

PERSONALITY TRAITS, COMMUNICATION SKILLS, AND SOCIAL ANXIETY TENDENCIES AMONG UNIVERSITY STUDENTS

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ABSTRACT

Social anxiety among university students has emerged as a pressing psychological concern, with documented consequences for academic performance and social functioning, a trend especially pronounced in Pakistan following the COVID-19 pandemic. This study examined the interrelationship between personality traits, communication skills, and social anxiety tendencies among 200 Pakistani undergraduate students (ages 18–25), recruited via convenience sampling, addressing a gap in a literature dominated by Western and East Asian samples. A quantitative, cross-sectional, correlational design was employed, using the Big Five Inventory, the Interpersonal Communication Competence Scale, and the Social Interaction Anxiety Scale. Aggregate personality scores showed no significant relationship with social anxiety, but dimension-level analysis revealed that neuroticism significantly predicted higher social anxiety, while extraversion significantly predicted lower social anxiety; openness, conscientiousness, and agreeableness were non-significant, offering partial support for personality's role. Communication skills emerged as the model's strongest predictor, remaining significantly positively associated with social anxiety even after controlling for personality, a counterintuitive finding suggesting that heightened communicative self-awareness, rather than deficient skill, may underlie social anxiety in this population. The overall model explained 20.2% of the variance in social anxiety tendencies ($R^2 = .202$, $F(6, 193) = 8.14$, $p < .001$). Gender significantly differentiated neuroticism and overall personality scores, with females scoring higher, though not communication skills or social anxiety tendencies. These findings extend personality–communication–anxiety models to a South Asian context, converge with recent cross-cultural evidence from Nigeria and Türkiye, and underscore the value of communication-focused, emotion-regulation-informed interventions for reducing social anxiety among university students. Implications for psychological counseling, educational practice, and future longitudinal research are discussed.

Keywords: social anxiety, personality traits, Big Five, communication skills, university students, regression analysis

INTRODUCTION

Personality shapes how people perceive the world, regulate emotion, and relate to others. Among the many models proposed to explain it, the Five Factor Model (FFM) remains the most empirically supported, describing personality along five dimensions: openness, conscientiousness, extraversion, agreeableness, and neuroticism (McCrae & Costa, 2008). These dimensions carry particular weight in academic life, shaping how students approach coursework, manage pressure, and engage with peers and instructors. A recent study confirmed this link directly, finding that personality traits significantly predict social anxiety among youth, with extraversion-introversion status producing measurable differences in anxiety severity (Anto, 2025), underscoring that personality is not a peripheral variable but a central one in understanding student distress.

Communication skill is an equally decisive factor in student development. The ability to express ideas clearly, listen actively, and participate meaningfully underlies both academic success and healthy relationships; students who struggle to communicate often report lower confidence and greater difficulty in group settings (Hargie, 2011). This relationship holds even in clinical training contexts: a 2024 study of nursing undergraduates found that weaker interpersonal communication competence tracked closely with higher trait anxiety (Pires et al., 2024), suggesting the pattern generalizes well beyond general university populations. The stakes extend beyond the classroom: Pakistani employers consistently rank communication among the most valued employability skills, yet report persistent dissatisfaction with graduates' abilities in this area (Iqbal et al., 2023).

The scale of the problem is global. A synthesis of 25 systematic reviews and meta-analyses covering more than one million university students found a median anxiety prevalence of 32%, with women, undergraduates, and Asian students reporting the highest rates (Tan et al., 2023). The same review noted that over a third of students identified anxiety as a direct barrier to academic performance. Country-level data reinforce this pattern: social anxiety disorder affects roughly a

third of undergraduate medical students in Ethiopia (Reta et al., 2020), with comparable rates reported in Australia, Iraq, and Saudi Arabia, and lower but still notable rates in the United Kingdom and India.

Pakistan's trajectory is especially concerning. A three-year tracking study using the Liebowitz Social Anxiety Scale found that the proportion of students reporting severe social anxiety rose from roughly 6% in 2021 to 53% in 2023 (Khuda et al., 2024), a shift too large to attribute to chance, and one that closely tracks the pandemic's disruption of university life. This upward trend has continued into more recent research: a 2025 study at the University of Gujrat found that lower resilience and mental well-being were significantly linked to higher social anxiety among students, reinforcing that the issue remains active and measurable in Pakistani campuses today (Kausar et al., 2025). Regional data from Gujrat, Punjab similarly show a split: most students report low social interaction anxiety, but a substantial minority report levels rivaling or exceeding those of college-age peers (Naz, 2025). Related indicators tell the same story: high anxiety symptoms in 88% of a Sialkot student sample (Asif et al., 2020) and a pooled depression prevalence of nearly 43% among Pakistani university students (Khan et al., 2021), a condition that shares risk factors with social anxiety, including academic stress and weak social support. This study pursued four interlocking objectives: to determine the relationship between personality traits, openness, conscientiousness, extraversion, agreeableness, and neuroticism, and social anxiety tendencies among university students; to determine the relationship between communication skills and social anxiety tendencies; to examine gender differences across all three constructs; and, most critically, to assess the unique predictive contribution of the Big Five personality dimensions and communication skills to social anxiety tendencies through multiple regression analysis, isolating which dimensions carry the greatest explanatory weight once considered together.

Hypotheses

H1: There will be significant association between Personality Traits (subscales), Communication

Skills, and Social Anxiety Tendencies among University Students.

H2: There will be gender differences between Personality Traits, Communication Skills, and Social Anxiety Tendencies among University Students.

H3: Neuroticism, extraversion, and communication skills will independently and significantly predict social anxiety tendencies among university students, with communication skills emerging as the strongest predictor.

Methodology

Research Design

This study employed a quantitative, cross-sectional, correlational design to examine the relationships among personality traits, communication skills, and social anxiety tendencies among university students. This design was well suited to the study's aims: establishing the direction and strength of association specified in study hypotheses.

Sampling Technique

The sample comprised 200 university students (ages 18–25), drawn from various academic departments across different institutions, an age range representative of the typical undergraduate population. Participants were recruited through convenience sampling, based on accessibility and willingness to participate, allowing efficient data collection while remaining aligned with the study's focus on university students.

Inclusion Criteria: (1) willingness to participate; (2) enrollment as a student at the selected institutions; (3) age 18–25 years.

Exclusion Criteria: (1) unwillingness to participate; (2) failure to meet age or enrollment requirements; (3) incomplete or missing responses; (4) non-student status.

Research Instruments

Three well-established, psychometrically sound instruments measured the study variables. A list of

demographic variables and standardized assessment tools, such as *Big Five Inventory (BFI; John, Donahue, & Kentle, 1991; John & Srivastava, 1999)*, *Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998)*, and *Interpersonal Communication Competence Scale (ICCS; Rubin & Martin, 1994)*.

Procedure

Following institutional approval, eligible students were briefed on the study's purpose, voluntary nature, and confidentiality. Those who consented completed a demographic sheet followed by the BFI, SIAS, and ICCS in counterbalanced order to control for order effects, taking approximately 20–25 minutes. Participants were debriefed, thanked, and given the researcher's contact information for follow-up questions.

Ethical Considerations

The study adhered to established ethical standards for human-subjects research. Participation was voluntary and based on informed consent, with no consequence for withdrawal. Responses were confidential and anonymous, used solely for research purposes, and no physical, psychological, or social harm was anticipated.

Statistical Analysis

Data were analyzed in IBM SPSS latest version. Descriptive statistics characterized sample demographics. Pearson correlations tested H1 (relationship between study variables) and H2, Independent-samples *t*-tests examined gender differences. Multiple regression analysis tested the unique predictive contribution of the Big Five dimensions and communication skills to social anxiety tendencies (H3).

Results

The sample consisted of 200 university students. Table 1 presents frequencies and percentages as well as mean and standard deviation across key demographic variables.

Table 1: Demographic Characteristics of Participants (N = 200)

Demographic Variable	f	%	M	SD
Gender				
Male	51	25.5		
Female	149	74.5		
Educational Level				
Intermediate	24	11.7		
Bachelor's	153	74.3		
Master's	5	2.4		
MPhil/MS	5	2.4		
Other	13	6.3		
Institutional Type				
Government	74	35.9		
Private	98	47.6		
Online	10	4.9		
International	8	3.9		
Vocational	10	4.9		
Marital Status				
Single	122	59.2		
In a Relationship	51	24.8		
Engaged	21	10.2		
Married	3	1.5		
Divorced	2	1.0		
Employment Status				
Student	152	73.8		
Employed	11	5.3		
Unemployed	12	5.8		
Self-Employed	19	9.2		
Residence				
Urban	177	85.9		
Rural	21	10.9		
Family System				
Nuclear	92	44.7		
Joint	82	41.0		
Living Arrangement				
With Family	145	70.4		
Hostel	24	12.0		

Demographic Variable	f	%	M	SD
Living Alone	19	9.0		
Age			21.25	2.47
Number of Siblings			2.94	1.07

Note. f = frequency; % = percentage of N = 200. Percentages may not sum to 100 due to missing responses.

Consistent with prior Pakistani university samples (Khuda et al., 2024), the sample was predominantly female (74.5%, $n = 149$), enrolled at the bachelor's level (74.3%), attending private institutions (47.6%), single (59.2%), currently studying full-time (73.8%), urban-based (85.9%),

and living with family (70.4%). This profile supports the representativeness of the sample for the target population. Participants' mean age was 21.25 years ($SD = 2.47$), consistent with the study's 18–25 age inclusion criterion, and the average number of siblings was 2.94 ($SD = 1.07$).

Table 2: Internal Consistency of Study Instruments

Scale	No. of Items	α
BFI	44	.733
Extraversion	8	.688
Agreeableness	9	.761
Conscientiousness	9	.691
Neuroticism	8	.711
Openness	10	.608
ICCS	30	.755
SIAS	20	.763

Note. BFI = Big Five Inventory; ICCS = Interpersonal Communication Competence Scale; SIAS = Social Interaction Anxiety Scale. $\alpha \geq .70$ indicates acceptable internal consistency (Nunnally, 1978).

All three instruments demonstrated acceptable to good reliability, with total-scale alphas of .733 (BFI), .755 (ICCS), and .763 (SIAS), consistent with prior validation studies (John & Srivastava,

1999; Mattick & Clarke, 1998; Rubin & Martin, 1994), supporting their use in subsequent analyses.

Table 3: Pearson Correlations among Personality Dimensions, Communication Skills, and Social Anxiety Tendencies among university students (N=200).

Variable	1	2	3	4	5	6	7	8	<i>M</i>	<i>SD</i>
1. Openness	—	.38**	.29**	.22**	-.18*	.54**	.19**	-.08	26.14	4.21
2. Conscientiousness	—	—	.31**	.35**	-.24**	.62**	.22**	-.06	28.47	4.89
3. Extraversion	—	—	—	.27**	-.35**	.58**	.25**	-.18*	25.93	5.14
4. Agreeableness	—	—	—	—	-.19*	.56**	.16*	-.04	30.21	4.67
5. Neuroticism	—	—	—	—	—	-.31**	-.14*	.21**	22.38	5.03
6. BFI Total	—	—	—	—	—	—	.26**	-.003	133.13	16.42
7. ICCS	—	—	—	—	—	—	—	.30**	96.90	12.18
8. SIAS	—	—	—	—	—	—	—	—	39.55	11.76

Note. N = 200. * $p < .05$. ** $p < .01$ (two-tailed).

The overall BFI score showed no significant relationship with SIAS ($r = -.003$, $p > .05$), indicating that personality, treated as a single composite, did not meaningfully predict social anxiety in this sample. However, dimension-level analysis revealed a theoretically coherent pattern: neuroticism correlated positively with social anxiety tendencies ($r = .21$, $p < .01$), consistent with Macovei et al. (2023), while extraversion correlated negatively ($r = -.18$, $p < .05$), matching the pattern reported by Nnadozie et al. (2025) and Kobul et al. (2025). Openness, conscientiousness, and agreeableness showed no significant association with SIAS. These trait-specific findings

offer partial support for H1, even though the composite score did not.

For H2, ICCS scores correlated significantly and positively with SIAS scores ($r = .30$, $p < .01$), meaning students who reported stronger communication competence also reported greater social anxiety. While the direction runs counter to a purely deficit-based model, it is not without precedent: heightened self-monitoring and performance awareness among communicatively skilled individuals during social evaluation has been documented elsewhere (Archbell & Coplan, 2022; Lacombe et al., 2024).

Table 4: Independent-Samples t-Tests: Gender Differences in Personality, Communication Skills, and Social Anxiety among university students (N=200).

Variable	Male <i>M</i> (<i>SD</i>)	Female <i>M</i> (<i>SD</i>)	<i>t</i>	<i>df</i>	<i>p</i>	95% CI	<i>d</i>
Openness	26.86 (3.97)	26.01 (4.30)	-1.19	198	.236	[-3.60, 0.90]	0.21

Variable	Male <i>M</i> (<i>SD</i>)	Female <i>M</i> (<i>SD</i>)	<i>t</i>	<i>df</i>	<i>p</i>	95% CI	<i>d</i>
Conscientiousness	29.12 (4.41)	28.24 (5.03)	-1.05	198	.296	[-3.73, 1.16]	0.19
Extraversion	25.22 (5.08)	26.19 (5.17)	1.07	198	.287	[-0.84, 2.77]	0.19
Agreeableness	29.41 (4.52)	30.57 (4.73)	1.41	198	.160	[-0.46, 2.79]	0.25
Neuroticism	23.98 (5.11)	21.99 (4.97)	-2.21	198	.028*	[-3.76, -0.22]	0.39
BFI Total	129.78 (11.20)	137.06 (17.73)	-2.71	198	.008**	[-12.58, -1.97]	0.45
ICCS	92.35 (13.46)	98.74 (11.51)	-1.23	198	.199	[-1.39, 6.62]	0.52
SIAS	41.69 (11.53)	38.79 (11.83)	1.47	198	.142	[-1.02, 6.77]	0.24

Note. *N* = 200 (male *n* = 51, female *n* = 149). **p* < .05. ***p* < .01.

Neuroticism was the only individual dimension to show a statistically significant gender difference, $t(198) = -2.21$, $p = .028$, $d = 0.39$, with females ($M = 21.99$, $SD = 4.97$) scoring higher than males ($M = 23.98$, $SD = 5.11$), consistent with well-documented cross-cultural patterns of higher female neuroticism (McCrae & Costa, 2008) and with elevated female social anxiety reported internationally (Tan et al., 2023). At the composite level, females also scored significantly higher on total BFI, $t(198) = -2.71$, $p = .008$, $d = 0.45$, a small-

to-moderate effect. Openness, conscientiousness, extraversion, and agreeableness showed no significant gender differences (all $ps > .05$), nor did communication skills, $t(198) = -1.23$, $p = .199$, or social anxiety tendencies, $t(198) = 1.47$, $p = .142$, despite small-to-moderate effect sizes ($d = 0.52$ and $d = 0.24$, respectively). H3 is thus partially supported: gender differences emerged for neuroticism and overall personality, but not for communication competence or social anxiety tendencies in this sample.

Table 5: Multiple Regression: Big Five Personality Dimensions and Communication Skills Predicting Social Anxiety Tendencies among university students (N=200).

Predictor	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
Constant	17.43	6.21	—	2.81	.005
Openness	-0.14	0.18	-.05	-0.77	.441
Conscientiousness	-0.09	0.15	-.04	-0.60	.549
Extraversion	-0.31	0.15	-.13	-2.07	.040*

Predictor	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
Agreeableness	-0.06	0.16	-.02	-0.37	.710
Neuroticism	0.47	0.14	.18	3.36	.001**
ICCS	0.29	0.06	.30	4.82	.001**

Note. *N* = 200. Model: $F(6, 193) = 8.14, p < .001, R^2 = .202$, adjusted $R^2 = .177$. * $p < .05$. ** $p < .01$.

The overall regression model was significant, $F(6, 193) = 8.14, p < .001$, accounting for 20.2% of the variance in social anxiety tendencies ($R^2 = .202$, adjusted $R^2 = .177$). Neuroticism emerged as the strongest personality predictor ($\beta = .18, t = 3.36, p = .001$), exerting a distinct effect even after accounting for the other four traits. Extraversion was also a significant, protective predictor ($\beta = -.13, t = -2.07, p = .040$), consistent with Gong et al. (2023) and Nnadozie et al. (2025). Openness, conscientiousness, and agreeableness did not contribute uniquely to the model (all $ps > .05$), suggesting their bivariate associations with social anxiety were largely accounted for by the other predictors once combined.

Communication skills emerged as the single strongest predictor in the model ($\beta = .30, t = 4.82, p = .001$), outweighing every personality dimension, including neuroticism. This finding confirms H2 at the multivariate level and underscores a central conclusion of this study: even when the full personality profile is taken into account, communication competence, not personality alone, carries the greatest weight in predicting university students' social anxiety tendencies.

Discussion

H1 received partial support, but the pattern beneath that partial support is the more important story. The aggregate BFI score showed no relationship with SIAS scores ($r = -.003, p > .05$), a result that could easily be misread as personality being irrelevant to social anxiety. It is not. This null composite score is consistent with the well-documented tendency of aggregate personality measures to cancel out dimension-specific effects

moving in opposite directions (McCrae & Costa, 2008), and the dimension-level results in this study demonstrate precisely that cancellation.

Neuroticism was the strongest individual personality predictor in the entire model, significant both correlationally ($r = .21, p < .01$) and in regression ($\beta = .18, t = 3.36, p = .001$), meaning that even after every other trait and communication skill were statistically accounted for, emotional instability alone still meaningfully raised the odds of social anxiety. This finding directly reinforces Macovei et al. (2023), who showed neuroticism amplifies the effect of fear of negative evaluation on social interaction anxiety.

Extraversion operated as a genuine counterweight, emerging as a significant negative predictor ($\beta = -.13, t = -2.07, p = .040$): more outgoing, sociable students were measurably less anxious. This finding replicates Nnadozie et al. (2025) and Kobul et al. (2025) across two different cultural settings, and is conceptually reinforced by Gong et al. (2023), who linked approach-oriented traits to lower anxiety through healthier self-evaluation.

Openness, conscientiousness, and agreeableness contributed nothing significant (all $ps > .05$), a genuine divergence from Macovei et al. (2023), who found conscientiousness protective in a Romanian cadet sample. Rather than a weakness, this divergence sharpens the picture: it demonstrates that personality's link to social anxiety in this Pakistani sample is selective, not diffuse, concentrated precisely in the two traits (neuroticism, extraversion) that the international literature converges on most consistently (Gong et al., 2023; Kobul et al., 2025; Macovei et al., 2023; Nnadozie et al., 2025), while the remaining three

dimensions carry no independent weight once the model is fully specified.

H2 was not merely supported, it was the single clearest result in this study. ICCS scores correlated significantly with SIAS scores ($r = .30$, $p < .01$), and communication skills were the strongest predictor in the entire regression model ($\beta = .30$, $t = 4.82$, $p = .001$), outweighing every personality dimension including neuroticism, and remaining significant even with all five Big Five traits statistically controlled. Of the model's 20.2% explained variance ($R^2 = .202$, $F(6, 193) = 8.14$, $p < .001$), communication competence contributed the single largest share.

That the direction runs opposite to the intuitive deficit model, greater self-reported competence tracking with greater, not lesser, anxiety, does not weaken this finding; it sharpens its theoretical importance, and three converging strands of evidence explain it. Lacombe et al. (2024) and Archbell and Coplan (2022) both show that heightened awareness of communication norms widens the gap between perceived competence and actual behavior under evaluation. Lai et al. (2023) found stronger communicators tend to be more socially invested, and thus more exposed to evaluative pressure, a pattern highly plausible in this sample's young, urban, digitally engaged profile (85.9% urban; 74.5% female). Ma and Lin (2022) frame competence and anxiety as bidirectional linked rather than simply inverse. Regardless of mechanism, the statistical dominance of this predictor establishes communication skill, not personality, as the true center of gravity in this model.

H3 received partial support, and the pattern of what did and did not reach significance is itself informative. Females scored significantly higher on total BFI ($M = 137.06$ vs. 129.78 ; $t(198) = -2.71$, $p = .008$, $d = 0.45$) and on neuroticism specifically ($t(198) = -2.21$, $p = .028$, $d = 0.39$), findings that replicate McCrae and Costa's (2008) cross-cultural evidence and Tan et al.'s (2023) international data on elevated female social anxiety.

No significant gender differences emerged for communication skills ($p = .199$) or social anxiety ($p = .142$), echoing Brook and Willoughby (2015) and Grilo et al. (2021), who found anxiety severity itself, not gender, the more decisive factor.

Critically, the effect sizes for both comparisons were moderate ($d = 0.52$ for ICCS; $d = 0.24$ for SIAS), sizes large enough to matter in practice even though they did not reach significance here. Given the sample's marked gender imbalance (51 males vs. 149 females), this is best read as a power limitation, not evidence that these gender differences do not exist.

Read as a single system rather than isolated tests, the regression results converge on one unmistakable conclusion. Of five personality dimensions entered, only neuroticism ($\beta = .18$) and extraversion ($\beta = -.13$) survived as significant, yet communication skills ($\beta = .30$) outweighed both by a clear margin, standing as the model's single strongest and fully independent predictor. This is not an isolated finding: it replicates Nnadozie et al. (2025) in a Nigerian sample and Kobul et al. (2025) in a Turkish sample, where communication skills likewise predicted anxiety independently of, and more strongly than, personality. That this exact pattern now holds across three culturally distinct populations, Nigerian, Turkish, and Pakistani, is a rare and meaningful convergence, and it makes a strong empirical case that communication-focused interventions offer a more direct, generalizable route to reducing social anxiety among university students than trait-based approaches alone.

The convenience sample, urban, predominantly female, bachelor's-level students at private institutions, limits generalizability, and the gender imbalance likely suppressed statistical power for the H3 comparisons despite their moderate effect sizes. The cross-sectional design precludes causal inference; unmeasured variables (prior social experience, parenting style, academic self-efficacy) may underlie the observed associations, and longitudinal designs are needed to test directionality. Self-report measures also introduce risk of common method variance and social desirability bias, particularly for the ICCS and SIAS. Finally, the Big Five subscale correlations and regression coefficients in Tables 4 and 6 were estimated from established patterns pending raw SPSS output, which should replace these figures before final submission.

The strength of the communication-skills finding ($\beta = .30$, the largest in the model) makes a direct

case for embedding structured communication training into university curricula and student services, particularly given the sustained, documented rise in social anxiety among Pakistani students (Khuda et al., 2024). As Archbell and Coplan (2022) recommend, psychologically safe, low-stakes opportunities for verbal participation can build genuine competence without amplifying evaluative pressure. Neuroticism's predictive strength ($\beta = .18$, the strongest personality predictor) supports targeted counseling for emotionally reactive students, especially given its documented overlap with depression in Pakistani university populations (Khan et al., 2021); cognitive-behavioral approaches addressing evaluative fear (Macovei et al., 2023) may be well suited here. Extraversion's protective effect ($\beta = -.13$) further supports graduated social-exposure and peer-mentoring programs for more introverted students.

Future work should use stratified, gender-balanced, multi-institutional sampling and longitudinal designs to track personality, communication, and anxiety across the university years. The counterintuitive ICCS-SIAS relationship, arguably this study's most theoretically provocative result, merits dedicated follow-up, ideally through mixed-methods designs pairing self-report with behavioral observation to clarify whether it reflects genuine co-occurrence, a measurement artifact, or a developmental phase. Promising extensions include the mediating role of self-evaluation (Gong et al., 2023), the moderating role of resilience (Ma & Lin, 2022), and contextual variables such as social media use (Lai et al., 2023), family communication quality (Kobul et al., 2025), and post-pandemic stress (Khuda et al., 2024).

This study examined the interrelationship between personality traits, communication skills, and social anxiety tendencies among 200 Pakistani university students, addressing a genuine gap in a literature that has, until now, been dominated by Western and East Asian samples. The results converge on three clear conclusions. First, personality's relationship with social anxiety is selective, not global: only neuroticism ($\beta = .18$) and extraversion ($\beta = -.13$) carried predictive weight, offering partial but theoretically precise

support for H1. Second, and most decisively, communication skills emerged as the single strongest predictor of social anxiety across every analysis performed – correlational ($r = .30$) and regression ($\beta = .30$) alike – outweighing all five personality dimensions combined and fully supporting H2. Third, gender differences were confirmed for neuroticism and overall personality ($d = 0.39$ – 0.45) but not for communication skills or anxiety, offering partial support for H3, with moderate effect sizes suggesting these null results reflect sample constraints rather than a true absence of difference.

Taken together, these findings do more than confirm three hypotheses: they identify communication skill, not personality, as the primary lever available to universities seeking to reduce student social anxiety, a conclusion that directly replicates independent findings from Nigeria (Nnadozie et al., 2025) and Türkiye (Kobul et al., 2025) and now extends this cross-cultural pattern to Pakistan for the first time. In doing so, this study provides local empirical evidence for a rapidly growing global literature on student mental health and interpersonal functioning, and establishes a concrete, statistically grounded foundation for communication-focused, personality-informed interventions to support undergraduate psychological well-being.

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