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SELF-CONCEALMENT AND PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATE STUDENTS: THE MODERATING ROLE OF SOCIAL SELF-EFFICACY

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ABSTRACT

This study aims to investigate the psychological impact of self-concealment on depression, anxiety, and stress among undergraduate students in Pakistan. It further examines whether social self-efficacy moderates the relationship between self-concealment and these mental health outcomes, potentially buffering the adverse effects of concealment. Rooted in Self-Concealment Theory and Social Cognitive Theory, the study explores how these theoretical frameworks explain the dynamics between self-concealment, social self-efficacy, and psychological well-being. Employing a cross-sectional correlational design, 380 students from four public universities in Khyber Pakhtunkhwa were initially screened using the Depression Anxiety Stress Scale-21 (DASS-21), with 297 participants exhibiting mild to moderate distress qualifying for inclusion. Standardized instruments included the Self-Concealment Scale (SCS) and the Perceived Social Self-Efficacy Scale (PSSE), alongside DASS-21 subscales were used. Quantitative analyses revealed that self-concealment significantly predicted higher levels of depression ($\beta = .51$), anxiety ($\beta = .47$), and stress ($\beta = .49$), while social self-efficacy was inversely correlated with all psychological distress indicators. Moderation analysis confirmed that social self-efficacy significantly buffered the relationship between self-concealment and overall distress (Estimate = −0.21, $p = .003$), indicating that the negative psychological impact of self-concealment was reduced among students with higher social self-efficacy. These findings underscore the role of self-concealment as a robust risk factor for psychological distress among university students in collectivist cultural contexts like Pakistan, while social self-efficacy offers a protective buffer.

Keywords: *Self-concealment, Social self-efficacy, Depression, Anxiety, Stress...*

Introduction:

Mental health challenges among undergraduate students in Pakistan have reached a critical juncture, driven by a complex interplay of structural limitations, cultural stigmas, and developmental pressures. Globally, depression, anxiety, and stress are increasingly prevalent among university populations, demanding urgent attention from educational institutions, healthcare providers, and policymakers (Ahmad, 2007). Cultural narratives frequently attribute mental illness to sociocultural or religious causes, reinforcing stigma and discouraging help-seeking behaviors (Ahmad & Koncsol, 2022; Ahmad, 2007). Emerging adults, navigating critical developmental transitions, are particularly vulnerable to psychological distress (Ahmad & Koncsol, 2022). Within the collectivist framework of Pakistani society, strong social ties can paradoxically pressure

individuals to suppress personal struggles, leading to patterns of self-concealment (Riaz et al., 2024). Self-concealment refers to an individual's tendency to deliberately hide distressing or negative personal information, including difficult experiences, relationship issues, and negative thoughts (Larson & Chastain, 1990). This behavior can significantly impair one's ability to form meaningful social connections and access support systems that are essential for coping with stress and fostering psychological resilience. For undergraduate students navigating academic pressures and complex social dynamics, understanding the psychological and cultural factors that contribute to self-concealment is crucial for promoting mental well-being. Often, reluctance to disclose personal struggles stems from fear of judgment, social stigma, and concerns about being perceived as weak. In collectivist cultures like Pakistan, these concerns are magnified by societal norms that emphasize emotional restraint and the maintenance of a strong public persona (Riaz et al., 2024). As a result, students may suppress their mental health challenges, leading to feelings of alienation and disconnection from others, which further exacerbate psychological distress (Dogan & Çolak, 2016). The relationship between self-concealment and mental health outcomes is complex and deeply consequential. Students who withhold distressing emotions often experience heightened loneliness and isolation, which can intensify depression and anxiety (Hogge et al., 2022). The emotional toll of keeping secrets drains psychological resources needed to cope with stress. Fear of stigmatization further discourages help-seeking, as students worry about negative perceptions from peers and faculty (Hanna & Hanna, 2022). Salinas-Oñate et al. (2024) found that self-concealment directly correlates with depressive symptoms in both male and female students. Social self-efficacy—the belief in one's ability to interact effectively in social contexts—plays a pivotal role in mitigating the adverse effects of self-concealment among undergraduate students. Those with higher social self-efficacy are more likely to engage in help-seeking behaviors, which foster emotional regulation and resilience. Research shows that social self-efficacy is positively associated with interpersonal competence and can buffer against psychological distress linked to self-concealment and acculturative stress (Constantine et al., 2004). Rooted in Bandura's broader framework of self-efficacy, this construct emphasizes the interplay between individual beliefs and observable behaviors (Bandura, 1977). Specifically, social self-efficacy reflects confidence in initiating conversations, maintaining relationships, and navigating social challenges—skills particularly relevant for students facing academic and emotional pressures (Putri, 2024). Its importance is underscored by findings that higher self-efficacy correlates with lower symptoms of depression and anxiety, suggesting its protective role in student mental health (Tahmassian & Moghadam, 2011). Moreover, attitudes toward seeking psychological help are major predictors of actual help-seeking behavior, and students with greater social competence are more inclined to reach out for support (Hanna & Hanna, 2022). Social self-efficacy plays a vital role in shaping mental health outcomes for students experiencing depression and anxiety. Those who believe in their ability to engage socially tend to be more resilient and better equipped to manage emotional distress (Yudiati et al., 2024). In academic environments, social interactions foster belonging and support, making social self-efficacy especially crucial (Connolly, 1989). The global urgency of the mental health crisis underscores the need to address such protective factors (WHO, 2024).

Rationale

In Pakistani universities, students often endure academic and emotional pressures in silence, concealing their struggles to avoid social alienation in a culture that equates vulnerability with weakness. This concealment becomes a culturally conditioned survival strategy, where students mask anxiety and depression behind outward composure. Mental health remains a neglected area of public health in Pakistan, especially for young adults in higher education. Despite global progress, stigma and systemic neglect persist, limiting open dialogue around mental illness.

In collectivist societies like Pakistan, cultural norms that prioritize family honor and social harmony often discourage emotional openness, leading students to suppress personal distress

(Riaz et al., 2024). This suppression manifests as self-concealment—a chronic tendency to withhold distressing information—which has been empirically linked to increased psychological distress and reduced help-seeking behavior (Larson & Chastain, 1990; Dogan & Çolak, 2016). The internalization of stigma and fear of negative evaluation isolates students, contributing to a silent epidemic of untreated depression, anxiety, and stress. For many, self-concealment is not just a coping mechanism but a culturally reinforced survival strategy. Emotional restraint is socially valorized, and disclosure may be seen as a threat to personal dignity or family reputation (Riaz et al., 2024). This leads to alienation and exacerbates mental health symptoms (Dogan & Çolak, 2016). Salinas-Oñate et al. (2024) found a direct link between self-concealment and depressive symptoms across genders, while Friedlander et al. (2012) associated high self-concealment with suicide ideation and harmful coping behaviors. Chen et al. (2023) revealed that self-concealment mediates the relationship between non-suicidal self-injury and internet addiction, suggesting a shift toward anonymous digital coping. Doğan and Çolak (2016) also found that self-concealment predicts social media engagement, reinforcing avoidance-based strategies. These findings underscore how concealment impairs emotional regulation and drives students toward maladaptive behaviors that offer fleeting relief but deepen long-term distress.

Social self-efficacy—the belief in one's ability to engage socially—can counteract these effects by encouraging students to seek support and regulate emotions (Constantine et al., 2004; Hanna & Hanna, 2022). Rooted in Bandura's theory of self-efficacy, this construct reflects perceived competence in managing social interactions (Bandura, 1977). Students with high social self-efficacy report lower levels of depression and anxiety due to their ability to communicate distress and access resources (Tahmassian & Moghadam, 2011; Yudiati et al., 2024). In academic settings, it fosters belonging and reduces alienation among those who conceal their struggles (Connolly, 1989; Majeed et al., 2022). It also buffers stress and improves emotional well-being, as shown by Kamal et al. (2020). Low self-efficacy, on the other hand, correlates with psychological rigidity and reactance (Khalid & Munir, 2024).

Social self-efficacy plays a crucial moderating role in cultures where mental health stigma is high and self-concealment is common. In Pakistan, cultural norms often discourage emotional disclosure, as students fear judgment and potential harm to family reputation (Saleem & Mahmood, 2013; Ahmad & Koncsol, 2022). Enhancing social self-efficacy can help students navigate these barriers and engage more openly with support systems (Putri, 2024). Interventions like social skills training, peer mentorship, and role-playing have proven effective in promoting help-seeking and reducing psychological distress (Gebauer et al., 2020; Poudel et al., 2025).

This research holds significant theoretical and practical relevance within Pakistan's higher education context, where student mental health challenges are rising yet remain underexplored. It examines the interaction between self-concealment and social self-efficacy—two constructs linked to psychological distress but rarely studied together in culturally conservative settings (Larson & Chastain, 1990; Constantine et al., 2004). By analyzing how these factors jointly influence depression, anxiety, and stress, the study sheds light on the internal conflict faced by students who are socially competent yet emotionally inhibited due to stigma and cultural conditioning (Riaz et al., 2024; Salinas-Oñate et al., 2024). Prior research has largely focused on these constructs in isolation and within Western contexts that encourage openness (Dogan & Çolak, 2016). In contrast, Pakistani students operate within a collectivist framework that valorizes emotional restraint and discourages disclosure (Ahmad & Koncsol, 2022).

Hypotheses

H1: Self-concealment positively correlated with depression, anxiety, and stress among undergraduate students.

H2: Social self-efficacy negatively correlated with depression, anxiety, and stress among undergraduate students.

H3: Social self-efficacy moderate the relationship between self-concealment and depression, anxiety, and stress, such that the

association is weaker among students with higher social self-efficacy.

H4: Female students report higher levels of depression, anxiety, and stress and self-concealment compared to male students.

Method

Research design

This study adopts a cross-sectional correlational design to examine the psychological impact of self-concealment and the moderating role of social self-efficacy on depression, anxiety, and stress among undergraduate students in Pakistan. Data was collected from a diverse sample of students using standardized self-report measures, including the Self-Concealment Scale (SCS), the Perceived Social Self-Efficacy Scale (PSSE), and the Depression Anxiety Stress Scales (DASS-21).

Participants of the Study

The study initially screened a total of 380 undergraduate students from four public sector universities in Khyber Pakhtunkhwa, Pakistan: University of Peshawar, University of Haripur, University of Swabi, and Abdul Wali Khan University Mardan. Using the Depression Anxiety Stress Scale (DASS-21), 297 students were identified as experiencing mild to moderate levels of psychological distress and were included in the final sample, yielding a diagnostic participation rate of 78.2%. Participants ranged in age from 18 to 25 years and represented departments such as Social Sciences and Physical Sciences.

Inclusion Criteria

Undergraduate students between the ages of 18 and 25 were considered eligible if they demonstrated mild to moderate levels of depression, anxiety, and stress, as assessed by the Depression Anxiety Stress Scale (DASS-21). Participants were also required to possess basic English literacy to comprehend and respond to standardized psychological instruments.

Exclusion Criteria

Participants were excluded from the study if they scored in the severe range on the Depression Anxiety Stress Scale (DASS-21), indicating psychological distress that warranted clinical intervention. Individuals with previously diagnosed psychiatric disorders or those currently receiving formal psychological treatment were also excluded to uphold ethical standards and minimize confounding variables. Additionally, students outside the specified age range of 18 to 25 years were not considered for inclusion.

Instruments

The Self-Concealment Scale (SCS). The Self-Concealment Scale (SCS), developed by Larson and Chastain (1990), measures the stable personality trait of deliberately withholding distressing personal information. The scale consists of 10 unidimensional items rated on a 5-point Likert scale, capturing both behavioral tendencies and emotional burden. Its reliability is well-established, with Cronbach's alpha values typically ranging from .80 to .89 across diverse populations (Fan et al., 2024). Factor analyses confirm its unidimensionality, and it shows strong discriminant validity from constructs like shyness and social anxiety (Ritz & Dahme, 1996). The SCS also demonstrates predictive validity, explaining variance in psychological symptoms beyond trauma and social support (APA PsycTests, 2019).

The Perceived Social Self-Efficacy Scale. The Perceived Social Self-Efficacy Scale (PSSE), developed by Smith and Betz (2000), assesses individuals' confidence in managing social interactions, grounded in Bandura's (1997) social cognitive theory. The scale includes 25 items rated on a 5-point Likert scale, with higher scores indicating stronger social self-efficacy. It has demonstrated strong internal consistency, with Cronbach's alpha values typically ranging from .85 to .91 (Smith & Betz, 2000). The scale also shows strong convergent validity, correlating positively with social competence and negatively with social anxiety and avoidance (Caprara et al., 2010).

The Depression, Anxiety and Stress Scale. The Depression, Anxiety and Stress Scale–21 Items (DASS-21), developed by Lovibond and Lovibond (1995), is a widely used self-report tool designed to assess the severity of depression, anxiety, and stress. It consists of 21 items divided equally across three subscales, each capturing

distinct emotional states through a dimensional model of distress. Items are rated on a 4-point Likert scale based on experiences over the past week, with higher scores indicating greater symptom severity. The scale is not diagnostic but helps quantify emotional states for further evaluation. It has demonstrated strong internal consistency, with Cronbach's alpha values typically above .85, and has been validated across cultures, including in Urdu for Pakistani populations (Aslam & Kamal, 2017). Confirmatory factor analyses support its three-factor structure, and it shows strong convergent and discriminant validity (Henry & Crawford, 2005). Its brevity and psychometric robustness make it suitable for both clinical and research settings.

Procedure

The procedure of this study began with obtaining ethical approval from the institutional review boards of four public sector universities in Khyber Pakhtunkhwa, Pakistan. A total of 380 undergraduate students were initially approached through departmental coordination and classroom announcements. After administering the Depression Anxiety Stress Scale (DASS-21) for screening, 297 students who met the inclusion criteria—mild to moderate levels of psychological distress—were selected for participation. Each student was briefed on the study's objectives, assured of confidentiality, and provided informed consent. Participants then completed three standardized instruments: the Self-Concealment Scale (SCS), the Perceived Social Self-Efficacy Scale (PSSE), and the DASS-21, along with a demographic questionnaire. All responses were anonymized and securely stored, and data were analyzed using SPSS to examine correlations and test the moderating role of social self-efficacy in the relationship between self-concealment and psychological distress.

Data Analysis

Descriptive statistics (including means and standard deviations), Pearson correlation coefficients, multiple regression analysis, independent sample t-test and one-way ANOVA were conducted to examine the data. All analyses were performed using SPSS, and statistical significance was set at $p < .05$.

Results

Table 1

Variable	*N*	%
University Affiliation		
University of Peshawar	92	24.2
University of Haripur	95	25.0
University of Swabi	100	26.3
Abdul Wali Khan University Mardan	93	24.5
Gender		
Male	168	44.2
Female	212	55.8
Age Group		
18–20 years	120	31.6
21–23 years	182	47.9
24–25 years	78	20.5
Academic Discipline		
Political Science	100	26.3
International Relations	95	25.0
Psychology	96	25.3

Physics	29	7.6
Chemistry	27	7.1
Mathematics	17	4.5
Computer Science	16	4.2
Year of Study		
Undergraduate (Years 1–2)	190	50.0
Undergraduate (Years 3–4)	190	50.0
Prior Mental Health Support		
Yes	76	20.0
No	304	80.0

Demographic Characteristics of Undergraduate Participants (N = 380

Table 2
Psychometric properties of scales and Subscales (N = 297)

Scale	M	SD	Range	Cronbach's α
Self-Concealment (SCS)	31.42	6.87	12-60	.88
Social Self-Efficacy (PSSE)	91.76	12.34	30-150	.91
Depression (DASS-21)	15.82	4.67	10-20	.86
Anxiety (DASS-21)	13.94	4.21	8-14	.85
Stress (DASS-21)	18.76	5.03	15-25	.87

Note. All DASS-21 subscale scores were multiplied by 2 to align with full-scale equivalence. Cronbach's alpha values reflect internal consistency reliability for each scale. Skewness and kurtosis values fall within acceptable ranges (±1), indicating approximate normality suitable for parametric analysis.

Table 2 outlines the psychometric properties of the study's core instruments, confirming strong internal consistency across all scales with Cronbach's alpha values exceeding .80. The Self-Concealment Scale (α = .88) and the Social Self-Efficacy Scale (α = .91) demonstrated excellent reliability, while the DASS-21 subscales for Depression (.86), Anxiety (.85), and Stress (.87) also showed high reliability. These results validate the instruments' effectiveness in measuring psychological distress and self-related constructs. Distributional checks revealed moderate mean scores and acceptable skewness and kurtosis values within ±1, supporting the use of parametric analyses. Overall, the scales proved both statistically and conceptually robust for this population.

Table 3
Descriptive Statistics and Correlations among Study Variables (N = 297)

Variable	M	SD	1	2	3	4	5
1. Self-Concealment (SCS)	31.42	6.87	—				
2. Social Self-Efficacy	91.76	12.34	−.42**	—			
3. Depression (DASS-21)	15.82	4.67	.51**	−.45**	—		
4. Anxiety (DASS-21)	13.94	4.21	.47**	−.41**	.68**	—	
5. Stress (DASS-21)	18.76	5.03	.49**	−.43**	.65**	.72**	—

Note: All DASS-21 scores were multiplied by 2 for full-scale equivalence.
Note. $p < .05$*, $p < .01$**

The correlation matrix revealed several statistically significant and theoretically consistent relationships. Self-concealment was positively correlated with depression (r = .51), anxiety (r = .47), and stress (r = .49), indicating that students who suppress personal distress tend to experience higher psychological symptoms. Social self-efficacy showed negative correlations with depression (r = −.45), anxiety (r = −.41), and stress (r = −.43), highlighting its potential buffering role. It was also inversely related to self-concealment (r = −.42), suggesting that socially confident individuals are less likely to conceal emotional struggles. The strongest association was observed between anxiety and stress (r = .72), reflecting their shared emotional and physiological dimensions. These bivariate relationships provide empirical support for the proposed moderation model.

Table 4
Regression Analysis Predicting Depression, Anxiety, and Stress from Self-Concealment (N = 297)

Outcome Variable	Predictor	*B*	*SE B*	*β*	*t*	*p*	R^2
Depression	Self-Concealment	0.62	0.07	.51	8.86	<.001	.26
Anxiety	Self-Concealment	0.55	0.08	.47	7.12	<.001	.22
Stress	Self-Concealment	0.58	0.08	.49	7.65	<.001	.24

Note. B = unstandardized regression coefficient; SE B = standard error of B; β = standardized coefficient.

The regression analyses demonstrate that Self-Concealment is a statistically significant predictor of all three psychological distress outcomes. For Depression, self-concealment accounted for 26% of the variance (R^2 = .26), with a standardized beta of .51, indicating a strong positive association. Similarly, it predicted Anxiety (β = .47, R^2 = .22) and Stress (β = .49, R^2 = .24), both with moderate-to-strong effect sizes. These findings suggest that students who habitually conceal their emotional struggles are more likely to experience elevated symptoms of depression, anxiety, and stress.

Table 5
Moderator Analysis: Social Self-Efficacy and Depression, Anxiety and Stress

Predictor	Estimate	*SE*	95% CI		*p*
			LL	UL	
Constant	18.42	0.76	16.93	19.91	< .001
Self-Concealment	0.62	0.08	0.47	0.77	< .001
Social Self-Efficacy	−0.45	0.09	−0.63	−0.27	< .001
Self-Concealment × SSE	−0.21	0.07	−0.35	−0.07	.003

Note. SSE = Social Self-Efficacy. CI = Confidence Interval. Interaction term tested moderation using PROCESS macro (Model 1; Hayes, 2013). $F(3, 376) = 42.87$, $p < .001$, R^2 = .255, indicating that approximately 25.5% of the variance in psychological distress was explained by the predictors.

The moderation analysis confirmed that social self-efficacy significantly moderated the relationship between self-concealment and psychological distress. All continuous predictors were mean-centered prior to analysis. Self-concealment was positively associated with distress (Estimate = 0.62, $p < .001$), indicating that higher concealment predicted greater emotional symptoms. In contrast, social self-efficacy showed a negative association (Estimate = −0.45, $p < .001$), suggesting a protective role.

The interaction term between self-concealment and social self-efficacy was statistically significant (Estimate = −0.21, p = .003), with a 95% confidence interval of [−0.35, −0.07], confirming the moderation effect. This implies that the negative impact of self-concealment is reduced among individuals with higher social self-efficacy. These findings support the hypothesis that social self-efficacy buffers the psychological risks associated with concealment.

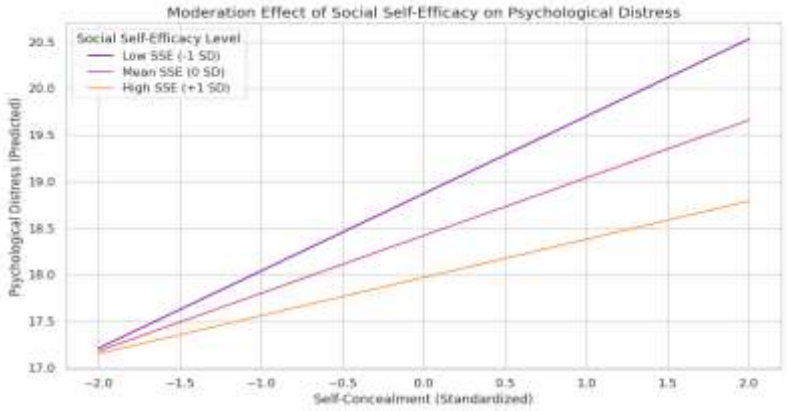

Figure 1: moderation graph illustrating how social self-efficacy moderates the relationship between *self*-concealment and psychological distress

- The x-axis represents standardized levels of self-concealment.
- The y-axis shows predicted scores of psychological distress.
- Three lines represent levels of social self-efficacy:
- Low SSE (−1 SD): steepest slope—distress rises sharply with concealment.
- Mean SSE (0 SD): moderate slope—distress increases steadily.
- High SSE (+1 SD): flattest slope—distress rises minimally with concealment.

Table 6
Independent Samples t-Test

Outcome	Gender	M (SD)	t	df	p	Cohen's d
Depression	Male	14.62 (4.55)	−0.49	295	.62	0.06
	Female	14.88 (4.68)				
Anxiety	Male	13.25 (4.22)	−0.31	295	.76	0.03
	Female	13.39 (4.35)				
Stress	Male	15.78 (4.70)	−0.32	295	.75	0.04
	Female	15.96 (4.82)				

The independent samples t-test revealed no statistically significant gender differences in depression, anxiety, or stress among the 297 undergraduate students. Male and female participants reported similar levels of emotional distress, with depression scores of 14.62 (SD = 4.55) for males and 14.88 (SD = 4.68) for females (t = −0.49, p = .62, Cohen's d = 0.06). Anxiety scores were 13.25 (SD = 4.22) for males and 13.39 (SD = 4.35) for females (t = −0.31, p = .76, Cohen's d = 0.03), while stress scores were 15.78 (SD = 4.70) for males and 15.96 (SD = 4.82) for females (t = −0.32, p = .75, Cohen's d = 0.04). All p-values exceeded the .05 threshold, and effect sizes were negligible, indicating minimal practical differences between genders in psychological distress.

Discussion

The study aimed to explore the relationship between self-concealment and psychological distress—specifically depression, anxiety, and stress—while evaluating the moderating role of social self-efficacy. Based on theoretical and empirical foundations, it was hypothesized that

self-concealment would be positively associated with psychological distress, while social self-efficacy would show negative correlations with distress indicators and with self-concealment itself. Correlation analysis supported these hypotheses, revealing that self-concealment was significantly associated with depression ($r = .51$, $p < .001$), anxiety ($r = .47$, $p < .001$), and stress ($r = .49$, $p < .001$). These findings align with Larson and Chastain's (1990) conceptualization of self-concealment as a trait linked to emotional vulnerability. Kealy and Rice (2020) further emphasized its role in depressive severity among clinical populations, while Davis et al. (2023) highlighted the emotional burden of suppression and guilt. The positive correlation with anxiety is consistent with Ichiyama et al. (1993), who found links to suicidal ideation, and Bansal (2023), who associated concealment with social appearance anxiety. Kumar and Srivastava (2024) linked self-concealment to stress and inferiority complex, particularly among students with insecure attachment styles. Blomqvist et al. (2025) found that high self-concealment was associated with secrecy and stress-related health risks, including poor coping and increased psychological burden. Sailo et al. (2019) reported that adolescents with elevated concealment levels experienced greater stress and reduced help-seeking behavior.

In contrast, social self-efficacy was negatively correlated with depression ($r = -.45$, $p < .001$), supporting Bandura's (1997) theory that interpersonal competence enhances emotional resilience. Ahmad et al. (2014) observed a similar inverse relationship among adolescents in Karachi, while Pu et al. (2016) highlighted the mediating role of dispositional optimism. Yuan et al. (2024) confirmed that self-efficacy reduced depressive outcomes through its influence on self-consciousness. Social self-efficacy also showed a negative correlation with anxiety ($r = -.41$, $p < .001$), consistent with Trisnaningati's (2021) meta-analysis and Yildirim et al.'s (2024) findings among socially active adolescents. Cummings and Dwyer (2001) emphasized that students with higher self-efficacy used adaptive coping strategies and reported lower anxiety. Additionally, social self-efficacy was negatively correlated with stress ($r = -.43$, $p < .001$), as shown by Sailo et al. (2019), Mirchandani (2021), and Dwyer and Cummings (2001), all of whom linked self-efficacy to resilience and effective stress regulation. Finally, the inverse correlation between social self-efficacy and self-concealment ($r = -.42$, $p < .001$) suggests that students with stronger interpersonal confidence are less likely to suppress emotional distress.

The regression analysis confirmed that self-concealment significantly predicts psychological distress, including depression, anxiety, and stress, among university students. For depression, self-concealment emerged as a strong predictor ($\beta = .51$, $p < .001$), explaining 26% of the variance ($R^2 = .26$), indicating that students who habitually suppress personal distress are more prone to depressive symptoms. This finding aligns with Larson and Chastain's (1990) foundational work, which highlighted self-concealment's unique contribution to depression beyond trauma and social support. Kealy and Rice (2020) extended this evidence by showing that concealment predicted depressive severity in clinical populations, especially among those with unmet relational needs. Davis et al. (2023) further emphasized the emotional toll of concealment, linking it to guilt and rumination that exacerbate depressive affect.

The regression analysis demonstrated that self-concealment significantly predicted anxiety ($\beta = .47$, $p < .001$), accounting for 22% of the variance ($R^2 = .22$), indicating a meaningful contribution to anxious symptoms. Prior research by Ichiyama et al. (1993) and Bansal (2023) supports this link, highlighting cognitive distress and social appearance anxiety in suppressive individuals. For stress, self-concealment was again a significant predictor ($\beta = .49$, $p < .001$), explaining 24% of the variance ($R^2 = .24$), suggesting that suppression intensifies emotional and physiological strain. Studies by Kumar and Srivastava (2024), Blomqvist et al. (2025), and Sailo et al. (2019) reinforce these findings, connecting concealment to poor coping and reduced help-seeking. The strength of beta coefficients (.47–.51) and explained variance (22%–26%) highlight its clinical relevance. These findings support the development of culturally sensitive interventions that foster emotional openness and social confidence among university students.

The moderation analysis confirmed that social self-efficacy significantly buffered the relationship between self-concealment and

psychological distress. The overall model was statistically significant, $F(3, 376) = 42.87$, $p < .001$, with $R^2 = .255$, indicating that 25.5% of the variance in distress was explained by the predictors. Self-concealment (Estimate = 0.62, $p < .001$) was positively associated with distress, reinforcing its role as a psychological risk factor. Prior studies by Larson and Chastain (1990), Kealy and Rice (2020), and Constantine et al. (2004) support its link to depression, interpersonal dysfunction, and acculturative stress. Social self-efficacy (Estimate = −0.45, $p < .001$) showed a negative association with distress, consistent with Bandura's (1997) theory and findings from Kamal et al. (2020), Kashdan and Roberts (2004), and Trisnaningati (2021), all of which highlight its protective role. The interaction term (Estimate = −0.21, $p = .003$) confirmed a significant moderation effect, indicating that high social self-efficacy attenuates the impact of concealment on distress. Supporting evidence from Kiran et al. (2020), Yuan et al. (2024), and Jneid (2023) further validates this buffering role. The moderation graph illustrated that students with low social self-efficacy experienced sharper increases in distress with higher concealment, while those with high efficacy showed minimal change.

Independent samples t-tests revealed no statistically significant differences between male and female participants across all three domains. Depression scores were comparable for males ($M = 14.62$, $SD = 4.55$) and females ($M = 14.88$, $SD = 4.68$), with a negligible effect size (Cohen's $d = 0.06$), indicating minimal practical difference. Similarly, anxiety scores showed little variation between males ($M = 13.25$, $SD = 4.22$) and females ($M = 13.39$, $SD = 4.35$), with Cohen's $d = 0.03$. Stress levels were also closely aligned (Male: $M = 15.78$, $SD = 4.70$; Female: $M = 15.96$, $SD = 4.82$), yielding Cohen's $d = 0.04$. These findings contrast with prior research suggesting that female students typically report higher levels of psychological distress than their male counterparts (Bayram & Bilgel, 2008; Noreen & Kamal, 2020). One possible explanation for the absence of significant gender differences in the current sample may be the shared academic pressures and sociocultural stressors faced by both genders in Pakistani universities, which could homogenize distress levels across groups (Khan et al., 2021). Additionally, the inclusion criteria of mild to moderate distress may have narrowed the range of psychological symptoms, reducing variability and masking potential gender-based disparities. It is also worth considering that gender norms around emotional expression and help-seeking may influence self-reporting patterns. While females are often more expressive about emotional difficulties (Tamres, Janicki, & Helgeson, 2002), males may underreport symptoms due to stigma or social expectations, particularly in collectivist cultures where emotional vulnerability is discouraged (Bibi et al., 2022).

Conclusion

Through correlational, regression, and moderation analyses, self-concealment consistently emerged as a significant predictor of depression, anxiety, and stress, reinforcing its role as a maladaptive coping mechanism. Conversely, social self-efficacy demonstrated robust inverse associations with psychological distress and effectively moderated the negative effects of concealment, highlighting its potential as a resilience-enhancing factor. The absence of significant gender differences suggests that emotional suppression and interpersonal confidence are critical constructs across male and female students alike. These findings underscore the importance of culturally sensitive mental health interventions that promote emotional openness and strengthen social self-efficacy.

Limitations and Suggestions for Future Research

This study has several limitations that should be acknowledged. Its cross-sectional design restricts causal interpretations, and reliance on self-report measures may introduce bias. The sample was limited to urban undergraduate students, which may affect generalizability to other populations. Gender analysis did not account for intersectional factors such as socioeconomic status or family dynamics. Additionally, the study focused solely on social self-efficacy as a moderator, excluding other potential buffers like emotional intelligence or coping styles. Future research should adopt longitudinal and mixed-method approaches to capture deeper psychological processes. Expanding sample diversity and exploring culturally nuanced

variables will enhance the applicability of findings.

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