

# The Relationship Between Social Connectedness And Academic Performance Among Vietnamese University Students: The Mediating Role Of Stress

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## Abstract:

Social connectedness plays a significant role in enhancing students' academic performance by serving as a pathway through which stress is reduced. This study aimed to examine the mediating effect of stress on the relationship between social connectedness and academic performance among university students in Vietnam. A total of 492 Vietnamese students, aged 18 to 21 and representing various regions across the country, participated in the study. They completed measures including the Social Connectedness Scale, the Academic Performance Scale (APS), and the Perceived Stress Scale (PSS). Structural equation modeling (SEM) results demonstrated that social connectedness was positively correlated with academic performance. However, stress did not mediate the relationship between social connectedness and academic performance among Vietnamese students. These findings highlight the critical role of social connectedness in fostering academic success by alleviating stress.

**Keywords:** Social connectedness, Stress, Academic Performance, students.

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## RESUMO

A conexão social desempenha um papel significativo na melhoria do desempenho acadêmico dos alunos, servindo como um caminho pelo qual o estresse é reduzido. Este estudo teve como objetivo examinar o efeito mediador do estresse na relação entre conexão social e desempenho acadêmico entre estudantes universitários no Vietnã. Um total de 492 estudantes vietnamitas, com idades entre 18 e 21 anos e representando várias regiões do país, participaram do estudo. Eles completaram medidas, incluindo a Escala de Conexão Social, a Escala de Desempenho Acadêmico (APS) e a Escala de Estresse Percebido (PSS). Os resultados da modelagem de equações estruturais (SEM) demonstraram que a conexão social foi positivamente correlacionada com o desempenho acadêmico. No entanto, o estresse não mediou a relação

entre conexão social e desempenho acadêmico entre estudantes vietnamitas. Essas descobertas destacam o papel crítico da conexão social na promoção do sucesso acadêmico ao aliviar o estresse.

**Palavras-chave:** Conexão social, estresse, desempenho acadêmico, alunos.

### **Introduction**

Social connectedness refers to the degree to which individuals perceive themselves as being part of a social network, characterized by meaningful interactions and relationships. It plays a crucial role in various aspects of life, influencing behaviors, well-being, and health outcomes (Allen et al., 2014). Social connectedness significantly influences prosocial behavior, particularly among young adults. A study conducted in Kerala found a positive correlation between social connectedness and prosocial behavior, suggesting that individuals who feel more connected are more likely to engage in actions that benefit others without expecting rewards (Anjali et al., 2024). Social media's role in social connectedness is complex, as it can both enhance and hinder well-being. It provides essential connections for marginalized youth but can also contribute to poor well-being depending on usage patterns (Charmaraman et al., 2024). Social connectedness is crucial for adjustment and well-being. It helps alleviate homesickness and supports the transition to university life (Liu, 2023). Despite the growing recognition of the importance of social connectedness, research on this topic among university students in Vietnam remains scarce. Studies examining the relationship between social connectedness and academic performance are particularly limited, and a key shortcoming of existing research is the lack of focus on the underlying mechanisms that connect these two factors. Identifying how social connectedness influences academic performance is crucial for developing effective interventions that enhance student success by reducing stress. This study seeks to bridge this gap.

### **Stress as mediator**

Social connectedness plays a crucial role in moderating stress and enhancing well-being across various demographics and contexts (Allen et al., 2014; Li et al., 2024; Luo et al., 2023; Naga & Ebarido, 2024; Poole et al., 2023). Social connectedness has been shown to have protective effects against stress and related mental health issues (Allen et al., 2014). This connection is evident in diverse settings, from digital environments to family dynamics and educational institutions (Naga & Ebarido, 2024; Poole et al., 2023). For instance, the use of social networking sites can sometimes exacerbate stress through phenomena like Fear of Missing Out (FoMO) and social overload, particularly among younger users and women (Naga & Ebarido, 2024). In African-American low-income families, higher levels of social connectedness were associated with lower parental stress, even when accounting for food insecurity (Clare et al., 2024). Similarly, during the COVID-19 quarantine, subjective social connectedness was found to mitigate anxiety and depression, highlighting its role as a protective factor for mental health (Luo et al., 2023). Additionally, young adult cancer survivors experiencing social isolation reported higher levels of depression and anxiety, with social connectedness mediating these effects (Li et al., 2024). A survey study have indicated that the effectiveness of social

connectedness as a stress buffer can vary based on demographic factors such as age, gender, and educational background (Li et al., 2024; Luo et al., 2023; Poole et al., 2023). During the COVID-19 pandemic, social connectedness was found to reduce parenting stress. Higher levels of social connectedness were associated with lower levels of loneliness and stress, highlighting its importance in family settings (Garcia et al., 2025).

Academic stress is a prevalent issue among students, impacting their academic performance in various ways (Crespo-Berti et al., 2024; Kaur & Herbert, 2024). The relationship between stress and academic performance is complex, involving multiple mediating and moderating factors. A study conducted in West Bengal found a positive correlation between academic stress and academic achievement among secondary school students. This suggests that a certain level of stress might motivate students to achieve better results (Kaur & Herbert, 2024). Research at the Universidad Regional Autónoma de los Andes revealed that higher levels of academic stress are associated with a decline in grades among undergraduate students. This study highlights the detrimental effects of stress on academic outcomes (Crespo-Berti et al., 2024). A study in India demonstrated a significant negative correlation between academic stress and performance, with higher stress levels leading to decreased academic achievement. This was particularly evident among female students who reported higher stress levels than their male counterparts (Sahu et al., 2024). In Nigeria, a significant relationship was found between stress and academic performance in Economics students, indicating that stress negatively impacts students' academic outcomes (Galle et al., 2024). Based on previous reports, we find out that social connectedness is linked to stress and stress. However, it is unclear whether stress plays a mediating role in the relationship between social connectedness and academic performance. Thus, this study investigates the mediation level of stress in the relationship between social connectedness and academic performance. In this study, some of the following hypotheses were proposed: Hypothesis 1: The social connectedness among Vietnam university students would be positively correlated with academic performance. Hypothesis 2: stress will mediate the relationship between social connectedness and academic performance?

## Methods

### Participants

The sample included 492 Vietnamese university students with an average year of birth of roughly 3.96 were participated in this study. There were 392 (79.7%) female participants and 100 (20.3%) male participants. Of the students, 212 (43.1%) were in their first year of study, 83 (16.9%) were in their second year, 55 (11.2%) were in their third year, 110 (22.4%) were in their fourth year, and 32 (6.5%) were in their fifth year or more. In terms of religion, 268 (54.5%) said they were not affiliated with any religion, 154 (31.3%) identified as Buddhist, 61 (12.4%) as Catholic, and 9 (1.8%) as practicing other religions. In terms of residence, 303 (61.6%) lived in cities, 17 (3.5%) in midland/mountainous/island regions, and 172 (35.0%) in rural areas. In terms of relationship status, 315 (64.0%) were single, 125 (25.4%) were in a relationship and 52 (10.6%) were married (see **Table 1**).

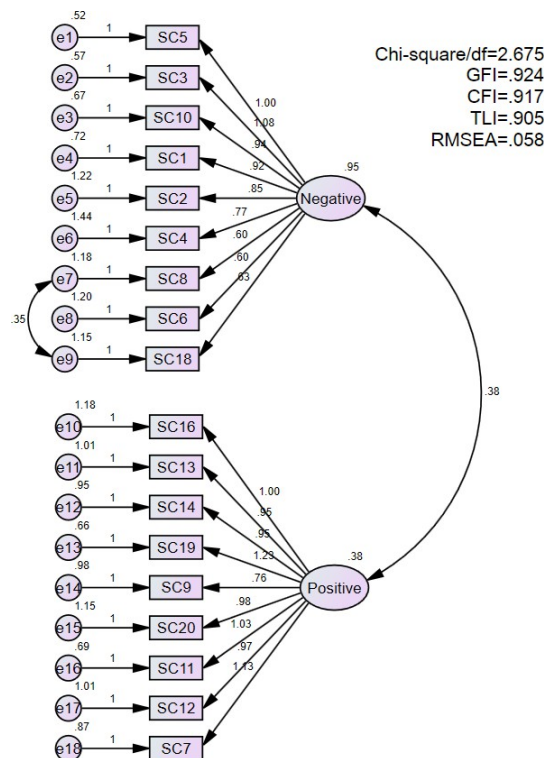
**Table 1.** Demographics Characteristics.

| <b>Variable</b>            | <b>N (%)</b> |
|----------------------------|--------------|
| Gender                     |              |
| Male                       | 100 (20.3%)  |
| Female                     | 392 (79.7%)  |
| University year            |              |
| Freshmen                   | 212 (43.1%)  |
| Sophomores                 | 83 (16.9%)   |
| Juniors                    | 55 (11.2%)   |
| Seniors                    | 110 (22.4%)  |
| Other                      | 32 (6.5%)    |
| Year of birth              |              |
| From 2001 onwards          | 96 (19.5%)   |
| 2002                       | 21 (4.3%)    |
| 2003                       | 93 (18.9%)   |
| 2004                       | 46 (9.3%)    |
| 2005                       | 71 (14.4%)   |
| 2006                       | 165 (33.5%)  |
| Religion                   |              |
| Buddhist                   | 154 (31.3%)  |
| Catholic                   | 61 (12.4%)   |
| Other                      | 9 (1.8%)     |
| None                       | 268 (54.5%)  |
| Resident                   |              |
| Countryside                | 172 (35.0%)  |
| City                       | 303 (61.6%)  |
| Midlands/Mountains/Islands | 17 (3.5%)    |
| Relationship               |              |
| Single                     | 315 (64.0%)  |
| In a relationship          | 125 (25.4%)  |

**Measurements**

**Social connectedness**

The Social Connectedness Scale–Revised (SCS–R) was developed by Lee (2001). The scale consists of 20 items, with 10 measuring negative connectedness and 10 measuring positive connectedness. Participants responded using a 6-point Likert scale, ranging from 1 (“Strongly disagree”) to 6 (“Strongly agree”). To ensure the consistency of the scale, items with item-total correlation coefficients below 0.3 were removed, as recommended by Cristobal et al. (2007). As a result, two items (items 15 and 17) were excluded, reducing the total number of items to 18. After removing these items, the Cronbach’s alpha and McDonald’s omega coefficients indicated good reliability (Cronbach’s alpha = 0.87; Omega = 0.87, see **Table 2**). Additionally, the Conmatory Factor Analysis (CFA) indices demonstrated that the scale model was valid ( $\chi^2/df= 2.67$ , GFI= 0.92, CFI= 0.92, TLI= 0.91, RMSEA= 0.06, 90%CI= [0.05, 0.07], see **Fig. 1**)



**Figure 1.** Social connectedness scale model after translation

**Perceived Stress Scale**

The Perceived Stress Scale (PSS) was developed by Cohen et al. (1983). Dao-Tran et al. (2017) verified the Vietnamese version of PSS. Ten items total, with ratings ranging from 0 (never) to 4 (very often) on a 5-point Likert scale. Greater perceived stress is indicated by higher scores. Cronbach's alpha and McDonald's omega in this investigation showed that the scale was high reliability (see **Table 2** for Cronbach's Alpha = 0.90 and Omega = 0.89).

### **Academic performance**

The Academic Performance Scale (APS) was developed by Birchmeier et al. (2015). The scale consists of eight items assessing academic performance, such as “I am prepared for all my subjects” and “I start writing my papers and projects as soon as they are assigned.” Responses are rated on a 5-point Likert scale, ranging from 1 (“Strongly disagree”) to 5 (“Strongly agree”), with higher scores indicating better academic performance. Cronbach's alpha and McDonald's omega in this investigation showed that the scale was high reliability (see **Table 2** for Cronbach's Alpha = 0.83 and Omega = 0.83).

### **Procedure**

Research data was collected from September to November 2024. Participants were recruited via social networks such as Facebook and email. Additionally, we announced the purpose of the study, inviting volunteers to participate in the research. To collect data, participants were required to complete the Academic Performance Scale (APS), the Social Connectedness Scale (SCS), and the Perceived Stress Scale (PSS). Lastly, students took approximately 20–30 minutes to complete the questionnaire.

### **Data analysis**

In the preliminary analysis, relationships between academic performance, stress, and social connectedness were investigated. Software like AMOS 26.0 and SPSS 26.0 were used to analyze the data. First, the reliability of the scales was assessed using Cronbach's Alpha and McDonald's Omega. Second, the link between variables was investigated using Pearson correlation analysis. Third, the direct and indirect impacts of significant social connectedness → stress, social connectedness → academic performance, and social connectedness → stress → academic performance were investigated using a covariance-based structural equation model (CB-SEM) with 5,000 samples bootstrapping and confidence interval 95%. Ultimately, a good model fit was determined by evaluating the model fit using important indices such as  $\chi^2/df \leq 5$ , CFI > 0.80, TLI > 0.90, GFI > 0.90, PCLOSE > 0.01, and RMSEA < 0.08 (Kline, 2005; Hu & Bentler, 1999).

## **Results**

### **Measurement Model Assessment**

The validity of the construct, including factor loadings and Alpha and Omega reliability, was tested using the measurement model analysis. First, the findings demonstrated that the scale items had good validity since their factor loadings were higher than the 0.3 minimum requirement (Hair et al., 2010, see **Table 2**). Additionally, the skewness and kurtosis indices

fell between -2 and +2, as advised by George & Mallery (2019), indicating that the data had a normal distribution (see **Table 2**).

**Table 2.** A measurement model analysis

| <b>Scale</b>                     | <b>Factor Loadings</b> | <b>Alpha</b> | <b>Omega</b> | <b>Skewness</b> | <b>Kurtosis</b> | <b>Source</b>          |
|----------------------------------|------------------------|--------------|--------------|-----------------|-----------------|------------------------|
| <b>Social Connectedness (SC)</b> |                        | 0.87         | 0.87         | -0.21           | 0.20            | Lee et al. (2001)      |
| SC 1                             | 0.71                   |              |              |                 |                 |                        |
| SC 2                             | 0.55                   |              |              |                 |                 |                        |
| SC 3                             | 0.81                   |              |              |                 |                 |                        |
| SC 4                             | 0.54                   |              |              |                 |                 |                        |
| SC 5                             | 0.87                   |              |              |                 |                 |                        |
| SC 6                             | 0.50                   |              |              |                 |                 |                        |
| SC 7                             | 0.40                   |              |              |                 |                 |                        |
| SC 8                             | 0.51                   |              |              |                 |                 |                        |
| SC 10                            | 0.74                   |              |              |                 |                 |                        |
| SC 11                            | 0.43                   |              |              |                 |                 |                        |
| SC 12                            | 0.51                   |              |              |                 |                 |                        |
| SC 13                            | 0.59                   |              |              |                 |                 |                        |
| SC 14                            | 0.56                   |              |              |                 |                 |                        |
| SC 16                            | 0.59                   |              |              |                 |                 |                        |
| SC 18                            | 0.49                   |              |              |                 |                 |                        |
| SC 19                            | 0.58                   |              |              |                 |                 |                        |
| SC 20                            | 0.55                   |              |              |                 |                 |                        |
| <b>Perceived Stress (ST)</b>     |                        | 0.78         | 0.77         | -0.02           | 0.78            | Dao-Tran et al. (2017) |
| PS 1                             | 0.74                   |              |              |                 |                 |                        |
| PS 2                             | 0.73                   |              |              |                 |                 |                        |
| PS 3                             | 0.79                   |              |              |                 |                 |                        |
| PS 4                             | 0.48                   |              |              |                 |                 |                        |
| PS 5                             | 0.37                   |              |              |                 |                 |                        |
| PS 6                             | 0.43                   |              |              |                 |                 |                        |
| PS 7                             | 0.50                   |              |              |                 |                 |                        |

PS 8 0.89

|                                  |      |      |      |       |      |                          |
|----------------------------------|------|------|------|-------|------|--------------------------|
| <b>Academic Performance (AP)</b> |      | 0.83 | 0.83 | -0.09 | 1.24 | Birchmeier et al. (2015) |
| AP 1                             | 0.62 |      |      |       |      |                          |
| AP 2                             | 0.71 |      |      |       |      |                          |
| AP 3                             | 0.36 |      |      |       |      |                          |
| AP 4                             | 0.65 |      |      |       |      |                          |
| AP 5                             | 0.64 |      |      |       |      |                          |
| AP 6                             | 0.70 |      |      |       |      |                          |
| AP 7                             | 0.71 |      |      |       |      |                          |
| AP 8                             | 0.60 |      |      |       |      |                          |

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### Common Method Bias

This study used an online survey questionnaire to collect data, although respondents may be subject to common method bias. The Harman (1967) single-factor test was used to evaluate potential bias and look for common method bias. According to the results, there was no discernible bias in the respondents' responses because the scale items only explained 22.61% of the variation collected, which is less than 50% (Podsakoff et al., 2024).

### Correlation

Based on the **Table 3**, Social connectedness was negatively correlated with stress ( $r = -0.49$ ,  $p < 0.01$ ) and was positively correlated with academic performance ( $r = 0.36$ ,  $p < 0.01$ ). Furthermore, the results showed that stress was negatively associated with academic performance ( $r = -0.28$ ,  $p < 0.01$ ) (see **Table 3**).

**Table 3.** Correlation among variables

| Variables | M    | SD   | SC | S       | AP      |
|-----------|------|------|----|---------|---------|
| SC        | 4.12 | 0.68 | 1  | -0.49** | 0.36**  |
| S         | 1.89 | 0.52 | -  | 1       | -0.28** |
| AP        | 3.51 | 0.60 | -  | -       | 1       |

Note: \*\* $p < 0.01$ , SC – Social Connectedness, S – Stress, AP – Academic Performance.

**Structural model of direct effects**

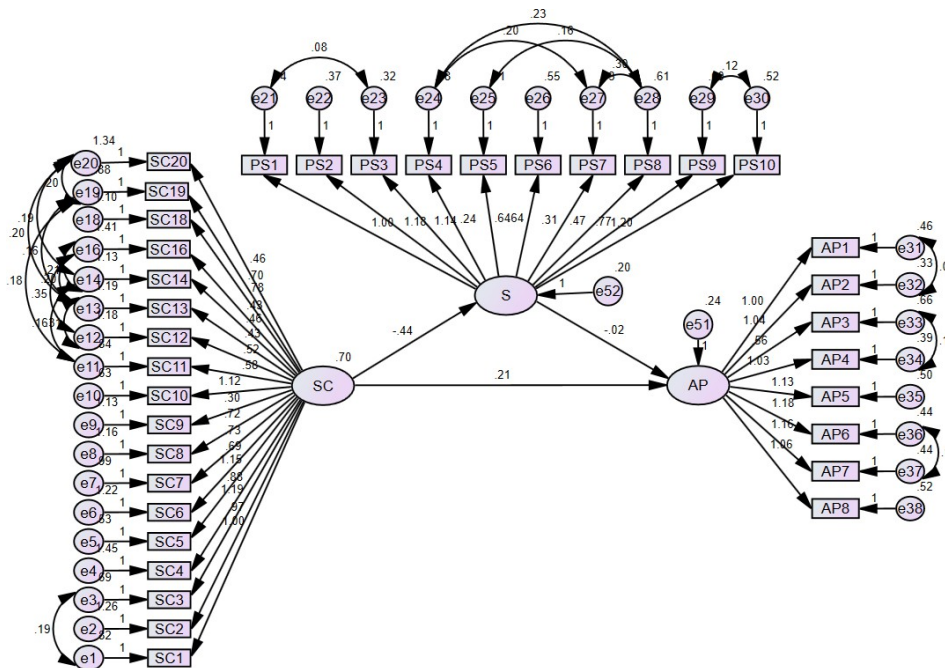
We employed a covariance-based structural equation model (CB-SEM) with 5,000 bootstrap samples (Bootstrapping method) in this work to evaluate the hypotheses. The study of the results revealed that the structural equation model was approved ( $\chi^2/df= 2.45$ ,  $GFI= 0.85$ ,  $CFI= 0.86$ ,  $TLI= 0.84$ ,  $RMSEA= 0.05$ ,  $90\%CI [0.05, 0.06]$ ).

According to the findings of the structural model study, social connectedness had a substantial total effect on academic performance ( $\beta = 0.22$ ,  $p < 0.001$ ,  $95\%CI [0.13, 0.32]$ ). Social connectedness has a significant impact on stress and academic performance (95% not included 0, according to **Table 4**). However, this study found no significant direct relationship between stress and academic performance ( $\beta = -0.02$ ,  $p > 0.05$ ,  $SE = 0.07$ ,  $95\%CI [-0.18, 0.16]$ ). Unfortunately, **Table 4** shows that there was no significant indirect effect of social connectedness on academic performance through stress ( $\beta = 0.01$ ,  $p > 0.05$ ,  $95\%CI [-0.07, 0.08]$ ).

**Table 4.** Result of the structural equations model

| Pathways               | Estimate | SE   | 95% CI |       |
|------------------------|----------|------|--------|-------|
|                        |          |      | Lower  | Upper |
| <b>Direct effect</b>   |          |      |        |       |
| SC → S                 | -0.44*** | 0.04 | -0.56  | -0.34 |
| SC → AP                | 0.21***  | 0.05 | 0.11   | 0.34  |
| S → AP                 | -0.02    | 0.07 | -0.18  | 0.16  |
| <b>Indirect effect</b> |          |      |        |       |
| SC → S → AP            | 0.01     | -    | -0.07  | 0.08  |
| <b>Total effect</b>    |          |      |        |       |
| SC → AP                | 0.22***  | -    | 0.13   | 0.32  |

Note: \*\*\* $p < 0.001$ , SC – Social Connectedness, S – Stress, AP – Academic Performance.



**Figure 2.** Result of the structural equation model

## Discussion

To comprehensively address students' academic performance, it is crucial to examine the interplay of various influencing factors. Academic performance is a multifaceted construct shaped by cognitive abilities, psychological traits, socioeconomic conditions, and health-related aspects. In this context, social connectedness plays a pivotal role in shaping and enhancing academic performance, particularly through its relationship with stress. Our findings indicate that social connectedness is positively correlated with academic performance. However, stress does not mediate the relationship between social connectedness and academic performance.

### Social connectedness and academic performance

Social connectedness is influenced by social identity, ethnicity, and educational environment, including its ethnic diversity, impacts opportunities to form these connections, which, in turn, affect academic performance and well-being (Bull et al., 2024). Being well-connected within a class can positively influence academic outcomes (Nawa et al., 2023) and overall academic performance (Tafesse, 2022). In general, these findings suggest that social connectedness enhances students' academic performance. Furthermore, the aforementioned studies demonstrate a positive relationship between social connectedness and academic performance. Specifically, social connectedness was found to be positively associated with academic performance among university students in Vietnam.

### Stress as a mediator

Consistent with our study, social connectedness was positively correlated with academic performance, aligning with previous research (Garcia et al., 2025; Luo et al., 2023; Poole et

al., 2023). Furthermore, this study highlights the role of social connectedness as a protective factor against stressors, thereby promoting mental health and resilience. The effectiveness of social connectedness as a stress buffer may vary based on demographic factors such as age (Luo et al., 2023; Poole et al., 2023). Furthermore, social connectedness was found to reduce parenting stress (Luo et al., 2023). Additionally, higher levels of social connectedness were associated with lower levels of loneliness, and emphasizing its significance in academic settings (Garcia et al., 2025). Therefore, fostering social connectedness is crucial for enhancing the well-being and academic success of Vietnamese students, as it plays a key role in stress prevention and reduction.

In contrast to prior research, this study found no correlation between stress and academic performance. However, existing literature presents mixed findings on this relationship. A study conducted in West Bengal reported a positive correlation between academic stress and academic achievement among secondary school students, suggesting that moderate stress levels might serve as motivation for academic success (Kaur & Herbert, 2024). Conversely, research at the Universidad Regional Autónoma de los Andes found that higher levels of academic stress were associated with a decline in undergraduate students' grades (Crespo-Berti et al., 2024). Similarly, studies in India and Nigeria identified a significant negative correlation between academic stress and performance, with elevated stress levels leading to decreased academic achievement (Sahu et al., 2024; Galle et al., 2024).

Consistent with our findings, social connectedness plays an essential role in mitigating stress and enhancing academic performance among Vietnamese students. By fostering strong social networks, students can better manage stress, thereby reducing its adverse effects and improving academic outcomes. These insights contribute to the development of effective academic support programs and stress prevention strategies for university students in Vietnam. Strengthening social connectedness can be a vital approach to minimizing stress risks while promoting overall well-being and academic success.

### **Limitation**

Several limitations should be considered when interpreting the findings of this study. Our data from this research were collected via survey online, which used to measure correlation in nature. Thus, we cannot make causal explanations about social connectedness on academic performance via stress. It could be that stress leads to different perceptions about students' social connectedness, stress, and academic performance. Therefore, experimental evidence is needed to directly compare the effects of social connectedness on academic performance via stress. Next, the sample exhibits a gender imbalance, with a higher proportion of female participants compared to male participants, which may influence the accuracy of the results. Second, the study relies on self-reported survey data, making it susceptible to methodological biases such as social desirability and memory recall errors. Lastly, due to the cross-sectional design of the study, the findings are correlational in nature, preventing the establishment of causal relationships between the variables.

### **Conclusion**

The findings highlight the critical role of social connectedness in enhancing students' academic performance. By identifying stress as a mediating factor, this study offers valuable insights into the underlying mechanisms through which social connectedness influences academic outcomes. Specifically, students who experience a stronger sense of connection within their social environment are better equipped to manage stress, which, in turn, contributes to improved academic performance.

These findings have important implications for the development of interventions and programs aimed at enhancing academic performance among Vietnamese university students. A deeper understanding of the interplay between social connectedness, stress, and academic success enables educators, counselors, and university administrators to design targeted strategies that prioritize social integration and foster academic achievement. Implementing structured interventions to strengthen social connectedness and mitigate stress may ultimately lead to improved academic outcomes among university students in Vietnam.

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