

Stress Management Practices, Work Climate, Technology Use, and Academic Performance Among Nursing Students

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ABSTRACT

Nursing students navigate a demanding academic environment characterized by intensive coursework, clinical training, and patient-care responsibilities, which often result in heightened stress and may impact their academic performance. Therefore, this study aimed to investigate the relationship between stress management practices, work climate, technology use, and academic performance among nursing students in higher education institutions (HEIs). This study utilized descriptive correlational research design, and gathered data using researcher-made survey questionnaires administered to nursing students in HEIs in the province of Davao del Sur. Findings revealed that students reported favorable levels of stress management practices, a supportive work climate, and the effective use of technology, with academic performance rated satisfactory. Furthermore, correlational results showed significant positive relationships across all variables. Hence, these findings emphasize the importance for HEIs to strengthen stress management initiatives, nurture a positive work environment, and maximize technology integration to further enhance the academic performance of nursing students.

Keywords: academic performance, nursing students, higher education institutions (HEIs), stress management practices, work climate, technology use, Philippines

INTRODUCTION

Nursing students face a challenging academic landscape marked by intensive coursework, clinical practice, and patient care duties, which often leads to elevated stress levels and suboptimal academic performance. This demanding environment requires them to balance theoretical learning with hands-on responsibilities, frequently pushing them to their physical, emotional, and mental limits. To navigate these pressures, many students rely on various stress management practices that help them maintain work-life balance and emotional stability amid academic pressures. Higher Education Institutions (HEIs) also strive to create a positive work climate within their academic and clinical settings to alleviate students' stress and lighten their academic burdens. HEIs also ensure that technology is integrated in nursing education to enable students to manage workload pressures effectively and enhance their academic performance. In this regard, HEIs demonstrate their commitment to the United Nations' Sustainable Development Goals (SDGs), particularly SDG 3: Good Health and Well-being, and SDG 4: Quality Education, through creating a learning environment that promotes students' wellness and academic success.

Nevertheless, numerous studies have shown that nursing students continue to experience significant stress, which subsequently affects their well-being and academic performance. For example, Moscaritolo [1] found that nursing students in the United States face substantial stress stemming from complex coursework, lengthy clinical hours, and the emotional demands of patient care. Similarly, in the United Kingdom, nursing students encounter comparable pressures, including the need to develop practical competencies in clinical settings, meet academic requirements, and manage personal challenges [2]. Consequently, the high-stakes nature of nursing responsibilities that exacerbate stress among students resulted in a diminished academic performance and

heightened psychological distress [3]. These studies affirmed that stress negatively impacts cognitive functioning and concentration, thereby influencing the academic performance of nursing students [4]. Foronda et al. [5] further supported that stress compromises the overall competence of nursing students.

Consequently, studies found that nursing students remain resilient by adopting various stress management practices to cope with their demanding academic and clinical responsibilities. These strategies include engaging in physical activities such as exercise [6], practicing mindfulness techniques like meditation and deep breathing [7], [8], and maintaining social connections and social support [9]. Many also seek guidance from mental health professionals [10], prioritize a balanced and nutritious diet [11], and ensure adequate rest and sleep [12] to sustain their physical and emotional well-being. These studies collectively suggest that effective stress management practices play a vital role in enhancing students' emotional stability.

In addition, HEIs promote a positive work climate and provide adequate technological resources to aid nursing students in their academic pursuits, ensuring a supportive and conducive learning environment. According to Smith et al. [13], access to institutional resources and support services significantly strengthens nursing students' academic performance and enables them to better manage the complexities of the nursing curriculum. This type of institutional support has been shown to reduce academic stress and enhance academic performance among nursing students.

In the local context, nursing students face a highly competitive academic environment compounded by limited resources and demanding expectations. Extended clinical hours, complex coursework, and the emotional strain of patient care often intensify their academic challenges. The combined effects of academic pressure, competitive work climate, and inadequate resources contribute to low academic outcomes, as evidenced by increased absenteeism, reduced student engagement, and, in some cases, program attrition. Hence, it is in this context that this study aimed to examine the interaction between stress management practices, work climate, technology use, and academic performance, as understanding the interplay among these factors can illuminate the challenges nursing students encounter and reveal avenues for enhancing their well-being and academic success. Most importantly, the findings derived from this study may serve as a basis for HEIs to develop targeted interventions, enhance institutional support systems, and implement policies that promote students' well-being and academic achievement. In doing so, HEIs may also advance SDGs 3 and 4, namely Good Health and Well-being and Quality Education.

A. Framework

The study is anchored on Lazarus and Folkman's Transactional Model of Stress and Coping [14], a widely used framework for understanding how individuals perceive and respond to stress. According to this model, stress emerges when an individual evaluates a situation as exceeding their available resources or posing a challenge. Nursing students in higher education institutions (HEIs) frequently encounter stressors such as high workloads, clinical responsibilities, and academic demands [15], [16]. The model suggests that the academic outcomes of nursing students are influenced by how they appraise stressors and the coping mechanisms they employ.

Stress appraisal involves assessing the significance of stressors and evaluating the resources available to manage them. Nursing students may view the demands of their academic program as challenging, resulting in elevated stress levels. Their coping strategies, whether problem-focused or emotion-focused, play a pivotal role in their academic performance [17]. Effective coping mechanisms, such as time management and seeking social support, tend to reduce stress and enhance academic performance, whereas maladaptive strategies like avoidance or self-blame may exacerbate stress and impair outcomes.

Applying the Transactional Model to the context of nursing students, the work climate serves as a significant stressor that influences academic performance. Lazarus and Folkman [14] emphasized that the perception and appraisal of the work climate shape students' emotional and behavioral responses. For instance, if nursing students perceive their work environment as unsupportive, resource-limited, or overly demanding, they may view it as a threat to their well-being and academic success, triggering negative emotions and maladaptive coping behaviors. Conversely, a supportive work climate fosters positive stress appraisals, adaptive coping

strategies, and better academic outcomes. Research corroborates this application. For example, Miller and Smith [18] found that nursing students who perceived a positive work climate, characterized by supportive faculty, a collaborative learning environment, and adequate resources, demonstrated higher academic engagement and performance. This finding aligns with the Transactional Model, as students who perceive the work climate as conducive to their goals are more likely to experience positive emotions and employ effective coping strategies, enhancing their academic success.

Adding to this perspective, Davis's Technology Acceptance Model (TAM) [19] offers valuable insight into the role of technology in nursing education. The TAM framework highlights two key determinants of technology adoption: perceived usefulness—how much the technology enhances performance—and perceived ease of use—the degree to which it is simple and user-friendly. In the context of nursing education, technology enhances academic performance through resources like online platforms, virtual simulations, and interactive tools [5]. Nursing students' willingness to adopt and use technology depends on their perception of its utility in improving learning outcomes and their ability to navigate it effectively. User-friendly, accessible technology encourages integration into academic processes, resulting in better outcomes [13].

Furthermore, Bandura's Social Cognitive Theory (SCT) [20] emphasizes the interplay between personal factors, the environment, and behavior. SCT posits that individuals acquire knowledge by observing others and build self-efficacy through role models. In nursing education, students' stress management practices and technology use are influenced by observing faculty, peers, and healthcare professionals. Positive role models who demonstrate effective stress management and technology utilization inspire nursing students to adopt similar behaviors, enhancing their confidence and skills. Conversely, negative role modeling and inadequate exposure to best practices may limit students' ability to develop essential competencies

B. Objectives of the Study

This study aimed to investigate if significant relationship exists between stress management practices, work environment, and technology use, and academic performance among nursing students in private HEIs in Davao del Sur. Specifically, it sought to answer the following questions:

1. What is the level of stress management practices of nursing students in HEIs in terms of:

- 1.1 Utilization of Coping Strategies;
- 1.2 Work-life Balance; and
- 1.3 Physical and Emotional Well-being?

2. What is the level of work climate in HEIs in terms of:

- 2.1 Supportive Faculty and Staff;
- 2.2 Collaborative Learning Environment; and
- 2.3 Adequate Resources and Facilities?

3. What is the level of technology use by nursing students in terms of:

- 3.1 Access to Technology;
- 3.2 Digital Literacy Skills; and
- 3.3 Integration of Technology in Learning?

4. What is the level of academic performance of students?

5. Is there a significant relationship between the academic performance and:

- 5.1 Stress Management;
- 5.2 Work Climate; and
- 5.3 Use of Technology?

C. Hypothesis

The following null hypothesis was tested at a 0.05 level of significance

H₀₁: There is no significant relationship between the level of academic performance and stress management practices, work environment, and technology use.

METHODOLOGY

Research Design

A quantitative descriptive correlational approach was used for this investigation. Bierut [21] claims that this technique examines and describes the associations between variables without inferring causality. In this study, the levels and relationships of stress management practices, work climate, technology use, and the academic performance among nursing students were examined.

Research Setting

This study was conducted in the selected private Higher Education Institutions (HEIs) in Digos City, Davao del Sur, which were chosen for their distinct institutional characteristics and vital role in the province's nursing education landscape. These institutions offer accredited nursing programs and provide a conducive environment for both academic and clinical training, making them ideal settings for examining the interplay between stress management practices, work climate, use of technology, and the academic performance of nursing students. Their diverse institutional structures, academic support systems, and technology integration levels ensure a comprehensive analysis of the factors associating nursing students' academic performance.

Participants and Sampling Procedure

The recruitment of participants for this study involved the selection of BSN Level 2 and Level 3 students who met specific criteria relevant to the research objectives. Hence, a purposive sampling technique was employed. According to Patton [22], this strategy enhances the credibility and relevance of the findings, as the selected participants are those most capable of shedding light on the phenomenon under investigation. In this study, purposive sampling is appropriate, as it allows the researcher to concentrate on specific year levels (such as BSN 2 and 3) that are most likely to have had exposure to clinical and academic experiences relevant to the study variables. By targeting a particular subset of the student population, the study ensures that the data collected is both contextually grounded and reflective of the participants' informed perspectives. Moreover, within this purposive selection, stratification by year level and institution was applied to ensure fair representation of respondents from each subgroup.

Research Instruments

This study used researcher-made survey questionnaires. The first part of the questionnaire highlights the level of stress management practices of nursing students. This part includes questions that assess students' Utilization of Coping Strategies, Work-life Balance, and Physical and Emotional Well-being of the students. The second part of the instrument is about work climate. It explores the Support of the Faculty and Staff, the Collaborative Learning Environment, and the Adequate Resources and facilities of the school. The last part concerns technology use, particularly how nursing students incorporate technology into their studies and clinical practice. The questions in this section examine the students' Access to Technology, Digital Literacy Skills, and Integration of Technology in Learning.

Data Gathering Procedure

The data gathering followed the research protocol of Liceo de Cagayan University–Graduate Studies. Ethical clearance was secured from the University Research Ethics Board, along with an endorsement letter from the Dean. Permission to conduct the study was obtained from the presidents of the participating CHED-recognized nursing HEIs in Davao del Sur. Upon securing ethical clearance, informed consent was obtained from Level 2

and Level 3 nursing students, chosen due to their active engagement in core courses and clinical rotations. Surveys were administered through face-to-face distribution and via Google Forms. The academic performance of the participants was officially obtained from the School's Registrar upon securing the students' consent.

Strict compliance with ethical research standards and the Data Privacy Act of 2012 (RA 10173) was observed throughout the process. Given that one of the participating institutions is within the researcher's local academic network, voluntary participation was strongly emphasized to avoid any conflict of interest. Participants were assured that their involvement would not affect their academic standing or institutional relationship. Students were allotted sufficient time to complete the survey, which required approximately 10–30 minutes per respondent. Upon retrieval of both online and face-to-face questionnaires, responses were consolidated and prepared for statistical analysis.

Methods of Analysis

The questionnaires used a 5-point Likert scale, with 5 as the highest score and 1 as the lowest. Each numerical value corresponded to a specific descriptive rating and qualitative interpretation: 4.51–5.00 as Strongly Agree (Very High), 3.51–4.50 as Agree (High), 2.51–3.50 as Neutral (Moderately High), 1.51–2.50 as Disagree (Low), and 1.00–1.50 as Strongly Disagree (Very Low). This scale was used to determine the levels for SOP 1–3.

Moreover, for SOP 4, the academic performance of the respondents was determined based on their actual percentage grades, which were officially obtained from the School Registrar of each participating institution. For consistency in analysis and interpretation, the researcher adopted the conversion scale developed by Pulgarinas [23], as the participating institutions utilized varying grading systems and interpretations. The Pulgarinas' 5-point conversion scale was chosen due to its established validity and prior application in educational research involving nursing students within the Davao region, thereby ensuring its relevance and appropriateness for the present study.

Additionally, by utilizing a conversion scale, the grades were standardized and converted into a uniform 5-point Likert scale to ensure comparability across schools. This conversion ensured that variations in grading interpretations across institutions were normalized, providing a consistent measure of students' academic performance for statistical analysis. The conversion followed this scale:

Scale	Range	Qualitative Interpretation
5	95-100%	Outstanding
4	88-94%	Very Satisfactory
3	81-87%	Satisfactory
2	75-80%	Fair
1	Below 75%	Poor

A. Statistical Treatment and Data Analysis

This study utilized Mean and Standard Deviation to summarize the central tendencies and variability in students' responses concerning stress management practices, perceived work climate, technology use, and academic performance. These measures are foundational in behavioral research for determining the general level and dispersion of responses within each domain [24].

Additionally, the Pearson Product-Moment Correlation was utilized to assess the strength and direction of the linear relationships between continuous variables, such as stress management practices and academic performance. This technique is appropriate when the variables are measured on interval or ratio scales and when the goal is to determine whether a statistically significant association exists between pairs of variables [25].

B. Validity and Reliability

The process of ensuring validity and reliability in research involves several critical steps. First, the questionnaire was reviewed and approved by an esteemed panel to ensure its relevance, clarity, and appropriateness for the study. To further establish content validity, the instrument was validated by three subject matter experts who assessed whether the questions effectively measured the intended variables.

After validation, the questionnaire underwent a pilot test involving 30 participants. This step aimed to identify potential issues, such as ambiguous questions or inconsistencies, before full-scale implementation. The responses from the pilot test were then analyzed to determine the reliability of the questionnaire, often using statistical methods like Cronbach's alpha to measure internal consistency. By following these steps, the study ensured that the questionnaire was both valid and reliable, thereby enhancing the credibility of the research findings.

RESULTS AND DISCUSSION

What is the level of stress management practices of nursing students in HEIs in terms of:

- 1.1 Utilization of Coping Strategies;
- 1.2 Work-life Balance; and
- 1.3 Physical and Emotional Well-being?

TABLE 1 summary of the level of stress management practices among nursing students

Sub-constructs	Mean	SD	Description	Interpretation
Utilization of Coping Strategies	4.03	.453	Agree	High
Work-life Balance	3.86	.609	Agree	High
Physical and Emotional Well-being	3.86	.612	Agree	High
Overall Mean	3.92	.438	Agree	High

As depicted in the Table 1, respondents obtained the highest mean score of $M=4.03$ ($SD=.453$) for Utilization of Coping Strategies, followed by Work-life Balance ($M=3.86$, $SD=.609$), and Physical and Emotional Well-being ($M=3.86$, $SD=.612$). The overall mean score is $M=3.92$ ($SD=.438$), described as agree, and interpreted that the respondents have a high level of Stress Management Practices. Meanwhile, the overall mean for $SD=.438$ suggested that the data are moderately spread around the mean. These findings are supported by the claim of Berdida and Grande [26] that the effective integration of coping strategies, balanced lifestyle management, and maintenance of physical and emotional health are essential components in sustaining the well-being and academic performance of nursing students. Similarly, Basri et al. [27] highlighted that problem-focused coping strategies, when combined with strong boundary-setting and adequate self-care, are predictive of lower perceived stress and greater resilience in healthcare students. Moreover, the relatively high scores for all three domains in this study suggest that respondents are proactively engaging in multifaceted stress management approaches, a finding consistent with Chisholm-Burns et al. [7], who noted that nursing students employing diverse coping mechanisms tend to adapt more effectively to both academic and clinical pressures. Overall, the results reaffirm that maintaining high levels across multiple domains of stress management is a critical factor in supporting nursing students' mental health, academic success, and long-term professional readiness.

What is the level of work climate in HEIs in terms of:

- 1.4 Supportive Faculty and Staff;
- 1.5 Collaborative Learning Environment; and
- 1.6 Adequate Resources and Facilities?

TABLE 2 Summary of the level of work climate in heis

Sub-constructs	Mean	SD	Description	Interpretation
Supportive Faculty and Staff	3.89	.639	Agree	High
Collaborative Learning Environment	4.02	.551	Agree	High
Adequate Resources and Facilities	3.99	.599	Agree	High
Overall Mean	3.96	.506	Agree	High

The results in Table 2 indicate that among the variables assessed, the collaborative learning environment obtained the highest mean score of 4.02 (SD = 0.551), interpreted as agree and described as high. This suggests that respondents perceived their higher education institutions as fostering a culture of cooperation, knowledge sharing, and mutual academic support, which enhances both teaching and learning experiences. According to Yener et al. [28], collaborative learning environments enhance problem-solving skills and knowledge retention, while adequate facilities contribute to higher student engagement and instructional efficiency. Following closely is adequate resources and facilities, which recorded a mean of 3.99 (SD = 0.599), also interpreted as agree and high. This implies that most respondents consider the availability and accessibility of educational resources, such as learning materials, technological tools, and physical facilities, sufficient to meet academic needs. This finding is supported by Wallace et al. [29], who found that when resources and facilities are sufficient, both faculty and students report greater satisfaction and improved outcomes. Moreover, the lowest mean was noted for supportive faculty and staff, with a score of 3.89 (SD = 0.639), still interpreted as high. While this is slightly lower than the other variables, it still reflects a generally positive perception of faculty and staff providing assistance, guidance, and encouragement to both students and peers. Warshawski [30] emphasized that supportive faculty-staff relationships are critical in building trust and motivation within academic communities. Overall, the mean score of 3.96 (SD = 0.506) reflects a high level of work climate in higher education institutions, indicating that the respondents generally perceive their academic environment as positive, collaborative, and well-supported. The narrow range of standard deviations suggests that these perceptions are relatively consistent among respondents.

What is the level of technology use by nursing students in terms of:

- 1.7 Access to Technology;
- 1.8 Digital Literacy Skills; and
- 1.9 Integration of Technology in Learning?

TABLE 3 Summary of the level of technology use among nursing students

Sub-constructs	Mean	SD	Description	Interpretation
Access to Technology	3.86	.632	Agree	High
Digital Literacy Skills	4.15	.472	Agree	High
Integration of Technology in Learning	3.76	.633	Agree	High
Overall Mean	3.92	.443	Agree	High

The results in Table 3 reveal that among the variables assessed, Digital Literacy Skills obtained the highest mean score of 4.15 (SD = 0.472), which falls under the "Agree" category and is interpreted as "High." This indicates that respondents perceive themselves as highly competent in utilizing digital tools, navigating online platforms, and applying technology effectively for academic and professional purposes. According to Zhao [31], higher digital literacy enables learners to engage critically and creatively with digital content, thus enhancing their ability to collaborate, problem-solve, and adapt to rapidly changing technological demands. Following this is the Access to Technology with a mean score of 3.86 (SD = 0.632), also interpreted as "High," suggesting that respondents generally have reliable access to technological devices, internet connectivity, and

relevant software. Lastly, Integration of Technology in Learning recorded the lowest mean score of 3.76 (SD = 0.633), still within the "High" interpretation, implying that while technology is being integrated into the learning process, there may still be areas for improvement in terms of pedagogical application and maximizing its full potential in higher education settings. Yener et al. [28] emphasized that the availability and accessibility of technology have been identified as foundational to successful technology integration, as limited access can create inequities that hinder learning outcomes. However, as noted by Squire et al. [32], access alone does not guarantee meaningful learning experiences; it must be paired with pedagogically sound integration strategies that foster active and collaborative learning. This aligns with the study of Smith et al. [13], which emphasized that technology integration in learning environments requires both institutional support and teacher competence to translate technological resources into effective learning opportunities.

The overall mean score of 3.92 (SD = 0.443) shows a consistent "High" level of technology use in HEIs, reflecting that respondents generally agree on the effective utilization of digital resources in their academic environments. These findings underscore the growing importance of fostering not only access to technology but also the development of digital competencies and effective integration into learning processes to enhance educational outcomes. This aligns with contemporary studies highlighting that higher education institutions must focus on both the technological infrastructure and the pedagogical strategies that support meaningful technology-enhanced learning experiences.

What is the level of academic performance of students?

TABLE 4 the level of academic performance among nursing students

Grade	F	%	Mean	Sd	Interpretation
81.00	44	9.4	86.83	3.46	High
82.00	47	10.0			
84.00	48	10.2			
85.00	49	10.4			
86.00	45	9.6			
89.00	49	10.4			
90.00	143	30.4			
91.00	45	9.6			
TOTAL	470	100.0			

Legend:

5 – Outstanding (95–100%)

4 – Very Satisfactory (88–94%)

3 – Satisfactory (81–87%)

2 – Fair (75–80%)

1 – Poor (Below 75%)

Table 4 presents the results of frequency, percentage, mean, and standard deviation for the academic performance of nursing students. As presented in the table, 30.4% of the respondents obtained a grade of 90, 10.4% obtained a grade of 89, another 10.4% obtained a grade of 85, 10.2% obtained a grade of 84, 10.0% obtained a grade of 82, 9.6% obtained a grade of 91, another 9.6% obtained a grade of 86, and 9.4% obtained a grade of 81. Meanwhile, the overall mean is $M=86.83$ ($SD=3.46$), which indicates that the respondents have a

satisfactory level of academic performance. These findings are supported by the claim of Hughes et al. [33], that academic performance is often influenced by multiple factors, including student engagement, instructional quality, and learning resources, which collectively contribute to higher achievement levels. Similarly, recent studies affirm that students with consistent access to quality instruction, a supportive learning environment, and effective study habits tend to attain better grades and sustain higher academic standing [34].

2. Is there a significant relationship between the academic performance and:
 - 5.1 Stress Management;
 - 5.2 Work Climate; and
 - 5.3 Use of Technology?

TABLE 5 Relationship between hei students' academic performance, stress management, work climate, and technology use

Variables	n	r	P-value	Interpretation
Utilization of Coping Strategies	470	.175	.000	Significant
Work-life Balance	470	.197	.000	Significant
Physical and Emotional Well-being	470	.157	.000	Significant
Stress Management Practices	470	.225	.000	Significant
Supportive Faculty and Staff	470	.190	.000	Significant
Collaborative Learning Environment	470	.099	.031	Significant
Adequate Resources and Facilities	470	.217	.000	Significant
Work Climate	470	.202	.000	Significant
Access to Technology	470	.125	.007	Significant
Digital Literacy Skills	470	.119	.010	Significant
Integration of Technology in Learning	470	.101	.028	Significant
Technology Use	470	.149	.001	Significant

Table 5 depicts the Results of Pearson R Correlation for the significant relationship between HEI Students' Academic Performance, Stress Management, Work Climate, and Technology Use. As shown in the table, the variables Utilization of Coping Strategies ($r=.175$, $p<.05$), Work-life Balance ($r=.197$, $p<.05$), Physical and Emotional Well-being ($r=.157$, $p<.05$), Stress Management Practices ($r=.225$, $p<.05$), Supportive Faculty and Staff ($r=.190$, $p<.05$), Collaborative Learning Environment ($r=.099$, $p<.05$), Adequate Resources and Facilities ($r=.217$, $p<.05$), Work Climate ($r=.202$, $p<.05$), Access to Technology ($r=.125$, $p<.05$), Digital Literacy Skills ($r=.119$, $p<.05$), Integration of Technology in Learning ($r=.101$, $p<.05$), and Technology Use ($r=.149$, $p<.05$) have a positive significant correlation or relationship on students' academic performance. This means that if the levels of said variables increase, the students' academic performance is also likely to increase. Furthermore, this indicates that academic performance is associated with these variables. Additionally, the better the coping strategies, stress management practices, work climate, and technology use, the higher the students' academic performance.

These findings are supported by the claim of Kumar [35], who examined the interplay of academic climate, stress, and self-esteem among nursing students. Together, these findings demonstrate that multi-factor analytical approaches provide valuable insights into how institutional and personal variables collectively influence student learning outcomes. Recent studies also affirm that effective coping strategies, balanced academic workloads, positive faculty-student relationships, and access to technological tools collectively enhance cognitive engagement, resilience, and academic achievement among higher education students [4]. Moreover, the integration of digital literacy with supportive learning environments has been shown to mediate

the relationship between well-being and academic performance, highlighting the need for comprehensive educational frameworks that address both psychosocial and technological factors [1].

CONCLUSIONS

The variables of stress management practices, work climate, and technology use were identified as significant influences on the academic performance of nursing students. Students who reported higher levels of coping strategies and stronger work climates performed better academically, while effective integration of technology further amplified these positive effects. The interplay of these variables suggests that academic performance cannot be attributed to a single factor but is instead shaped by a network of interconnected elements that reinforce each other.

RECOMMENDATIONS

This study recommends the following:

For School Administrators. Administrators are encouraged to strengthen institutional policies and programs that promote a positive work climate, provide adequate academic resources and facilities, and support the integration of technology in nursing instruction. They may also ensure that student support services addressing stress and well-being are accessible and implemented effectively.

For Curriculum Developers. Curriculum developers are encouraged to design and integrate programs that promote stress management, digital competency, and a supportive learning environment. They may ensure that the course content and workload are balanced, and that technological tools are utilized to maintain work-life balance and enhance learning/academic performance.

For Teachers. Teachers may be provided with adequate training on integrating academic resource facilitation strategies into their instruction, ensuring that learners can effectively access and utilize learning materials and technological tools that contribute to their academic success. Teachers are also suggested to create a supportive and engaging learning environment that promotes open communication and reduces academic stress among nursing students. They may also provide guidance that nurtures both academic success and the emotional well-being of nursing students.

For Hospitals and Healthcare Centers. Given that work-life balance positively correlates with the academic performance of nursing students, partner hospitals and healthcare centers are encouraged to enhance their clinical training environments and strengthen their support mechanisms that promote balance between clinical responsibilities and personal well-being. By cultivating a supportive and flexible clinical atmosphere, hospitals and healthcare centers can help reduce nursing students' stress and improve their academic performance.

For Friends of Nursing Students. Friends are encouraged to provide emotional and moral support for nursing students, especially during periods of academic and clinical stress. They may promote positive coping strategies, encourage the use of technology and learning resources, and help create a supportive social environment that strengthens nursing students' motivation and well-being.

For Students. The study encourages nursing students to develop effective stress management strategies, maintain a healthy balance between academic and personal life, and make full use of technological and institutional resources to progress their academic performance. Inspiring students to take an active role in their own development ensures they are both supported and empowered in their academic journey.

For Future Researchers. Future researchers may further inspect other factors influencing the academic performance of nursing students, such as study habits, motivation, emotional intelligence, and social support systems. They may also expand the research setting by including multiple nursing institutions or universities to compare outcomes across different contexts. Additionally, future studies may also include clinical hours, workload, and mental health to gain a more comprehensive understanding of the factors affecting nursing students' academic success. Future researchers are also encouraged to incorporate qualitative approaches, such

as in-depth interviews and focus group discussions, to obtain a deeper insight into how nursing students perceive stress and manage academic challenges. Moreover, investigating the influence of faculty support, mentorship, and peer interactions is recommended to further elucidate how the learning and work environment contributes to stress management and academic performance.

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