

**SLEEP QUALITY IN RELATION TO MENTAL HEALTH AND ACADEMIC
PERFORMANCE OF THIRD-YEAR NURSING STUDENTS**

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**SLEEP QUALITY IN RELATION TO MENTAL HEALTH AND ACADEMIC
PERFORMANCE OF THIRD-YEAR NURSING STUDENTS**

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Requirement for the Degree

Bachelor of Science in Nursing

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ABSTRACT

Sleep quality significantly influences the physical, mental, and cognitive functioning of nursing students, particularly those facing academic and clinical stressors. Poor sleep has been associated with heightened emotional instability, increased stress and anxiety, and diminished cognitive performance, all of which may potentially affect academic achievement. This study explored the relationships among sleep quality, mental health, and academic performance among 146 third-year nursing students at Misamis University, using a descriptive-correlational research design. Data revealed that while participants generally exhibited poor sleep quality and suboptimal mental health, they maintained above-average academic performance. Statistically significant positive correlations were observed between sleep quality components, namely sleep duration, efficacy, and disturbances, and mental health indicators such as emotions, anxiety and stress, mood swings, and cognitive impairment. However, sleep quality did not correlate significantly with academic performance, suggesting that other factors also influence academic performance. Based on these findings, it is recommended that students, instructors, institutions, and the broader community work collaboratively to promote sleep hygiene and mental wellness through structured programs, proactive support systems, and awareness campaigns. Future research should expand to include diverse student populations and examine mediating factors such as lifestyle habits and digital media use.

Keywords: *academic performance, mental health, nursing students, sleep quality, stress, and anxiety*

DEDICATION

This research study is lovingly dedicated to all those who have supported and guided us
along the way.

To our Almighty God, who has been our constant source of strength, wisdom, and light.
Thank You for guiding us through every challenge, for sustaining us with grace, and for
never leaving our side in moments of uncertainty.

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The Researchers

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TABLE OF CONTENTS

	Page
TITLE PAGE	i
CERTIFICATE OF PANEL APPROVAL.	ii
ABSTRACT	iii
DEDICATION	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES.....	ix
LIST OF FIGURES	x
INTRODUCTION	
Rationale of the Study.....	1
Theoretical Framework.....	4
Conceptual Framework.....	7
Statement of the Problem.....	13
Significance of the Study	13
RESEARCH METHODOLOGY	
Design	15
Environment.....	15

Unit of Analysis, Respondents, and Sampling Procedure	16
Data Gathering Instruments and Procedures.....	16
Validity and Reliability of the Instrument	17
Scoring Guidelines.....	18
Mode of Analysis, Statistical Instruments/Procedure	19
Ethical Considerations	19
RESULTS AND DISCUSSION	21
CONCLUSIONS AND RECOMMENDATIONS	
Conclusions.....	32
Recommendations.....	32
REFERENCES.....	34
APPENDICES	
Appendix A –Research Questionnaire (Blank).....	41
Appendix B –Sample of Filled-out Questionnaire.....	45
Appendix C –Sampling Computation.....	48
Appendix D –Informed Consent Form	49
Appendix E –Statistical Computations	51
Appendix F –Approved Letters of Consent.....	63
Appendix G –Documentation	64

Appendix H –Grammarly Results.....	65
Appendix I –Turnitin Results.....	66
CURRICULUM VITAE.....	67

LIST OF TABLES

Table		Page
1	Respondents' Quality of Sleep	22
2	Respondents' Mental Health	24
3	Respondents' Academic Performance	25
4	Significant Relationship Between Respondents' Sleep Quality and Respondents' Mental Health	28
5	Significant Relationship Between Respondents' Sleep Quality and Respondents' Academic Performance	31

LIST OF FIGURES

Figure	Page
1 Schematic Presentation of the Study	12

INTRODUCTION

Rationale/Background of the Study

Sleep quality is essential for maintaining both physical and mental well-being, as it directly affects cognitive abilities, mood stability, and emotional resilience (Mulyadi et al., 2021). For nursing students who face demanding academic requirements and intensive clinical training, achieving sufficient, restful sleep remains a major challenge (Wang, Scott, Kelly, & Sherwood, 2024). Lack of sleep or poor-quality sleep has been linked to cognitive impairments, trouble concentrating, and emotional instability (Gruba et al., 2021). These challenges are further intensified by the long hours of study, clinical duties, and personal responsibilities common among nursing students (Delos Santos et al., 2022). Moreover, as highlighted by Alfonsi et al. (2020), inadequate sleep among nursing students can impair decision-making and critical thinking, especially in high-pressure clinical settings where cognitive clarity is essential. In addition, Köhl et al. (2023) assert that persistent sleep deprivation may elevate vulnerability to anxiety disorders and depressive symptoms, thereby compounding the psychological burdens already associated with academic and clinical stressors.

In the Philippines, many nursing students commonly experience poor sleep quality. Research shows that around 60-80% of nursing students get less than the recommended seven to eight hours of sleep each night (Falguera et al., 2023). According to a study done on nursing students in Metro Manila, chronic sleep deprivation caused persistent exhaustion and made it difficult to concentrate in both clinical and classroom settings (Cunanan et al., 2024). Furthermore, poor sleep quality affects social interactions, physical health, psychological well-being, and academic achievement (Alegado et al., 2024).

Mental health is a critical component of effective learning and professional preparedness for nursing students (Cox et al., 2022). Good mental health enables them to handle academic pressures, make sound clinical decisions, and develop essential interpersonal skills for patient care. However, poor sleep quality can result in serious mental health concerns, including increased stress, impaired cognitive functioning, and mood disturbances (Kotera et al., 2021). Gao et al. (2021) observed that nursing students suffering from inadequate sleep are more susceptible to anxiety, stress, and depression, factors that detrimentally affect their academic performance, clinical judgment, and social interactions.

Academic performance is the degree of success pupils achieve in their academic endeavors, usually evaluated by grades, exam scores, and the successful fulfillment of academic requirements (Kayaba et al., 2021). Academic success is influenced by a variety of factors, including cognitive abilities, study habits, time management skills, and external influences such as family support, socioeconomic status, and institutional resources (Gallego-Gomez et al., 2021; Alegado et al., 2024). For nursing students, academic performance is particularly important, as it reflects their mastery of both theoretical knowledge and clinical skills necessary for effective patient care (Gallego-Gomez et al., 2021). However, sleep deprivation can negatively affect their concentration, memory retention, and overall performance in academic and clinical settings (Falgeura et al., 2023; Cunanan et al., 2024). Research from the United States, Canada, Saudi Arabia, and China indicates that nursing and medical students encounter similar difficulties, many of whom struggle to get quality sleep due to heavy academic workloads and demanding clinical schedules (Ravi et al., 2024; Wang et al., 2023; Kuhn, 2024). A study in Saudi Arabia

found that more than 70% of students reported poor sleep quality, which was associated with higher stress levels and poorer academic performance (Alfayez et al., 2021). Similarly, research in China showed that students who slept less than six hours per night reported greater levels of anxiety and depression, making it harder for them to cope with both academic demands and clinical responsibilities (Chen et al., 2022).

Research examining the link between sleep quality, mental health, and academic performance among nursing students remains limited. Much of the existing literature addresses general student populations, leaving a gap in understanding the distinct challenges faced within nursing education. This study seeks to address that gap by generating quantitative evidence on how sleep quality affects both mental health and academic outcomes among nursing students. The insights gained are intended to guide future program initiatives and strengthen support systems that promote student well-being and academic achievement. By focusing on the lived experiences of nursing students, this research aims to measure and analyze the influence of sleep quality on their mental health and overall wellness. Such understanding can serve as the foundation for tailored interventions.

This study aimed to examine the relationship between sleep quality, mental health, and academic performance among nursing students. It investigated how variations in sleep quality affected students' psychological well-being and academic functioning within the context of their academic and clinical responsibilities. Specifically, the study explored whether poor sleep quality contributed to emotions, anxiety and stress, mood swings, and cognitive impairment. It examined whether sleep quality influenced students' academic achievement. The results provided insights that would support the development of targeted

programs and institutional interventions to improve sleep hygiene, promote mental wellness, and sustain academic success among nursing students.

Theoretical Framework

To understand the relationship between sleep quality, mental health, and academic performance among third-year nursing students, this study is anchored on Dorothea Orem's Self-Care Deficit Theory and Nola Pender's Health Promotion Model. These theories provide a comprehensive foundation for examining how nursing students manage their self-care, mental health, and academic responsibilities.

Orem's Self-Care Deficit Theory emphasizes the role of nursing in assisting individuals who cannot meet their self-care needs due to physical, mental, or emotional limitations (Gonzalo, 2024). Central to this theory are three key concepts: *self-care*, *self-care agency*, and *therapeutic self-care demand*. Self-care encompasses intentional actions like sleeping, eating, and personal hygiene – routines vital to maintaining health. Self-care includes activities individuals perform to maintain their health, such as sleeping, eating, bathing, and managing illnesses. According to Ezelobe (2024), when individuals experience a self-care deficit, nursing intervention becomes necessary to help them bridge the gap and maintain their well-being.

This concept aligns directly with the study's sleep quality variable. Nursing students often face demanding schedules and academic pressures, which diminish their self-care agency. As a result, they experience sleep quality issues, which affect their mental health, cognitive functioning, and academic performance (Anderson, 2022; Anaya et al., 2024). When these students experience a self-care deficit due to their inability to maintain proper sleep patterns, their ability to effectively manage stress and perform academically may

decline. Orem's theory emphasizes the role of support systems, such as faculty, peers, and healthcare professionals, in helping nursing students recognize and address their self-care needs (Napoleao et al., 2024).

For instance, Chien et al. (2023) found that insufficient sleep among nursing students was strongly linked to elevated anxiety and lower academic achievement. Similarly, de Oliveira et al. (2022) emphasized the importance of institutional support in addressing students' sleep-related self-care deficits. These studies reinforce the need for proactive nursing interventions, as Orem's model suggests, to restore equilibrium between self-care demand and capability.

Thus, Orem's theory supports the study by explaining how compromised basic self-care behavior can trigger a cascade of health and academic consequences. It also emphasizes the importance of support systems, such as educators, counselors, and peers, in identifying deficits early and providing guidance or structured interventions to improve outcomes.

Pender's Health Promotion Model focuses on Behaviors that enhance health and well-being (Murdaugh, Parsons, & Pender, 2019). This model suggests that individuals engage in health-promoting behaviors based on their perceived benefits, self-efficacy, and interpersonal influences. Nursing students who prioritize sleep as a health-promoting behavior are likely to experience better mental health and academic outcomes. In the context of the study, this model underscores the need for educational institutions to promote sleep hygiene and stress management strategies among students.

In this study, sleep quality is treated as a health-promoting behavior. When nursing students understand the value of sleep, possess the confidence to manage their schedules,

and are supported by faculty and peers, they are more likely to prioritize rest. Enhanced sleep leads to better mental health and academic performance, as shown through improved class participation, grades, and clinical competence.

A study by Park and Kim (2021) found that students with higher self-efficacy regarding sleep hygiene reported fewer sleep disturbances and better academic performance. Moreover, Al Ghazal et al. (2020) highlighted the role of positive peer influence in promoting healthier sleep routines among healthcare students. These findings illustrate how perceived benefits and interpersonal support shape students' sleep behaviors.

Pender's model strengthens the study by offering a lens to understand how health promotion through sleep is both behavioral and psychological. It suggests that academic institutions should foster an environment where sleep is recognized not as a luxury but as a strategic tool for success. By embedding stress management workshops and sleep education within the curriculum, schools can empower students to adopt healthier patterns.

In the context of the study, these theories collectively demonstrate that sleep quality is a fundamental self-care need that, when unmet, leads to psychological distress and decreased academic functioning. Nursing students experiencing poor sleep quality require both personal action and institutional support. Thus, nursing educators and schools must act as facilitators of care, recognizing early signs of self-care deficits and providing appropriate interventions such as stress management programs, mental health support, and academic counseling.

By grounding this study in Orem's and Pender's theories, the researchers underscore that addressing sleep quality among nursing students is not merely about rest – it involves understanding the complex interaction between physiological needs and

psychological well-being. Institutions must not only educate students on the importance of sleep but also care for them holistically. Therefore, sleep quality, mental health, and academic performance are not isolated variables, but interconnected dimensions influenced by self-care behaviors and supportive relationships.

Conceptual Framework

Sleep quality, mental health, and academic performance are deeply interconnected dimensions that influence the holistic well-being and academic achievement of nursing students. It begins with recognizing that sleep is a foundational aspect of self-care, encompassing dimensions such as sleep duration, efficiency, disturbances, and total sleep hours. These components not only reflect the overall quality of rest but also directly influence students' emotional balance, cognitive clarity, and psychological resilience. Within the demanding context of nursing education, insufficient or disrupted sleep can lead to heightened anxiety, frequent mood shifts, and impaired concentration. Each is a key facet of mental health that impacts academic functioning. Similarly, academic performance is influenced not only by the acquisition of knowledge and technical competence but also by students' capacity to manage emotions, handle stress effectively, and sustain cognitive functioning.

Sleep quality describes the overall effectiveness of a person's rest, encompassing factors such as duration, continuity, and the sense of refreshment upon waking. It encompassed multiple dimensions, such as hours of sleep, sleep duration, sleep efficacy, and sleep disturbance (Alfonsi et al., 2020). Among nursing students, sleep quality plays a vital role in shaping emotional regulation, cognitive functioning, and overall physical health, particularly given the rigorous academic and clinical demands they face.

Consistently, poor sleep quality has been associated with increased stress, heightened anxiety, and reduced academic performance (Cellini et al., 2021). This study assessed sleep quality through a structured self-report questionnaire.

Number of Hours of Sleep is operationally defined as the total time accumulated from all sleep episodes within a 24-hour period, including both nighttime sleep and daytime naps. It is measured through questionnaire items that explore students' habitual sleep routines, recovery naps, and overall perceptions of restfulness. This construct captures cumulative sleep behaviour and reflects broader aspects of sleep health. Evidence indicates that nursing students with lower total sleep hours tend to experience intensified fatigue, reduced academic productivity, and compromised clinical performance, highlighting the importance of balanced sleep scheduling (Lemma et al., 2022; Zhang et al., 2020).

Sleep Duration is operationally defined as the total amount of sleep obtained exclusively during nighttime, not including daytime naps. It is assessed through items that evaluate whether respondents consistently achieve the recommended 7-8 hours of sleep on weeknights, experience uninterrupted rest, and feel sufficiently rested to engage in academic and clinical tasks. This construct also considers students' perceptions of sleep adequacy in relation to their emotional resilience and academic functioning. Previous findings indicate that nursing students who sleep fewer than 6 hours at night frequently report elevated tiredness, reduced alertness, and diminished scholastic performance (Zhang et al., 2020; Cellini et al., 2021).

Sleep efficacy is defined as the proportion of time spent asleep while in bed, calculated as total sleep duration divided by total time in bed. High sleep efficiency (typically 85% or above) indicates good sleep quality, while lower values suggest sleep

disturbances such as difficulty falling or staying asleep (Chan & Lo, 2021). Research indicates that low sleep efficiency is linked to heightened stress, diminished academic achievement, and decreased mental alertness, particularly among nursing students who frequently experience irregular sleep patterns due to demanding academic and clinical responsibilities (Velasco et al., 2023).

Sleep disturbance refers to disruptions in typical sleep patterns, such as difficulty initiating sleep, frequent nighttime awakenings, or restless sleep, that negatively affect overall sleep quality and daytime functioning (Espie, 2020). According to Wang et al. (2021), a study on nursing students found that sleep disturbances significantly contributed to higher stress levels and poorer academic performance, highlighting the need for targeted interventions in this population.

Mental health refers to the psychological well-being of nursing students, encompassing their ability to manage stress, regulate emotions, maintain stable moods, and think clearly amid academic and clinical responsibilities (Galderisi et al., 2019). In this study, mental health is assessed through a structured self-report questionnaire, focusing on four key indicators: emotions, anxiety and stress, mood swings, and cognitive impairment. As defined by the World Health Organization (2002), good mental health enables individuals to manage emotions effectively, cope with everyday challenges, foster positive relationships, and function productively in daily life.

Emotions are defined as the ability to identify and manage feelings such as frustration, sadness, and excitement during studies and clinical work (Caballero et al., 2025). Studies have shown that negative academic emotions such as anxiety and frustration can impair students' cognitive functioning consuming attention and working memory

which in turn reduces their ability to concentrate and perform (Xie et al., 2025). Additionally, factors like poor sleep quality and high stress levels were shown to exacerbate these emotional effects, further impairing academic outcomes.

Anxiety and Stress are operationally defined as the feelings of nervousness or pressure that nursing students experience before exams, clinical duties, or deadlines that may affect their concentration and performance. Anxiety and stress are mental health conditions often influenced by sleep quality. Anxiety is characterized by excessive worry and nervousness about future events, while stress is the body's response to perceived challenges or demands, causing emotional and physiological changes (American Psychological Association, 2022; Lupien et al., 2019). Poor sleep quality exacerbates anxiety and stress, leading to adverse effects on academic performance.

Mood Swings are operationally defined as the rapid changes in mood, such as irritability or sadness, that nursing students may experience due to academic workload or sleep disruption. Characterized by sudden and intense changes in emotional states, often shifting unpredictably between feelings such as elation, irritability, sadness, or anger. These emotional variations may be influenced by hormonal changes, stress, sleep disturbances, and underlying mental health conditions (Zaman & Sengupta, 2024; Houben et al., 2020). Additionally, they are shaped by multiple factors such as stress, sleep disturbances, and mental health conditions, and serve as key indicators of difficulties in emotional regulation (Wang et al., 2024).

Cognitive Impairment is operationally defined as temporary difficulties in memory, focus, or decision-making that affect nursing students' learning and clinical tasks. Cognitive impairment involves a decline or disruption in mental functions, including

memory, attention, executive functioning, processing speed, and problem-solving abilities. These deficits can affect learning, daily decision-making, and overall academic performance (Salthouse, 2019). Specifically, inadequate sleep quality has been associated with disruptions in cognitive functions, including reduced concentration and weakened memory consolidation, both of which are essential for optimal academic performance (Alfonsi et al., 2020).

Academic Performance is defined as the level of achievement a student attains in meeting educational objectives, commonly assessed through indicators such as grades, grade point average (GPA), and standardized test results. It signifies the learner's capacity to utilize acquired knowledge, exhibit practical skills, and achieve intended learning outcomes (Mushtaq & Khan, 2019). Studies have shown that, among nursing students, academic performance is significantly influenced by factors such as sleep quality, stress management, and time management skills, which in turn affect students' capacity to retain knowledge and perform effectively in both clinical practice and classroom learning environments (Lee & Kim, 2021).

Grades are standardized indicators of a student's academic achievement in specific subjects or courses. In this research, academic performance was assessed using students' midterm grades from the second semester, as officially documented by the university. As Brookhart (2019) and Guskey (2020) explain, grades reflect the level of understanding, knowledge, and skills demonstrated by the student, typically expressed through letter or numerical scores.

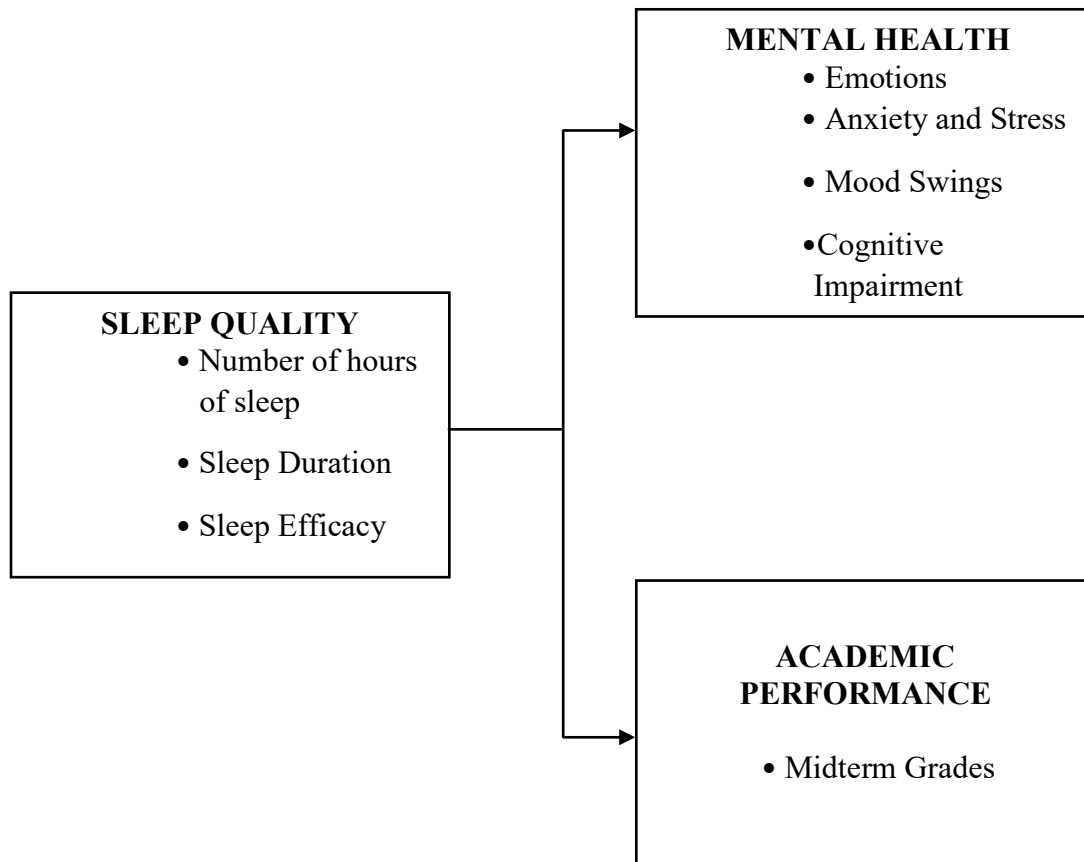


Figure 1. Schematic Presentation of the Study

Objectives of the Study

This study investigated the relationship between sleep quality, mental health, and academic performance among third-year nursing students.

The study sought answers to the following: (1) Assess the respondents' sleep quality as to number of hours of sleep, sleep duration, sleep efficacy, and sleep disturbances; (2) Assess the respondents' mental health as to emotions, anxiety and stress, mood swings, and cognitive impairment; (3) Assess the respondents' academic performance; (4) Explore the significant relationship between sleep quality and mental health; (5) Explore the significant relationship between sleep quality and academic performance.

It is hypothesized that: (Ho1) there is no significant relationship between sleep quality and mental health; and (Ho2) there is no significant relationship between respondents' Sleep Quality and Academic Performance.

Significance of Study

The researchers envision that the result of this study will provide benefits for the following:

Nursing Students. This study will help nursing students understand how their sleep quality affects their mental health and academic performance, encouraging better sleep habits to improve well-being and success.

Instructors. Instructors can use the findings to identify students struggling with sleep-related issues and provide support or adjustments to help them succeed.

Nursing Administration. The nursing administration may use the findings of this study to design and implement policies or programs that promote healthy sleep habits, thereby improving students' academic performance and supporting their mental well-being.

Community. The community benefits as well-rounded nursing graduates with better health and academic achievements contribute more effectively to healthcare services.

Student Support Services. This study provides valuable insights to guide student support units in designing targeted counseling programs and time-management workshops tailored to nursing students' needs.

Future Researchers. This study provides a foundation for future research on sleep quality, mental health, and academic performance, inspiring further exploration and solutions for related issues.

METHODOLOGY

Design

This study utilized a quantitative, descriptive-correlational research design. A descriptive research design seeks to gather data to comprehensively characterize a phenomenon, circumstance, or population. This research design enabled the identification of patterns and relationships among sleep quality, mental health, and academic performance indicators without manipulating variables, thereby offering insights into how these factors naturally coexist. Descriptive-correlational research was effective for examining relationships among variables in natural settings without manipulation, allowing researchers to identify patterns and associations that informed future interventions and studies (Gray et al., 2021). This study examined the relationship between sleep quality, mental health, and academic performance among third-year nursing students.

Environment

The study was conducted in a higher education institution in Ozamiz City, Misamis Occidental. This institution was known for its commitment to academic excellence and community service, offering a variety of programs with a strong focus on healthcare education, particularly through its Bachelor of Science in Nursing program. The college was recognized for producing competent nursing professionals equipped with both theoretical knowledge and practical skills essential to patient care. As nursing students faced the rigorous demands of their education, they encountered unique pressures that could affect their sleep quality and mental health, making this accredited tertiary institution an ideal setting for studying the relationship between academic challenges and well-being.

Respondents of the Study/Unit of Analysis and Sampling Procedure

The study involved 146 third-year nursing students, carefully chosen to reflect a wide range of perspectives. To ensure fairness and reduce bias, the researchers applied a Stratified Random Sampling Technique. Within each section, participants were selected using a “Spin the Wheel” randomizer, giving every eligible student an equal chance to be included. The criteria for the selection of the respondents included the following: (1) Third-year nursing students, (2) currently enrolled in major subjects, and (3) willingness to participate.

Data Gathering Instruments

The researchers used a researcher-developed questionnaire to collect data for all three parts of the study.

A. Sleep Quality Questionnaire. This questionnaire determined the sleep quality of nursing students. It contained four constructs, namely: number of hours of sleep, sleep deprivation, sleep efficiency, and sleep disturbance. It was a 4-point Likert Scale with the following responses: 4 - Strongly Agree; 3 - Agree; 2 - Disagree; 1 - Strongly Disagree.

B. Mental Health Questionnaire. This questionnaire assessed the mental health of nursing students. It contained four constructs, namely: emotion, anxiety and stress, mood swings, and cognitive impairment. It was a 4-point Likert Scale with the following responses: 4 - Strongly Agree; 3 - Agree; 2 - Disagree; 1 - Strongly Disagree.

C. Academic Performance. The researchers used stratified random sampling to ensure fair representation and minimize sampling bias. Participants were randomly selected from each section using a “Spin the Wheel” randomizer, ensuring all eligible students had an equal chance of being selected. The criteria for the selection of the

respondents included the following: (1) Third-year nursing students, (2) currently enrolled in major subjects, and (3) willingness to participate.

Data Gathering Procedure

The researchers developed and utilized a self-prepared questionnaire. Prior to distribution, formal approval was obtained from the Dean of the College of Nursing, Midwifery, and Radiologic Technology to conduct the study within the institution. Once permission was granted, the researchers worked closely with the college secretary to obtain a list of nursing students, along with current enrollment figures and academic records. The researchers clearly explained their purpose and objectives to the participants. A consent form was then provided, allowing each respondent to formally indicate their willingness to take part. Participation was entirely voluntary, and students were assured that their responses would remain confidential and that their identities would remain anonymous. The researchers emphasized that the collected data would be used solely for the study and that they would respect every student's decision to join or decline. To foster cooperation and make the process more personal, the questionnaires were handed out to each respondent individually.

Validity and Reliability of the Instrument

The questionnaire was carefully reviewed and validated by a panel of experts to ensure its suitability for the study. A pilot test was then conducted with 20 nursing students who were not included in the final group of respondents. To assess reliability, Cronbach's Alpha was calculated for each variable. The analysis confirmed that the items were both valid and reliable, demonstrating that the instrument could effectively capture the intended dimensions of the research. The Cronbach's Alpha values for the measures were as follows:

Number Hours of Sleep ($\alpha = .911$), Sleep Duration ($\alpha = .937$), Sleep Efficacy ($\alpha = .861$), Sleep Disturbance ($\alpha = .837$), Mental Health Emotion ($\alpha = .906$), Anxiety and Stress ($\alpha = .923$), Mood Swings ($\alpha = .929$), and Cognitive Impairment ($\alpha = .943$)

Scoring Guidelines

A researcher-made questionnaire was assessed based on the continuum as follows:

- A. Sleep Quality Questionnaire. In assessing the level of sleep quality of the study, the following scale was used, with reverse coding applied in the interpretation since most of the items were negatively worded:

	Continuum	Responses	Interpretation
4	3.26 - 4.00	Strongly Agree	Very Poor
3	2.51 - 3.25	Agree	Poor
2	1.76 - 2.50	Disagree	Good
1	1.0 - 1.75	Strongly Disagree	Very Good

- B. Mental Health Questionnaire. In assessing the level of mental health of the study, the following scale was used:

	Continuum	Responses	Interpretation
4	3.26 - 4.00	Strongly Agree	Very Poor
3	2.51 - 3.25	Agree	Poor
2	1.76 - 2.50	Disagree	Good
1	1.0 - 1.75	Strongly Disagree	Very Good

C. Academic Performance. In assessing the level of academic performance of the study, the following scale was used:

Grades	Interpretation
1.5 – 1.25	Superior
2.0 – 1.75	Above Average
2.50 – 2.25	Average
3.0 – 2.75	Passing

Mode of Analysis/ Statistical Treatment

The Mode of Analysis/Statistical Treatment described the approaches applied to process and interpret the information gathered in the study, allowing the researchers to draw meaningful insights. Responses from the questionnaires were carefully organized, examined, and analyzed using suitable statistical methods.

Mean and Standard Deviation were used to analyze the sleep quality, mental health, and academic performance of the respondents.

Pearson's r (correlation coefficient) was used to examine relationships among sleep quality, mental health, and academic performance.

Ethical Consideration

The researchers submitted a formal consent letter to the Dean of the College of Nursing, Midwifery, and Radiologic Technology to obtain authorization for conducting the study within the institution. This letter clearly outlined the research's aims and objectives. After receiving approval, written informed consent was obtained from the participants, who were given ample time to decide whether to participate. It was emphasized that participation was voluntary and that students could withdraw at any point without any

repercussions. Those who agreed to join completed the self-administered questionnaire. Throughout the process, the researchers safeguarded participants' privacy, ensured the confidentiality of responses, and maintained anonymity. They also guaranteed that the collected data would be used exclusively for the study. All information was stored securely until the research was completed or published.

RESULTS AND DISCUSSION

Respondents' Sleep Quality as to Number of Hours of Sleep, Sleep Duration, Sleep Efficacy, and Sleep Disturbances

Table 1 presents data on respondents' sleep quality, including hours of sleep, sleep duration, sleep efficacy, and sleep disturbances. The overall weighted mean is 2.87, with a standard deviation of 0.522, and is classified within the 'Poor' category. This suggests that, overall, the respondents reported low sleep quality. The standard deviation of 0.522 indicates moderate variation in their answers, suggesting that although poor sleep quality was prevalent, the severity of sleep problems varied among individuals.

Number of Hours of Sleep. The table presents the respondents' average sleep hours, with a weighted mean of 2.6479 and a standard deviation of 0.54951. This result is categorized as *Poor*, suggesting that participants may be experiencing inadequate or disrupted sleep. Such sleep deprivation can negatively affect physical and mental health. Limited sleep duration is associated with compromised immune response, heightened irritability, and reduced academic performance (Hirshkowitz et al., 2019; Patel et al., 2021; Watson et al., 2021).

Sleep Duration. The table displays the respondents' sleep duration, showing a weighted mean of 2.9740 and a standard deviation of 0.50392, also interpreted as *Poor*. This implies that the participants are not achieving the recommended amount of restorative sleep. Research indicates that insufficient sleep contributes to persistent tiredness, increased likelihood of obesity, and difficulties in emotional regulation (Wu et al., 2020; Zhang et al., 2022; Koyanagi et al., 2020).

Sleep Efficacy. The table presents the respondents' sleep efficiency, with a weighted mean of 3.0671 and standard deviation of 0.48325, rated as *Poor*. This means that even with adequate time in bed, the respondents might struggle to fall or stay asleep. Poor sleep efficiency is often associated with insomnia, anxiety, and decline in overall life satisfaction (Palagini et al., 2020; Al Maqbali et al., 2021).

Sleep Disturbances. The table shows the respondents' sleep disturbances, with a weighted mean of 2.8192 and a standard deviation of 0.55153, indicating *Poor*. This means that the respondents frequently experienced difficulty falling asleep, had interruptions during the night, and often woke up feeling unrested despite having slept. Studies have shown that such sleep disruptions are associated with diminished physical health and emotional stability (Alimoradi et al., 2021; Fernández-Mendoza, 2023).

Table 1. Respondents' Quality of Life as to Number of Hours of Sleep, Sleep Duration, Sleep Efficacy, and Sleep Disturbances

Constructs	WM	StDev	Interpretation
Number of Hours of Sleep	2.64	0.549	Poor
Sleep Duration	2.97	0.502	Poor
Sleep Efficacy	3.06	0.483	Poor
Sleep Disturbances	2.81	0.551	Poor
Overall Weighted Mean	2.87	0.522	Poor

Legend: Very Poor 3.25 – 4.00; Poor 2.50 – 3.24; Good 1.75 – 2.49; Very Good 1.00 – 1.74

Respondents' Mental Health as to Emotion, Anxiety and Stress, Mood Swings, and Cognitive Impairment

Table 2 displays the data regarding the respondents' mental health across four domains: emotions, anxiety and stress, mood swings, and cognitive impairment. The overall mean score was 2.83 with a standard deviation of 0.62, indicating a *Poor classification*. This suggests that, on average, the participants are experiencing below-optimal mental well-being. The standard deviation of 0.62 reflects moderate variation in responses, indicating that although poor mental health was common, symptom intensity varied among individuals.

Emotions. The table indicates that the respondents' emotional well-being had a mean of 2.74 (SD = 0.55), suggesting poor emotional well-being. These findings indicate that the respondents often felt emotionally unstable and had great difficulty controlling their emotions, reflecting poor emotional regulation. Emotional instability and difficulty managing emotions are common among students under academic pressure, contributing to overall poor mental health (Xiao et al., 2020).

Anxiety and Stress. The table shows that anxiety and stress recorded the highest mean 2.9658 (SD = 0.60177), indicating that a considerable number of third-year nursing students are dealing with elevated levels of academic-related stress and anxiety. This implies that respondents often felt overwhelmed by the fear of failing exams or clinical duties, and that their anxiety negatively affected their interpersonal relationships. These findings are consistent with research showing that nursing students frequently encounter performance anxiety, which can extend beyond academics and influence their emotional and social health (Savitsky et al., 2020).

Mood Swings. The table shows that mood swings had a mean of 2.80 (SD = 0.67), showing that respondents experience moderate instability in emotional responses. These findings indicate that the respondents experienced drastic and unpredictable mood changes throughout the day, making it difficult for them to maintain stable relationships. This is consistent with studies showing that mood swings in students, often triggered by academic stress, can interfere with emotional stability and interpersonal functioning (Li et al., 2022).

Cognitive impairment. The table shows that cognitive impairment had a mean of 2.81 (SD = 0.64), suggesting that students have trouble with memory, concentration, and decision-making. The respondents found it difficult to remember information, even recently learned material, and had trouble making decisions or solving problems. Such cognitive difficulties are commonly associated with mental fatigue and stress among college students, particularly during periods of academic pressure (Son et al., 2020).

Table 2. Respondents' Mental Health as to Emotion, Anxiety and Stress, Mood Swings, and Cognitive Impairment

Constructs	WM	StDev	Interpretation
Emotions	2.74	0.555	Poor
Anxiety and Stress	2.97	0.602	Poor
Mood Swings	2.80	0.674	Poor
Cognitive Impairment	2.81	0.639	Poor
Overall Weighted Mean	2.83	0.618	Poor

Legend: Very Poor 3.26-4.0; Poor 2.51-3.25; Good 1.76-2.50; Very Good 1.0-1.75

Respondents' Academic Performance

This research examined the academic outcomes of the respondents by analyzing their midterm grades. The results showed an average score of 3.17, indicating *above-average* performance. This indicates strong academic engagement, effective study habits, and overall learning success. The standard deviation of 0.489 indicates a moderate range of differences in student performance. This suggests that while many are doing well, some students may be experiencing academic challenges that require targeted interventions or support to improve their outcomes. These findings indicate that academic performance should not be evaluated solely by average scores, but also by considering variability, as this helps identify students who may need additional academic assistance or motivation (Alhadabi & Karpinski, 2020).

Table 3. Respondents' Academic Performance

Constructs	WM	StDev	Remarks
Midterm Grades	3.17	0.489	Above Average

Legend: Superior: 4; Above Average: 3; Average: 2; Passing 1

Significant Relationship between Sleep Quality and Mental Health

Table 4 presents the significant relationships between sleep quality and the number of hours of sleep, sleep duration, sleep efficacy, sleep disturbance, and mental health, including emotions, anxiety and stress, mood swings, and cognitive impairment.

The results indicate varying degrees of relationships between sleep quality factors and mental health indicators. Notably, sleep duration exhibits statistically significant correlations across multiple mental health constructs, including emotions ($r = 0.288$, $p =$

0.000), anxiety and stress ($r = 0.313, p = 0.000$), mood swings ($r = 0.293, p = 0.000$), and cognitive impairment ($r = 0.219, p = 0.008$). According to Nola Pender's Health Promotion Model, which emphasizes that personal biological factors, such as sleep, significantly influence mental and emotional well-being. Pender highlights that behaviors such as adequate sleep are crucial for managing stress, maintaining mood stability, and supporting cognitive function (Pender, 2002).

Sleep efficacy, which refers to the efficiency of sleep cycles and uninterrupted rest, also demonstrates strong positive correlations with emotions ($r = 0.428, p = 0.000$), anxiety and stress ($r = 0.385, p = 0.000$), mood swings ($r = 0.455, p = 0.000$), and cognitive impairment ($r = 0.312, p = 0.000$). This finding is supported by Dorothea Orem's Self-Care Deficit Nursing Theory, which emphasizes that individuals must undertake self-care measures, including achieving effective, uninterrupted sleep, to maintain optimal psychological and cognitive health. Poor sleep efficacy reflects a self-care deficit that can contribute to emotional instability, increased anxiety, and impaired thinking (Orem, 2001).

Conversely, sleep disturbance, characterized by frequent interruptions and poor sleep patterns, presents significantly high correlations with emotions ($r = 0.451, p = 0.000$), anxiety and stress ($r = 0.444, p = 0.000$), mood swings ($r = 0.416, p = 0.000$), and cognitive impairment ($r = 0.513, p = 0.000$). This finding is consistent with Dorothea Orem's Self-Care Deficit Nursing Theory, which asserts that disruptions in essential self-care behaviors, such as sleep, lead to imbalances in emotional and cognitive functioning. Sleep disturbances represent a failure to meet foundational self-care needs, resulting in heightened emotional distress, anxiety, and mental impairment (Orem, 2001).

Interestingly, hours of sleep show weaker, statistically insignificant correlations with most mental health indicators ($p > 0.05$), suggesting that quantity alone may not ensure well-being without considering sleep quality and patterns. According to Nola Pender's Health Promotion Model, which emphasizes that health behaviors must be effective, not just present, to positively influence mental health outcomes (Pender, 2002).

These results underscore the intricate link between sleep and mental health. Strong associations between sleep quality, particularly sleep efficiency and disturbances, and psychological outcomes emphasize the importance of sustaining restorative, uninterrupted sleep. Given the profound influence of sleep health on emotional regulation and cognitive functioning, nursing students and healthcare professionals should prioritize strategies to strengthen sleep hygiene to mitigate the risk of mental health decline. Furthermore, the absence of a significant relationship between sleep duration and mental health outcomes suggests that sleep quality, rather than quantity, warrants greater attention. This perspective aligns with Nola Pender's Health Promotion Model, which highlights the role of health-promoting behaviors, such as maintaining good sleep quality, in fostering optimal mental and emotional well-being (Pender, 2002).

Table 4. Significant Relationship between Sleep Quality and Mental Health

Constructs	Test Statistics		Remarks
	<i>r-value</i>	<i>p-value</i>	
<u>Number of hours of sleep and:</u>			
Emotions	-0.58	0.486	Do Not Reject Null Hypothesis
Anxiety and stress	-0.013	0.873	Do Not Reject Null Hypothesis
Mood Swings	-0.046	0.582	Do Not Reject Null Hypothesis
Cognitive Impairment	-0.006	0.944	Do Not Reject Null Hypothesis
<u>Sleep Duration and:</u>			
Emotions	0.288	0.00	Reject Null Hypothesis
Anxiety and stress	0.313	0.00	Reject Null Hypothesis
Mood Swings	0.293	0.00	Reject Null Hypothesis
Cognitive Impairment	0.219	0.008	Reject Null Hypothesis
<u>Sleep Efficacy and:</u>			
Emotions	0.428	0.00	Reject Null Hypothesis
Anxiety and Stress	0.385	0.00	Reject Null Hypothesis
Mood Swings	0.455	0.00	Reject Null Hypothesis
Cognitive Impairment	0.312	0.00	Reject Null Hypothesis
<u>Sleep Disturbance and:</u>			
Emotions	0.451	0.00	Reject Null Hypothesis
Anxiety and Stress	0.44	0.00	Reject Null Hypothesis
Mood Swings	0.416	0.00	Reject Null Hypothesis
Cognitive Impairment	0.513	0.00	Reject Null Hypothesis

Ho: There is no significant relationship between sleep quality and mental health

Legend: Highly Significant 0.00-0.01; Significant 0.02-0.05; above 0.05 Not Significant

Significant Relationship between Sleep Quality and Academic Performance

Table 5 shows the correlation between various aspects of sleep quality and academic performance among respondents. The constructs analyzed include hours of sleep, sleep duration, sleep efficacy, and sleep disturbance. The results show that none of the sleep quality variables has a statistically significant relationship with academic performance. All values exceed the 0.05 threshold, indicating no significant correlation. According to Nola Pender's Health Promotion Model, health behaviors, such as sleep, are influenced by a combination of personal, cognitive, and environmental factors, and their effects on outcomes, such as academic performance, may not be direct or isolated. This suggests that other variables beyond sleep quality may play a more influential role in academic success (Pender, 2002).

Academic Performance and Number of Hours of Sleep. The table shows that Academic Performance and Number of Hours of Sleep are not statistically significant, suggesting that increasing sleep duration may not directly improve academic outcomes. This finding is supported by Nola Pender's Health Promotion Model, which highlights that health behaviors, such as sleep, interact with personal, cognitive, and situational factors, meaning that the quantity of sleep alone may not be sufficient to influence academic performance without considering sleep quality, motivation, and lifestyle context (Pender, 2002).

Academic Performance and Sleep Duration. The table shows that Academic Performance and Sleep Duration are not statistically significant, suggesting that simply increasing sleep hours does not necessarily enhance academic outcomes. According to Pender's Health Promotion Model, health behaviors, such as sleep duration, must be

considered alongside individual experiences, perceived benefits, and personal factors to effectively influence outcomes, such as academic performance (Pender, 2002).

Academic Performance and Sleep Efficacy. The table shows that Academic Performance and Sleep Efficacy are not statistically significant, indicating that the effectiveness of sleep alone may not directly influence academic outcomes in this sample. However, according to Pender's Health Promotion Model, behavioral factors, such as sleep, interact with multiple personal and situational influences, and their effects may not always be directly measurable in isolation (Pender, 2002).

Academic Performance and Sleep Disturbances. The table shows that Academic Performance and Sleep Disturbances are not statistically significant, indicating that sleep may not have a strong effect on students' academic outcomes. Other factors, such as motivation, study habits, or support systems, may influence performance more than sleep alone, as aligned with the principles of Nola Pender's Health Promotion Model, which highlights the role of multiple personal and behavioral factors (Pender, 2002).

Table 5. *Significant Relationship between Sleep Quality and Academic Performance*

Constructs	Test Statistics		Remarks
	<i>r-value</i>	<i>p-value</i>	
<u>Academic Performance and:</u>			
Number of Hours of Sleep	-0.026	0.759	Do Not Reject Null Hypothesis
Sleep Duration	-0.11	0.184	Do Not Reject Null Hypothesis
Sleep Efficacy	0.091	0.274	Do Not Reject Null Hypothesis
Sleep Disturbance	-0.14	0.092	Do Not Reject Null Hypothesis

Ho: There is no significant relationship between respondents' Sleep Quality and Academic Performance

*Legend: 0.00-0.01** Highly Significant; 0.02-0.05* Significant; above 0.05 Not Significant*

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. Third-year nursing students experience poor sleep quality in terms of Sleep Duration, Efficacy, and Disturbances.
2. Mental Health levels among third-year students are poor, particularly in emotions, anxiety and stress, mood swings, and cognitive impairment.
3. Despite poor sleep and mental health, students generally maintain above-average academic performance.
4. Sleep duration, efficacy, and disturbances significantly affect emotions, anxiety and stress, mood swings, and cognitive impairment.
5. Sleep quality does not significantly correlate with academic performance, suggesting other factors contribute more directly to grades.

Recommendations

1. Nursing Students are encouraged to establish and maintain healthy sleep hygiene practices to enhance both mental well-being and academic engagement. This includes setting consistent sleep schedules to foster a regular sleep-wake cycle, which can improve concentration and emotional stability. Additionally, minimizing screen exposure before bedtime is essential for reducing cognitive stimulation and promoting more restful sleep.
2. Clinical Instructors are encouraged to actively monitor signs of fatigue and psychological distress among students during both academic and clinical rotations. By staying attentive to these

indicators, instructors can provide timely support and intervention when needed. Furthermore, integrating wellness-oriented discussions and mental health awareness into their teaching strategies creates a more supportive and empathetic learning environment.

3. Nursing Administration is advised to establish structured sleep and mental health support programs, including designated rest areas, flexible academic accommodations, and regular health education seminars. These efforts promote student well-being and resilience throughout their academic journey.

4. Community is encouraged to partner with educational institutions in promoting public awareness campaigns on sleep quality and mental health, especially among vulnerable groups like youth and college students.

5. Student Support Services should provide tailored counseling along with time management training designed to support nursing students in handling academic requirements while maintaining sleep quality and psychological resilience.

6. Future Research is encouraged to broaden its scope by including diverse student populations across various academic levels and disciplines. This broader scope will strengthen the applicability of the findings and provide richer insights into the relationship between sleep quality and academic performance. In addition, examining other variables such as lifestyle practices, coping mechanisms, and patterns of digital media use as possible mediating factors can yield a more comprehensive understanding of the influences on student well-being and academic stress.

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APPENDIX A – Research Questionnaires (Blank)

Questionnaire on

“Sleep Quality in Relation to Mental Health and Academic Performance of Third Year Nursing Students”

(Researcher-Made Study)

PART I. Respondents' Assessments of Sleep Quality

Directions: Please rank the following situation based on how often you experience the following scenarios using the 4-point Likert Scale (4 – Strongly Agree; 3 – Agree; 2 – Disagree; 1 – Strongly Disagree) to identify your sleep quality.

Statements	(4) Strongly Agree	(3) Agree	(2) Disagree	(1) Strongly Disagree
Number of Hours of Sleep				
1. I usually get at least 7-8 hours of sleep on most weeknights.				
2. I feel that the amount of sleep I get is sufficient for me to function well.				
3. I rarely need to take naps during the day to compensate for lack of sleep.				
4. I believe I get enough sleep to perform well academically.				
5. I seldom feel that I have slept enough.				
Sleep Duration				
1. My sleep duration is usually less than what I need to function well.				
2. I often wake up feeling like I haven't slept long enough.				
3. Maintaining a sufficient sleep duration is a challenge for me.				
4. I don't usually get a continuous and lengthy sleep.				

5. I struggle to achieve a long enough sleep duration.				
Sleep Efficiency				
1. I spend a lot of time in bed without actually sleeping.				
2. A low sleep efficiency makes me feel more tired during the day.				
3. I worry about not falling asleep quickly enough, which makes it worse.				
4. The long time it takes me to fall asleep negatively impacts my mood.				
5. I often wake up feeling like I haven't slept enough, even after being in bed for a while.				
Sleep Disturbance				
1. I frequently have trouble falling asleep.				
2. My sleep is often interrupted during the night.				
3. I often wake up feeling unrested, even after sleeping.				
4. Achieving a peaceful and undisturbed sleep is rare for me.				
5. I frequently toss and turn while trying to sleep				

PART II. Respondents' Assessments of Mental Health

Directions: Please rank the following situation based on how often you experience the following scenarios using the 4-point Likert Scale (4 – Strongly Agree; 3 – Agree; 2 – Disagree; 1 – Strongly Disagree) to identify your mental health.

Statements	(4) Strongly Agree	(3) Agree	(2) Disagree	(1) Strongly Disagree
Emotion				
1. I feel emotionally numb, like I'm disconnected from my				

feelings.				
2. I feel like my emotional state is constantly interfering with my daily life.				
3. I often feel like I am emotionally unstable.				
4. I feel that I have a very difficult time controlling my emotions				
5. I feel that I am more emotionally fragile, than I was before entering this stage of my education.				
Anxiety and Stress				
1. I constantly worry about failing exams or clinical rotations.				
2. I believe my anxiety is negatively impacting my relationships.				
3. I feel that I constantly have a feeling of dread.				
4. I feel that I have more anxiety now, than I have had in the past.				
5. I feel that my anxiety is making it harder for me to function in clinical settings.				
Mood Swings				
1. My mood changes drastically and unpredictably throughout the day.				
2. My mood swings make it hard for me to maintain stable relationships				
3. I feel that my mood switches from very happy to very sad, without a clear reason.				
4. I feel that my mood swings are negatively affecting my ability to study.				
5. I feel that I get irrationally angry, or sad, due to my mood swings.				

Cognitive Impairment				
1. I find it difficult to remember information, even recently learned material.				
2. I often feel mentally foggy or confused.				
3. I have trouble making decisions or solving problems				
4. I believe my cognitive impairment is affecting my ability to perform well in clinicals.				
5. I feel that I am having trouble processing information quickly.				

PART III. Respondents' Assessments of Academic Performance

2nd Semester A.Y. 2024-2025, Midterm Grades

NCM 116 (Medical-Surgical Nursing) Lecture:

NCM 117 (Psychiatric Nursing) Lecture:

NCM 116/117 RLE:

APPENDIX B – Sample of Filled-out Questionnaire

SLEEP QUALITY IN RELATION TO MENTAL HEALTH AND ACADEMIC PERFORMANCE OF THIRD YEAR NURSING STUDENTS

Dear Respondents,

We are third-year nursing students from Misamis University enrolled in the Bachelor of Science in Nursing program. As part of our course requirements, we are conducting a research study titled "*Sleep Quality in Relation to Mental Health and Academic Performance of Third Year Nursing Students.*" This study aims to assess the sleep quality of nursing students and how it may relate to their mental health and academic performance.

Your participation in this survey is voluntary. All the information you provide will be kept confidential and will only be used for academic research purposes. No personal data will be disclosed or shared with others. Your cooperation and honest responses in this study are highly appreciated.

Thank you for your time and participation.

Respectfully,
The Researchers

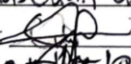
Consent Statement

I have been informed about the purpose, scope, and objectives of the research titled "*Sleep Quality in Relation to Mental Health and Academic Performance of Third Year Nursing Students.*" I understand that my participation in this research is voluntary and that all the information I will provide will be kept confidential and used only for academic purposes.

I acknowledge that I have the right to withdraw from the study at any point without facing any consequences. I confirm that I am participating voluntarily and will answer truthfully to the best of my knowledge.

By signing below, I give my consent to participate in this research.

Name: MasCual, Cykin kid M.

Signature: 

Date: 05/05/2025



APPENDIX B Cont'd

"Sleep Quality in Relation to Mental Health and Academic Performance of Third Year Nursing Students" (Researcher-Made Study)

PART I. Sleep Quality Questionnaires

Directions: Please rank the following situation based on how often you experience the following scenarios using the 4-point Likert Scale (4 – Strongly Agree; 3 – Agree; 2 – Disagree; 1 – Strongly Disagree) to identify your sleep quality.

Statements	(4) Strongly Agree	(3) Agree	(2) Disagree	(1) Strongly Disagree
Number of Hours of Sleep				
1. I usually get at least 7-8 hours of sleep on most weeknights.		/		
2. I feel that the amount of sleep I get is sufficient for me to function well.		/		
3. I rarely need to take naps during the day to compensate for lack of sleep.	/			
4. I believe I get enough sleep to perform well academically.		/		
5. I seldom feel that I have slept enough.			/	
Sleep Duration				
1. My sleep duration is usually less than what I need to function well.		/		
2. I often wake up feeling like I haven't slept long enough.	/			
3. Maintaining a sufficient sleep duration is a challenge for me.		/		
4. I don't usually get a continuous and lengthy sleep.		/		
5. I struggle to achieve a long enough sleep duration.		/		
Sleep Efficiency				
1. I spend a lot of time in bed without actually sleeping.			/	
2. A low sleep efficiency makes me feel more tired during the day.		/		
3. I worry about not falling asleep quickly enough, which makes it worse.		/		
4. The long time it takes me to fall asleep negatively impacts my mood.		/		
5. I often wake up feeling like I haven't slept enough, even after being in bed for a while.		/		
Sleep Disturbance				
1. I frequently have trouble falling asleep.			/	
2. My sleep is often interrupted during the night.			/	
3. I often wake up feeling unrested, even after sleeping.		/		
4. Achieving a peaceful and undisturbed sleep is rare for me.			/	
5. I frequently toss and turn while trying to sleep.		/		

PART II. Mental Health Questionnaires

Directions: Please rank the following situation based on how often you experience the following scenarios using the 4-point Likert Scale (4 – Strongly Agree; 3 – Agree; 2 – Disagree; 1 – Strongly Disagree) to identify your mental health.

APPENDIX B Cont'd

Statements	(4) Strongly Agree	(3) Agree	(2) Disagree	(1) Strongly Disagree
Emotion				
1. I feel emotionally numb, like I'm disconnected from my feelings.		/		
2. I feel like my emotional state is constantly interfering with my daily life.			/	
3. I often feel like I am emotionally unstable.		/		
4. I feel that I have a very difficult time controlling my emotions.		/		
5. I feel that I am more emotionally fragile, than I was before entering this stage of my education.		/		
Anxiety and Stress				
1. I constantly worry about failing exams or clinical rotations.		/		
2. I believe my anxiety is negatively impacting my relationships.		/		
3. I feel that I constantly have a feeling of dread.	/			
4. I feel that I have more anxiety now, than I have had in the past.	/			
5. I feel that my anxiety is making it harder for me to function in clinical settings.	/			
Mood Swings				
1. My mood changes drastically and unpredictably throughout the day.		/		
2. My mood swings make it hard for me to maintain stable relationships.		/		
3. I feel that my mood switches from very happy to very sad, without a clear reason.		/		
4. I feel that my mood swings are negatively affecting my ability to study.		/		
5. I feel that I get irrationally angry, or sad, due to my mood swings.		/		
Cognitive Impairment				
1. I find it difficult to remember information, even recently learned material.	/			
2. I often feel mentally foggy or confused.	/			
3. I have trouble making decisions or solving problems	/			
4. I believe my cognitive impairment is affecting my ability to perform well in clinicals.	/			
5. I feel that I am having trouble processing information quickly.	/			

PART III. Academic Performance Questionnaires

2nd Semester A.Y 2024-2025, Midterm Grades

NCM 116 (Medical-Surgical Nursing) Lecture: 2.50

NCM 117 (Psychiatric Nursing) Lecture: 1.75

NCM 116/117 RLE: 1.75

APPENDIX C – Sampling Computations

Raosoft Sample size calculator

What margin of error can you accept?
5% is a common choice

What confidence level do you need?
Typical choices are 90%, 95%, or 99%

What is the population size?
If you don't know, use 20000

What is the response distribution?
Leave this as 50%

Your recommended sample size is

The margin of error is the amount of error that you can tolerate. If 90% of respondents answer yes, while 10% answer no, you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55. Lower margin of error requires a larger sample size.

The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer yes would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size.

How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.

For each question, what do you expect the results will be? If the sample is skewed highly one way or the other, the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under **More information** if this is confusing.

This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.

Online surveys with **Vovici** have completion rates of 66%!

Alternate scenarios

With a sample size of	100	200	300	With a confidence level of	90	95	99
Your margin of error would be	7.43%	2.65%	0.00%	Your sample size would need to be	126	146	174

Save effort, save time. **Conduct your survey online with Vovici.**

$N = 234$ (Population size)		
$n = 146$ (sample size)		
LEVEL 3 BLOCKS	%	n
A: 39	17%	25
B: 36	15%	21
C: 40	17%	25
D: 40	17%	25
E: 39	17%	25
F: 40	17%	25
	<u>100%</u>	<u>146</u>



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APPENDIX D – Informed Consent Form

**Misamis University**
Ozamiz City

MISAMIS UNIVERSITY RESEARCH CENTER
CERTIFIED: ISO 21001: 2018 Educational Organizations Management System by DNV
ACCREDITED: Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA)

MU-RC-042/13 November 2024

Thesis/Research Data Gathering Approval Form

Date: April 21, 2025

Name of Authors: ENERIO, KYLEEN P. FIEL, RICA DALAH S. GALINDO RHODEN MAY, LABANZA, HAZEL, MATUNDA, ELEVIC

College/Department: COLLEGE OF NURSING, MIDWIFERY AND RADIOLOGIC TECHNOLOGY

Research Title: SLEEP QUALITY IN RELATION TO MENTAL HEALTH AND ACADEMIC PERFORMANCE OF THIRD YEAR NURSING STUDENTS

Data Gathering Procedure:

a. Type of Research: (Kindly check)

☒ Quantitative	☐ Qualitative	☐ Experimental
☒ Approved Research Title & Problem/Objectives	☒ Approved Data Gathering Procedure	☒ Approved Data Gathering Instrument/Data Sheets

b. Respondents/Participants/Subject/Samples to be Collected: THIRD YEAR NURSING STUDENTS

c. Procedure:

☒ Survey	☐ Interview	☐ Experimentation	☐ Laboratory Testing
--	------------------------------------	--	---

d. Place of Implementation/Study Area: MISAMIS UNIVERSITY

If to be conducted outside the school campus, indicate the nature of transportation to be used:

☐ Own private vehicle	☐ public utility vehicle	☐ rental	☐ Others, please indicate _____
--	---	---------------------------------	--

e. Date/s of Implementation/Sampling: APRIL TO MAY 2025

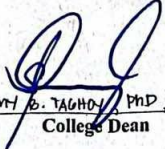
Attachments:

☒ Approved Letter of Consent from the designated authority in the area/place where the study is to be conducted
☐ Signed Parents' Consent

The thesis proposal mentioned above is hereby recommended for the commencement of data gathering implementation.

Recommended by:

 <u>CHENA J. RODAS, MAN, RN</u> Thesis/Research Adviser	 <u>ARNIELYN M. ELADULAN, MAN, RN</u> Thesis/Research Instructor
--	---

Approved by: 
SAMMY B. TAGHON, PhD, RN
College Dean

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CONTROLLED DOCUMENT

APPENDIX D Cont'd

SLEEP QUALITY IN RELATION TO MENTAL HEALTH AND ACADEMIC PERFORMANCE OF THIRD YEAR NURSING STUDENTS

Dear Respondents,

We are third-year nursing students from Misamis University enrolled in the Bachelor of Science in Nursing program. As part of our course requirements, we are conducting a research study titled "*Sleep Quality in Relation to Mental Health and Academic Performance of Third Year Nursing Students.*" This study aims to assess the sleep quality of nursing students and how it may relate to their mental health and academic performance.

Your participation in this survey is voluntary. All the information you provide will be kept confidential and will only be used for academic research purposes. No personal data will be disclosed or shared with others. Your cooperation and honest responses in this study are highly appreciated.

Thank you for your time and participation.

Respectfully,
The Researchers

Consent Statement

I have been informed about the purpose, scope, and objectives of the research titled "*Sleep Quality in Relation to Mental Health and Academic Performance of Third Year Nursing Students.*" I understand that my participation in this research is voluntary and that all the information I will provide will be kept confidential and used only for academic purposes.

I acknowledge that I have the right to withdraw from the study at any point without facing any consequences. I confirm that I am participating voluntarily and will answer truthfully to the best of my knowledge.

By signing below, I give my consent to participate in this research.

Name: _____

Signature:  _____

Date: 05/10/2025



APPENDIX E – Statistical Computation

SOP 1: Assess the respondents' quality of life as to number of hours of sleep, sleep duration, sleep efficacy, and sleep disturbances.

NUMBER OF HOURS OF SLEEP

Report		
VAR00001		
Mean	N	Std. Deviation
2.6479	146	.54951

SLEEP DURATION

Report		
VAR00002		
Mean	N	Std. Deviation
2.9740	146	.50392

SELF EFFICACY

Report		
VAR00003		
Mean	N	Std. Deviation
3.0671	146	.48325

SLEEP DISTURBANCES

Report		
VAR00004		
Mean	N	Std. Deviation
2.8192	146	.55153

APPENDIX E Cont'd

SOP 2: Assess the respondents' mental health as to emotions, anxiety and stress, mood swings, and cognitive impairment.

EMOTIONS

Report		
VAR00005		
Mean	N	Std. Deviation
2.7384	146	.55464

ANXIETY AND STRESS

Report		
VAR00006		
Mean	N	Std. Deviation
2.9658	146	.60177

MOOD SWINGS

Report		
VAR00007		
Mean	N	Std. Deviation
2.8041	146	.67445

COGNITIVE IMPAIRMENT

Report		
VAR00008		
Mean	N	Std. Deviation
2.8082	146	.63934

SOP 3: Assess the respondents' academic performance

Report		
VAR00001		
Mean	N	Std. Deviation
3.1712	146	.48933

APPENDIX E Cont'd

SOP 4: Explore the significant relationship between sleep quality and mental health as to number of hours of sleep, sleep duration, sleep efficacy, and sleep disturbances.

emotions, anxiety and stress, mood swings, and cognitive impairment.

NUMBER OF HOURS OF SLEEP AND EMOTIONS

Correlations			
		VAR00001	VAR00002
VAR00001	Pearson Correlation	1	-.058
	Sig. (2-tailed)		.486
	N	146	146
VAR00002	Pearson Correlation	-.058	1
	Sig. (2-tailed)	.486	
	N	146	146

NUMBER OF HOURS OF SLEEP AND ANXIETY AND STRESS

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	-.013
	Sig. (2-tailed)		.873
	N	146	146
VAR00004	Pearson Correlation	-.013	1
	Sig. (2-tailed)	.873	
	N	146	146

APPENDIX E Cont'd

NUMBER HOUR OF SLEEP AND MOOD SWINGS

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	-.046
	Sig. (2-tailed)		.582
	N	146	146
VAR00004	Pearson Correlation	-.046	1
	Sig. (2-tailed)	.582	
	N	146	146

NUMBER OF HOURS SLEEP AND COGNITIVE IMPAIRMENT

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	-.006
	Sig. (2-tailed)		.944
	N	146	146
VAR00004	Pearson Correlation	-.006	1
	Sig. (2-tailed)	.944	
	N	146	146

APPENDIX E Cont'd

SLEEP DURATION AND EMOTION

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.288**
	Sig. (2-tailed)		.000
	N	146	146
VAR00004	Pearson Correlation	.288**	1
	Sig. (2-tailed)	.000	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

SLEEP DURATION AND ANXIETY AND STRESS

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.313**
	Sig. (2-tailed)		.000
	N	146	146
VAR00004	Pearson Correlation	.313**	1
	Sig. (2-tailed)	.000	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

APPENDIX E Cont'd

SLEEP DURATION AND MOOD SWING

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.293**
	Sig. (2-tailed)		.000
	N	146	146
VAR00004	Pearson Correlation	.293**	1
	Sig. (2-tailed)	.000	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

SLEEP DURATION AND COGNITIVE IMPAIRMENT

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.219**
	Sig. (2-tailed)		.008
	N	146	146
VAR00004	Pearson Correlation	.219**	1
	Sig. (2-tailed)	.008	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

APPENDIX E Cont'd

SLEEP EFFICACY AND EMOTION

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.428**
	Sig. (2-tailed)		.000
	N	146	146
VAR00004	Pearson Correlation	.428**	1
	Sig. (2-tailed)	.000	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

SELF EFFICACY AND STRESS AND ANXIETY

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.385**
	Sig. (2-tailed)		.000
	N	146	146
VAR00004	Pearson Correlation	.385**	1
	Sig. (2-tailed)	.000	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

APPENDIX E Cont'd

SELF EFFICACY AND MOOD SWING

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.455**
	Sig. (2-tailed)		.000
	N	146	146
VAR00004	Pearson Correlation	.455**	1
	Sig. (2-tailed)	.000	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

SELF EFFICACY AND COGNITIVE IMPAIRMENT

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.312**
	Sig. (2-tailed)		.000
	N	146	146
VAR00004	Pearson Correlation	.312**	1
	Sig. (2-tailed)	.000	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

APPENDIX E Cont'd

SLEEP DISTURBANCE AND EMOTION

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.451**
	Sig. (2-tailed)		.000
	N	146	146
VAR00004	Pearson Correlation	.451**	1
	Sig. (2-tailed)	.000	
	N	146	146

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

SLEEP DISTURBANCE AND STRESS AND ANXIETY

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.440**
	Sig. (2-tailed)		.000
	N	146	146
VAR00004	Pearson Correlation	.440**	1
	Sig. (2-tailed)	.000	
	N	146	146

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

APPENDIX E Cont'd

SLEEP DISTURBANCE AND MOOD SWING

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.416**
	Sig. (2-tailed)		.000
	N	146	146
VAR00004	Pearson Correlation	.416**	1
	Sig. (2-tailed)	.000	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

SLEEP DISTURBANCE AND COGNITIVE IMPAIRMENT

Correlations			
		VAR00003	VAR00004
VAR00003	Pearson Correlation	1	.513**
	Sig. (2-tailed)		.000
	N	146	146
VAR00004	Pearson Correlation	.513**	1
	Sig. (2-tailed)	.000	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

APPENDIX E Cont'd

SOP 5: Explore the significant relationship between sleep quality and academic performance.

Number of hours of sleep, sleep duration, sleep efficacy, and sleep disturbances.

ACADEMIC PERFORMANCE AND NUMBER OF HOURS OF SLEEP

Correlations			
		VAR00002	VAR00003
VAR00002	Pearson Correlation	1	-.026
	Sig. (2-tailed)		.759
	N	146	146
VAR00003	Pearson Correlation	-.026	1
	Sig. (2-tailed)	.759	
	N	146	146

ACADEMIC PERFORMANCE AND SLEEP DURATION

Correlations			
		VAR00004	VAR00005
VAR00004	Pearson Correlation	1	-.110
	Sig. (2-tailed)		.184
	N	146	146
VAR00005	Pearson Correlation	-.110	1
	Sig. (2-tailed)	.184	
	N	146	146

APPENDIX E Cont'd

ACADEMIC PERFORMANCE AND SELF EFFICACY

Correlations			
		VAR00006	VAR00007
VAR00006	Pearson Correlation	1	.091
	Sig. (2-tailed)		.274
	N	146	146
VAR00007	Pearson Correlation	.091	1
	Sig. (2-tailed)	.274	
	N	146	146

ACADEMIC PERFORMANCE AND SLEEP DISTURBANCES

Correlations			
		VAR00008	VAR00009
VAR00008	Pearson Correlation	1	-.140
	Sig. (2-tailed)		.092
	N	146	146
VAR00009	Pearson Correlation	-.140	1
	Sig. (2-tailed)	.092	
	N	146	146

APPENDIX F – Approval Letters of Consent



MISAMIS UNIVERSITY
Ozamiz City 7200, Philippines
College of Nursing, Midwifery and Radiologic Technology
Tel No. +63 88 521-0367 / Telefax No. +63 88 521-2917
E-mail Address: mu@mu.edu.ph



CERTIFIED: ISO 21001:2018 Educational Organizations Management System by DNV
ACCREDITED: Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA)
GRANTED: AUTONOMOUS STATUS by the Commission on Higher Education (CHED)

April 14, 2025

DR. SAMMY B. TAGHOY

Dean, College of Nursing, Midwifery and Radiologic Technology
Misamis University

Dear Dr. Taghoy:

Good day!

The undersigned are 3rd year students of Misamis University, Ozamiz City taking up Bachelor of Science in Nursing and are currently working on research study titled "SLEEP QUALITY IN RELATION TO MENTAL HEALTH AND ACADEMIC PERFORMANCE OF THIRD YEAR NURSING STUDENTS." This study aims to investigate the relationship between sleep quality, mental health, and academic performance among third-year nursing students. With this, they would like to ask for an approval from your good office to allow them to conduct the study. It will be conducted within Misamis University, Ozamiz City.

Rest assured that all information derived herein will be treated with utmost confidentiality.

Thank you very much and God bless.

Sincerely yours,

KOLLEEN P. ENERIO

RICLA EULAH S. FIEL

RHOGEN MAY A. GALINDO

HAZEL JANE V. LABANZA

ELEVIC JAY L. MATUNDAC
Researchers

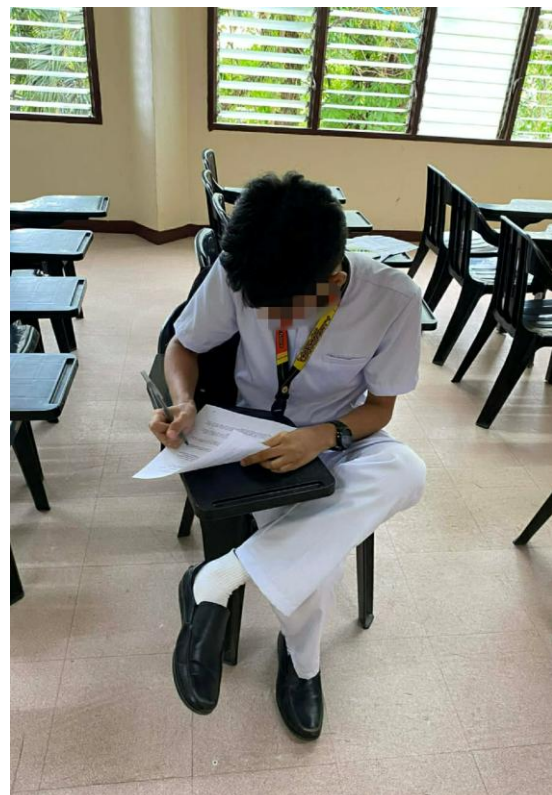
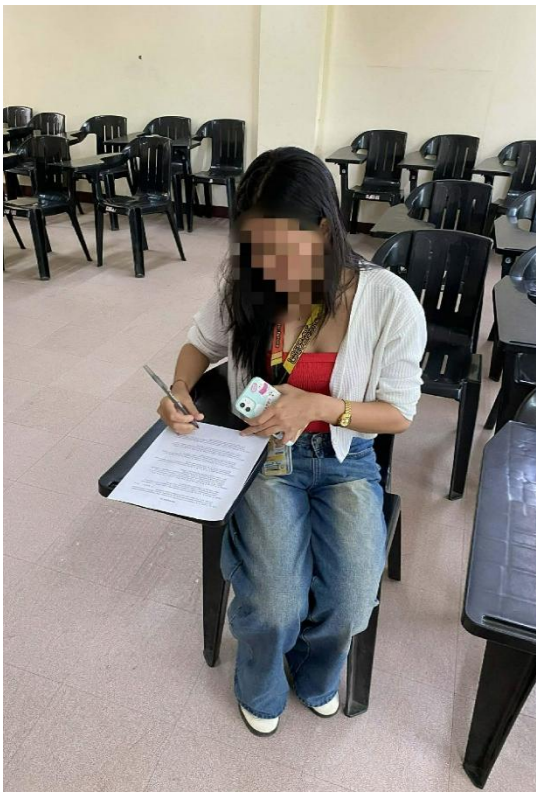
Noted by:

MS. CHONA J. ROBLES
Research Adviser

Approved by:

DR. SAMMY B. TAGHOY
College Dean

APPENDIX G – Documentation



APPENDIX H – Grammarly Results

The screenshot displays the Grammarly Proofreader interface. The document being reviewed is titled "Research Final" and contains the following text:

**SLEEP QUALITY IN RELATION TO MENTAL HEALTH AND ACADEMIC PERFORMANCE
OF THIRD-YEAR NURSING STUDENTS**

**KOLLEEN P. ENERIO
RICIA EULAH S. FIEL
RHOGEN MAY A. GALINDO
HAZEL JANE V. LABANZA
ELEVIC JAY L. MATUNDAC**

The Grammarly interface shows a "Writing quality" score of 100. The sidebar on the right includes a "Grammarly Proofreader" section with a "Writing quality" score of 100. Below this, there are tabs for "All", "Grammar", and "Clarity". The "All" tab is selected, showing a "Great job" message with a confetti icon and the text "There are no more suggestions". The bottom bar features an "Ask AI" button.

APPENDIX I – Turnitin Results



Page 2 of 60 - Integrity Overview

Submission ID trn:oid::28447:125674963

30% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography

Exclusions

- 2 Excluded Sources
- 1 Excluded Match

Match Groups

-  **172 Not Cited or Quoted 25%**
Matches with neither in-text citation nor quotation marks
-  **49 Missing Quotations 6%**
Matches that are still very similar to source material
-  **0 Missing Citation 0%**
Matches that have quotation marks, but no in-text citation
-  **0 Cited and Quoted 0%**
Matches with in-text citation present, but no quotation marks

Top Sources

- 15%  Internet sources
- 8%  Publications
- 28%  Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

No suspicious text manipulations found.

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

CURRICULUM EDUCATIONAL BACKGROUND

VITAE

PERSONAL DATA

Name: Kolleen P. Enerio

Date of Birth: October 16, 1997

Place of Birth: Calamba, Misamis Occidental

Home Address: 0343 Berago Street, Southwester Poblacion,
Calamba, Misamis Occidental

Gender: Female

Civil Status: Single

Contact No. : 09566970838

Email: kolleenenerio@[gmail.com](mailto:kolleenenerio@gmail.com)

Elementary: Stella Maris College

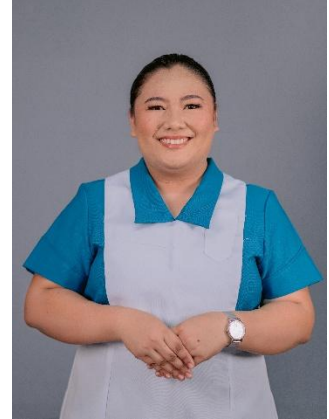
Independence St. Poblacion 1 Oroquieta City

Secondary: Misamis Occidental National High School

Gov. A. Bernad St., Oroquieta City, Misamis Occidental

Tertiary: Misamis University

H.T. Feliciano St., Aguada, Ozamiz City, Misamis Occidental



CURRICULUM VITAE

PERSONAL DATA

Name: Ricia Eulah S. Fiel

Date of Birth: March 2, 2004

Place of Birth: Tangub City, Misamis Occidental

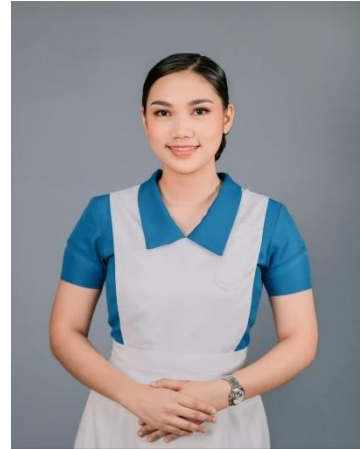
Home Address: P-5 Bañadero, Ozamiz City, Misamis
Occidental

Gender: Female

Civil Status: Single

Contact No. : 09692904840

Email: riciafiel02@gmail.com



EDUCATIONAL BACKGROUND

Elementary: Felipe Carreon Central School

Bañadero, Ozamiz City, Misamis Occidental

Secondary: Misamis Institute of Technology

Bañadero, Ozamiz City, Misamis Occidental

Tertiary: Misamis University

H.T. Feliciano St., Aguada, Ozamiz City, Misamis Occidental

CURRICULUM VITAE

PERSONAL DATA

Name: Rhogen May A. Galindo

Date of Birth: May 4, 2002

Place of Birth : Nacional, Jimenez, Misamis Occidental

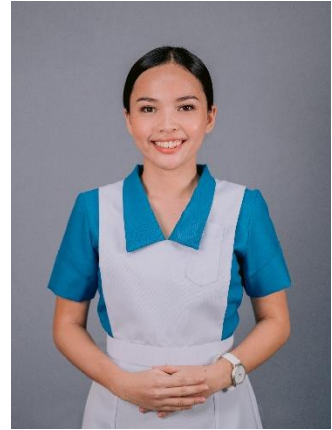
Home Address: Purok 1 Sumasap, Panaon, Misamis Occidental

Gender: Female

Civil Status: Single

Contact No. : 09154536838

Email: galindorhogen@[gmail.com](mailto:galindorhogen@gmail.com)



EDUCATIONAL BACKGROUND

Elementary: Sumasap Elementary School

Purok 4 Sumasap, Panaon Misamis Occidental

Secondary: Jimenez National Comprehensive High School

Corrales, Jiménez Misamis Occidental

Tertiary: Misamis University

H.T. Feliciano St., Aguada, Ozamiz City, Misamis Occidental

CURRICULUM VITAE

PERSONAL DATA

Name: Hazel Jane V. Labanza

Date of Birth: June 7, 2001

Place of Birth: Ozamiz City, Misamis Occidental

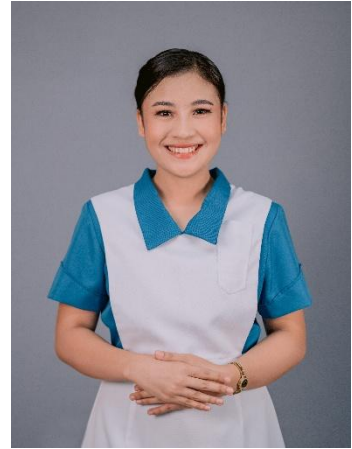
Home Address: Purok Mausawagon, Maningcol, Ozamiz City

Gender: Female

Civil Status: Single

Contact No. : 09386814117

Email: hazellabanza@gmail.com



EDUCATIONAL BACKGROUND

Elementary: Ignacio Tan Memorial Integrated School

Bagumbang, Bonifacio, Misamis Occidental

Secondary: Hagonoy National High School

Guihing, Davao Del Sur

Tertiary: Misamis University

H.T. Feliciano St., Aguada, Ozamiz City, Misamis Occidental

CURRICULUM VITAE

PERSONAL DATA

Name: Elevic Jay L. Matundac

Date of Birth: June 1, 2004

Place of Birth: Oroquieta City, Misamis Occidental

Home Address: Purok 1 Dullan, Aloran, Misamis Occidental

Gender: Male

Civil Status: Single

Contact No. : 09518060319

Email: elevicjaym@gmail.com



EDUCATIONAL BACKGROUND

Elementary: Stella Maris College

Independence St. Poblacion 1, Oroquieta City

Secondary: St. Matthew's High School

Benito Apepe St. Dalisay Aloran, Misamis Occidental

Tertiary: Misamis University

H.T. Feliciano St., Aguada, Ozamiz City, Misamis Occidental