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Perceived Instructor's Emotional Support and its Mediating Effect to Students' Academic Resilience and Study Engagement: In the Case of a Higher Education Institution in the Philippines

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Abstract

This investigation delved deep into the invisible threads binding student resilience and educational support. Against the backdrop of bustling classrooms and echoing halls, this research sought to unravel how these intertwined factors sculpt students' academic journeys and well-being. In this regard, the study aimed to examine the mediating role of perceived instructor's emotional support among 896 students [371 males (41.31%) and 527 females (58.69%)] from a selected higher education institution in the Philippines. Sex differences were notable, with female students generally reporting higher academic resilience and greater perceived emotional support from instructors compared to males. However, both sexes showed similar levels of study engagement. Correlation analyses indicated positive associations: academic resilience correlated positively with study engagement and perceived emotional support, while emotional support correlated positively with study engagement. Path analyses affirmed all hypotheses: academic resilience positively influenced study engagement and perceived emotional support. Perceived emotional support also positively influenced study engagement, partially mediating the relationship between resilience and engagement. These findings underscored the pivotal roles of resilience and emotional support in nurturing student engagement and well-being within higher education contexts. The study suggests practical implications, including the importance of enhancing instructor training in emotional support strategies and implementing resilience-building interventions to foster student success and well-being.

Keywords

educational support dynamics, student well-being, academic persistence, institutional context

Recently, a significant amount of research has focused on understanding resilience in the academic setting (Dwiastuti et al., 2022; Rojas, 2015; Tamannaeifar & Shahmirzaei, 2019). 'Resilience' is the ability to recover from challenges and effectively adjust to adversity or hardship (Southwick et al., 2014). Meanwhile, 'academic resilience' pertains to a student's ability to manage and surmount scholastic difficulties and failures adeptly (Ye et al., 2021). It entails sustaining drive, self-assurance, and a constructive mindset toward learning, even when encountering challenges. This emphasis stems from recognizing resilience as a critical element affecting academic success and general adaptation to institution. Educational researchers have identified that resilient students are better able to handle academic problems, resulting in improved performance and a more vital ability to adjust to the college environment (Backmann et al., 2019; Johansson et al., 2023). These studies emphasize the significance of cultivating resilience to assist students in reaching their maximum capabilities and maintaining a harmonious equilibrium between their academic and personal spheres. Indeed, resilient students may handle challenging and stressful college circumstances effectively, maintain strong motivation, and achieve success despite varied difficulties (Shengyao et al., 2024). Previous investigations have effectively deepened the relationship between academic resilience and college involvement, showing a solid and positive interconnectedness between these two aspects (Martin et al., 2022; Versteeg et al., 2022). Students who use personal resources like academic resilience are often more eager, energetic, and dedicated to their studies, and they tend to be more engaged than their peers—despite this evidence, exploring further how other personal resources, particularly emotional support from instructors, impact student engagement is essential. Meanwhile, perceived 'teacher emotional support', according to the concept of Self-Determination Theory (SDT), is the extent to which students feel emotionally connected to their instructor in the classroom (Yang et al., 2021). This connection is distinguished by the instructor's authentic curiosity and empathy towards the student's requirements, along with their capacity to react optimistically and passionately. This support cultivates a caring and supportive learning atmosphere, augmenting the student's innate drive and general happiness, which are crucial for achieving academic excellence and personal growth (H. Shen et al., 2024). In contrast, while extensive research has been conducted in primary and secondary school settings, further studies on students' perceived instructor emotional support in higher education, particularly within the Philippine context, need to be investigated. This gap underscores the urgent need for further investigation. Thus, this study explored the relationship between academic resilience and study engagement, focusing on the mediating role of perceived instructors' emotional support.

Literature Review and Hypotheses Formulation

Academic Resilience and Study Engagement

'Resilience' is the capacity to effectively adjust, overcome obstacles, and maneuver through unfavorable circumstances (Wu et al., 2020). In the educational context, this pertains to a student's ability to effectively handle sudden or ongoing challenges that hinder their educational progress (Dwiastuti et al., 2022; Eva et al., 2021). *'Academic resilience,'* as defined by various scholars, refers to the capacity to confront academic obstacles and achieve success despite challenging circumstances or disadvantaged backgrounds (Serrano Sarmiento et al., 2021; Ye et al., 2021). Furthermore, academic resilience refers to the capacity to excel in challenging situations inside the educational system, resulting in notable academic achievements (García-Crespo et al., 2021; Lohner & Aprea, 2021). Despite these challenges, academic resilience is a defining trait in all learners who encounter significant obstacles in their educational journey (Gartland et al., 2019). Highly resilient students remain engaged and refuse to give up when faced with the overwhelming demands of academia. This trait has proven to be a critical factor in numerous positive outcomes, including heightened achievement motivation, improved scholastic performance, reduced dropout rates, and greater personal life satisfaction (Lobo, 2023a).

Meanwhile, *'study engagement'* encompasses various components, including cognitive, affective, and behavioral (de Toro et al., 2023). These dimensions—vigor, dedication, and absorption—are crucial in measuring students' engagement in their academic progress (Freda et al., 2023). *Vigor* entails high energy, mental resilience, flexibility in learning, and perseverance amid challenges (Jindo et al., 2020). For example, a student who possesses vigor demonstrates high enthusiasm and persistence, approaching scholastic tasks with unwavering commitment and adaptability. *Dedication* involves a strong sense of purpose, enthusiasm, and immersion in academic pursuits (Teuber et al., 2021). For instance, a highly dedicated student approaches their studies with unwavering commitment and a deep-seated passion for learning and growth. *Absorption* describes deep concentration and involvement in academic activities (Koob et al., 2021). In this, a student is thoroughly engrossed in their studies, demonstrating intense focus and immersion in learning tasks.

Academic resilience and other characteristics have been examined by scholarly investigations as drivers of student involvement (Polat, 2024; Sun & Liu, 2023). Based on the demand-resources paradigm used in education, academic achievement, and engagement can be improved by having better personal resources, such as academic resilience (Fiorilli et al., 2020). However, these investigations were conducted to students in the primary and secondary school contexts. In this regard, this study aimed to enhance the understanding of the effect of academic resilience on study engagement by seeing academic resilience as a personal resource and a precursor to study engagement in the higher education setting. Therefore, the present study tested the following hypothesis:

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H₁: Academic resilience positively affects study engagement

Academic Resilience and Perceived Instructor's Emotional Support

College students devote most of their time to classroom settings, where they encounter new and intricate academic requirements alongside various pressures and expectations (Romano et al., 2021). These challenges include navigating academic rigor, social dynamics, and personal growth, all shaping their educational experience and development. Given the emotional toll of daunting academic demands and the evidence mentioned earlier, it is unsurprising that college students are profoundly impacted by the emotional support offered by instructors within the college environment (Lobo, 2023b). This support is pivotal in shaping their resilience, motivation, and overall well-being, influencing their ability to navigate challenges and succeed academically. *'Instructor's emotional support'* involves an instructor's ability to cultivate a positive relationship and environment with students, as well as to sensitively respond to their needs and promote peer interactions (X. Wang, 2023). According to Romano et al. (2020), instructor emotional support comprises three key dimensions: positive climate (PC), teacher sensitivity (TS), and regard for adult perspective (RAP). A *positive climate* emphasizes an instructor's efforts to foster positive interactions with students, which can enhance opportunities for academic growth (Qiu, 2022). *Instructor's sensitivity* involves an instructor consistently monitoring students for signs requiring additional support or assistance (Kennedy, 2019). Lastly, *regard for adult perspective* reflects how instructors prioritize flexibility, connections to students' current lives, support for autonomy and leadership, and meaningful peer interactions (Vattøy & Gamlem, 2019). These dimensions collectively create a supportive educational environment that enhances student engagement and academic success (Romano et al., 2020).

Previous studies have found that students who received emotional support from their instructors reported higher performance and better school adjustment than their counterparts (Frenzel et al., 2021; Konishi & Wong, 2018). These underscore the crucial impact of teacher emotional support on promoting positive educational outcomes and student well-being. For example, the study of Hu (2022) found that teacher support had a positive effect on academic resilience from a sample of 208 high-school Chinese EFL (English as a Foreign Language) students (131 females and 77 males). Likewise, the study of Romano et al. (2021) discovered that academic resilience was associated with perceived teacher emotional support of 205 Italian high school students. Moreover, Yuan et al. (2018) discovered that highly resilient individuals perceived more excellent emotional support from their teachers than their peers. Additionally, Downey (2008) advocated considering teacher-student rapport and classroom climate as essential factors for nurturing academic resilience among students. In this context, it is hypothesized that academically resilient students perceived more significant support from their instructors and viewed their learning environment more positively compared to less resilient peers, as evidenced

by scholars (Cassidy, 2015; Yilmaz Findik, 2016). Moreover, resilient students are more inclined to perceive positive support from instructors than their counterparts, which can be correlated strongly with better long-term adjustment (Rodríguez-Fernández et al., 2018). On the one hand, the evidence was collected in either elementary or high-school settings, which necessitates an investigation of the effect of academic resilience on perceived instructor's emotional support in the higher education milieu. Therefore, this study tested the following hypothesis:

> **H$_2$:** Academic resilience positively affects perceived instructor's emotional support

Perceived Instructor's Emotional Support and Study Engagement

Recent investigations focused on perceived emotional support from instructors and its impact on student engagement. Studies consistently demonstrated that students who perceived emotional support from their teachers exhibited higher academic engagement and satisfaction with their educational experience (Kelly & Zhang, 2016; Pérez-Salas et al., 2021). This support included fostering a positive classroom climate, sensitivity to student needs, and promoting autonomy and meaningful connections. For example, the study of Pöysä et al. (2019) of 709 grade 7 students (47.7% girls) from 59 classrooms in 26 lower secondary schools and 51 teachers, indicated that emotional support in the class-room was positively associated with students' emotional engagement and help-seeking. In contrast, classroom organization is associated with students' behavioral and cognitive engagement, which are all components of study engagement. Likewise, the investigation of Lam et al. (2012) revealed that perceptions of teacher support is related indirectly to academic performance through student engagement based from 3420 students (7th, 8th, and 9th graders) from Austria, Canada, China, Cyprus, Estonia, Greece, Malta, Portugal, Romania, South Korea, the United Kingdom, and the United States. Fascinatingly, a study in the higher education setting by Xu et al. (2023) unraveled that perceived instructor support has a significant influence on student engagement based from a sample of 1,136 Chinese higher vocational students. The collective findings underscored the critical role of perceived emotional support from instructors in fostering higher academic engage-ment among students. On the one hand, many of the studies conducted concerning perceived instructor's emotional support and study engagement are based on scholarly investigations in elementary and secondary school settings. It can be postulated that there is still a scarcity of published scholarly works that investigated the effect of perceived instructor's emotional support on study engagement, particularly in the higher education setting in the Philippines. In accordance to this, the study examined the following hypothesis:

> **H$_3$:** Perceived instructor's emotional support positively affects study engagement

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Perceived Instructor's Emotional Support and its Mediating Effect on the Relationship Between Academic Resilience and Study Engagement

Previous scholarly works have delved deeply into the intricate dynamics of perceived instructor's emotional support and its pivotal role as a mediator between academic resilience and study engagement. According to Pedler et al. (2020), students who perceive emotional solid support from their instructors demonstrate higher levels of academic resilience and exhibit enhanced study engagement. Pedler et al. highlighted instructors' role as paramount to ensuring students experience meaningful engagement. Recent studies have established a significant relationship between academic resilience, perceived teacher emotional support, and student engagement (Ahmed et al., 2018; Romano et al., 2021). Therefore, it is plausible to hypothesize that highly resilient students who perceive more incredible emotional support from their instructors are more likely to experience heightened engagement in their academic pursuits. Furthermore, the mediating effect of perceived emotional support is evident in its capacity to bolster the relationship between academic resilience—defined as the ability to persist and thrive amidst academic setbacks—and deeper study engagement. This suggests that emotional support from instructors plays a crucial role in fostering a positive and engaging learning environment conducive to students' academic success and well-being. The influential study of Romano et al. (2021) is the sole study that examined the mediating effect of perceived teacher's emotional support in the relationship between academic resilience and school engagement. Based on Romano et al.'s structural equation model (SEM) findings, perceived teacher emotional support partially mediated the relationship between academic resilience and school engagement from a sample of 205 Italian high school students. It highlighted the importance of fostering personal and contextual resources in the college context to promote students' well-being. On the one hand, the impactful study of Romano et al. was performed in a high-school setting, which calls for an investigation to determine the mediating effect of perceived instructor's emotional support in the relationship between academic resilience and study engagement in the higher education setting. Thus, this study has tested the following hypothesis:

> **H$_4$:** Perceived instructor's emotional support mediated the relationship between academic resilience and study engagement

Conceptual Framework

Based on the literature review performed for this present study, Figure 1 illustrates the conceptual framework for the study. For this model, academic resilience is the predictor, study engagement is the outcome, and the perceived instructor's emotional support is the mediator. Perceived instructor's emotional support and study engagement were used as latent variables, with their respective subscales as indicators. As depicted in the figure, **(H$_1$)** illustrates the effect of academic resilience on study engagement, **(H$_2$)** represents

the effect of academic resilience on perceived instructor's emotional support, **(H₃)** demonstrates the effect of perceived instructor's emotional support on study engagement, and lastly, **(H₄)** shows the mediating effect of perceived instructor's emotional support on the relationships between academic resilience and study engagement.

Figure 1

Conceptual Framework of the Mediation Model
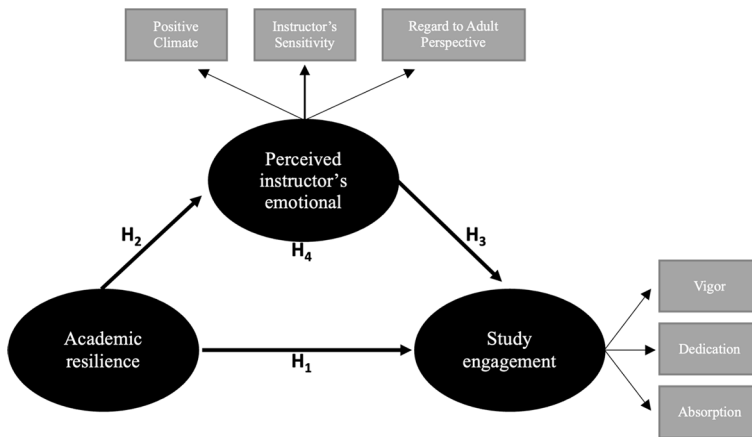
Materials and Method

Participants

The present study's selected participants were college students from the 1st–4th year level currently enrolled for the 2nd Semester, the Academic Year 2022–2023, at a selected higher education institution in the Philippines. The respondents for this study were identified using convenience sampling. This is also known as availability sampling, where the selection of the respondents is based on their availability (Andrade, 2021). The said availability is usually in terms of geographical proximity but may also involve other types of accessibility, such as known contacts. Furthermore, the *Raosoft Sample Size Calculator* was utilized to identify the total number of target samples for this study. From an estimated of 5,000 total population of students, the recommended sample size is 357 with (CF: 95% MOE: 5%). Interestingly, 898 students participated in the study from a total sample of 910, and all the responses were accepted for data analysis after data cleansing, which resulted in a 98.65% response rate.

Table 1 and Figure 2 illustrates the demographic characteristics of the respondents, detailing the distribution by sex and institute. The data show that the sample comprised 371 males (41.31%) and 527 females (58.69%), with a total of 898 students. Breaking down

by institute, the Institute of Arts, Sciences & Teacher Education had the largest number of participants, with 138 males (35.11%) and 255 females (64.89%), totaling 393 students (43.76%). The Institute of Business Education followed with 122 males (34.86%) and 228 females (65.14%), amounting to 350 students (38.98%). The Institute of Computing Studies had a higher proportion of males, with 111 males (71.61%) and 44 females (28.39%), totaling 155 students (17.26%).

Table 1

Respondents' Demographic Distribution Based on Sex and Institute

Institute	Sex (%)		Total
	Male	Female	
Institute of Arts, Sciences & Teacher Education	138 (35.11%)	255 (64.89%)	393 (43.76%)
Institute of Business Education	122 (34.86%)	228 (65.14%)	350 (38.98%)
Institute of Computing Studies	111 (71.61%)	44 (28.39%)	155 (17.26%)
Total	371 (41.31%)	527 (58.69%)	898 (100.0%)

Figure 2

Graphical Representation of Respondents' Distribution by Sex and Institute
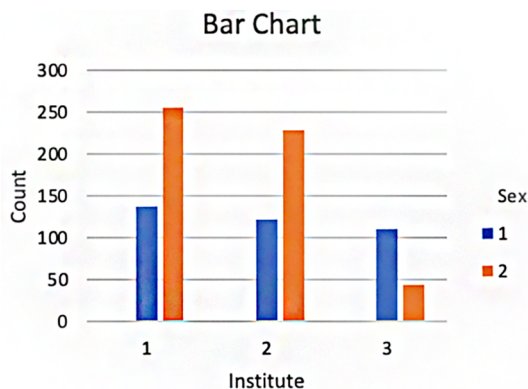
Note. Sex: 1 = Male; 2 = Female; Institute: 1 = Institute of Arts, Sciences & Teacher Education; 2 = Institute of Business Education; 3 = Institute of Computing Studies.

Instruments

The data was collected using an online survey administered through Google Forms. Three tools were utilized in this study. First, the *Academic Resilience Scale* (ARS-30), developed by Cassidy (2016), measured students' academic resilience through cognitive-affective, and behavioral responses to educational challenges. Respondents rated their

responses on a 5-point Likert scale ranging from 1- "unlikely" to 5- "likely." An example item includes, *"I would not change my long-term goals and ambitions."* The scale's total score was calculated by summing responses across all 30 items.

Second, the *Teacher's Emotional Support Scale* developed by Romano et al. (2020) assessed students' perceptions of their instructors' emotional support. This scale comprises 15 items rated on a 5-point Likert scale from 1- "Not at all true" to 5- "Very true." It evaluated three distinct aspects of instructor emotional support: Positive Climate (e.g., *"Our instructors do not allow students to make fun of other students' ideas in class"*), Instructor's Sensitivity (e.g., *"Our instructors take the time to completely answer our questions"*), and Regard for Adult Perspective (e.g., "Our instructors encourage us to share ideas with one another in class"). Some words were changed (i.e., teacher to instructor, and adolescent to adult) to tailor-fit the instrument to the respondents of the present study.

Finally, the *Utrecht Work Engagement Scale for Students* (UWES-9S), originally developed by Carmona-Halty et al. (2019), assessed students' overall study engagement. It consisted of nine self-report items rated on a 6-point Likert scale from 0- "Never" to 6- "Always," organized into three dimensions: Vigor (e.g., "When I am studying, I feel bursting with energy"), Dedication (e.g., "I am enthusiastic about my studies"), and Absorption (e.g., "I am fully concentrated on my studies").

Data Analysis

A factor analysis was conducted using Partial Least Squares-Structural Equation Modelling (PLS-SEM) with SmartPLS 4. For the measurement model, the outer loadings of the items and the average variance extracted (AVE) were examined to establish convergent validity (Hair et al., 2021). Additionally, discriminant validity was assessed using the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio, following the guidelines by Hair et al. The structural model evaluated both path coefficients and the coefficient of determination (R^2).

Furthermore, IBM SPSS Version 29 of MacOS was used for descriptive, inferential, and correlational statistical analyses: Descriptive statistics such as mean, frequency, and percentage were used to describe the respondents' demographic characteristics based on sex and institute; Inferential statistics, specifically the independent samples *t*-test, was performed to glimpse the variance in academic resilience, perceived instructor's emotional support, and study engagement; and, Correlational analysis, specifically the Pearson-r, was performed to determine the relationship between the measured variables.

A factor loading analysis was conducted, with a threshold of 0.7 or higher for item loadings considered reliable. Cronbach's Alpha [α] (CA) and composite reliability (CR) were also required to be at least 0.7. The average variance extracted (AVE), representing the grand mean value of the squared loadings of items related to the construct, was used to validate constructs with a required AVE of at least 0.5 and a corresponding *p*-value of at most 0.5. The results were analyzed after performing the factor loading

analysis and removing items with loadings below 0.7. Table 2 shows the following results: Academic Resilience [CA 0.927, CR 0.929, AVE 0.605], Positive Climate (Perceived Instructor's Emotional Support) [CA 0.860, CR 0.863, AVE 0.781], Instructor's Sensitivity (Perceived Instructor's Emotional Support) [CA 0.911, CR 0.919, AVE 0.739], Regard for Adult Perspective (Perceived Instructor's Emotional Support) [CA 0.792, CR 0.794, AVE 0.828], Vigor (Study Engagement) [CA 0.802, CR 0.823, AVE 0.834], Dedication (Study Engagement) [CA 0.857, CR 0.864, AVE 0.777], and Absorption (Study Engagement) [CA 0.775, CR 0.775, AVE 0.816]. Consequently, convergent validity was established. Finally, the VIF values of each item for the outer model was also examined. The acceptable threshold for VIF should be < 5. All items met the threshold value and the entire model is free from common method bias (CMB).

Table 2

Measurement Model

Construct	Item	Item Loading	CA	CR	AVE	VIF
Academic Resilience	ARS11	0.745	0.927	0.929	0.605	2.014
	ARS13	0.726				1.846
	ARS16	0.773				2.191
	ARS18	0.771				2.117
	ARS20	0.732				1.854
	ARS22	0.821				2.509
	ARS24	0.730				1.966
	ARS25	0.833				2.795
	ARS27	0.818				2.445
	ARS30	0.818				2.398
Positive climate	PC1	0.744	0.860	0.863	0.781	2.404
(Perceived Instructor's Emotional Support)	PC3	0.775				2.555
	PC5	0.752				2.189
Instructor's sensitivity	TS1	0.811	0.911	0.919	0.739	3.122
(Perceived Instructor's Emotional Support)	TS2	0.804				2.722
	TS3	0.845				3.683
	TS5	0.821				2.774
	TS6	0.775				2.319
Regard to adult perspective	RAP3	0.796	0.792	0.794	0.828	2.407
(Perceived Instructor's Emotional Support)	RAP4	0.765				2.125
Vigor (Study Engagement)	VR2	0.853	0.802	0.823	0.834	2.756
	VR3	0.811				2.402
Dedication (Study Engagement)	DN1	0.808	0.857	0.864	0.777	2.313
	DN2	0.876				3.070
	DN3	0.842				2.675

Construct	Item	Item Loading	CA	CR	AVE	VIF
Absorption (Study Engagement)	ABS1	0.816	0.775	0.775	0.816	2.343
	ABS2	0.819				2.422

Note. Item loadings > 0.70, Cronbach's Alpha Value (CA) and Composite Reliability (CR) > 0.70, Average Variance Extracted (AVE) > 0.50. VIF < 5.

For the discriminant validity to be established, the Fornell-Larcker and Heterotrait-Monotrait (HTMT) criteria were inspected. For Fornell-Larcker, the square root of AVE (diagonal value) for each variable needed to exceed the correlation of latent variables. Additionally, the HTMT value was required to be less than 0.9. After all the tests were performed, discriminant validity has been established. The results are illustrated in Tables 3 and 4.

Table 3

Fornell-Larcker

Variable	1	2	3	4	5	6	7
1. ABS	0.903						
2. ARS	0.495	0.778					
3. DED	0.773	0.580	0.928				
4. PC	0.371	0.642	0.446	0.884			
5. RAP	0.429	0.566	0.443	0.643	0.910		
6. TS	0.449	0.563	0.480	0.677	0.753	0.860	
7. VR	0.763	0.504	0.780	0.382	0.420	0.509	0.913

Table 4

Heterotrait-Monotrait Ratio

Variable	1	2	3	4	5	6	7
1. ARS							
2. ABS	0.583						
3. DN	0.612	0.653					
4. PC	0.454	0.717	0.524				
5. RAP	0.548	0.658	0.542	0.780			
6. TS	0.534	0.612	0.546	0.766	0.888		
7. VR	0.529	0.578	0.785	0.456	0.525	0.592	

Note. Heterotrait-Monotrait ratio (HTMT) < 0.90.

Ethical Statement

Highest Ethical considerations were strictly followed in the conduct of the study. The data gathering was conducted through online survey using Google Forms. In the Google Forms, the purpose of the study, inclusion criteria, instruments to be used, and the components/variables which will only be measured in the entire conduct of the study are presented. Additionally, the researchers provided the benefits of the study to the institution, community, and its contribution to scientific knowledge. The online survey underlined that participating in the study is voluntary, and respondents can choose to withdraw at any moment. The respondents were similarly advised of the potential minor hazards associated with their involvement in the research, including the experience of unease when responding to personal and/or sensitive survey inquiries. In addition, respondents were informed that there is no monetary compensation associated with providing information for the study. The respondents were additionally informed regarding the information that would be gathered via Google Forms and transferred to an Excel file for evaluation. The protected password for this data was disclosed, with only the researchers granted personal access to it. Additionally, they were informed that the aforementioned data would be stored on a USB drive for a duration of three (3) months, after which it would be irrevocably removed from the system. Additionally, respondents were notified that the data that were obtained would no longer be used in any subsequent or secondary research. Withdrawal of respondents' participation in the study will not have any adverse effects on their relationships with the involved researchers or research organizations, nor will it affect their contributions to any future services or current programs. In order to maintain the anonymity and confidentiality of the respondents, their identities and names were withheld throughout the data collection, analysis, and reporting of the study's findings. Due to the aforementioned conditions, respondents were at any moment permitted to withdraw from the study or request a debriefing. All respondents' information were securely protected in accordance with the Data Privacy Act of 2012, also known as Republic Act 10173.

Results

Variances in Academic Resilience, Perceived Instructor's Emotional Support and Study Engagement With Respect to Sex

Table 5 shows that male students have a mean score of 4.37 (SD = 0.62) on academic resilience, while female students have a slightly higher mean score of 4.48 (SD = 0.56). The t-test result indicated a statistically significant difference between male and female scores, $t(896)$ = -2.849, p = .004. This suggests that female students perceive themselves as more academically resilient compared to their male counterparts. Additionally, the Cohen's d effect size of 0.586 indicated a moderate effect in academic resilience between

male and female students. This reflects meaningful differences in how students perceive their ability to cope with academic challenges based on sex.

Table 5

Variances in Academic Resilience, Perceived Instructor's Emotional Support and Study Engagement Among Students Based on Sex

Variable	N	M ± SD	SE	df	t-test	Sig.	Decision
Academic resilience							
Male	371	4.37 ± .62	.032	896	-2.849	.004	Significant
Female	527	4.48 ± .56	.024				
Perceived instructor's emotional support							
Male	371	4.34 ± .63	.032	896	-4.171	< .001	Significant
Female	527	4.51 ± .56	.024				
Study engagement							
Male	371	4.34 ± 1.00	.032	773.761	-1.528	.127	Not Significant
Female	527	4.44 ± .96	.024				

Furthermore, male students reported a mean score of 4.34 (SD = 0.63) for perceived instructor's emotional support, while female students report a higher mean score of 4.51 (SD = 0.56). The *t*-test result indicated a highly significant difference between male and female perceptions of emotional support from instructors, $t(896)$ = -4.171, $p < .05$. This highlights that female students perceive significantly greater emotional support from their teachers compared to male students. Furthermore, the Cohen's *d* effect size of 0.590 also indicated a moderate effect in perceived teacher's emotional support between male and female students. This underscores significant differences in how students perceive the supportiveness of their instructors based on sex.

Lastly, both male (M = 4.34, SD = 1.00) and female (M = 4.44, SD = 0.96) students reported relatively similar levels of study engagement. The *t*-test result indicated that this difference is not statistically significant, $t(896)$ = -1.528, p = .127. Therefore, the finding suggests that study engagement do not differ significantly between male and female students in this sample. The Cohen's d effect size of 0.978 suggested a large effect in study engagement between groups. This indicates that sex differences in study engagement are substantial and noteworthy, despite the lack of statistical significance in the *t*-test.

Correlational Analyses

Before performing path and mediation analysis, a correlation analysis of the variables under study was conducted. The correlation results revealed significant relationships

among the variables. Academic resilience was found to be positively related to study engagement, $r(896) = .576$, $p < .05$, and perceived instructor's emotional support, $r(896) = .643$, $p < .05$. This indicated that students with higher levels of resilience tended to perceive greater emotional support from their instructors and exhibited higher levels of engagement in their studies. Additionally, a significant positive correlation was observed between the perceived instructor's emotional support and study engagement, $r(896) = .541$, $p < .05$. The finding suggested that students who perceived higher emotional support from their instructors were more likely to be engaged in their academic works. Results are presented in Table 6.

Table 6

Correlational Analyses' Results

| Variable	Perceived instructor's emotional support	Study engagement	Academic resilience
Perceived instructor's emotional support			
Pearson correlation	1	.541**	.643**
Sig. (2-tailed)		< .001	< .001
Study engagement			
Pearson correlation	.541**		.576**
Sig. (2-tailed)	< .001		< .001
Academic resilience			
Pearson correlation	.643**	.576**	
Sig. (2-tailed)	< .001	< .001	
N	898	898	898

**$p = .01$ (2-tailed)

Structural Model Assessment

The explanatory power of the model was evaluated by measuring the discrepancy amount in the variables of the model. As Hair et al. (2021) have stated, the R^2 and the path coefficients are the essential measures for assessing the structural model. As seen in Figure 3, the model has R^2 value of TES is 43.6%, and ENG 37.2% respectively.

Figure 3

Path-Analysis
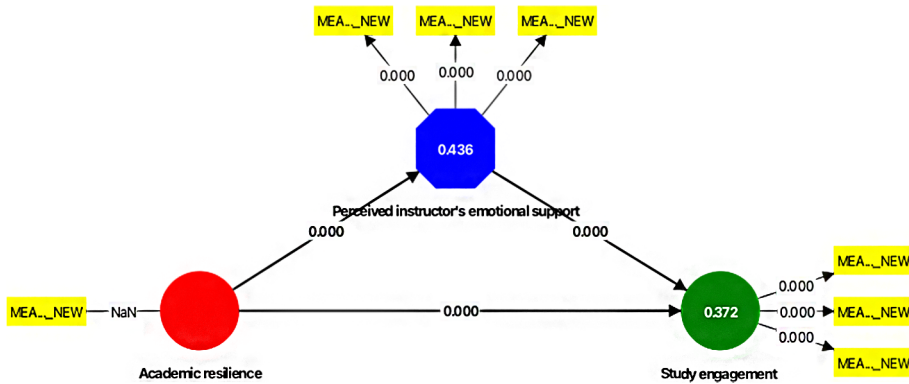
Path and Mediation Analyses

The model was bootstrapped into 10,000 subsamples for the path and mediation analysis, as suggested by scholars (Fauzi, 2022; Hair et al., 2021). The findings presented in Table 7 provide comprehensive insights into the relationships examined in this investigation, supported by path coefficients and corresponding p-values. Firstly, it is observed that the data support all hypotheses formulated for the study. Hypothesis 1 **(H$_1$)** posited that academic resilience positively influences study engagement, substantiated by a significant path coefficient of $\beta = 0.393$ ($p < .001$). This finding indicates that higher levels of academic resilience among students correspond to increased engagement in their studies. Similarly, Hypothesis 2 **(H$_2$)** proposed that academic resilience positively affects perceived instructor's emotional support, which is strongly supported by a path coefficient of $\beta = 0.660$ ($p < .001$). This finding suggests that students with greater academic resilience tend to perceive higher levels of emotional support from their instructors. Concerning Hypothesis 3 **(H$_3$)**, it stated that perceived instructor's emotional support positively influences students' engagement in college is also supported by the data ($\beta = 0.274$, $p < .001$). This finding implies that students who perceive higher emotional support from their teachers are likelier to engage in their academic activities. Lastly, Hypothesis 4 **(H$_4$)** assumed that perceived instructor's emotional support mediates the relationship between students' academic resilience and study engagement. The mediation analysis reveals a significant mediating effect with a path coefficient of $\beta = 0.181$ ($p < .001$). This finding signifies that perceived instructor's emotional support partially mediates the relationship between academic resilience and study engagement, reinforcing the positive connection between these variables.

Table 7

Hypothesis Testing Results Based on Path and Mediation Analysis

Hypothesis	Path	Path Coefficient	p	Decision
Direct effect				
H_1	ARS → SE	0.393	< .001	Supported
H_2	ARS → PIES	0.660	< .001	Supported
H_3	PIES → SE	0.274	< .001	Supported
Indirect effect				
H_4	ARS → PIES → SE	0.181	< .001	Supported

Note. ARS = Academic resilience; PIES = Perceived instructor's emotional support; SE = Study engagement.

Discussion

The findings revealed intriguing insights into sex differences in academic resilience, perceived instructor's emotional support, and study engagement among the samples. Female students demonstrated statistically higher levels of academic resilience compared to their male counterparts, indicating a perception of greater ability to cope with academic challenges. This finding aligned with existing evidence suggesting that female students often exhibited stronger resilience traits (Nyambura Mwangi, 2017; Vera Gil, 2024). Moreover, female students also reported significantly higher perceptions of emotional support from instructors, highlighting a potential disparity in how instructor support was perceived across sexes. This specific finding has been supported by previously conducted studies (Schenke et al., 2018), which was also refuted by other scholarly works (Liu & Li, 2023). Despite these differences, both male and female students showed similar levels of study engagement, indicating that while perceived resilience and emotional support may have varied, overall engagement in academic activities remained consistent between sexes in this sample. These findings underscored the complexity of sex dynamics in educational contexts and suggested avenues for further exploration into how sex influenced student perceptions and experiences in higher education.

In relation to the model, the first hypothesis asserted that academic resilience positively influenced students' engagement in college. Existing evidence supported this claim, indicating that students with higher resilience exhibited more enthusiasm for academic activities (Rodríguez-Fernández et al., 2018; Theron et al., 2022). These students also demonstrated more positive interactions with teachers and higher level of class participation than their less resilient peers (Romano et al., 2021). Additionally, studies such as those conducted by Dyrbye et al. (2010) found that resilient students were less prone to depression, reported a higher quality of life, perceived more robust social support, viewed their learning environment more positively, and experienced reduced stress and fatigue compared to their vulnerable counterparts. Importantly, resilient adults

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were adept at simultaneously utilizing problem-focused and emotion-focused coping strategies (Lee et al., 2017). Unlike less resilient peers, these students perceived emotional expression as a constructive part of tackling academic challenges rather than a hindrance. Academically resilient students leveraged available resources effectively to thrive and actively engage in their educational environments. The supporting evidences underscored the significant role of resilience in fostering academic success, psychological well-being, and adaptive coping strategies among students. Most importantly, the finding highlighted that academic resilience was about overcoming adversity and thriving in educational settings. It underscored the importance of resilience as a construct that equipped students with adaptive skills and strategies to navigate challenges effectively. By fostering resilience, educators and policymakers could potentially enhance student outcomes by promoting academic success, psychological well-being, and social competence.

Moreover, the second hypothesis revealed that academic resilience was strongly associated with and positively influenced perceived teachers' emotional support, supported by previous studies (Hu, 2022; Romano et al., 2021). This underscores the pivotal role of resilience in shaping students' perceptions of the support they receive from their instructors. For instance, Yuan et al. (2018) found that highly resilient individuals consistently perceived higher levels of emotional support from their teachers than their less resilient peers, highlighting resilience as a factor that enhances teacher-student relationships in educational settings. Furthermore, Downey (2008) emphasized the importance of cultivating teacher-student rapport and fostering a positive classroom climate to foster academic resilience among students. This recommendation underscores the significance of supportive interpersonal dynamics and nurturing learning environments in promoting students' ability to bounce back from challenges. Additionally, extensive investigation, such as that conducted by Tang et al. (2019), consistently demonstrates that students with resilient traits are more likely to engage in academic activities actively. These findings collectively suggest that fostering academic resilience enhances students' perceptions of teacher support and boosts their overall engagement and participation in educational experiences. This highlights resilience-building initiatives as integral components of educational strategies aimed at cultivating resilient, motivated learners who thrive academically and personally. The finding of this present study advocate for educational environments that foster resilience to enhance student engagement and overall well-being, ultimately promoting academic and personal growth.

The third hypothesis demonstrated that teachers' emotional support positively influences students' engagement in college, a finding corroborated by prior research (Kelly & Zhang, 2016; Pérez-Salas et al., 2021). Additionally, existing studies have consistently shown a link between instructors' emotional support and students' levels of engagement (Lam et al., 2012; Pöysä et al., 2019). This finding highlights the significant role of teacher support in fostering students' active participation and commitment to their academic

endeavors. Research consistently underscores that students who feel supported by their teachers are more likely to exhibit higher levels of engagement in academic activities (Havik & Westergård, 2020; X. Wang, 2023). This support can manifest in various forms, including encouragement, personalized attention, and understanding of students' individual needs (Knauder & Koschmieder, 2019). Moreover, the quality of instructor-student relationships has been shown to impact student motivation and academic outcomes significantly (Dai, 2024). Students who perceive their instructors as supportive are more inclined to participate in class discussions, seek help when needed, and confidently take on challenging tasks (Vestad & Bru, 2023). This positive interaction fosters a sense of belonging and security within the classroom environment, which is crucial for promoting student engagement and reducing absenteeism (F. Wang, 2024). Furthermore, adequate instructor support has been linked to improved student well-being and reduced stress levels, contributing to a positive college experience (Hoferichter et al., 2022). Instructors who establish a supportive climate enhance students' self-esteem and resilience, enabling them to navigate academic challenges more effectively. This supportive environment enhances academic performance and nurtures students' overall development, fostering a sense of competence and autonomy in their learning journey (Levesque-Bristol, 2023). Therefore, the finding of this present study underscore the critical role of perceived instructor's emotional support in promoting students' engagement and well-being in higher education settings. Cultivating supportive teacher-student relationships remains essential in creating a conducive learning environment where students feel valued, motivated, and empowered to succeed academically and personally. However, studies mentioned earlier primarily focus on primary and high-school students, with limited research on higher education. This gap highlights the need for further investigation into how academic resilience and emotional support dynamics manifest and influence student outcomes in higher educational settings. Understanding these dynamics in higher education is crucial. It can provide insights into better-supporting students during their college or university experience, fostering their academic success and overall well-being.

Finally, the fourth hypothesis has demonstrated that teachers' emotional support partially mediates the association between students' academic resilience and their engagement in college, consistent with the findings of Romano et al. (2021). This finding suggests that the impact of academic resilience on study engagement is partially explained by the perceived emotional support students receive from their instructors. Specifically, students who exhibit higher academic resilience are more likely to perceive incredible emotional support from their teachers, enhancing their engagement in academic activities. In contrast, the study conducted by Ansong et al. (2017) have found that instructor support does not mediate the relationship toward students' engagement. On a positive note, academically resilient students could positively affect their engagement through perceived instructors' emotional support. Understanding this mediated relationship is crucial for several reasons. Firstly, it highlights the pivotal role of teacher support in

shaping students' academic experiences. Research consistently shows that students who feel supported by their teachers are more motivated, participate more actively in class, and exhibit more remarkable persistence in their studies (Havik & Westergård, 2020; X. Wang, 2023). By fostering a supportive environment, educators can cultivate resilience among students, helping them navigate academic challenges effectively and develop essential skills for lifelong learning and success. Moreover, the findings underscore the interconnected nature of academic resilience, instructor's emotional support, and student engagement. When students perceive that their instructors are emotionally supportive, they are more likely to feel valued and understood, leading to increased confidence and a positive attitude toward learning (S. Shen et al., 2024). This positive cycle reinforces students' resilience by providing them with the encouragement and resources they need to overcome obstacles and achieve their academic goals. Furthermore, interventions to enhance teacher-student relationships and promote resilience can have broader implications for educational practices and policies in the higher education context. By incorporating strategies that foster supportive teacher-student interactions and resilience-building activities into curriculum design and classroom management, educational institutions can create an environment where all students feel empowered to succeed. This holistic approach enhances academic outcomes and contributes to students' overall well-being and personal development. In recent years, multiple studies have confirmed the efficacy of resilience-based interventions in promoting students' well-being (Cavioni et al., 2020; Chmitorz et al., 2018; Las Hayas et al., 2019; Morote et al., 2022).

Conclusion

This comprehensive exploration has underscored the profound impact of academic resilience and perceived teacher support on student' engagement and well-being in the higher education settings. The findings have elucidated that academic resilience enables students to overcome challenges and empowers them to thrive academically and personally. Supported by robust evidence, resilient students exhibit tremendous enthusiasm for learning, positive teacher interactions, and higher levels of class participation. Moreover, the pivotal role of perceived teacher support is to foster a supportive environment crucial for student engagement and resilience development. These insights underscore the importance of nurturing supportive teacher-student relationships and integrating resilience-building strategies into educational practices. Addressing these dynamics enhances academic outcomes and promotes students' holistic development and well-being.

Moreover, the results of this study underscored the critical importance of effective classroom interactions, particularly instructors' emotional support, in shaping students' educational experiences. The quality of emotional support instructors provide plays a pivotal role in fostering a supportive learning environment. This highlights the need for comprehensive professional development initiatives to equip educators with the skills and strategies necessary to establish meaningful connections and provide adequate

emotional support to their students. Such training programs are essential for ensuring that instructors are well-prepared to navigate complex academic-related challenges and effectively address the diverse needs of their students.

Furthermore, policymakers and educational practitioners should prioritize interventions that enhance teachers' understanding and implementation of emotional support practices. By investing in ongoing professional development and support mechanisms, educational institutions can promote teachers' mental and work-related well-being. This, in turn, positively impacts students' overall well-being and academic success. Recognizing the interconnectedness between teachers' well-being and student outcomes underscores the importance of creating a supportive and nurturing academic environment where educators and learners can thrive.

This study, while insightful, has its limitations that warrant careful consideration. Firstly, the findings are based solely on data collected from a selected higher education in the Philippines, which limits the generalizability of the results to other HEIs within the city, across the country or even in a global scope. Future research could expand the scope by including diverse HEIs, both public and private, to ascertain if similar patterns emerge or if there are variations based on institutional contexts. Additionally, this present study suggests future research investigations to incorporate and examine additional variables, such as sociodemographic profiles, which could moderate or mediate the relationships explored in this study. Understanding how factors like age, sex/gender identity, socioeconomic status, and cultural background influence the dynamics of academic resilience, emotional support perception, and student engagement could provide a more nuanced understanding of these constructs. Furthermore, employing a multi-informant approach in future research could enrich the depth of insights obtained. While this study centered on students' perceptions of emotional support from teachers, integrating teachers' self-reports could provide supplementary perspectives. Teachers possess valuable insights into the nature and scope of the support they offer, thereby contributing to a more holistic understanding of classroom dynamics.

In addition to adopting a multi-informant approach, future research could benefit from qualitative methods like interviews to explore subjective experiences of emotional support. Longitudinal studies would also offer insights into how resilience and support evolve, while mixed-methods designs could provide a comprehensive view by integrating qualitative depth with quantitative rigor. Experimental studies could further test interventions to enhance teacher support and student resilience, informing effective educational strategies. Embracing diverse research methods will advance understanding of these dynamics and contribute to fostering supportive learning environments.

In conclusion, this study has illuminated the significant influence of academic resilience and perceived teacher support on students' engagement and well-being in higher education settings. By demonstrating how resilience empowers students to navigate challenges and excel academically and personally, this research contributes valuable

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insights to educational theory and practice. These insights are crucial for informing policy and practice to enhance student outcomes and promote holistic development in higher education. Moreover, this study fills a notable gap by emphasizing the importance of effective classroom interactions, particularly emotional support from instructors, in shaping students' educational experiences. By addressing these dynamics, educational institutions can better support teachers by providing meaningful emotional support and fostering a conducive learning environment where educators and learners can thrive.

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