). Data were analyzed using SPSS-27 for descriptive and correlational statistics, and AMOS-21 for structural equation modeling (SEM). Model fit indices and standardized path coefficients were used to evaluate the adequacy of the proposed mediation model.

Findings: Results revealed that self-handicapping was significantly and positively correlated with both worry ($r = .57$, $p < .001$) and GAD symptoms ($r = .49$, $p < .001$). Worry was also strongly associated with GAD symptoms ($r = .61$, $p < .001$). SEM analysis showed good model fit ($\chi^2/df = 2.35$, RMSEA = 0.058, CFI = 0.96, TLI = 0.95). Path analysis indicated that self-handicapping had a significant direct effect on GAD ($\beta = 0.28$, $p < .001$), a significant indirect effect through worry ($\beta = 0.30$, $p < .001$), and a substantial total effect ($\beta = 0.58$, $p < .001$), confirming worry as a partial mediator.

Conclusion: Targeting both self-handicapping and worry in preventive and therapeutic interventions may enhance the effectiveness of anxiety disorder treatments, especially in performance-oriented and culturally collectivist contexts.

Keywords: *Generalized Anxiety Disorder; Self-Handicapping; Worry*

1. Introduction

Generalized Anxiety Disorder (GAD) is a prevalent, persistent, and often debilitating mental health condition characterized by excessive and uncontrollable worry, physiological hyperarousal, and cognitive distortions. It is associated with significant impairments in functioning and quality of life, affecting both general and

clinical populations across diverse age groups and sociocultural contexts (Zhang, 2024). GAD frequently co-occurs with other psychopathologies such as depression and insomnia (Chen, 2024), and its early onset often foreshadows a chronic course unless treated adequately (Kelly & Mezuk, 2017; Scholten et al., 2021). Despite numerous treatment advancements, understanding the underlying psychological mechanisms that contribute to the development and persistence of GAD remains a critical objective in clinical psychology and psychiatry (Ferreira-Garcia et al., 2017).

One psychological construct that has been linked to the etiology and maintenance of GAD is self-handicapping. Self-handicapping refers to a cognitive-behavioral strategy in which individuals create obstacles or excuses to avoid responsibility for potential failures, thereby protecting self-esteem (Barutçu Yıldırım & Demir, 2020). Although initially conceptualized within educational settings, recent research has demonstrated that self-handicapping is associated with broader psychological dysfunctions, including anxiety-related avoidance, low self-compassion, and a negative attributional style (Akpunne & Akinnawo, 2019; Jia et al., 2020). It is hypothesized that chronic use of self-handicapping strategies may increase vulnerability to anxiety symptoms by reinforcing beliefs of incompetence and uncertainty in one's abilities to manage future stressors (Jia et al., 2021). In this regard, self-handicapping may act not only as a predictor of anxiety but as a contributing factor in the development of GAD.

Theoretical models of GAD emphasize the role of metacognitive beliefs, intolerance of uncertainty, and emotion dysregulation in generating chronic worry, which serves as the hallmark symptom of GAD (Sugiura, 2017; Ye et al., 2025). Worry is defined as a chain of repetitive, uncontrollable thoughts and images about potential negative events, typically accompanied by cognitive and somatic symptoms of arousal (Yu et al., 2024). According to the contrast avoidance theory, worry is maintained by individuals as a strategy to reduce emotional contrast between baseline mood and potential negative outcomes, thus creating a paradox where worry serves both as a coping strategy and a source of distress (Gerdan, 2025). Numerous studies suggest that worry mediates the relationship between various cognitive vulnerabilities—such as negative affectivity, maladaptive perfectionism, and metacognitive distortions—and GAD (Melehin, 2023; Picó-Pérez et al., 2022). It is therefore plausible to investigate whether worry mediates the relationship between self-handicapping tendencies and the manifestation of GAD symptoms.

Research into worry as a mediator is supported by neurocognitive and psychophysiological evidence. Structural and functional abnormalities in prefrontal and limbic regions have been implicated in both worry and GAD, pointing toward impaired cognitive-emotional regulation mechanisms (Carlier et al., 2023; Carnevali et al., 2019). For instance, meta-analytic findings indicate that greater activity in the medial prefrontal cortex and amygdala during cognitive tasks is a reliable neural correlate of worry severity in individuals with GAD (Picó-Pérez et al., 2022). These findings provide a biological framework through which self-handicapping—via its reinforcement of avoidance behaviors and negative expectancy bias—may increase susceptibility to excessive worry and generalized anxiety symptoms.

In addition to intrapersonal mechanisms, contextual and demographic variables have been shown to moderate the effects of psychological vulnerabilities on anxiety outcomes. Studies indicate that self-handicapping may be more prevalent among individuals who perceive low personal control over outcomes, particularly in competitive or evaluative environments (Davis et al., 2024). This aligns with findings that perceived control over anxiety predicts long-term quality of life among individuals with chronic anxiety disorders (Kelly & Mezuk, 2017; Xu, 2024). Moreover, cross-cultural investigations have revealed variations in anxiety presentations and their predictors, highlighting the influence of cultural norms, educational systems, and stigma in shaping both worry-related behaviors and self-handicapping tendencies (Jabeur et al., 2022; Khaiyom et al., 2021). These considerations are particularly salient for understanding the psychological functioning of emerging adults in collectivistic and performance-oriented societies such as Iran, where achievement anxiety, family expectations, and societal judgment play critical roles in shaping maladaptive coping strategies.

The mediational role of worry also garners support from clinical studies that examine the efficacy of treatment outcomes in GAD. Cognitive-behavioral interventions targeting worry reduction—such as metacognitive therapy, mindfulness training, and cognitive restructuring—have demonstrated significant improvements in anxiety symptomatology, further validating the role of worry as a central therapeutic target (Chen, 2024; Picó-Pérez et al., 2022). For instance, research by Bokma et al. (2020) utilized machine learning to predict GAD symptom trajectories and identified worry intensity as one of the strongest predictors

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of treatment response and symptom relapse (Bokma et al., 2020). Similarly, Ferreira-Garcia et al. (2017) reported that pharmacological treatments were more effective when combined with interventions targeting maladaptive worry patterns, supporting an integrative model in which worry mediates not only symptom onset but also therapeutic progress (Ferreira-Garcia et al., 2017).

Furthermore, there is growing interest in the developmental origins of GAD and how early cognitive patterns such as self-handicapping may interact with neuropsychological vulnerability factors across the lifespan (Parvaneh et al., 2020; Tyrer et al., 2022). Studies suggest that self-handicapping may emerge during adolescence as a learned strategy in response to academic or social pressures and may persist into adulthood if reinforced by perceived benefits such as avoidance of responsibility or social judgment (Lee et al., 2017). These early-formed beliefs and behaviors may evolve into chronic cognitive distortions, contributing to the habitual worry characteristic of GAD. Moreover, findings by Jia et al. (2021) demonstrate that academic anxiety and procrastination significantly predict self-handicapping behavior, which in turn is linked to increased psychological distress and anxiety symptoms among university students (Jia et al., 2021). This is consistent with the results of Barutçu Yıldırım and Demir (2020), who found that low self-esteem and test anxiety were robust predictors of self-handicapping in young adults (Barutçu Yıldırım & Demir, 2020).

In addition to psychological and behavioral factors, recent research has highlighted the role of digital exposure and cognitive overload in exacerbating worry and self-handicapping patterns, particularly in technologically immersed populations (Akpunne & Akinnawo, 2019). Smartphone overuse, information-seeking behaviors, and digital rumination have been linked to increased cognitive fatigue, which may further impair metacognitive regulation and emotional control in individuals with predisposing traits for anxiety (Yu et al., 2024). Moreover, the COVID-19 pandemic intensified the reliance on avoidance-based coping strategies, including self-handicapping and excessive worry, especially among students and young adults facing uncertainty about academic and professional futures (Jia et al., 2020).

Taken together, the reviewed evidence points to a multifaceted model of GAD in which self-handicapping serves as a vulnerability factor, worry functions as a central mediating mechanism, and cultural, developmental, and neurocognitive factors modulate these relationships. Despite the established links between worry and GAD, and emerging evidence linking self-handicapping to psychological distress, few studies have examined the interplay between these variables in an integrated mediational framework. Furthermore, there remains a lack of empirical research focusing on these constructs within non-Western cultural contexts, such as Iran, where anxiety disorders are prevalent yet often underreported or misdiagnosed due to social stigma and lack of mental health infrastructure (Jabeur et al., 2022; Khaiyom et al., 2021).

The current study aims to address these gaps by examining whether worry mediates the relationship between self-handicapping and generalized anxiety disorder symptoms among emerging adults in Tehran.

2. Methods and Materials

2.1. Study Design and Participants

This study employed a descriptive-correlational design to investigate the predictive relationship between self-handicapping and generalized anxiety disorder, with the mediating role of worry. The statistical population comprised adolescents and young adults residing in Tehran. A total of 395 participants were selected using stratified random sampling, based on the Morgan and Krejcie sample size determination table, to ensure adequate statistical power and representativeness. Participants were selected from various educational and community institutions in Tehran. Inclusion criteria included age between 18 and 30 years, fluency in Persian, and absence of diagnosed psychiatric disorders, as self-reported. Written informed consent was obtained from all participants prior to their involvement in the study.

2.2. Measures

To assess symptoms of Generalized Anxiety Disorder (GAD), the study used the Generalized Anxiety Disorder 7-item Scale (GAD-7), developed by Spitzer, Kroenke, Williams, and Löwe in 2006. This self-report instrument includes 7 items that evaluate the severity of generalized anxiety symptoms over the past two weeks. Each item is scored on a 4-point Likert scale ranging from 0 ("not at all") to 3 ("nearly every day"), resulting in a total score ranging from 0 to 21. A higher score indicates more severe symptoms of anxiety, with cutoff scores of 5, 10, and 15 representing mild, moderate, and severe anxiety, respectively. The GAD-7 has demonstrated excellent

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internal consistency (Cronbach's alpha of 0.92) and strong convergent validity with other anxiety measures. In Iranian populations, psychometric evaluations have confirmed the scale's reliability and construct validity. For example, research by Naeinian et al. (2011) reported a Cronbach's alpha of 0.85 and supported its applicability in clinical and non-clinical samples in Iran.

To measure the construct of worry, the Penn State Worry Questionnaire (PSWQ) developed by Meyer, Miller, Metzger, and Borkovec in 1990 was utilized. This widely used instrument consists of 16 items designed to assess the general tendency of an individual to engage in excessive and uncontrollable worry. Items are scored on a 5-point Likert scale from 1 ("not at all typical of me") to 5 ("very typical of me"), yielding a total score ranging from 16 to 80. The PSWQ does not include subscales, as it is designed to provide a unidimensional measure of trait worry. The questionnaire demonstrates high internal consistency (Cronbach's alpha ranging from 0.86 to 0.95) and has been validated in numerous cultural contexts, including Iran. In an Iranian sample, Dehghani et al. (2006) reported good internal consistency ($\alpha = 0.89$) and confirmed its factorial structure and convergent validity, affirming its suitability for research and clinical settings in Iran.

To evaluate self-handicapping tendencies, the Self-Handicapping Scale (SHS) developed by Jones and Rhodewalt in 1982 was employed. This scale includes 25 items that assess cognitive and behavioral strategies individuals use to protect their self-esteem in evaluative situations. The scale consists of two main dimensions: claimed self-handicapping and behavioral self-handicapping. Items are rated on a 6-point Likert scale from 1 ("disagree very much") to 6 ("agree very much"), with higher scores reflecting a greater tendency toward self-handicapping behaviors. The SHS has shown satisfactory psychometric properties, with reported Cronbach's alpha coefficients typically above 0.80. In Iranian studies, the tool has been psychometrically validated. For instance, a study by Aghababaei and Błachnio (2015) found acceptable internal consistency ($\alpha = 0.83$) and confirmed construct validity in Iranian student populations, supporting the SHS as a reliable measure for self-handicapping in the Iranian cultural context.

2.3. Data Analysis

Data analysis was conducted using SPSS version 27 and AMOS version 21. Descriptive statistics, including mean, standard deviation, frequency, and percentage, were used to summarize participant characteristics and study variables. To assess the linear relationships among variables, Pearson correlation coefficients were computed between the dependent variable (generalized anxiety disorder) and each independent variable (self-handicapping and worry). Furthermore, to test the hypothesized mediating model, structural equation modeling (SEM) was performed using AMOS-21. Model fit indices such as Chi-square (χ^2), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR) were examined to assess the overall model fit.

3. Findings and Results

Of the 395 participants, 225 individuals (56.96%) identified as female and 170 individuals (43.04%) as male. Regarding age distribution, 102 participants (25.82%) were between 18 and 21 years old, 163 participants (41.27%) were between 22 and 25, and 130 participants (32.91%) fell within the 26 to 30-year age range. Educational background varied, with 86 participants (21.77%) holding a high school diploma, 157 participants (39.75%) pursuing undergraduate studies, and 152 participants (38.48%) enrolled in or having completed postgraduate education. The demographic distribution ensured diversity in gender, age, and education level, contributing to the generalizability of the findings within the urban population of Tehran.

Table 1

Means and Standard Deviations for Main Study Variables (N = 395)

Variable	Mean (M)	Standard Deviation (SD)
Self-Handicapping	91.47	11.32
Worry (Penn State Worry)	58.36	9.24
Generalized Anxiety Disorder	13.28	4.63

The descriptive statistics in Table 1 show that the mean score for self-handicapping was 91.47 (SD = 11.32), suggesting a moderate-to-high tendency toward self-handicapping among participants. The average worry score

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was 58.36 (SD = 9.24), indicating a relatively high level of persistent worry. Generalized anxiety disorder symptoms had a mean score of 13.28 (SD = 4.63), reflecting mild to moderate anxiety symptoms on the GAD-7 scale.

Before conducting correlation and structural equation modeling analyses, statistical assumptions were checked and confirmed. The assumption of normality was evaluated using skewness and kurtosis values. For all main variables, skewness ranged from -0.49 to 0.73, and kurtosis ranged from -0.58 to 0.81, both within the acceptable range of ±2, indicating no significant departure from normality. Linearity and homoscedasticity were visually assessed through scatterplots and residual plots, revealing no evident violations. Multicollinearity was examined by calculating Variance Inflation Factor (VIF) values, all of which were below 2.1, suggesting that multicollinearity was not a concern. Furthermore, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.871, and Bartlett's Test of Sphericity was significant ($\chi^2 = 2134.56$, df = 231, $p < 0.001$), confirming the suitability of the data for factor-based and SEM analyses.

Table 2

Pearson Correlations Between Main Study Variables

Variable	1	2	3
1. Self-Handicapping	—		
2. Worry	.57** (p < .001)	—	
3. GAD Symptoms	.49** (p < .001)	.61** (p < .001)	—

As shown in Table 2, self-handicapping was positively correlated with worry (r = .57, p < .001) and generalized anxiety symptoms (r = .49, p < .001). Additionally, worry was strongly correlated with GAD symptoms (r = .61, p < .001), supporting the hypothesis that worry may serve as a mediating factor between self-handicapping and anxiety.

Table 3

Goodness-of-Fit Indices for the Structural Equation Model

Fit Index	Value	Recommended Threshold
χ^2	112.64	—
Degrees of Freedom (df)	48	—
χ^2/df	2.35	< 3.00
GFI	0.94	≥ 0.90
AGFI	0.91	≥ 0.90
CFI	0.96	≥ 0.95
TLI	0.95	≥ 0.95
RMSEA	0.058	≤ 0.08

The model fit indices in Table 3 indicate a good fit of the structural model to the data. The χ^2/df ratio was 2.35, within the acceptable range (< 3). The CFI and TLI values were 0.96 and 0.95, respectively, meeting the recommended criteria for excellent model fit. Additionally, the RMSEA was 0.058, which falls well within the acceptable threshold, further confirming the adequacy of the model.

Table 4

Path Coefficients for Direct, Indirect, and Total Effects

Path	b	S.E.	β	p
Self-Handicapping → Worry	0.45	0.05	0.57	< .001
Worry → GAD Symptoms	0.38	0.04	0.52	< .001
Self-Handicapping → GAD Symptoms	0.21	0.06	0.28	< .001
Self-Handicapping → GAD (Indirect)	0.17	0.03	0.30	< .001
Self-Handicapping → GAD (Total)	0.38	0.05	0.58	< .001

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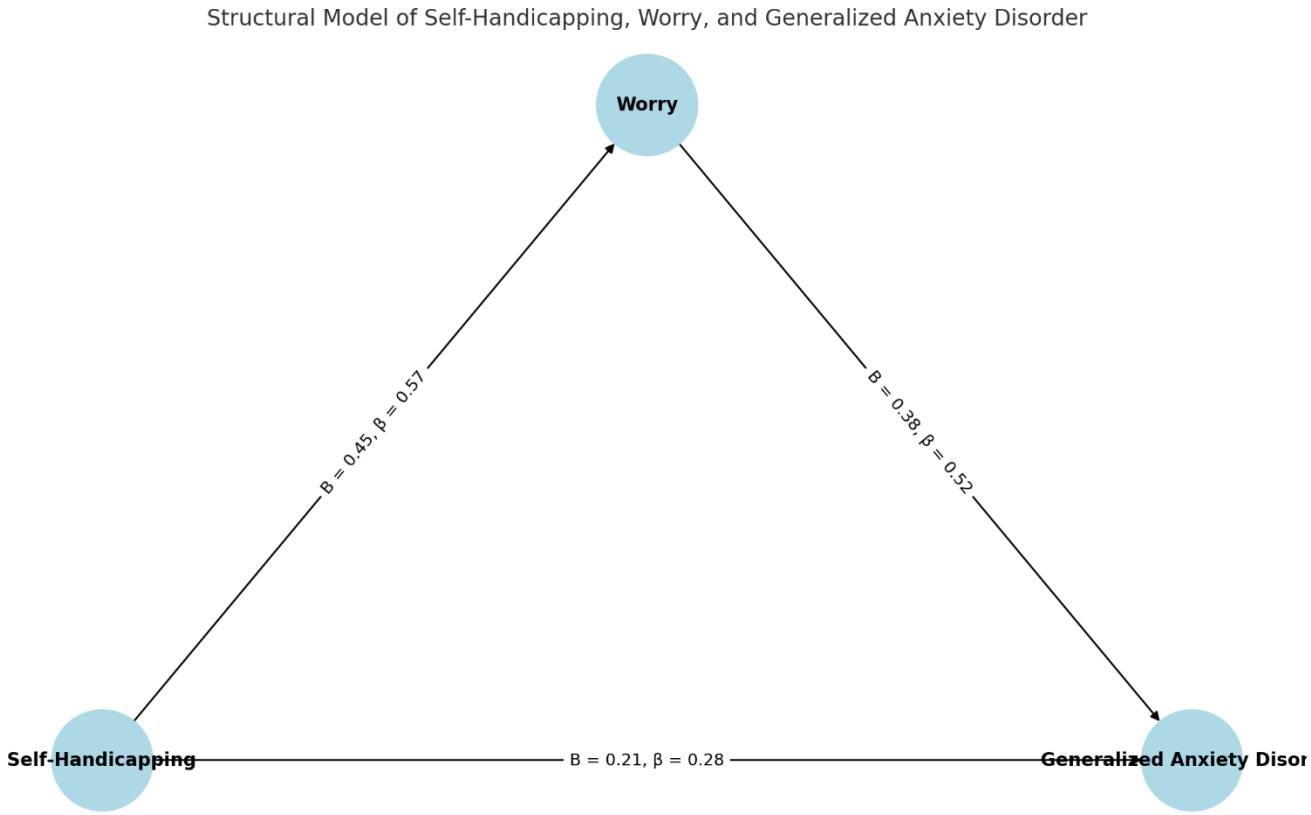
The path analysis presented in Table 4 illustrates the structural relationships among the variables. Self-handicapping had a significant direct effect on worry (β = 0.57, p < .001), and worry significantly predicted GAD symptoms (β = 0.52, p < .001). The direct path from self-handicapping to GAD symptoms was also significant (β = 0.28, p < .001). The indirect effect of self-handicapping on GAD through worry was β = 0.30, and the total effect (direct + indirect) was substantial (β = 0.58, p < .001), confirming the mediating role of worry.

Figure 1

Structural Model of The Study



4. Discussion and Conclusion

The present study aimed to examine whether generalized anxiety disorder (GAD) symptoms can be predicted by self-handicapping tendencies, and whether this relationship is mediated by worry. The findings revealed significant positive correlations between self-handicapping, worry, and GAD, supporting the hypothesized model. Structural equation modeling confirmed that self-handicapping significantly predicted GAD both directly and indirectly through the mediating role of worry. These results underscore the cognitive-behavioral mechanisms underpinning anxiety and suggest that worry operates as a central psychological process through which self-handicapping exerts its influence on anxiety symptomatology.

The direct relationship observed between self-handicapping and GAD is consistent with recent findings that emphasize the maladaptive nature of self-handicapping in mental health contexts. Individuals who habitually engage in self-handicapping are more likely to develop negative attribution styles, reduce their sense of personal efficacy, and experience cognitive dissonance under stress, all of which may contribute to heightened anxiety levels (Barutçu Yıldırım & Demir, 2020). This pattern has been previously identified in both Western and Eastern populations, with studies demonstrating that self-handicapping correlates with trait anxiety, emotional dysregulation, and academic distress (Akpunne & Akinnawo, 2019; Jia et al., 2021). In the context of this study, the findings affirm that in Iranian young adults, self-handicapping remains a critical risk factor for anxiety,

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aligning with global trends observed in university students and early-career individuals (Jia et al., 2020).

Importantly, this study confirmed that worry significantly mediated the relationship between self-handicapping and GAD, a finding that deepens the understanding of how maladaptive cognitive strategies evolve into clinical symptoms. Worry, as a persistent cognitive process marked by anticipatory threat appraisal and uncontrollable thinking, is widely acknowledged as the central feature of GAD (Ye et al., 2025; Yu et al., 2024). The mediational effect of worry observed here supports theoretical models such as the contrast avoidance model and intolerance of uncertainty theory, both of which posit that worry serves as an emotional regulation strategy to cope with perceived threats and uncertainty (Gerdan, 2025; Sugiura, 2017). These theories suggest that individuals prone to self-handicapping may habitually engage in worry to avoid the emotional discomfort associated with personal failure, thereby reinforcing a cycle of anxious rumination and behavioral avoidance (Chen, 2024; Melehin, 2023).

The findings align with the cognitive-behavioral frameworks suggesting that worry functions as a proximal mechanism in the development of anxiety symptoms. For instance, Carnevali et al. (2019) reported that heightened cortical activity associated with emotional appraisal processes was positively linked to GAD severity, reinforcing the neurobiological relevance of persistent worry (Carnevali et al., 2019). Additionally, Picó-Pérez et al. (2022) found that individuals with GAD exhibited heightened prefrontal-limbic engagement during threat-related tasks, further substantiating the neural underpinnings of excessive worry (Picó-Pérez et al., 2022). The present study complements these findings by demonstrating the cognitive antecedents—specifically, self-handicapping—that contribute to this emotional and neurocognitive reactivity.

Moreover, the strong association found between worry and GAD in this study supports previous work emphasizing the transdiagnostic role of worry across anxiety-related disorders (Ferreira-Garcia et al., 2017; Scholten et al., 2021). This mediational pathway was also consistent with Bokma et al.'s (2020) use of predictive machine learning models, which identified worry intensity as a critical predictor of anxiety trajectories over time (Bokma et al., 2020). Given that worry mediates the influence of various distal risk factors—such as perfectionism, negative affectivity, and metacognitive beliefs—on anxiety, the present study extends this literature by establishing self-handicapping as another upstream predictor that operates through worry to increase vulnerability to GAD symptoms.

Cultural and contextual considerations further illuminate these findings. Iranian youth are often embedded in sociocultural systems that emphasize academic achievement, family expectations, and social conformity—conditions known to increase self-handicapping tendencies (Parvaneh et al., 2020). In such settings, failure is often perceived as a threat to social identity, leading individuals to adopt protective strategies that ironically enhance psychological distress over time (Davis et al., 2024). The association between perceived control and anxiety observed in other populations has been replicated in Iranian samples, suggesting that individuals who feel incapable of managing future outcomes are more likely to worry excessively and engage in avoidance behaviors (Xu, 2024). Thus, the mediating role of worry may be particularly pronounced in cultural contexts where uncertainty is pervasive and self-worth is tightly bound to social evaluations.

In clinical terms, the results reinforce the centrality of worry as a therapeutic target in the treatment of GAD. Cognitive-behavioral therapy (CBT), metacognitive therapy (MCT), and third-wave approaches such as Acceptance and Commitment Therapy (ACT) all prioritize worry reduction as a core mechanism of change (Chen, 2024; Picó-Pérez et al., 2022). The findings also support the idea that addressing self-handicapping behaviors—particularly through cognitive restructuring, behavioral activation, and self-compassion training—may reduce the need for maladaptive coping via worry, thus reducing anxiety symptoms (Barutçu Yıldırım & Demir, 2020). Additionally, the role of worry in mediating the impact of cognitive distortions on anxiety outcomes highlights the value of transdiagnostic interventions that focus on cognitive flexibility, emotional regulation, and distress tolerance.

This study also resonates with evidence from large-scale epidemiological investigations that identify self-handicapping and worry as significant predictors of anxiety disorder recurrence and chronicity (Khaiyom et al., 2021; Scholten et al., 2021). Clinical findings from treatment samples further show that individuals who display high levels of self-handicapping and worry are less likely to achieve long-term remission unless both cognitive styles are explicitly addressed (Carlier et al., 2023; Kelly & Mezuk, 2017). The results from this study contribute to this growing evidence base and suggest the importance of early psychological assessments that evaluate not only current

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anxiety symptoms but also underlying cognitive vulnerabilities that maintain them.

Finally, the implications of this research are notable in light of recent public health crises such as the COVID-19 pandemic. During this period, individuals—especially students and young adults—experienced increased academic uncertainty, social isolation, and disrupted routines, all of which contributed to elevated anxiety and reliance on maladaptive coping strategies such as procrastination and self-handicapping (Jia et al., 2020). This pattern was observed in both Iranian and international samples, indicating a universal mechanism through which cognitive and emotional vulnerabilities interact during periods of instability. Given the anticipated long-term psychological impacts of the pandemic, identifying and targeting mediators such as worry will be critical in reducing the burden of anxiety disorders.

5. Limitations & Suggestions

Despite its strengths, the present study is not without limitations. First, the cross-sectional design limits causal inferences. While structural equation modeling provides insights into directional relationships, the study does not establish temporality, and longitudinal research is necessary to confirm these pathways. Second, the use of self-report measures may introduce response biases, including social desirability or underreporting of anxiety symptoms due to stigma. Third, the sample, although adequately sized, was drawn from an urban population in Tehran and may not be representative of rural communities or other cultural regions in Iran. This limits the generalizability of the findings across diverse Iranian demographics. Additionally, gender and age-related variables were not analyzed as moderators, though both have been shown in previous studies to influence the manifestation of self-handicapping and worry. Finally, the study did not include biological, neurocognitive, or physiological data that could further validate the psychological mechanisms examined.

Future studies should adopt longitudinal or experimental designs to examine the temporal sequence between self-handicapping, worry, and the onset of GAD. It would also be beneficial to explore additional mediators and moderators, such as self-esteem, cognitive reappraisal, or perfectionism, which may help explain individual differences in anxiety vulnerability. Incorporating neuroimaging or physiological assessments may enrich our understanding of the biological correlates of worry and its mediating function. Furthermore, research that extends this model to clinical populations, such as patients diagnosed with comorbid disorders or treatment-resistant GAD, would provide valuable insights into intervention targets. Cross-cultural comparisons could help determine whether the mediational role of worry is consistent across varying cultural value systems and coping styles. Finally, the inclusion of gender-specific analyses and age-related developmental trajectories may illuminate tailored intervention strategies for different subgroups.

Based on the findings, practitioners should be encouraged to screen for self-handicapping behaviors in clients who present with anxiety symptoms, especially among adolescents and young adults. Interventions aimed at reducing worry should be prioritized, incorporating cognitive techniques to challenge catastrophic thinking, mindfulness strategies to enhance present-moment awareness, and behavioral activation to reduce avoidance patterns. Psychoeducation on the maladaptive nature of self-handicapping and the reinforcing cycle of worry may also increase clients' insight and motivation for change. Educators and school counselors could benefit from training to identify self-handicapping tendencies in students early on, facilitating timely referral to mental health services. Given the cultural context, therapeutic approaches should be adapted to account for collectivistic values and achievement pressures that may reinforce both self-handicapping and worry.

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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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Authors' Contributions

All authors equally contributed to this article.

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