



Original Article

Exploring the Extent of Academic Resilience and Academic Performance among College Students

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Abstract

The COVID-19 pandemic posed significant challenges to the educational system, particularly in assessing student resilience and academic performance. This study examined the relationship between academic resilience and academic performance among college students during the pandemic using a quantitative, descriptive correlational design. Data from 560 students were analyzed through correlation and multiple linear regression. The findings revealed that most participants (371 or 66.3%) exhibited high levels of academic resilience, and a majority (57.0%, or 319 students) achieved a General Weighted Average (GWA) in the 91-95 range, indicating strong academic performance. Results demonstrated a significant positive correlation between resilience and academic performance. The study identified Positive Coping and Regulation of Academics (PCRA), which refers to students' constructive coping mechanisms and self-management in academic tasks, and Negative Perception in Coping with Academics (NPCA), defined as students' negative beliefs or ineffective coping with academic challenges, as key predictors. Although these predictors accounted for only 5.1% of the variance, the findings highlight the importance of resilience factors in academic performance and suggest that additional variables, such as cognitive ability, socio-economic status, and study habits, require further investigation. The study underscores the necessity for educational institutions to implement interventions that foster positive coping strategies and address negative perceptions among students. Further research is recommended to examine mediating factors and develop targeted interventions to enhance student resilience and academic outcomes.

Keywords: resilience, academic performance, MRRF-academic resilience scale, positive coping, negative coping, college students

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Introduction

The COVID-19 pandemic, declared a global emergency in March 2020, significantly disrupted educational systems and student routines. In response, mental health advocates implemented strategies to help students cope with disruptions to learning and daily life. Resilience has emerged as a critical factor in higher education, particularly as college students face academic challenges amid unprecedented circumstances such as the COVID-19 pandemic. It encompasses self-efficacy, motivation, emotional regulation, relationships, and institutional support (Brewer et al., 2019). Recent studies emphasize the need to understand academic resilience for both students and faculty, highlighting gaps in research and support within higher education (De los Reyes et al., 2021; Price, 2022).

In contrast, students in higher education experience significantly higher rates of depression and anxiety than the general population. In response, administrators and educators have implemented various psychological strategies to enhance student well-being and resilience, particularly during the pandemic. Many students reported difficulties coping with academic demands, leading to increased dropout rates, declining academic performance, and rising mental health concerns. Individuals' varying ability to cope with stressors can determine their capacity to adapt to the "new normal" in academic settings (Rao & Krishnamurthy, 2018). Given this pressing situation, resilience plays a crucial role in aiding students' coping strategies. Resilience is multi-dimensional, encompassing various psychological domains, including a student's ability to adapt to the challenges posed by COVID-19 (Mwangi et al., 2015).

In this regard, interest in understanding resilience has evolved through research findings applicable to clinical practice, mental health, and education (Camitan & Bajin, 2021). Various scholars and researchers have interpreted resilience differently depending on the context of the investigation. Rao and Krishnamurthy (2018) defined resilience as an individual's ability to bounce back and cope with various hurdles, setbacks, stressors, and hindrances. Resilience is multidimensional, encompassing academic, social, and emotional factors that affect one's behavior (Mwangi et al., 2015). Masten (2014) reported that resilience is the ability and capacity of a dynamic system to cope successfully with hindrances that threaten system function, viability, or development.

Existing literature also suggests that resilience connotes positive or typical developmental adaptations despite exposure to explicit threats or adversity. Additionally, Masten (2014) and Mwangi et al. (2015) supported the claim that multi-dimensional resilience encompasses academic, social, and emotional domains. Pietrzak and Southwick (2011) found that resilience factors encompass biological, psychological, social, and cultural aspects that interact to determine how one responds to stressful experiences. Because of these varying constructs, resilience was recognized through positive strengths, productive coping, growth, and positive outcomes despite adversity. Lereya et al.'s (2016) Student Resilience Scale captured the range of external supports and internal characteristics of resilience. It measures and recognizes ten (10) potentially protective mechanisms of family, school, and community connection, participation in home and school life, community life, peer support, self-esteem, empathy, problem-solving, goals, and aspirations. These mechanisms are essential for measuring resilience and determining the correlation between resilience and academic performance (Arif & Mirza, 2017; Britton, 2018; Mwangi et al., 2015). Mwangi et al. (2015) explained that resilience is vital for enhancing students' academic performance and mitigating the adverse effects of academic failure.

Moreover, multiple studies have explored the relationship between resilience and academic performance, indicating that weak resilience is associated with academic failure and psychological difficulties. To

address these challenges, the researcher has developed the MRRF-ARS, a 68-item scale designed to assess resilience in the academic context. The MRRF-ARS measures two predictor variables: Positive Coping and Regulation in Academics (PCRA), which evaluates the extent to which students use adaptive coping strategies and regulate their academic activities, and Negative Perception and Coping in Academics (NPCA), which assesses students' maladaptive coping mechanisms or negative beliefs about coping with school demands. It has shown a significant correlation with the Academic Resilience Scale (ARS-30) and demonstrates good internal consistency across its subscales. This tool is essential for evaluating how students cope with the adversities presented by the pandemic. Given the limited research on resilience in the local context, the use of instruments such as the MRRF-ARS is crucial for assessing students' coping skills and informing intervention strategies.

Recognizing this situation, the study addressed several concerns related to pandemic-related fluctuations in academic performance (Yang et al., 2021) and various factors associated with poor resilience and at-risk situations affecting students' academic performance (Delestre, 2016). Students who can effectively cope tend to overcome the stress and setbacks they encounter. Literature (Mwangi et al., 2015; Angeles, 2021; Sarwar et al., 2010; Masten, 2014) has indicated that poor academic performance may be linked to weak resilient behaviors (Novonty & Kremenkova, 2017), high stress perception (Solomon, 2013), low school engagement, and poor perceptions of psychological well-being (Fernandez et al., 2018). These mediating variables have been validated as influential factors on students' resilience and academic performance.

Existing literature has emphasized internal (e.g., personal characteristics) and external (e.g., environmental) protective factors that shape the nature of resilience. These factors highlighted the roles of teachers, counselors, and peers as external protective factors, which were considered to predict academic performance (Delestre, 2016). In Kenya, external factors of resilience were assessed based on the Children's Health Kids survey- Module B, focusing on meaningful participation, high expectations, and caring relationships. Sense of meaning, purpose, autonomy, social competence, and sense of self were identified as internal factors from the survey. In Pakistan, another construct was presented to describe resilience factors: self-esteem, self-efficacy, creativity, internal locus of control, autonomy, problem-solving skills, optimism, sense of humor, teacher-student relationship, and stress-coping skills. As multifaceted constructs, individuals can strive and survive despite challenging events or tasks, maintaining balance (Mwangi et al., 2015).

Similar studies, such as Norris (2014) and Delestre (2016), studied the association between resilience and academic performance of high school students. The results presented emerging themes that accounted for resilience. The respondents highlighted the importance of maintaining positive peers, good role models, and positive inner qualities to become resilient. The studies further found that respondents can adapt to stressful and challenging circumstances with the help of family members, peers, the community, and school counselors. Moreover, Novotny and Kremenkova (2016) highlighted factors that strongly influence academic performance, which are significantly associated with the dynamics of relationships and care from parents, family members, and the community. The association significantly affects adolescents' self-image, self-esteem, and self-efficacy. The linear regression modeling identified these factors as common determinants of academic performance, especially among high school students. Only a few studies were found that discuss resilience and factors in tertiary/higher education.

Since resilience is a multifaceted construct, students' development can be influenced by their interactions with various environmental systems that foster intrinsic values, coping, and beliefs. In fact, Bron-

fenbrenner (1989), an American psychologist, argued that students' characteristics and qualities could be attributed to their child development. The complex interplay of relationships can influence their resilience from their immediate family, peers, and schools to various societal systems, such as customs/laws, and even societal values (Evans, 2020). Given that the literature shows that external factors can influence resilience, Evans further explained that a person's characteristics can be shaped through interactions with the environment (Evans, 2025). Additionally, Rosa and Tudge (2013) also highlighted that Bronfenbrenner's Theory of Human Development, which emphasizes environmental influence, plays a crucial role in understanding proximal systems and processes.

Resilience may also emerge as they interact from the microsystem, mesosystem, ecosystem, and macrosystem, and the disparity between context and time can aid the student's developing interpersonal relationships and positive coping as they interact from the innermost layer to the outermost layer of proximal and different processes (Ungar et al., 2012). Delestre (2016) found that students in Texas relied on several protective factors from friends and family that play an essential role in their outcomes and success in school. Various quantitative literature also support these external factors of resilience (Novonty & Kremenkova, 2016). Moreover, Delestre (2016) demonstrated the role of inner qualities such as self-efficacy, a strong sense of faith, talent, intelligence, and confidence in her qualitative studies. Similar findings by Ang et al. (2021) showed that building resilience is an effective practice for countering stress during the pandemic. Their qualitative research results demonstrated that the desire to succeed and motivation are intrinsic factors that enhance resilience, and added that extrinsic factors like friends, family, teachers, and religion affect an individual's resilience development.

In the Philippines, growing research on resilience has shown that integrating resilience into education and implementing resilience programs for students yields positive outcomes. Resilience skill is a common factor that helps drug-dependent individuals lessen the withdrawal symptoms and build internal factors of resilience, such as locus of control, to overcome the effects of drugs (Dangerous Drug Board, 2020). Hence, resilience interventions were also effective in building mental health responses during a disaster (Bollettino et al., 2018). A sense of hope and purpose/ meaning embedded in the resilience factor aids the individual to continue living despite the adversity they encounter (Mirza & Arif, 2017). Riopel (2019) argued that students can achieve more if they have the aspirations to continue despite their experiences. Despite the limited number of studies in the local context, the present study aims to provide local measures to assess resilience and norms within the locality.

Camitan and Bajin (2021) presented models using PERMA (Positive emotion, Engagement, Relationships, Meaning, and Accomplishment) as four pillars that are accounted for in the well-being and resilience of Filipino adults, based on Seligman's Well-being Theory. This would help individuals flourish, particularly in terms of resilience during pandemics despite hardships, difficulties, and hindrances. The PERMA framework was used for Filipinos to explore the extent of resilience, as it is embedded in our culture. Lanuza et al. (2020) explained that Filipino resilience varies with age and academic levels. Hence, tertiary education must hone the student's strengths by integrating resilience in the curriculum and program to enhance the student's ability to deal with academic adversities that they encounter. Resilience skills should be integral to students' academic performance (Mwangi et al., 2015). The limited number of Filipino frameworks on resilience in the context of students and education is what these address: providing a framework anchored in the Filipino students' context.

Norris (2014) and Lanuza et al. (2020) highlighted that resilience is a complex construct that needs to be defined and contextualized in relation to students' backgrounds and capabilities. The themes that

emerge in the research might validate the other findings. Therefore, understanding the “nature of resilience” would help in comparing and analyzing the themes in the data set. Since most of the research is from other countries, the present study explored how internal and external resilience factors influence the academic performance of some Filipino students, to strengthen the quantitative and qualitative findings on the extent to which these factors serve as predictor variables.

Given the disparity in the students’ low coping behaviors, which hinder their academic performance, limited research has been conducted. To address this, educational institutions have prioritized research on the relationship between resilience and academic outcomes, and have developed counseling protocols tailored to the barriers Filipino students experienced during the pandemic (Tee et al., 2021). Moreover, counselors are instrumental in supporting college students by offering resilience-based counseling and academic skills training. Despite this, limited data exist on the relationship between student resilience and academic performance, particularly in the local context. Few studies have evaluated both positive and negative coping mechanisms in academic environments. This study seeks to assess students’ resilience and provide baseline data to inform future program development, guiding administrators and mental health professionals in policy and intervention design.

With this in mind, the present study determined the extent to which resilience factors predict academic performance among college students. Specifically, this paper: (a) determines the resilience Score and academic performance of the college students, (b) examines the relationship between resilience and academic performance among college students, (c) assesses the extent of resilience factors predicting academic performance, and (d) determines which resilience factors highly influence academic performance.

Methodology

Research Design

The present study employed a quantitative research design, specifically a descriptive correlational and regression design, to assess the relationship and extent to which resilience factors influence academic performance. The present study employed a quantitative research design, utilizing descriptive, correlational, and regression approaches. This design was chosen to assess the relationship between resilience and academic performance and the extent to which resilience factors predict academic outcomes. The descriptive correlational approach allowed exploration of associations among variables, while regression analysis identified the specific resilience factors most strongly influencing academic performance. This research provided an inclusive context for investigating the predictive power of accounting resilience on academic outcomes.

The quantitative data were collected using the instruments and entered into the Statistical Package for the Social Sciences (SPSS). The researchers employed Pearson’s r Correlation and multiple linear regression to analyze data from the MRRF-Academic Resilience scale and college students’ academic performance. Thus, it is necessary to perform correlation analyses to check the acceptable correlation of variable scales (resilience scale and academic performance) before proceeding to the regression analyses (Novonty & Kremenkova, 2015). Pearson’s r Correlation is employed to analyze the association between MRRF-ARS and academic performance. It helped verify the first research question if there is a significant correlation between the student resilience scale and academic performance.

On the other hand, multiple linear regression analysis was used in this study to examine the extent

of the relationships between the resilience factors presented and academic performance. This highlighted the variance in academic performance using the stepwise method.

Participants

The study participants were students from a state college in Camarines Norte, Philippines. The study was conducted within the province, which consists of 12 municipalities. The state college had nine (9) delivery units offering a range of courses in accountancy, business, education, agriculture, engineering, and various sciences and arts disciplines. To determine the sample size for the quantitative phase, Slovin's formula $n = N/(1+Ne^2)$ $n = N / (1 + Ne^2)$ $n = N/(1+Ne^2)$ was used. With a total student population of 9,200 (N) and a margin of error (e) of 0.05, an estimated sample size of 375 students was calculated. Participants had to meet the following inclusion criteria: (1) currently enrolled in the second semester of the school year 2021-2022 and (2) 18 years old and above.

Students aged 17 years and below were excluded from the data collection due to ethical considerations requiring parental assent. Although initially targeting 375 respondents, the open online survey received responses from 560 students across various delivery units. The researcher could not control the students' response rate due to the voluntary, open survey format. This helped collectively address potential biases by checking the equal distribution of participants' response rates and the sampling used.

The following tables present the frequency and percentage distribution of the participants' age, gender, and year level.

Table 1
Age of the Participants

Age Range	f	%
18-20	362	64.6
21-23	178	31.8
24-26	11	2.0
27-29	6	1.1
30-32	2	0.4
33-35	1	0.2
Total	560	100.0

Table 1 presents the age range (M=1.41, SD=0.65) of participants, as well as the frequency and percentage distributions. 362 (64.6%) were 18-20 years old, and only 1 (0.2%) was 33-35 years old.

Table 2
Gender of the Participants

Gender	f	%
Male	164	29.3
Female	396	70.7
Total	560	

Table 2 presents the Gender profile ($M = 1.71$, $SD = 0.45$) of the college students. There were 164 (29.3%) male students and 396 (70.7%) female students, who comprised the majority of respondents in the study.

Table 3
Year Level of the Participants

Year Level	f	%
1 st	151	26.96
2 nd	146	26.07
3 rd	142	25.36
4 th	121	21.61
Total	560	100

Table 3 provides an overview of the distribution of participants across different year levels. Of the total 560 respondents, 151 (26.96%) are first-year students, representing the largest group. This is followed closely by second-year students, who comprise 146 participants (26.07%), and third-year students, with 142 participants (25.36%). The smallest group, comprising fourth-year students, has 121 participants (21.61%). The distribution across year levels highlights a fairly even representation, with each year contributing significantly to the total sample.

Research Instrument/Measures

Resilience Measures

MRRF-ARS is a 68-item measure comprising two (2) subscales determining the students' perceptions of their characteristics and protective factors embedded in their positive and negative coping (Appendix D). The factors that emerged after the extraction are (1) Positive coping and regulation, and (2) Negative coping and Perception of academics. The frequency of each item was rated on a 5-point Likert scale (1 = never to 5 = always). The Cronbach's Alpha reliability coefficient, based on data from 340 students, was 0.91 (Angeles et al., 2022). During the instrument development process, the MRRF-ARS showed significant correlations with the Academic Resilience Scale (ARS-30) and demonstrated good internal consistency across all subscales. MRRF-ARS was normed in the Philippines among senior high school and tertiary students to establish its validity and reliability. The resilience score was calculated as the sum of the PCRA and NPCA subscales. PCRA tests how well a student handles schoolwork, how much they believe in their skills and abilities, and how well they balance taking care of themselves, studying, and spending time with friends. This student is open to new ideas, stays focused and motivated, and is determined to achieve their academic goals through continuous learning. The NPCA, on the other hand, assesses how well students handle schoolwork and recognize their own strengths and weaknesses in school and social situations. This student might not want to hear new ideas, be worried about what others think of them, or not want to ask for help or make friends. They often have trouble staying focused and motivated to keep learning and reaching their academic goals.

The MRRF-Academic Resilience Scale (ARS) was administered to college students via a Google Form. The maximum possible value score on this scale is 272, and the minimum score is 68. Resilience Scores were interpreted as follows:

- **Very High Academic Resilience (88-100):** Students are highly confident, adaptable, and able to effectively manage stress and challenges, leading to strong academic performance.
- **High Academic Resilience (75-87):** Students are confident and cope well with challenges, though they may struggle with motivation at times, but still achieve academic success.
- **Average Academic Resilience (51-74):** Students can handle academic stress and challenges moderately well, sometimes seeking help, and maintain a balanced academic performance.
- **Low Academic Resilience (26-50):** Students struggle with confidence and coping, find it difficult to manage stress, and often face challenges in achieving academic success.
- **Very Low Academic Resilience (1-25):** Students may lack confidence, struggle to handle challenges, and find it difficult to manage stress, leading to poor academic outcomes.

This test was also helpful in identifying the individual's Positive Coping and Regulation in Academics (PCRA) and Negative Coping and Perception in Academics (NPCA).

Academic Performance (GWA)

Academic performance was evaluated using the General Weighted Average (GWA) of selected students from a public college/HEI during the second semester of the academic year 2021-2022. The data were retrieved from the Registrar's Office with the participants' consent. After identifying the participants in the resilience survey, the researcher obtained permission from the institution's administration to access the GWA records of the participants.

The GWA represents the average grade students have accumulated since their enrollment at the college. The following scale was used to categorize academic performance: a GWA of 91 or above indicates very good performance; 81-90 reflects average performance; 76-80 indicates low performance; and a GWA of 74 or below, or a dropped status, indicates poor academic performance.

Procedures

Potential participants in the study were sent a consent letter by the researcher via the selected college HEI administration. During the preliminary study, informed consent was obtained from participants after a discussion of the study's nature before administering the questionnaires.

The researcher administered the Biographical Information and MRRF-Academic Resilience Scale via a Google Form to a sample of college students. The MRRF-ARS scale assessed resilience as a protective factor. Also, the researcher requested GWA from the Registrar's office as the basis for academic performance. Then, the data were analyzed using Pearson's r Correlation and multiple regression.

Data Analysis

Data from the MRRF-Academic Resilience Scale (MRRF-ARS) and students' academic performance were analyzed using Pearson's r and multiple linear regression. Pearson's r was utilized to examine the relationship between the overall resilience score (independent variable) and academic performance (dependent variable). This analysis was essential for establishing a significant linear relationship between resilience and academic performance, as delineated in the initial research question. Before conducting the correlation analysis, important assumptions, such as linearity and normality, were assessed. The research-

ers examined scatterplots to determine whether they were linear, and used the Shapiro-Wilk test to assess whether the data were normally distributed. Additionally, to improve the accuracy and clarity of the statistical analysis, both statistical significance and effect size were included. To give clearer measures of the strength and size of the links, the researchers showed coefficients of determination (R^2), standardized beta weights, and correlation coefficients (r).

The second research question involved a multiple linear regression analysis to assess the extent to which specific resilience factors predict academic performance. The stepwise method was employed to ascertain the most critical predictors of academic outcomes. Before running the model, the researchers checked for multicollinearity, homoscedasticity, and normality of the residuals, all of which are important assumptions for regression analysis. The Variance Inflation Factor (VIF) was used to assess multicollinearity, and residual plots were used to assess homoscedasticity. These analyses confirmed the appropriateness of the statistical methods employed and facilitated confident interpretation of the findings. The Statistical Package for the Social Sciences (SPSS) was used for all statistical analyses.

Ethical Considerations

The study adhered to the protocols established by the Institutional Research Ethics Committee to safeguard participants from potential harm. The researchers sent letters to the administrations of several higher education institutions (HEIs) requesting permission to conduct the research. After getting the green light, an informed consent process was put into place. Before taking the questionnaire, participants were given an informed consent form explaining the study and their role, and that they could leave at any time without any problems. The form also listed any potential risks, which were very low, and allowed people to skip questions if they did not want to answer them.

To protect people's privacy, data was anonymized. Each participant was given a unique code, and their answers were not linked to any personal information, such as names or addresses. The researchers were the only ones who could access the data, which was kept safe in password-protected files. Participants were told about mental health resources they could contact if they needed them, even though the risks were low, like feeling uncomfortable answering personal questions. This method kept them safe and private during the whole study.

Results and Discussion

The present study evaluates the relationship between resilience factors and the extent to which they account for academic performance. Table 4 below shows the MRRF-Academic Resilience Scale (MRRF-ARS) score ($M=201.35$, $SD=19.21$) for tertiary students.

Table 4

MRRF-Academic Resilience Scale (MRRF-ARS) Results of the Participants

MRRF-ARS Score	f	%
Very Low (68-108)	0	0
Low (109-149)	3	0.5
Average (150-190)	159	28.4
High (191-231)	371	66.3
Very High (232-272)	27	4.8
Total	560	100.0

The MRRF-Academic Resilience Scale (MRRF-ARS) scores of the college students ($M = 201.35$, $SD = 19.21$) are shown in Table 3. The results show that 371 students (66.3%) had high resilience, meaning they were confident in their skills and strengths and viewed their weaknesses as opportunities for improvement. These students can handle, adapt to, and get through academic problems, challenges, and stress from their schoolwork and experiences. This makes them both academically and socially competent (Angeles et al., 2022). A total of 159 students (28.4%) received scores that fell within the average range of resilience. This means they can handle academic challenges, hard times, and the stress of schoolwork and experiences, which helps them stay emotionally healthy.

At the same time, 27 students (4.8%) showed very high levels of resilience. These students are very confident and use their strengths to improve, seeing their weaknesses as opportunities to get better. Their optimistic perspective on academic and social life, despite challenges and anxieties, enhances their resilience and overall well-being (Angeles et al., 2022). Only 3 students (0.5%) scored in the low-resilience range on the MRRF-ARS instrument, the opposite of what happened. This means that they have trouble trusting in their abilities and strengths, dealing with academic problems, and handling stress and anxiety well. The MRRF-ARS also finds factors that help people be strong both inside and outside of school. These factors are split into two groups: Positive Coping and Regulation in Academics (PCRA) and Negative Perception in Coping with Academics (NPCA). These parts assess how well students handle and adjust to difficult situations. The results show that the students had many protective factors, meaning they could adapt and do well even in the face of risks, such as the COVID-19 pandemic, while still meeting their academic requirements. These findings corroborate Riopel's (2019) assertion that students with high aspirations, adaptability, and effective coping skills can achieve greater success, even amid challenging experiences.

Table 5

GWA of the Participants (1st Semester AY 2021-2022)

GWA	f	%
75-80	5	0.9
81-85	24	4.3
86-90	202	36.1
91-95	319	57.0
96-100	10	1.8
Total	560	100.0

Table 5 shows the General Weighted Average (GWA) of college students for the first semester of the 2021–2022 school year ($M = 90.85$, $SD = 3.33$). The results reveal that most of the people who took part (57%) had a GWA between 91 and 95, which means they did well in school. Only 0.9% of students had a GWA between 75 and 80, indicating that very few had trouble with schoolwork. Also, 4.3% of students had a GWA between 81 and 85, and 36.1% had a GWA between 86 and 90. A small number of students (1.8%) had a GWA between 96 and 100, which is an excellent score.

These results show that a lot of students did well in school, since the mean GWA was pretty high. This outcome may indicate that students possess effective coping strategies and resilience, allowing them to adapt and thrive despite challenges in the academic setting, including those presented by the COVID-19 pandemic. The strong academic performance observed here aligns with the resilience scores discussed earlier. This suggests that students' ability to handle academic stress helped them do well in school (Schäfer et al., 2020). Understanding these GWA distributions provides important information about how well participants performed in school overall. This shows how important it is to be resilient and have good coping skills to perform better in school.

Table 6
Correlation of the GWA and the MRRF- Academic Resilience Scale (MRRF-ARS) Score of the Participants

Variable	GWA
MRRF- ARS	0.200**
N	560

$N=560$, ** $p < 0.05$

Table 6 presents the correlation between the General Weighted Average (GWA) and the participants' MRRF-Academic Resilience Scale (MRRF-ARS) scores. The Pearson Product-Moment Correlation Coefficient (r) was utilized to analyze the correlation between the MRRF-ARS scores ($M = 201.35$, $SD = 19.21$) and the GWA ($M = 90.85$, $SD = 3.33$) of college students. The results showed a positive relationship between MRRF-ARS scores and GWA, $r(560) = 0.20$, $p < 0.005$.

This finding shows that resilience and academic performance are closely related, meaning both concepts move in the same direction. A rise in students' resilience correlates with improved academic performance, whereas a decline in resilience correlates with a deterioration in academic performance. The correlation was weak, indicating that resilience and academic performance are related, but the relationship is not robust. This highlights the need to investigate supplementary variables that may affect academic performance.

The results are consistent with other studies, which consistently show a strong link between resilience and academic performance (Mwangi et al., 2015; Rao & Krishnamurthy, 2017; Novonty & Kremenkova, 2016). These studies confirm that resilience components are directly correlated with academic success. As a result, the null hypothesis is dismissed. In contrast, the current findings contradict the findings of Sarwar et al. (2010), who reported no significant correlation between resilience and academic performance. This difference could be due to cultural factors or other variables, such as gender, that might have affected their data.

Table 7

Correlation of the GWA and the MRRF- Academic Resilience Scale (MRRF-ARS) Factors of the participants.

MRRF- ARS	GWA
Positive Coping and Regulation on Academic (PCRA)	0.121**
Negative Perception in Coping with Academics (NPCA)	0.177**
N	560

*N=560, ** $p < 0.05$*

Table 7 shows how the General Weighted Average (GWA) and the MRRF-Academic Resilience Scale (MRRF-ARS) factors of the participants are related. The results show that there was a strong link between college students' GWA and both Positive Coping and Regulation on Academics (PCRA) and Negative Perceptions in Coping with Academics (NPCA). The Pearson Product-Moment Correlation Coefficient (r) was used to analyze the relationships among participants' PCRA ($M=158.24$, $SD=17.57$), NPCA ($M=43.11$, $SD=9.68$), and GWA ($M=90.85$, $SD=3.33$). It was found that the correlations were significant but weak, with $r=0.121$ for PCRA and $r=0.177$ for NPCA.

The positive correlation between PCRA and GWA indicates that students with superior positive coping and self-regulation skills are likely to achieve higher academic performance. The relationship is weak, but it shows how important it is to encourage positive coping skills and good self-regulation in school to do well in school. Students who use adaptive behaviors and keep their schoolwork organized are more likely to do well in school.

The notable yet weak positive correlation between NPCA and GWA suggests that a rise in negative perceptions of academic coping is associated with a marginal increase in GWA. This unexpected result may mean that students who know they have bad coping habits take steps to change them. Understanding maladaptive behaviors may prompt students to adopt more effective strategies, which could lead to small improvements in their grades.

Even though the correlations are weak, both the PCRA and the NPCA provide teachers and counselors with useful information to help them understand the factors that affect students' academic performance. The indicators in PCRA show how positive coping skills are linked to academic success. This shows how important resilience and flexible strategies are in the classroom. On the other hand, results regarding NPCA indicate that awareness of negative coping behaviors can help students avoid feeling helpless (Angeles et al., 2022) and low coping efficiency (Mwangi et al., 2015). This kind of recognition is important for developing interventions that help people prevent harmful behaviors.

PCRA and NPCA are new constructs that could help teachers and counselors find areas that need special attention. Encouraging healthy ways to manage stress while facing challenges with schoolwork can help students become more resilient and academic outcomes.

Table 8

Results of the F-test (One-Way ANOVA) for Independent Groups Showing the Difference between the Positive Coping and Regulation of Academics, Negative Perception in Coping with Academics, and General Weighted Average

Source	Sum of Squares	df	Mean Squares	F
Regression	315.133	2	157.567	14.893*
Residual	5892.965	557	10.580	

a. Predictors: (Constant), PCRA, NPCA

b. Dependent Variable: general weighted average (GWA)

Note: * $p < 0.05$

The study sought to identify which factors—Positive Coping and Regulation on Academics (PCRA) or Negative Perception in Coping with Academics (NPCA)—predict the General Weighted Average (GWA) among college students. The prediction model, using stepwise regression, indicated that GWA was significantly predicted by both PCRA and NPCA, $F(2,557)=14.893$, $p<0.05$. These results indicate that both PCRA and NPCA have a significant impact on academic performance.

The results show that both effective and ineffective coping strategies can affect academic outcomes differently. In particular, students who have strong positive coping and regulation strategies (PCRA) and are aware of negative perceptions in coping (NPCA) are better able to handle academic challenges. This dynamic interaction indicates that while PCRA can improve a student's academic success, increased NPCA may act as a barrier, potentially hindering performance. The participants in this study likely utilized diverse protective resilience factors to attain academic success, including cultivating and sustaining positive relationships, identifying role models, and harnessing intrinsic strengths that propel their motivation to excel (Delestre, 2016).

These resilience factors confirm the predictive efficacy of both PCRA and NPCA in assessing academic performance. The study's tools effectively measured the effects of students' coping strategies (both positive and negative) on their academic success. For example, students who are good at coping with and regulating their emotions are better at using their strengths and asking others for help, making them more resilient. On the other hand, students with strong negative views about coping may struggle to deal with academic problems, which can affect their performance.

The model explained about 14.893% of the differences in academic performance. This means that resilience, which includes both effective coping strategies and an understanding of ineffective coping habits, is an important factor in predicting academic success. Although the percentage of variance explained is not very high, the results indicate that resilience factors are important for academic performance. They also show that other factors may also play a role in academic outcomes.

The implications of these findings underscore the essential function of cultivating resilience in attaining academic success. Students who learn to handle problems in a healthy way are more likely to keep going through school, stay emotionally healthy, and do better academically. Given the demands of school, like heavy workloads, tight deadlines, and pressure to do well, being able to adapt and cope is especially important. These findings underscore the importance of resilience-building initiatives and interventions

that equip students with the skills to navigate and excel in demanding academic environments.

Table 9
Predictors of General Weighted Average (Academic Performance) of the college students

Variable	GWA	
	B	95% CI
Constant	83.814	[80.969,86.659]
Positive Coping and Regulation of Academics	0.027	[0.011, 0.042]
Negative Perception in Coping with Academics	0.066	[0.038,0.094]
R ²	0.051	
F	14.893	
ΔR ²	0.051	
Δ F	14.893	

Note: R² = R Square F = F
 ΔR² = R Square Change Δ F = F Change
 a. Dependent Variable: GWA

This study aimed to identify the predictors of the General Weighted Average (GWA) or academic performance of college students, emphasizing Positive Coping and Regulation on Academics (PCRA) and Negative Perception in Coping with Academics (NPCA) as principal factors. A regression analysis was performed, yielding significant results concerning the correlation between these variables and academic performance. The findings demonstrate that Positive Coping and Regulation on Academics (PCRA) and Negative Perception in Coping with Academics (NPCA) significantly predict General Weighted Average (GWA), explaining 5.1% of the total variance (R² = 0.051). The prediction model is: $Y' = 0.027(PCRA) + 0.066(NPCA) + 83.814$.

The regression model showed that both PCRA and NPCA were good at predicting the GWA of college students. The constant value (B=83.814, 95% CI [80.969, 86.659]) is the baseline GWA when the effects of PCRA and NPCA are not taken into account. This means that the predicted academic performance starts at 83.81. The results showed a positive relationship between PCRA and GWA (B = 0.02, 95% CI [0.011, 0.042]). This means that for every 1-unit increase in PCRA, the GWA is expected to increase by 0.027 units. This underscores the significance of positive coping mechanisms, including efficient academic regulation and adaptive strategies, in improving students' academic performance.

NPCA (B=0.066, 95% CI [0.038, 0.094]) exhibited a positive correlation with GWA, suggesting that each unit increase in NPCA is associated with a 0.066 unit rise in GWA. This finding may seem counterintuitive, but it could mean that students who know they have bad coping habits may deliberately lessen their effects. This awareness might encourage students to act more productively, which could help them do better in school. The model elucidated roughly 5.1% of the variance in GWA (R = 0.051), achieving statistical significance (F = 14.893, p < 0.05). Even though the explained variance is low, it shows that resilience factors such as PCRA and NPCA have a significant effect on differences in academic performance. The change in R2 (ΔR2=0.051) and the F-change (ΔF=14.893) further demonstrate the importance of these predictors in explaining academic outcomes.

These results align with the notion that resilience factors are integral to academic achievement. PCRA, which demonstrates good coping and regulation, helps students handle academic problems more effectively, stay focused, and deal with the demands of higher education. Conversely, the notable correlation between NPCA and GWA indicates that identifying and mitigating negative coping mechanisms may avert students from engaging in maladaptive behaviors. This two-sided view of resilience underscores the importance of encouraging both self-awareness and positive coping skills in school. Consequently, the results corroborate the study's hypothesis that resilience factors affect students' capacity to manage and surmount academic challenges. PCRA was recognized as a favorable predictor, underscoring its role in helping students manage academic stress while balancing self-care, study habits, and relationships with peers and family. This corroborates prior research by Angeles et al. (2022), which underscored the significance of PCRA in sustaining focus, adaptability, and motivation to attain academic objectives.

NPCA also turned out to be a strong predictor, but its effect shows how hard it is to use negative coping strategies. Angeles et al. (2022) assert that maladaptive coping mechanisms may impede students' capacity to adapt or reevaluate their strategies in response to academic stressors. This ineffective strategy can lead to feelings of withdrawal, apathy, and lack of motivation, which can hurt their academic performance. These results align with the research conducted by Mwangi et al. (2015) and Novonty and Kremenkova (2016), which identified positive coping strategies and supportive environments as indicators of academic achievement. Students who exhibit resilience by using positive coping strategies are more likely to achieve superior outcomes, whereas those influenced by negative perceptions may struggle to overcome academic challenges. Even though PCRA and NPCA account for only a small portion of the variance, this study shows the importance of resilience for academic success, especially during hard times such as the COVID-19 pandemic. Students' academic success depends heavily on their ability to handle stress, adapt to new situations, and maintain a sense of purpose.

Conclusions and Recommendations

This study shows that resilience is essential for improving academic success. It sheds light on how resilience manifests in students' ability to handle difficulties and control their environment to succeed academically. Determining how these factors affect academic performance requires an understanding of both positive coping strategies and academic control, as well as negative coping mechanisms and attitudes. Academic performance significantly improves among college students with strong positive coping skills and the capacity to overcome adversity. On the other hand, academic performance scores are negatively correlated with poor coping mechanisms and bad attitudes about studying.

This study aims to understand the relationship between academic achievement and resilience in the current context. It emphasizes the need to investigate mediating factors, such as students' intrinsic intelligence and resilience, that may be influenced by extreme experiences and affect this link. Students' varied origins and experiences are reflected in the emergence of stress, motivation, culture, and socioeconomic status as mediating variables. These variables may greatly impact the relationship between academic achievement and resilience.

The study suggests creating and using standardized tools to evaluate academic achievement. It is recommended that future researchers develop assessments that include intelligence components beyond the General Weighted Average (GWA) of student scores. To improve the research's generalizability and

scope, other state universities and colleges (SUCs) in various provinces might also adopt the MRRF-ARS questionnaire. The psychometric qualities of these tools may be improved by increasing the sample size and participant diversity. To determine whether the results are consistent across provinces, cultures, and demographic groups, the study concludes by suggesting cross-cultural research. A more thorough understanding of the relationship between resilience and academic achievement would result from such research, thereby broadening the study's scope.

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