

The Relationship Between Adversity and Academic Performance of Radiologic Technology Students of Calamba Doctors' College

¹Jhoanne Kate V. Farcon, ²Reinne Pollard L. Nieva, ³Joana Marie G. Aquino, ⁴Almera A. Oliveros,
⁵Aron U. Rey
Calamba Doctors' College
¹jkfarcon@calambadoctorscollege.edu.ph, ²rpnieva@calambadoctorscollege.edu.ph,
³jmgaquino@calambadoctorscollege.edu.ph, ⁴aaguilar@calambadoctorscollege.edu.ph,
⁵aurey@calambadoctorscollege.edu.ph

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Corresponding Email:
jkfarcon@calambadoctorscollege.edu.ph

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Index Terms:

academic performance, adversity, attendance, class participation, radiologic technology students, technical skills acquisition, time management

Abstract. Academic difficulties are a significant concern in higher education, particularly in demanding programs like radiologic technology. Students must balance rigorous academics, clinical training, and personal responsibilities, all of which influence learning outcomes. Adversity remains a central problem that contributes to pressures affecting student performance. This study employed a quantitative, non-experimental, descriptive-correlational design to analyze the relationship between adversity and academic performance among radiologic technology students at Calamba Doctors' College. Data were collected via an online, validated, self-constructed questionnaire from 160 respondents, selected through proportional stratified sampling. The results were analyzed using frequency counts, rankings, weighted means, and Spearman's rank correlation coefficient. The majority of respondents were females aged 19 to 21. Findings revealed that students experienced significant adversity, particularly in terms of emotional exhaustion, physical stress, and the application of theoretical knowledge in clinical settings. Challenges also included managing multiple academic demands, time management, and acquiring technical skills. Despite these adversities, students maintained strong academic performance, characterized by excellent attendance, good class participation, and a high mean GWA of 90.80. The study revealed no significant relationship between adversity and academic performance. It concludes that while students face substantial challenges, these do not necessarily dictate academic outcomes. This implies that other factors, such as resilience, support systems, and effective coping strategies, may play a more vital role in determining academic performance. These results suggest that students in the radiologic technology program possess the capacity to excel despite the inherent pressures of their clinical and academic requirements.

Introduction

Academic difficulties remain a central concern in higher education, particularly in demanding health sciences programs such as Radiologic Technology. Students in this field must balance strict academic requirements, undergo clinical training, and assume personal responsibilities, which can impact their ability to learn effectively and perform academically. In this context, Adversity examines the challenges that radiologic technology students encounter throughout their academic journey. This prevailing issue examines how these adversities affect students' academic performance. A study by Holliman and Sheehy (2022) found that risk factors and adversities pose challenges that affect an individual's learning, development, and achievement.

Confronted with this issue, the researchers conducted a quantitative study to describe and analyze the relationship between the adversity faced by radiologic technology students at Calamba Doctors' College and its effect on their academic performance. Hassan and Sison (2025) recommended that researchers conduct more studies examining the relationship between stress, which can be considered a response to adversity, and academic performance, to improve students' time management and strategies for enhancing academic performance. Their study also highlighted that school administrators,

faculty, and the institution should provide support systems, including academic counseling and peer mentorship, to address academic pressures.

Statement of the Problem

Radiologic technology students encounter various challenges throughout their academic journey, including heavy academic demands, complex technical training, and difficulties with effective time management. These difficulties can significantly influence their motivation, performance, and overall ability to meet the rigorous demands of their program. Understanding how these adversities impact academic performance is essential to identifying areas where students may need support to improve both their academic and clinical outcomes. Therefore, this study aimed to determine the relationship between adversity and academic performance among radiologic technology students at Calamba Doctors' College.

Therefore, this study sought the answers to the following questions:

1. What is the demographic profile of radiologic technology students in terms of:
 - 1.1. Age,
 - 1.2. Gender,
 - 1.3. Year Level?
2. What is the level of adversities of radiologic technology students in terms of:
 - 2.1. Academic Demands,
 - 2.2. Technical Skills Acquisition,
 - 2.3. Time Management?
3. What is the academic performance of radiologic technology students in terms of:
 - 3.1. Attendance,
 - 3.2. Class Participation,
 - 3.3. General Weighted Average (GWA) for the first semester of AY 2025-2026?
4. Is there a significant relationship between adversities and the academic performance of radiologic technology students?

Conceptual Framework

This paper was based on the theoretical background of Self-Regulated Learning (SRL) Theory by Zimmerman (2002) and the ICAP Framework by Chi and Wylie (2014). These theories presented an organized account of how radiologic technology students learn, perform learning activities, and avoid scholarly pitfalls. Moreover, they provided deep insight into the shaping of engagement behaviors and self-regulatory competencies, so that students in radiologic technology can overcome obstacles and continue to be successful academically.

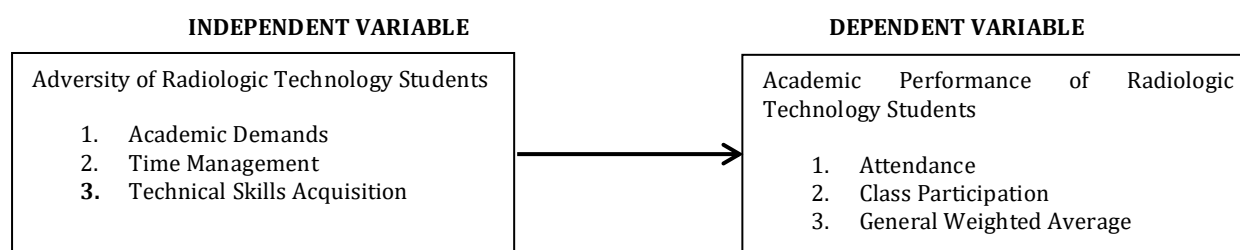


Figure 1. Research Paradigm of Radiologic Technology Students' Adversity and Academic Performance

Statement of the Hypothesis

At a correlation level of 0.05, the null hypothesis was tested:

H0: There is no significant relationship between adversity and the academic performance of radiologic technology students

Methodology

Research Design

This research study employed a quantitative, non-experimental, descriptive-correlational design to determine the relationship between adversity and academic performance among radiologic technology students at Calamba Doctors' College. This type of research design describes the relationship among variables without inferring causation; instead, it

emphasizes the strength of the association between two or more variables and addresses both descriptive and relational research questions (Devi et al., 2022). The design is presented in textual form, clearly identifying the independent variable, adversity, in terms of academic demands, technical skills acquisition, and time management, and the dependent variable, academic performance, through assessments of attendance, class participation, and the general weighted average (GWA).

Respondents of the study

The respondents in this study were 160 radiologic technology students from first to fourth year enrolled at Calamba Doctors' College (CDC) during the academic year 2025–2026. The sample size was determined using the Raosoft sample size calculator for a total population of 269 radiologic technology students, with a 95% confidence level, a 5% margin of error, and a 50% response rate.

Sampling Procedure

A proportional stratified sampling method was used, in which the total population was divided into subgroups by year level to ensure that the number of participants in each group corresponded to their actual proportions in the population. Using this method, 44 first-year, 50 second-year, 40 third-year, and 26 fourth-year students were included in the study, representing 59.48% of the total population.

Research Instrument

A self-constructed research questionnaire was used as the primary tool for data collection in this study. It was designed to gather information on the adversity and academic performance of radiologic technology students at Calamba Doctors' College. The questionnaire comprises 25 items, divided into three main sections. Part I focused on the demographic profile of the respondents. Part II assessed the level of adversity faced by radiologic technology students. Part III evaluated the respondents' academic performance.

Data Gathering Procedures

A formal letter of permission was first secured by the Dean of the Radiologic Technology Department and the Chief Operating Officer of Calamba Doctors' College before conducting the study. Upon approval, respondents were selected using a proportional stratified sampling technique to ensure appropriate representation of first- to fourth-year radiologic technology students enrolled in the 2025–2026 academic year. Five experts validated the research instrument to ensure its credibility and effectiveness, and the questionnaire included an informed consent form explaining the purpose of the study, the voluntary nature of participation, and the confidentiality of all collected data. For accessibility and convenience, the researchers administered the survey through an online platform (Google Forms), allowing respondents sufficient time to provide complete and honest answers. After data collection, all responses were securely handled and made accessible only to the researchers and the statistician for processing and analysis, and the results served as the basis for the study's discussion, conclusions, and recommendations.

Data Analysis

Once the survey questionnaire was completed and gathered, the data were processed and evaluated using the following statistical tools. Frequency distribution was used to detail the respondents' profiles. Ranking and weighted mean were utilized to assess the respondent's level of adversity and their academic performance. Spearman's rank correlation coefficient was used to measure the significant relationship between adversities and the academic performance of radiologic technology students.

Scoring Procedure

A. Level of Adversity

The data gathered from the instrument were rated using a 4-point Likert scale, with 4 (Strongly Agree) as the highest and 1 (Strongly Disagree) as the lowest. The mean scores were interpreted using the corresponding range and qualifying statements to determine the level of adversity as Very High Adversity, High Adversity, Low Adversity, and Very Low Adversity.

Scale	Range	Descriptive Rating	Qualifying Statement
4	4.00 - 3.26	Strongly Agree	Very High Adversity
3	3.25 - 2.51	Agree	High Adversity
2	2.50 - 1.76	Disagree	Low Adversity
1	1.75 - 1.00	Strongly Disagree	Very Low Adversity

B. Academic Performance

The Academic Performance is also rated using a 4-point Likert scale, with 4 (Always) as the highest and 1 (Never) as the lowest. The computed mean scores were interpreted using the provided range and qualifying statements to classify performance as Excellent, Good, Fair, or Poor.

Scale	Range	Descriptive Rating	Qualifying Statement
4	4.00 - 3.26	Always	Excellent
3	3.25 - 2.51	Often	Good
2	2.50 - 1.76	Sometimes	Fair
1	1.75 - 1.00	Never	Poor

Reliability Calculation

For the reliability analysis, the following Cronbach's Alpha values were used by the researchers in interpreting the results:

Variables	Cronbach's Alpha	Interpretation
Academic Demands	0.801	Good
Technical Skills Acquisition	0.777	Acceptable
Time Management	0.882	Good
Attendance	0.879	Good
Class Participation	0.851	Good

Table 1. Cronbach's Alpha Interpretation Table

Ethical Considerations

The researchers conducted this study with strict adherence to ethical standards, ensuring confidentiality, integrity, and the protection of all participants. Before data collection, formal approval was obtained from the Chief Operating Officer and the Radiologic Technology Program Coordinator of Calamba Doctors' College to allow data gathering within the institution. Informed consent forms were distributed to all respondents, explaining the purpose of the study, the procedures for data collection, and the voluntary nature of participation, including their right to withdraw at any time without consequence. The form also outlined the measures to maintain the privacy and confidentiality of responses, as well as the potential benefits of participating in the research.

Results and Discussion

Demographic Profile of Radiologic Technology Students in terms of Age, Gender, and Year Level

Profile Variable	Frequency	Percentage (%)
Age	18-below	26
	19-21	103
	22-above	31
Gender	Male	58
	Female	102
Year Level	1 st Year	44

2 nd Year	50	31.25
3 rd Year	40	25
4 th Year	26	16.25
Total	160	100

Table 2. Frequency and Percentage Distribution of Radiologic Technology Students as to their Profile

Age

Most respondents belong to the 19–21 age group (103, 64.38%), indicating that most students fall within the typical college-age range. Meanwhile, 31 respondents (19.37%) are aged 22 years and above, and 26 respondents (16.25%) are aged 18 years and below. These results show that respondents come from various year levels, from first year to fourth year, but are predominantly concentrated within the 19–21 age bracket. The predominance of students in this age group suggests that many are in a developmental stage characterized by academic adjustment and increased responsibilities. This observation is consistent with Putri et al. (2024), who found that academic stress is prevalent due to continual exposure to new standards, unfamiliar social environments, and greater responsibilities, which may heighten anxiety across year levels. While these challenges are not limited to any specific age group, their prevalence among most respondents underscores the need for appropriate academic support and resilience-building interventions throughout the Radiologic Technology program.

Gender

In terms of gender, 102 out of 160 radiologic technology students responded as female, with a frequency of 63.75% and the highest frequency. With a frequency of 58, male radiologic technology students accounted for 36.25%, leaving the remaining percentage to 63.75% for a total of 100%. These results imply that predominantly female radiologic technology students are enrolled at Calamba Doctors' College. Cardoso et al. (2025) found in their research that female radiologic technology students (78, 65%) outnumbered male students (42, 35%). These findings conclude that female students are more likely to be interested in and enroll in the BS Radiologic Technology course than male students, given their higher population count.

Year Level

In terms of year level, the 2nd year level has the highest frequency of 50 (31.25%), followed by the 1st year level with 44 (27.50%). It is then preceded by the 3rd-year level, with a frequency of 40 and an equivalent percentage of 25. Lastly, the 4th-year level had a frequency of 26 (16.25%). Overall, the frequencies totaled 160, corresponding to 100%. The study's distribution of respondents is supported by Cardoso et al. (2025), which included 1st- to 4th-year radiologic technology students, as well as the actual respondents. In the results of their thesis, the 2nd-year level also had the highest frequency, while the 4th-year level had the lowest, corresponding to the findings of this research.

Level of Adversity in terms of Academic Demands

Indicators	Mean	Verbal Interpretation	Ranking
1. I find the instructions for my academic tasks to be confusing or poorly defined, leading to frustration.	2.33	Low Adversity	5
2. I have insufficient time to deeply understand the material due to the rapid pace of the curriculum.	2.74	High Adversity	3
3. I am unable to complete my course requirements without sacrificing essential sleep or nutrition.	2.71	High Adversity	4
4. I feel emotionally exhausted daily due to the mental effort required for my studies	2.95	High Adversity	1.5
5. I experience physical symptoms of stress (e.g., headaches, stomach pain) due to my studies.	2.95	High Adversity	1.5
Overall Mean	2.74	High Adversity	

Legend: 4.00-3.26- Very High Adversity, 3.25-2.51-High Adversity, 2.50-1.76 Low Adversity, 1.75-1.00 Very Low Adversity

Table 3. Level of Adversities of Radiologic Technology Students in Academic Demands

The overall weighted mean of 2.74 indicates that radiologic technology students experience a high level of adversity, showing that they are exposed to considerable academic stress. This suggests that the program's academic demands significantly affect students' emotional, mental, and physical well-being.

The indicator 5, "I experience physical symptoms of stress (e.g., headaches, stomach pain) due to my studies," and indicator 4, "I feel emotionally exhausted daily due to the mental effort required for my studies," both obtained the highest mean score of 2.95, verbally interpreted as "High Adversity". These indicators are therefore ranked 1.5 (tie). Meanwhile, the lowest mean score of 2.33 was obtained by Indicator 1, "I find the instructions for my academic tasks to be confusing or poorly defined, leading to frustration." This was verbally interpreted as "Low Adversity", suggesting that unclear instructions are less of a concern compared with other academic stressors.

These findings are supported by Putri et al. (2024), stating that academic stress is a common experience among college students, especially when they struggle to cope with academic expectations, institutional demands, and changing social environments. Their study emphasized that heavy workloads and high expectations from parents and instructors can intensify stress and anxiety.

Level of Adversity in terms of Technical Skills Acquisition

Indicators	Mean	Verbal Interpretation	Ranking
1. I need further explanation to understand how an X-ray machine works and its components fully.	2.98	High Adversity	3
2. I am still developing my theoretical understanding of radiation protection principles.	3.06	High Adversity	2
3. I find myself struggling to identify specific anatomical landmarks on diagnostic images.	2.90	High Adversity	5
4. The limited availability of X-ray lab equipment for practice significantly hinders my ability to master technical skills.	3.18	High Adversity	1
5. I find applying my classroom knowledge to practical technical scenarios a significant hurdle.	2.97	High Adversity	4
Overall Mean	3.02	High Adversity	

Legend: 4.00-3.26- Very High Adversity, 3.25-2.51-High Adversity, 2.50-1.76 Low Adversity, 1.75-1.00 Very Low Adversity

Table 4. Level of Adversities of Radiologic Technology Students in Technical Skills Acquisition

The overall weighted mean of 3.02 indicates a high level of adversity in the acquisition of technical skills among radiologic technology students. This suggests that students experience considerable challenges in developing the knowledge and practical competencies required in their program. The consistently high ratings reflect ongoing difficulties in theoretical learning, practical application, and access to adequate laboratory resources.

The highest mean score of 3.18 was obtained by Indicator 4, "The limited availability of X-ray lab equipment for practice significantly hinders my ability to master technical skills." This was verbally interpreted as "High Adversity" and ranked first. The results show that insufficient laboratory resources greatly affect students' ability to gain hands-on experience and strengthen technical competence. Meanwhile, the lowest mean score of 2.90 was obtained by Indicator 3, "I find myself struggling to identify specific anatomical landmarks on diagnostic images." Although ranked lowest, it was still verbally interpreted as "High Adversity", showing that students continue to face difficulty in image analysis and anatomical recognition.

These findings are supported by Cardoso et al. (2025), who state that technical proficiency is essential to clinical performance and that many students struggle to translate theoretical learning into practical application, especially in patient care and image acquisition. This supports the present finding that students encounter challenges in applying classroom knowledge to technical scenarios.

Level of Adversity in terms of Time Management

Indicators	Mean	Verbal Interpretation	Ranking
1. I am easily overwhelmed when several academic deadlines overlap.	2.91	High Adversity	2

2.	I find it challenging to manage my time when faced with multiple academic requirements.	2.94	High Adversity	1
3.	I find it hard to follow the study schedule I set.	2.88	High Adversity	3
4.	I often struggle to balance my study time with personal responsibilities.	2.71	High Adversity	5
5.	I sometimes have difficulty preparing for exams.	2.83	High Adversity	4
Overall Mean		2.85	High Adversity	

Legend: 4.00-3.26- Very High Adversity, 3.25-2.51-High Adversity, 2.50-1.76 Low Adversity, 1.75-1.00 Very Low Adversity

Table 5. Level of Adversities of Radiologic Technology Students in Time Management

The overall weighted mean of 2.85 indicates that radiologic technology students experience a high level of time management challenges. This suggests that students commonly struggle to organize their schedules, meet academic demands, and balance school responsibilities with personal obligations.

The highest mean score of 2.94 was obtained by Indicator 2, "I find it challenging to manage my time when faced with multiple academic requirements." This was verbally interpreted as "High Adversity" and ranked first. The results show that handling multiple academic tasks simultaneously is the most significant time management challenge for students. Meanwhile, the lowest mean score of 2.71 was obtained by Indicator 4, "I often struggle to balance my study time with personal responsibilities." Although ranked lowest, it was still verbally interpreted as high adversity, showing that balancing academic tasks with personal obligations remains a challenge for students.

These findings are supported by Cruz et al. (2024), who state that difficulties with time management are among the leading stressors for radiologic technology students, often resulting in academic pressure and emotional strain due to heavy workloads, deadlines, and competing demands. This supports the present finding that managing multiple academic requirements is a major source of adversity.

Academic Performance in terms of Attendance

Indicators		Mean	Verbal Interpretation	Ranking
1.	I attend my classes on time.	3.62	Excellent	1
2.	I prioritize attending my classes over other non-academic social activities	3.61	Excellent	2
3.	I promptly notify my instructor when I am unable to attend class.	3.46	Excellent	5
4.	I only miss class when it is absolutely unavoidable (e.g., severe illness or emergencies)	3.58	Excellent	3.5
5.	I make an effort to catch up on lessons or activities whenever I am absent.	3.58	Excellent	3.5
Overall Mean		3.57	Excellent	

Legend: 4.00-3.26- Excellent, 3.25-2.51- Good, 2.50-1.76 Fair, 1.75-1.00 Poor

Table 6. Academic Performance of Radiologic Technology Students in Attendance

The overall mean of 3.57 indicates that radiologic technology students demonstrate strong attendance habits. They are generally punctual, avoid unnecessary absences, and make efforts to catch up when absent. While the notification score was slightly lower, it still reflects an excellent level.

Indicator 1, "I attend my classes on time," obtained the highest mean of 3.62, verbally interpreted as "Excellent," indicating that students consistently demonstrate punctuality and responsibility in attending their classes. Meanwhile, Indicator 3, "I promptly notify my instructor when I am unable to attend class," recorded the lowest mean of 3.46, which was still verbally interpreted as "Excellent," reflecting those students maintain a positive level of communication with their instructors regarding class absences.

These findings align with Márquez et al. (2023), who state that a student's level of involvement is reflected in how often they attend their lectures. Attendance also provides students with the opportunity to interact directly with their professors and benefit from their peer support. Ancheta et al. (2021), as cited by Masnan et al. (2024), also provided support for

students' benefiting from and better comprehending their learning through consistent class attendance, active participation, and engagement in student-teacher interactions.

Academic Performance in terms of Class Participation

Indicators	Mean	Verbal Interpretation	Ranking
1. I contribute to group activities by accomplishing my assigned tasks.	3.53	Excellent	1
2. I ask questions in class when clarification or additional explanation is needed.	3.14	Good	3
3. I participate in classroom discussions through recitation to improve my understanding of the lesson.	3.09	Good	4
4. I express my ideas and opinions during class when they are relevant to the topic being discussed.	3.01	Good	5
5. I assist my classmates whenever necessary.	3.29	Excellent	2
Overall Mean	3.21	Good	

Legend: 4.00-3.26- Excellent, 3.25-2.51- Good, 2.50-1.76 Fair, 1.75-1.00 Poor

Table 7. Academic Performance of Radiologic Technology Students in Class Participation

The overall weighted mean of 3.21 suggests that radiologic technology students generally demonstrate a good level of class participation. Their strong performance in group activities and willingness to assist classmates reflect active management and collaboration. Indicator 1, "I contribute to group activities by accomplishing my assigned tasks," obtained the highest rank with a mean of 3.53, verbally interpreted as "Excellent," indicating that students actively fulfill their responsibilities and demonstrate cooperation in group activities. On the other hand, Indicator 4, "I express my ideas and opinions during class," received the lowest rank, with a mean of 3.01, which is verbally interpreted as "Good," indicating that students participate in class discussions. However, their confidence in expressing ideas and opinions may be less consistent compared to other aspects of participation.

The results of this study align with Xu and Qiu's (2020) observations, which characterize class participation as a complex dimension of student involvement that extends well beyond mere attendance. These results also coincide with Akpur (2021), who demonstrated that active involvement through verbal exchanges, such as group activities and interactions with both peers and mentors, positively influences academic outcomes. Collectively, these insights highlight the need to cultivate environments that actively engage students, as such an approach can significantly enhance their academic development and overall educational experience.

Academic Performance in terms of General Weighted Average (GWA)

General Weighted Average	Frequency (f)	Percentage (%)	Mean
93-100	51	31.87	90.80
85-92	104	65	
77-84	5	3.13	
76-75	0	0	
Below 75	0	0	
TOTAL	160	100	

Table 8. Frequency Distribution, Percentage, and Mean of General Weighted Average

The overall mean General Weighted Average was 90.80, indicating generally high academic performance among the students and reflecting the radiologic technology students' mastery of the knowledge and curriculum. This suggests that most respondents are achieving satisfactory to high academic outcomes. The concentration of students in higher grade ranges may reflect consistent academic performance across the group. The majority of respondents fall within the 85–92 GWA range, with 104 (65%) corresponding to satisfactory to above-average academic performance. This is followed by the 93–100 GWA range, which includes 51 respondents (31.87%). Only 5 respondents, equivalent to 3.13%, belong to the 77–84 GWA range, while none fall under the lower GWA categories of 76–75 and below 75. The study's findings are consistent

with those of Davaatseren et al. (2024), who define academic performance as a measure of achievement across various academic subjects. This high performance suggests that the students possess a high adversity quotient, as described by Putri et al. (2024) as the capacity to tolerate and overcome difficult circumstances and high academic standards.

Hypothesis Testing

	Correlation Coefficient (rs)	P-Value	Decision
Adversities and Academic Performance <i>Correlation at 0.05 level (2-tailed)</i>	0.0101	0.8985	Failed to reject the null hypothesis

Table 9. Relationship between Adversities and the Academic Performance of Radiologic Technology Students

Spearman's rank correlation was used to determine the relationship between adversities and the academic performance of radiologic technology students. The result showed a very weak positive correlation ($r_s = 0.0101$), indicating an almost negligible relationship between the two variables. The p-value of 0.8985, which is higher than 0.05, led to the failure to reject the null hypothesis. This implies that adversities have no significant relationship with the students' academic performance, and variations in GWA are likely independent of the measured challenges. The results of the study aligned with those of Yazon and Manaig (2020), who found no significant relationship between adversity and academic performance among students. Therefore, the researchers in their study likewise failed to reject the null hypothesis. On the contrary, this study's results refuted those of Setiasih et al. (2022), which found that adversities lowered students' academic performance by impeding their coping with academic demands.

Conclusion and Recommendations

Based on the study's findings, most respondents were female radiologic technology students aged 19 to 21. Results demonstrate that emotional exhaustion and physical symptoms of stress due to heavy academic demands, difficulties in enhancing theoretical knowledge and applying it to practical situations, and time management in the presence of multiple academic requirements are adversities reported by radiologic technology students. The researchers evaluated the academic performance of radiologic technology students and found that they consistently achieve positive outcomes in attendance, class participation, and the general weighted average (GWA). Students demonstrated high levels of responsibility through consistent attendance and proactive engagement, particularly within collaborative peer environments. This commitment is reflected in their GWAs, which show that most students maintain a satisfactory to excellent academic standing.

Through hypothesis testing, the researchers failed to reject the null hypothesis, suggesting that adversity and academic performance among radiologic technology students are independent. Radiologic technology students, therefore, possess the resilience to meet their academic demands despite the physical and mental pressures of the program. These findings underscore the students' ability to remain high-performing and adaptable, even under significant pressure.

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Competing Interests Statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this article.

Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study; all data used were obtained from previously published sources as cited in the reference list.

References

- Akpur, U. (2021). Does class participation predict academic achievement? A Mixed-Method study. <https://eric.ed.gov/?id=EJ1311544>
- Ancheta, R. F., Daniel, D., & Ahmad, R. (2021). EFFECT OF CLASS ATTENDANCE ON ACADEMIC PERFORMANCE. *European Journal of Education Studies*, 8(9). <https://doi.org/10.46827/ejes.v8i9.3887>
- Cardoso, C. J., Acosta, N. J., Cayan, E. C., Colocar, R., Galan, B. M., Bongue, H. L. O., David, F. A. Q., Peñaflorida, A. R., & Zaño, J. G. F. (2025a). ASSESSING COMPETENCIES IN TECHNICAL PROFICIENCY, COMMUNICATION SKILLS, AND ETHICAL INTEGRITY TOWARDS FUTURE PROFESSIONAL PRACTICE. *International Journal of Education, Humanities and Social Science*, 8 (3), 178–194. <https://doi.org/10.54922/ijehss.2025.0987>
- Cardoso, C. J., Cayan, E. C., Acosta, N. J., Colocar, R., Castillo, P. K. M., Balbon, H. C., Bayanay, J. A. A., Berbasa, H. M. E., Magcawas, J. C. C., & Solomon, K. T. (2025b). Overcoming financial, academic, and time management challenges: A path to career success in radiologic technology. *International Journal of Education, Humanities and Social Science Studies*, 8(3), 2. https://ijehss.com/uploads2025/EHS_8_984.p
- Chi, M. T. H., & Wylie, R. (2014). The ICAP Framework: Linking Cognitive engagement to active learning Outcomes. *Educational Psychologist*, 49(4), 219–243. <https://doi.org/10.1080/00461520.2014.96582>
- Cruz, D. A. B., Campomanes, E. S. A., Belleno, E. E. L., & Alipio, M. M. (2024). Academic Stress Measurement and Management of Radiologic Technology Students. *Asian Journal of Education and Social Studies*, 50(4), 38–53. <https://doi.org/10.9734/ajess/2024/v50i41309>
- Davaatseren, A., Myagmar, M., & Dulamsuren, N. (2024). Factors Affecting Students' Academic Performance: (In the case of the Accounting study of the National University of Mongolia). In *Atlantis: Highlights in the Social Sciences, Education, and Humanities* (pp. 39–44). https://doi.org/10.2991/978-94-6463-382-5_6
- Devi, B., Lepcha, N., & Basnet, S. (2022). Application of correlational research design in nursing and medical research. *Journal of Xi'an Shiyu University, Natural Sciences Edition*, 65(11), 60–69.
- Hassan, W. D., & Sison, M. O. (2025). TIME MANAGEMENT SKILLS, STRESS, AND ACADEMIC PERFORMANCE AMONG RADIOLOGIC TECHNOLOGY STUDENTS OF UNIVERSIDAD DE ZAMBOANGA. *International Journal of Education, Humanities and Social Science*, 8 (3), 22–17. <https://doi.org/10.54922/ijehss.2025.0976>
- Holliman, A. J., & Sheehy, K. (2022). Overcoming adversity in education. In *Routledge eBooks* (pp. 1–6). <https://doi.org/10.4324/9781003180029-1>
- Márquez, J., Lazcano, L., Bada, C., & Arroyo-Barrigüete, J. L. (2023). Class participation and feedback as enablers of student academic performance. *SAGE Open*, 13(2). <https://doi.org/10.1177/21582440231177298>
- Masnan, F., Rani, M. J. A., Alias, N. S., Esquivias, M. A., Shaari, M. S., & Kustiningsih, N. (2024). The role of sense of purpose, time management, attendance, sleep, and self-esteem in academic performance among university students in Malaysia. *Social Sciences & Humanities Open*, 11, 101258. <https://doi.org/10.1016/j.ssaho.2024.101258>
- Putri, I. S. R., Hidayat, H. G., & Eva, N. (2024). Adversity Quotient and Academic Stress in College Students: A KnE Social Sciences Perspective. <https://doi.org/10.18502/kss.v9i30.17509>
- Setiasih, O., Nandi, N., Rusman, R., Setiawardani, W., & Yusron, E. (2022). Exploring factors influencing students' learning difficulties during the pandemic in Indonesia: A Structural Equation Modelling. *European Journal of Educational Research*, volume-12-2023(volume-12-issue-1-january-2023), 1–14. <https://doi.org/10.12973/eu-jer.12.1.1>
- Xu, Y., & Qiu, X. (2020). Necessary but Problematic: Chinese University English Teachers' Perceptions and Practices of Assessing Class Participation. *Teaching in Higher Education*, 27(7), 841–858. <https://doi.org/10.1080/13562517.2020.1747424>
- Yazon, A. D., & Ang- Manaig, K. (2020). ADVERSITY QUOTIENT®, EMOTIONAL QUOTIENT, AND ACADEMIC PERFORMANCE OF FILIPINO STUDENT-PARENTS. *PEOPLE: International Journal of Social Sciences*, 6(2), 153–163. <https://doi.org/10.20319/pijss.2020.62.153163>
- Zimmerman, B. J. (2002). Becoming a Self-Regulated Learner: An Overview. *Theory Into Practice*, 41(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2

Appendices

No appendices are attached to this study.