



Exploring The Interplay Between Interpersonal Communication Skills, Perceived Stress, And Coping Strategies In Early Adulthood: A Mixed-Methods Approach

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Abstract

Background. Early adulthood is marked by increasing academic and interpersonal demands that heighten vulnerability to stress. Interpersonal communication is considered a key psychosocial resource, yet its role in stress regulation among university students remains underexplored.

Methods. This mixed-methods study examined the relationship between interpersonal communication skills and perceived stress among 114 university students. Quantitative analyses included Pearson correlation, simple linear regression, and group comparisons, while qualitative data from open-ended responses were analyzed thematically using Lazarus and Folkman's transactional model of stress and coping.

Result. The results showed a significant negative correlation between overall interpersonal communication skills and perceived stress ($r = -.185$, $p = .025$). Regression analysis confirmed interpersonal communication skills as a significant negative predictor of perceived stress ($\beta = -.185$, $p = .049$), explaining 3.4% of the variance. No significant relationships were found between perceived stress and individual communication dimensions. Female students reported higher perceived stress than male students, whereas no differences were observed in interpersonal communication skills. Perceived stress and communication skills also did not differ by religion, education level, or ethnic background.

Conclusion. Qualitative findings revealed that stress was experienced as a multidimensional and cumulative process, shaped by academic pressure, interpersonal conflict, family issues, environmental conditions, physical health, and intrapersonal struggles. Participants reported using a combination of adaptive and maladaptive coping strategies.

Implementation. These findings suggest that interpersonal communication operates as a holistic protective resource rather than through isolated skill components. By integrating quantitative and qualitative evidence, this study extends existing research by highlighting the contextual and multifaceted nature of stress and coping in early adulthood.

Keywords: interpersonal communication, perceived stress, early adulthood, coping strategies, mixed-methods



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INTRODUCTION

During early adulthood, individuals face myriad challenges as they strive to establish stable commitments and life goals. This transitional period, often considered a pre-adulthood crisis, is marked by negative emotions such as anxiety and depression, alongside self-doubt and a quest for self-identity, as noted by Arnett (2000) and Robinson et al. (2020). Factors contributing to this crisis include confusion about self-esteem, frustrations with social relationships and career choices, and the pressure of determining paths that align with personal identity (Balzarie & Nawangsih, 2019; Hidayah, 2016). Additionally, early adulthood entails further challenges, including academic pressures, social adjustments, and the initiation of professional careers, all of which can become significant sources of stress if not effectively managed (Arnett, 2000; Schulenberg & Zarrett, 2006). This stress can detrimentally impact both physical and mental health, increasing the risk of conditions like depression and anxiety (Wu et al., 2021; Chen & Kuo, 2020). Moreover, persistent stress undermines young adults' capabilities and can lead to severe interpersonal difficulties, thereby adversely affecting communication skills and overall quality of life (Choe et al., 2014; Gurvich et al., 2020; Yeo et al., 2023; Campos et al., 2021). Thus, during this critical developmental stage, addressing the multifaceted stressors associated with the quest for stability and identity is crucial for fostering healthier relationships and improved mental well-being in emerging adults.

Research indicates a significant prevalence of stress among emerging adults, particularly in contexts of early adult crises and various life challenges. For instance, Matud et al. (2020) conducted one of the largest studies involving 4,816 emerging adults aged 18 to 29 in Spain, revealing that women reported significantly higher levels of psychological distress and chronic stress compared to men. Similarly, Nekić et al. (2023) found that anxiety and stress levels were generally mild in their sample of 425 emerging adults, although anxiety levels trended towards moderate in women. Furthermore, Neumark-Sztainer et al. (2020) reported that 43.9% of 1,568 diverse emerging adults experienced at least one adverse childhood experience, 40.1% faced discrimination, and 23.2% encountered financial difficulties—all factors associated with elevated stress levels. In addition to these findings, Robinson and Wright (2013) identified that 39% of women and 49% of men between the ages of 20 and 29 in the UK experience early adult crises characterized by relationship dissolution, conflicts with parents, dissatisfaction with jobs, and overall work stress. Habibie et al. (2019) further emphasized that about 54.63% of female participants and 54.8% of male participants in their

219-subject study from Indonesia reported experiencing crises related to early maturity, driven by employment challenges that contribute to anxiety, low self-esteem, and workplace conflicts.

Stress in early adulthood often emerges as a response to developmental crises and life transitions, particularly when individuals perceive that the demands they face exceed their available coping resources (Barlett et al., 2018; Habibie et al., 2019; Lazarus & Folkman, 1984). From this perspective, stress is defined as a subjective appraisal process in which young adults evaluate environmental pressures—such as academic demands, employment uncertainty, or challenges in adapting to workplace conditions—and their perceived ability to manage them effectively (Robinson, 2018). When these demands are experienced as overwhelming, stress manifests through a range of physical and psychological symptoms, including anxiety, restlessness, emotional vulnerability, frustration, reduced motivation and work performance, as well as somatic complaints such as muscle tension, headaches, digestive disturbances, and sleep problems (Sukadiyanto, 2010). Beyond its intrapersonal impact, stress in early adulthood also affects interpersonal functioning, as heightened stress levels are associated with maladaptive coping strategies, increased interpersonal tension, and withdrawal from social interactions, which in turn impair effective communication. Such communication difficulties may lead to misunderstandings, misinterpretation of social cues, and inappropriate responses during interactions, fostering feelings of isolation and anxiety and further intensifying stress, thereby posing a significant risk to overall mental health (Lovallo et al., 2017; Sălcudean et al., 2025).

Interpersonal communication plays a central role in how early adults navigate developmental challenges and manage stress across multiple life domains. As young adults face complex academic, occupational, and relational demands, effective communication skills can foster clarity, mutual understanding, and a sense of control, thereby reducing emotional distress and perceived stress (Lepore & Revenson, 2007; Ong et al., 2010). Interpersonal communication refers to interactive processes between two or more individuals who are mutually connected and influenced through the exchange of verbal and nonverbal messages, including spoken language, facial expressions, gestures, and eye contact (Caropeboka, 2017; DeVito, 2018, 2022). Beyond message transmission, communication functions to build and maintain interpersonal relationships, shape personal identity, support social comparison, and influence mental health outcomes (Johnson in Roem & Sarmiati, 2019; Knapp & Daly, 2016). Effective interpersonal communication is characterized by key qualities such as openness,

empathy, supportive and positive attitudes, and equality, all of which facilitate trust, emotional attunement, and adaptive interaction patterns (DeVito, 1997). These competencies enable young adults to develop positive social skills, manage conflicts constructively, enhance tolerance toward others, and mobilize social support, all of which are essential for coping with the crisis conditions inherent in early adulthood (Tillman, 2000; Walczak & Absolon, 2001). Conversely, deficits in interpersonal communication are associated with emotional distress, maladaptive coping, interpersonal tension, aggression, anxiety, and withdrawal, which can intensify stress and negatively affect mental health (Laguna et al., 2025; Oh et al., 2021; Pratiwi, 2016; Selly & Atrizka, 2020). Therefore, strong interpersonal communication skills serve not only preventive and regulatory functions but also play a critical, inclusive, and protective role in helping early adults manage stress and maintain psychological well-being (Siregar & Usriyah, 2021; Rakhmat in Ririn et al., 2013).

Several studies have investigated the interplay between interpersonal communication and perceived stress across various contexts, including workplace environments and academic settings. Purnama (2024) examined the influence of interpersonal communication on work stress among employees. Utilizing a sample of 155 individuals, the study employed an interpersonal communication scale alongside a work stress assessment. The findings revealed that effective interpersonal communication accounted for 37% of the variance in reported work stress levels. In an academic context, Yulia et al. (2015) examined interactions between students and their thesis supervisors, exploring how these communication dynamics influenced students' stress levels. The study, involving 38 students, found that ineffective communication contributed to increased stress symptoms, ultimately hindering thesis completion. Furthermore, Wahyuningsih (2016) analyzed the relationship between interpersonal communication, coping strategies, and stress among psychology students engaged in thesis writing. Using the DASS scale to measure stress, along with assessments of interpersonal communication and coping strategies, the study found a positive correlation between effective communication and the use of productive coping strategies. Lastly, Wijayanti et al. (2019) investigated the relationship between interpersonal communication and stress among nursing students preparing scientific papers. This study confirmed a significant relationship between effective communication practices and lower stress levels.

Existing research on interpersonal communication and stress has largely been conducted in Western, individualistic cultural contexts, where direct self-expression,

autonomy, and assertive communication are conceptualized as central mechanisms for emotion regulation and stress management. Recent cross-cultural evidence, however, indicates that the individualism–collectivism dimension fundamentally shapes how individuals express and regulate emotions, as well as how they use interpersonal resources to cope with stress (Klein et al., 2024). In collectivistic societies, particularly in Asian contexts, coping processes tend to rely more heavily on cognitive reappraisal and interpersonal connectedness than on direct emotional disclosure, reflecting a cultural emphasis on relational harmony and social interdependence (Zhao et al., 2024). Consistent with this perspective, individuals from collectivistic cultures interpret and engage in interpersonal emotion regulation in qualitatively different ways compared to their Western counterparts, prioritizing indirect support-seeking and relational attunement over overt self-expression (Saulius & Malinauskas, 2025). Indonesia, as a predominantly collectivistic and ethnically diverse society, exemplifies these cultural dynamics, where interpersonal communication is strongly influenced by cultural norms and communicative competence shaped by social context (Setiawan, 2024). For young adults in Indonesia, stress is embedded not only in individual psychological processes but also in academic pressures, family expectations, and culturally grounded relational obligations, suggesting that communication skills may function primarily as relational resources for maintaining social cohesion and accessing social support. Moreover, emerging evidence indicates that cultural norms can moderate the relationship between social interaction and psychological well-being, further underscoring that the communication–stress linkage is culturally contingent rather than universal (Oluwatosin & Darmawan, 2024). Despite this growing recognition, empirical studies examining the integrated roles of interpersonal communication, perceived stress, and coping strategies among young adults in collectivistic contexts such as Indonesia remain limited, highlighting the need for culturally sensitive and contextually grounded research frameworks.

Furthermore, there is considerable variability in the measurement tools used across the studies. Differences in scales and assessment techniques for interpersonal communication and stress could lead to inconsistencies in findings. Future research would benefit from standardized metrics, which would facilitate more effective comparisons and synthesis of results, ultimately leading to more robust conclusions. Moreover, some research acknowledges the role of coping strategies, there remains a lack of comprehensive exploration into the stressor that might interfere with interpersonal communication to mitigate stress. Understanding this

multifaceted relationship could enhance stress management strategies, benefiting both individuals and organizations. Additionally, the existing literature largely overlooks the influence of cultural contexts on interpersonal communication and perceptions of stress. Investigating how various cultural factors shape communication styles and stress responses could yield deeper insights and inform culturally sensitive interventions to enhance communication skills and reduce stress.

Addressing these research gaps will enhance understanding of how interpersonal communication relates to stress and inform practical strategies to support mental well-being across diverse contexts. Therefore, the purpose of this study is to examine the relationship between interpersonal communication and perceived stress, and to explore the sources of stress and the coping strategies employed by individuals in early adulthood.

METHODS

Participants

The criteria for this participant were students in the Jakarta area, aged 18 to 25 years, who consented to participate in the study. In data collection, the researcher used a nonprobability sampling technique with convenience sampling. This technique was chosen to suit the needs of the research participants. Data collection used an online and offline questionnaire with the Google Forms application. This research questionnaire was distributed through social media. The required sample size was determined through an *a priori* power analysis using G*Power for a Pearson correlation test. Based on previous studies reporting small-to-moderate effect sizes ($r = 0.20\text{--}0.29$), with a two-tailed significance level of $\alpha = 0.05$ and statistical power of 0.80, the minimum sample size ranged from 92 to 194 participants. This approach provides a conservative basis for sample adequacy. The final sample size obtained in this study ($N = 114$) exceeded the minimum required threshold, supporting adequate statistical power for the primary correlational analysis. This study has received ethical approval from the Research Ethics Committee (Konsorsium Psikologi Ilmiah Nusantara), with approval number: 386/2025 Etik/KPIN.

Research Design

This study employed a quantitative non-experimental correlational design to examine the relationships between interpersonal communication skills and perceived stress. The quantitative approach was used to identify the strength and direction of associations among variables without manipulating any conditions. In addition, this study conducted fill-in survey interviews to gain a deeper understanding of participants' experiences with stressors and coping strategies.

Measurement

Interpersonal communication skills were measured using the Interpersonal Communication Scale (ICS; DeVito, 1997). The interpersonal communication scale consists of 60 items across five aspects: openness, empathy, supportive attitude, positive attitude, and similarity. Participants rated each item on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating better interpersonal communication skills. Based on the validity test, only 27 items were retained, with Cronbach's Alpha = 0.833, indicating high reliability.

Perceived stress was measured using the Perceived Stress Scale (PSS; Cohen et al., 1983). The PSS is a 10-item self-report measure that assesses the degree to which individuals perceive their life situations as stressful. Participants rated each item on a 4-point Likert scale ranging from 0 (never) to 4 (very often). Total mean scores of 0–13 indicate low stress, 14–26 show moderate stress, and 27–40 indicate high stress. A Cronbach's alpha test was conducted to assess the questionnaire's internal consistency, yielding 0.777, indicating high reliability.

Stressor and coping stress data were collected using open-ended questions, allowing participants to describe the sources of stress they experienced and the coping strategies they employed in their own words. The qualitative inquiry was guided by the transactional theory of stress and coping proposed by Lazarus and Folkman (1984), which conceptualizes stress as a dynamic interaction between environmental demands and individual coping resources. Examples of the open-ended questions used in the qualitative component of this study included: (1) *"Please describe the situations or experiences that have made you feel physically and/or emotionally uncomfortable during the past six months,"* and (2) *"Please explain the strategies or actions you have used to cope with the physical and/or emotional discomfort you have experienced."*

Procedure

Data were collected through both online and offline methods at a private university in Jakarta. The research process began with the distribution of a paper-based questionnaire or a Google Form link to participants who met the study's inclusion criteria. Prior to completing the questionnaire, participants were asked to provide basic demographic information and informed consent. Only those who agreed to participate were given further instructions on how to complete the study materials.

Participants completed the Interpersonal Communication Scale (ICS) and the Perceived Stress Scale (PSS), which required approximately 15 to 25 minutes. In addition to the standardized questionnaires, participants were asked to respond to open-ended questions exploring their perceived stressors and the coping strategies they used to manage physical and emotional discomfort. After data collection was completed, all responses were compiled and analyzed using appropriate statistical and qualitative analytic procedures to examine both the quantitative relationships among variables and the qualitative patterns related to sources of stress and coping strategies.

Data Analysis

The quantitative data were analyzed using SPSS version 27. Descriptive statistics were calculated for all variables, including means, standard deviations, and percentages. The normality test was performed to see the distribution of data in the study. Chi-square tests were used to analyze participant data. One-way ANOVA tests were used to compare mean scores for the interpersonal communication skills and perceived stress measures across demographic groups. Pearson correlation coefficients were used to examine the relationship between interpersonal communication skills and perceived stress. Finally, regression analysis was conducted to examine the unique contributions of interpersonal communication skills in predicting perceived stress.

Additionally, qualitative data were analyzed using thematic analysis to identify common sources of stress experienced by participants. The analysis began with data familiarization, in which all responses were read repeatedly to gain an overall understanding of participants' experiences. This was followed by initial coding, where meaningful segments of text related to stress were systematically labeled.

Next, codes with similar meanings were grouped into categories, which were then refined into broader themes representing shared patterns across participants. The identified themes were reviewed against the original data to ensure clarity, coherence, and accurate representation of participants' perspectives. This systematic process enabled the identification of key thematic patterns related to sources of stress while preserving the depth and context of participants' experiences.

DISCUSSION

Sociodemographic Characteristic

Students with higher interpersonal communication skills experienced less perceived stress and there was a significant negative correlation between two variables ($r = -.185$, $p = .025$). This relationship was confirmed by the regression analysis, which showed that interpersonal communication skills significantly predicted lower levels of perceived stress ($\beta = -.185$, $p = .049$), accounting for 3.4% of the variance. However, when individual communication dimensions were examined, no dimensions were significantly related to perceived stress. There were demographic differences in stress, with females reporting higher levels of stress than males, but similar interpersonal communication skills. Students of different religions, education levels, and ethnicities also reported similar levels of perceived stress and communication skills. The qualitative data provided a better understanding of how stress is an accumulation of experiences. Participants reported being overwhelmed by a combination of academic pressures, relationship conflicts, family-related pressures, uncomfortable living conditions, physical health issues, and inner emotional struggles. Engagement of students in a variety of healthy and less healthy coping strategies highlights the complex, individual ways in which young people cope with stress in daily life and offers a way to address these challenges.

Table 1 presents the sociodemographic data of participants that included information such as age, gender, education, religion and ethnic background. The participants' ages ranged from 18 to 23 years old ($M = 18.7$; $SD = 1.00$); they were mostly women ($N = 87$; 76.3%) from Chinese ethnic background ($N=47$; 41.2%); of Moslem religious background ($N = 41$; 41.23%); and had high educational background ($N = 109$; 96.49%). Likewise, participants in this study mostly had moderate levels of stress ($N = 70$; 61.4%) and moderate interpersonal communication skills ($N = 70$; 61.4%). Although participants in this study had different

sociodemographic backgrounds, these differences were not significant. This means that background differences do not affect the results of this study. Moreover, the Kormogorov-Smirnov test is used to test the normality of the variables of interpersonal communication and stress. The results concluded that the data in this study had a normal distribution with $P = 0.201 > 0.05$.

Table 1
Sociodemographic Data of participants

Variable		Frequency	Percentage	<i>P</i>	
Age	M=18.87; SD=1.00			0.222	
		18	44		38.6
		19	53		46.5
		20	8		7.0
		21	5		4.4
		22	3		2.6
		23	1		.9
Gender	Man	27	23.7	0.304	
	Woman	87	76.3		
	Total	114	100.0		
Religion	Moslem	47	41.2	0.403	
	Catholic	16	14.0		
	Christian	32	28.1		
	Buddhist	17	14.9		
	Hinduism	2	1.8		
Ethnicity	Jakarta	5	4.4	0.759	
	Java	39	34.2		
	Kalimantan	2	1.8		
	Sumatera	9	7.9		
	Sulawesi	6	5.3		
	Maluku	1	0.9		
	Bali	2	1.8		
	Chinese	47	41.2		
	Others	3	2.7		
Education	Low	4	3.5	0.599	
	High	110	96.49		
Level of perceived stress	Low	26	22.8	0.558	
	Moderate	70	61.4		
	High	18	15.8		
Interpersonal communication skills	Low	22	19.3	0.374	
	Moderate	70	61.4		
	High	22	19.3		

* $P < 0.005$

Correlation Analysis

Pearson correlation coefficients were used to examine the relationship between interpersonal communication skills and perceived stress. There was a significant negative correlation between interpersonal communication skills and perceived stress ($r = -0.185$, $p =$

.025 < 0.05). This result indicates that participants who demonstrated higher levels of interpersonal communication skills tended to experience lower levels of perceived stress. This association suggests that individuals with well-developed communication skills are more capable of effectively managing and resolving interpersonal conflicts, expressing their needs and emotions, and establishing supportive relationships, leading to reduced stress levels.

Further analysis was needed to explore the correlation between aspect of interpersonal communication skills and the perceived stress of young adulthood. Pearson product–moment correlation analyses were conducted to examine the relationships between perceived stress and dimensions of interpersonal communication, including openness, empathy, support, positive thinking, and similarity. The analyses were performed on data from 114 participants. The results indicated that perceived stress was not significantly correlated with openness ($r = -.09, p = .350$), empathy ($r = -.13, p = .186$), support attitude ($r = -.10, p = .306$), positive attitude ($r = .08, p = .424$), or similarity ($r = -.01, p = .882$). All observed correlations were weak in magnitude and did not reach statistical significance (Table 2).

Table 2
Correlations Aspect of Interpersonal Communications Scale and Perceived Stress Scale

Variable	M	SD	(1)	(2)	(3)	(4)	(5)	(6)
(1) Perceived Stress	20.79	5.65	1					
(2) Openness	2.57	.19	-.088	1				
(3) Empathy	2.45	.30	-.125	.054	1			
(4) Support attitude	2.18	.22	-.097	.017	-.143	1		
(5) Positive attitude	2.06	.22	-.076	.137	-.169	.165	1	
(6) Similarity	2.84	.39	-.014	-.055	.180	-.137	-.178	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Intercorrelations among the interpersonal communication dimensions were also examined. No statistically significant associations were found between openness and empathy ($r = .05, p = .570$), openness and support ($r = .02, p = .854$), or openness and positive thinking ($r = .14, p = .146$). Similarly, empathy was not significantly correlated with support ($r = -.14, p = .130$), positive thinking ($r = -.17, p = .073$), or similarity ($r = .18, p = .056$), although the latter two relationships approached significance. Positive thinking was negatively but non-significantly associated with similarity ($r = -.18, p = .058$). Overall, the findings suggest that

neither perceived stress nor its association with interpersonal communication dimensions showed non statistically significant relationships in this study (Table 2).

Regression Analysis

The results of the regression analysis are presented in Table 3. A simple linear regression analysis was conducted to examine whether interpersonal communication skills significantly predicted perceived stress. The overall regression model was statistically significant, $F(1, 112) = 3.96, p = .049$, indicating that interpersonal communication skills contributed meaningfully to the prediction of perceived stress.

The model yielded a correlation coefficient of $R = .185$, with an R^2 value of $.034$ and an adjusted R^2 of $.025$. This suggests that interpersonal communication skills accounted for approximately 3.4% of the variance in perceived stress. Although the proportion of explained variance is relatively small, it remains meaningful within psychological and behavioral research contexts, where stress is understood as a multifactorial construct influenced by numerous personal and contextual variables.

Examination of the regression coefficients showed that interpersonal communication skills were a significant negative predictor of perceived stress ($B = -0.710, SE = 0.357, \beta = -.185, t = -1.99, p = .049$). This indicates that higher levels of interpersonal communication skills were associated with lower levels of perceived stress. Specifically, for each one-unit increase in interpersonal communication skills, perceived stress decreased by 0.71 units, holding other factors constant.

The Durbin–Watson statistic (2.03) indicated no evidence of autocorrelation in the residuals, and collinearity diagnostics ($VIF = 1.00$) confirmed that multicollinearity was not a concern in this model.

Table 3
Regression Analysis Predicting Perceived Stress from Interpersonal Communication Skills

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.847	.891		4.320	.000	
	Interpersonal communication skills	-.710	.357	-.185	-1.989	.049	1.000 1.000

a. Dependent Variable: Perceived Stress

Table 4 shows analysis of one-way analyses of variance (ANOVA) were conducted to examine gender differences in interpersonal communication skills and perceived stress. Descriptive statistics indicated that female participants ($n = 87$) reported significantly higher levels of perceived stress ($M = 2.15, SD = 0.54$) than male participants ($n = 27; M = 1.84, SD = 0.59$). This difference was statistically significant ($p = .010$), suggesting that women in this sample experienced greater perceived stress than men. In contrast, no significant gender differences were found in overall interpersonal communication skills. Male participants reported a mean score of $M = 2.50 (SD = 0.16)$, while female participants reported a comparable mean score of $M = 2.48 (SD = 0.14)$, with $p = .423$.

Table 4
Gender differences in the interpersonal communication skills and perceived stress

No	Variable	Gender	N	Mean	Std. Deviation	P
1	Perceives Stress	Men	27	1.84	.585	.010
		Women	87	2.15	.539	
2	Interpersonal Communication Skills	Men	27	2.50	.158	.423
		Women	87	2.48	.144	
3	Openness	Men	27	2.60	.204	.309
		Women	87	2.56	.193	
4	Empathy	Men	27	2.51	.284	.166
		Women	87	2.43	.299	
5	Supporting attitude	Men	27	2.20	.237	.501
		Women	87	2.17	.219	
6	Positive attitude	Men	27	2.12	.216	.124
		Women	87	2.05	.215	
7	Similarity	Men	27	2.80	.439	.656
		Women	87	2.85	.377	

* $P < 0.05$

Further analyses of specific dimensions of interpersonal communication also revealed no statistically significant gender differences. For openness, male participants ($M = 2.60, SD = 0.20$) and female participants ($M = 2.56, SD = 0.19$) did not differ significantly ($p = .309$). Similarly, no significant differences were observed for empathy ($p = .166$), supporting attitude ($p = .501$), positive attitude ($p = .124$), or similarity ($p = .656$). Although men tended to report slightly higher scores on openness, empathy, supporting attitude, and positive attitude, while women reported marginally higher similarity scores, these variations were small and not statistically significant.

Additional analyses were conducted to examine potential differences in the study variables across religious affiliation, ethnic background, and educational level.

Religious. One-way ANOVA analyses were conducted to examine differences in interpersonal communication skills and perceived stress across religious affiliation. The results indicated that no statistically significant differences were found across religious affiliations for overall interpersonal communication skills, $F(4, 109) = 1.12, p = .349$, or perceived stress, $F(4, 109) = 1.07, p = .375$. Similarly, no significant differences emerged across religious groups for any specific dimensions of interpersonal communication, including openness ($F(4, 109) = 1.05, p = .385$), empathy ($F(4, 109) = 0.30, p = .878$), supporting attitude ($F(4, 109) = 0.44, p = .781$), positive thinking ($F(4, 109) = 1.06, p = .382$), and similarity ($F(4, 109) = 0.13, p = .973$). Overall, these findings suggest that religious background was not associated with differences in interpersonal communication skills or perceived stress within this sample. This finding indicates that there were similar psychological and communication profiles across religious groups.

Education. One-way ANOVA analyses were conducted to examine differences in interpersonal communication skills and perceived stress across education levels (low vs. high). The results indicated no statistically significant differences between education groups for overall interpersonal communication skills, $F(1, 111) = 1.53, p = .219$, or perceived stress, $F(1, 111) = 0.06, p = .809$. Similarly, no significant differences were observed across education levels for the specific dimensions of interpersonal communication, including openness ($F(1, 111) = 2.27, p = .135$), empathy ($F(1, 111) = 2.92, p = .090$), supporting attitude ($F(1, 111) = 0.41, p = .525$), positive thinking ($F(1, 111) = 3.20, p = .076$), and similarity ($F(1, 111) = 0.91, p = .343$). These findings suggest that education level was not associated with differences in interpersonal communication skills or perceived stress in this sample.

Ethnic group. One-way ANOVA results indicated that no statistically significant differences were found across ethnic backgrounds for any of the study variables. Specifically, no significant differences were observed for openness, $F(8, 105) = 1.63, p = .125$; empathy, $F(8, 105) = 1.04, p = .415$; supporting attitude, $F(8, 105) = 0.64, p = .743$; positive thinking, $F(8, 105) = 0.63, p = .755$; or similarity, $F(8, 105) = 0.72, p = .674$. In addition, total interpersonal communication skills did not differ significantly across ethnic groups, $F(8, 105) = 1.30, p = .250$. Similarly, perceived stress levels were not significantly different across ethnic backgrounds, $F(8, 105) = 0.72, p = .676$. These findings suggest that ethnic background was

not associated with significant differences in interpersonal communication skills or perceived stress within this sample.

Qualitative Results

The qualitative analysis revealed that participants experienced stress as a complex and multifaceted phenomenon, involving physical, emotional, social, and environmental dimensions. Rather than being driven by a single source, stress was described as an accumulation of daily demands and internal struggles that interacted with one another over time (Table 5).

Academic-related stress emerged as one of the most prominent themes. Participants frequently reported feeling overwhelmed by heavy coursework, overlapping deadlines, and the pressure to achieve good academic outcomes. Difficulties adapting to fast-paced or hybrid learning systems further intensified stress, often leading to fatigue, anxiety, and persistent worry about academic performance and future prospects.

Interpersonal and social stress was also commonly reported. Participants described stress arising from conflicts with peers, group members, and romantic partners, as well as from poor communication and lack of emotional support. Experiences of being criticized, misunderstood, or exposed to toxic social environments contributed to feelings of emotional exhaustion, insecurity, and social withdrawal.

Family-related stress played a significant role in shaping participants' emotional experiences. Ongoing family conflicts, pressure from parents, and emotional distance due to living away from home were described as sources of sustained emotional strain. For some participants, unresolved family issues and past traumatic experiences continued to affect their emotional well-being in daily life.

In addition, participants highlighted environmental stressors, particularly uncomfortable or noisy living environments, lack of privacy, and physically demanding daily mobility. These conditions disrupted rest and recovery, making it more difficult for participants to regulate their emotions and manage academic and social responsibilities.

Physical and health-related stress was closely intertwined with emotional distress. Participants reported chronic fatigue, sleep disturbances, and recurrent physical complaints, such as headaches or gastric problems. These physical symptoms were often perceived as both consequences of stress and barriers to effective coping.

Finally, **emotional and intrapersonal stress** reflected participants’ internal struggles, including insecurity about physical appearance, low self-confidence, overthinking, mood instability, and difficulty regulating emotions. These internal stressors frequently intensified stress arising from academic, social, and family contexts. These findings indicate that stress among early adults is multidimensional and dynamic, shaped by the interaction between external demands and internal emotional processes. Thus, it is important to understand stress not only as an academic or situational issue, but as a broader psychological experience embedded in everyday life.

Table 5
Summary of Themes on Sources of Student Stress

No.	Theme	Categories	Meaning
1	Academic Stress and Performance Demands	Heavy academic and internship workload; Short deadlines and time pressure; Fear of grades, GPA, and academic future; Adaptation to hybrid learning systems; Procrastination and guilt over performance	Students experienced stress when academic demands were perceived as exceeding their available time, energy, and abilities, leading to anxiety, fatigue, and persistent overthinking.
2	Interpersonal and Social Stress	Conflicts with peers, partners, and group members; Poor communication and misunderstandings; Toxic, manipulative, or unsupportive social environments; Verbal harassment, catcalling, and sexual discomfort; Feeling unappreciated or betrayed	Interpersonal stress emerged when social relationships failed to provide emotional safety, respect, and support, causing individuals to feel pressured, insecure, and socially withdrawn.
3	Family and Intimate Relationship Stress	Ongoing family conflict; Pressure from parents or family members; Emotional and physical distance from family due to migration; Family-related trauma and emotional insecurity at home	An unstable family environment became a deep and persistent source of emotional stress, often intensifying students’ psychological distress.
4	Environmental and Living-Condition Stress	Noisy and uncomfortable living environments; Fatigue from crowded public transportation; Adjustment to unfamiliar environments; Lack of privacy and recovery space	Unsupportive physical environments disrupted rest and emotional regulation, contributing to physical exhaustion and emotional instability.
5	Physical and Health-Related Stress	Chronic fatigue and sleep deprivation; Physical health problems (e.g., gastric issues, headaches, frequent illness); Changes in eating and resting patterns; Physical impact of prolonged stress	Declining physical health was perceived as both a consequence of stress and a factor that reduced students’ emotional resilience and coping capacity.
6	Emotional and Intrapersonal Stress	Insecurity about appearance (e.g., acne, body weight); Overthinking, excessive anxiety, and mood swings; Low self-confidence and self-blame; Difficulty regulating emotions (anger,	Intrapersonal stress stemmed from negative self-evaluation and difficulties in emotional

No.	Theme	Categories	Meaning
		crying, frustration); Past trauma and fear of the future	regulation, often amplifying academic and interpersonal stress.

Coping Strategies Based on Lazarus and Folkman’s Framework

Qualitative analysis of participants’ narratives revealed a broad range of coping strategies used to manage physical and emotional distress. In accordance with Lazarus and Folkman’s transactional model of stress and coping, participants’ coping responses were classified into problem-focused coping and emotion-focused coping, which were further differentiated into adaptive (effective) and maladaptive (less effective) strategies based on their functional outcomes. This classification was grounded in participants’ descriptions of perceived stress reduction, emotional regulation, and impact on daily functioning.

Adaptive (Effective) Coping Strategies

a. Problem-Focused Coping

Problem-focused coping strategies were identified when participants actively attempted to modify or manage stressors perceived as controllable. These strategies primarily involved behavioral planning and task management. Participants described organizing tasks, creating schedules or to-do lists, and breaking academic demands into smaller, manageable steps. Such strategies were perceived as effective because they increased clarity, predictability, and a sense of control over academic responsibilities, thereby reducing feelings of overwhelm.

b. Emotion-Focused Coping

Emotion-focused coping strategies were employed when stressors were perceived as difficult or impossible to change. These strategies supported emotional regulation without denying or avoiding the stressor. Participants commonly reported cognitive reappraisal, such as reframing negative thoughts, adjusting unrealistic expectations, and practicing self-affirmation. These efforts allowed individuals to respond with greater self-compassion and reduced self-blame.

Seeking social support emerged as a central adaptive coping strategy. Participants described sharing concerns with trusted friends, family members, or significant others to obtain emotional validation and reassurance. Constructive communication and the establishment of interpersonal boundaries further supported emotional safety and reduced interpersonal strain.

In addition, emotional expression and self-reflection were frequently reported. Activities such as crying, journaling, expressive writing, listening to music, and engaging in creative hobbies were described as facilitating emotional release and cognitive clarity.

Participants also emphasized the role of physical self-care, including adequate sleep, rest, exercise, and the maintenance of basic health routines. Physical recovery was perceived as closely linked to emotional resilience, enhancing participants' capacity to cope with ongoing stress. Finally, spiritual and meaning-based coping, such as prayer, worship, meditation, and gratitude practices, provided comfort, inner calm, and a sense of surrender when facing stressors perceived as beyond personal control.

Maladaptive (Less Effective) Coping Strategies

In contrast, several coping strategies were identified as less effective because they primarily functioned to avoid discomfort rather than address stressors or regulate emotions adaptively.

Avoidance and social withdrawal were commonly reported as providing temporary relief but often resulted in prolonged emotional distress and reduced social support. Participants described distancing themselves from others or avoiding stressful situations entirely without subsequent problem resolution.

Emotional suppression, including staying silent, appearing indifferent, or hiding emotional distress, limited emotional processing and reduced opportunities for interpersonal support. Although these strategies helped participants maintain outward composure, they often intensified internal emotional strain.

Additionally, passive endurance, such as waiting for stress to pass without taking action, and maladaptive distraction, including excessive gaming or prolonged avoidance of academic tasks, were reported. While these strategies offered short-term comfort, participants acknowledged that they frequently led to increased stress due to accumulated responsibilities. To enhance transparency and analytic clarity, the classification of coping strategies is summarized in Table 6.

Table 6
Classification of Coping Strategies Based on Lazarus and Folkman’s Theory

No	Coping Strategy	Core Characteristics	Example Strategies	Functional Outcome
1	Problem-focused coping	Active efforts to manage or change stressors perceived as controllable	Planning, scheduling, task organization	Adaptive (effective)
2	Emotion-focused coping (adaptive)	Emotional regulation and acceptance of uncontrollable stressors	Cognitive reappraisal, journaling, emotional expression, social support, self-care, spiritual coping	Adaptive (effective)
3	Emotion-focused coping (avoidant/suppressive)	Avoidance or inhibition of emotional experiences	Withdrawal, isolation, emotional hiding, silence	Maladaptive (less effective)
4	Maladaptive distraction	Temporary relief without addressing stressors	Excessive gaming, task avoidance	Maladaptive (less effecti

In line with Lazarus and Folkman’s framework, coping effectiveness was determined by the fit between coping strategy and situational demands. Adaptive coping strategies—both problem-focused and emotion-focused—were associated with improved emotional regulation, reduced psychological distress, and greater perceived control. Conversely, maladaptive coping strategies, particularly avoidance and emotional suppression, were associated with unresolved stress and prolonged emotional discomfort. These findings highlight the importance of fostering adaptive coping flexibility in supporting students’ psychological well-being.

The present study examined the relationship between interpersonal communication skills and perceived stress in early adulthood using a mixed-methods approach. This study found several findings.

First, the significant negative association between overall interpersonal communication skills and perceived stress is largely consistent with prior studies showing that effective communication functions as a protective interpersonal resource in stress regulation (Lazarus & Folkman, 1984; Segrin & Flora, 2019). Similar findings have been reported in Western contexts, where communication competence has been linked to lower stress through improved emotional expression, conflict resolution, and access to social support. However, the relatively small effect size observed in the present study suggests a more complex picture. Unlike studies that focus narrowly on interpersonal stress, this study demonstrates that communication skills play a supportive rather than dominant role in stress reduction. This finding extends prior research by reinforcing the idea that communication competence buffers stress within a broader

ecosystem of academic, familial, and intrapersonal demands, rather than acting as a standalone determinant.

Second, the absence of significant relationships between specific communication dimensions and perceived stress diverges from some prior studies that have highlighted individual traits—such as empathy or openness—as key stress-reducing factors. Rather than contradicting earlier findings, this result challenges a reductionist approach to communication skills. It suggests that in real-life stressful situations, isolated communication traits may be insufficient on their own. Instead, stress regulation appears to depend on the integrated and flexible use of multiple communication skills simultaneously. This finding meaningfully extends the literature by emphasizing interpersonal communication as a holistic, situational competence rather than a collection of discrete abilities, an aspect that has often been underexplored in quantitative research.

Third, although interpersonal communication skills significantly predicted perceived stress, they explained only a small proportion of variance. While this may appear modest, it is theoretically coherent with stress research that conceptualizes stress as a multifactorial and cumulative experience (Cohen et al., 1983; Compas et al., 2001). Importantly, the qualitative findings help contextualize this result by revealing that students' stress was shaped by intersecting academic pressures, family dynamics, environmental constraints, physical health issues, and intrapersonal struggles. In this sense, the present study advances existing knowledge by empirically demonstrating—through mixed methods—why communication skills alone cannot account for the complexity of student stress, thereby strengthening calls for multidimensional models of stress in higher education contexts.

Fourth, the finding that female students reported higher perceived stress, despite having comparable interpersonal communication skills to male students, is consistent with a robust body of literature documenting gender differences in stress perception and emotional appraisal (Matud, 2004; Nolen-Hoeksema, 2012). Rather than attributing women's higher stress to deficits in competence, this study reinforces theoretical perspectives suggesting that women may experience heightened stress due to greater emotional awareness, relational sensitivity, and role-related expectations. This finding supports previous research while also refining interpretation: it underscores that gender differences in stress are more closely tied to appraisal processes and contextual pressures than to communication ability itself.

Fifth, the absence of differences in interpersonal communication skills and perceived stress across religious affiliation, educational level, and ethnic background both aligns with and subtly challenges prior findings. While some studies have reported demographic differences in stress experiences, the present results suggest that in a relatively homogeneous institutional context—such as a private university in Jakarta—shared academic structures, performance expectations, and developmental tasks may exert a stronger influence than background characteristics. This finding extends earlier research by highlighting the role of institutional and developmental convergence, where prolonged exposure to similar academic cultures and peer environments may attenuate demographic variability. From a transactional stress perspective, this supports the argument that situational demands and perceived coping resources outweigh static demographic factors in shaping stress experiences (Lazarus & Folkman, 1984).

Importantly, this study helps address a notable gap in the literature. Much of the existing research on interpersonal communication and stress has relied solely on quantitative designs and has been conducted predominantly in Western cultural contexts. By integrating qualitative insights within an Indonesian university setting, this study not only contextualizes statistical findings but also amplifies students' lived experiences of stress and coping. The qualitative data reveal how communication skills interact with academic overload, family expectations, environmental strain, and emotional regulation in everyday life—dimensions that are often overlooked in purely quantitative models.

Finally, the coping findings meaningfully extend Lazarus and Folkman's framework by illustrating why students naturally adopt a combination of coping strategies rather than relying on a single approach. The use of both problem-focused and emotion-focused coping reflects students' ongoing efforts to match coping strategies to perceived controllability of stressors. At the same time, the coexistence of adaptive and maladaptive strategies underscores the developmental reality of early adulthood, a period marked by experimentation, emotional learning, and fluctuating self-regulation capacities. These findings challenge overly dichotomous views of coping as either "good" or "bad" and instead support a more dynamic understanding of coping flexibility as a key mechanism in stress adaptation (Skinner et al., 2003).

In sum, the present study not only corroborates established theories of stress and coping but also expands them by demonstrating the contextual, developmental, and integrative nature

of interpersonal communication and coping processes. By combining quantitative and qualitative evidence, this research offers a more nuanced and human-centered understanding of how early adults experience, interpret, and manage stress within the complex realities of university life.

This study has several strengths and limitations that should be considered when interpreting the findings. A key strength is the mixed-methods approach, which combined quantitative and qualitative data to provide a comprehensive understanding of stress and interpersonal communication in early adulthood. The use of validated instruments and a strong theoretical framework based on Lazarus and Folkman's transactional model further enhanced the rigor and interpretability of the results. Additionally, the inclusion of qualitative data offered rich contextual insights into students' lived experiences, helping to explain the modest effect sizes observed in the quantitative analyses. However, the study's correlational design limits causal inference, and reliance on self-report measures may introduce response bias. The sample was drawn from a private university in Jakarta, which may restrict the generalizability of the findings to other educational or cultural contexts. Despite these limitations, the study contributes valuable evidence by highlighting stress as a multidimensional experience and by demonstrating the role of interpersonal communication skills as a meaningful, though modest, protective factor in managing stress among early adults.

CONCLUSION

The study shows that interpersonal communication skills play a meaningful role in reducing perceived stress among university students. Students with better communication skills were found to have lower stress levels overall. But the small effect suggests that communication ability is not the only determinant of student stress. Qualitative findings support this complexity, with student stress described as a cumulative experience arising from multiple interconnected sources (academic, relational, familial, physical, intrapersonal). Females proved to be an especially vulnerable group and required special attention. Taken together, these findings point to the need to promote interpersonal communication skills as part of broader, multi-faceted mental health support strategies in university settings.

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The authors declared no potential conflicts of interest concerning this article's research, authorship, and/or publication.

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