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Overview of Self-Regulated Learning among Nursing Students

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A B S T R A C T

Introduction: Many students experience academic stress during their learning process, which can negatively impact their academic performance. One effective way to manage this stress is by improving self-regulated learning (SRL). Students with high levels of SRL are better equipped to manage their learning, leading to improved academic achievement. **Objective:** This study aims to describe the levels of self-regulated learning among nursing students. **Methods:** A quantitative descriptive design was used in this study. The sample was selected using a convenience sampling technique, and data were collected using the Self-Regulated in Online Learning Questionnaire (SOL-Q). The data were analyzed using univariate descriptive analysis and presented in tables. The sample consisted of 210 nursing students. **Results:** The demographic characteristics of the participants showed that the majority were female (54.1%) and aged between 17-19 years (57.4%). The findings revealed that 60% (126 students) demonstrated low self-regulation in their learning, suggesting that many students face challenges in managing their academic responsibilities. Efforts to overcome these problems require collaboration between institutions and health workers to improve Self-regulated learning for nursing students. **Conclusion:** Self-regulated learning is important to improve the effective learning process in students.

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1. INTRODUCTION

Self-regulated learning is a critical aspect that nursing students often face in their academic journey (Lin et al., 2018). Common issues that arise related to this self-regulation involve challenges in managing time, resources and effective learning strategies. As future health professionals, nursing students are faced with a complex curriculum and the demands of practice in the field, which require high self-regulation skills (Garcia et al., 2018; Hikmat et al., 2022; Kizilcec et al., 2017). Difficulties in organizing study priorities, monitoring academic progress, and evaluating one's own learning methods can lead to decreased academic performance (Chaves-Barboza et al., 2017).

Nursing students represent a unique and critical group for studying self-regulated learning (SRL) due to the demanding nature of their education and the essential skills required for patient care. The nursing curriculum often involves complex theoretical knowledge, practical skills, and emotional intelligence, all of which require students to be active and self-directed learners. As healthcare environments are constantly evolving, nursing students must be able to effectively manage their learning processes, adapt to new information, and reflect on their practices to provide safe and high-quality care. Additionally, the ability to regulate one's learning is crucial for nursing students, as it enhances their academic success and prepares them for lifelong learning in a profession that demands continuous skill development and adaptation to new healthcare challenges.

The factors that contribute to learning self-regulation problems in nursing students involve a number of variables that can affect their ability to self-regulate to achieve academic goals. Low motivation is often the main cause, where nursing students may experience lethargy or lose interest in academic tasks (Hikmat, Suryani, Yosep, Jeharsae, et al., 2024; Zhu et al., 2020). The inability to manage stress is a crucial factor, as high academic demands and the pressures of practicing in the healthcare field can lead to stress levels that are detrimental to self-regulation (Sulisworo et al., 2020). Lack of social support can have a negative impact, as students who do not feel supported tend to have difficulty in coping with academic challenges. An unconducive learning environment, such as limited facilities or lack of resources, can hinder students' efforts to self-regulate effectively. Fifth, a lack of understanding of the benefits and goals of learning can lead to a lack of clarity in setting priorities and planning time (Hapsari & Wu, 2022; Hikmat, Suryani, Yosep, Hernawaty, et al., 2024)

The impact of learning self-regulation issues on nursing students is multifaceted and can have a significant effect on their academic development and well-being. Reduced academic performance is the main impact, which can hinder students' progress in achieving the competencies required in nursing (Wolters & Hoops, 2015; Yosep et al., 2024). Self-regulation problems can also result in increased stress levels, given the high academic pressures and demands of practicing in the healthcare field. Psychological impacts such as loss of motivation and self-confidence, may arise, affecting the quality of learning and participation in academic activities (Yosep et al., 2022). The risk of burnout may increase, harming nursing students' life balance and potentially negatively impacting their performance in practice.

Self-regulation issues can create imbalances in students' personal-professional lives, resulting in an inability to cope with academic demands and maintain optimal health (Wolters &

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Won, 2018). Efforts to overcome self-regulation problems in learning in nursing students need to be developed as a preventive and corrective measure (Wijaya et al., 2020). Coaching programs, time management training, and psychosocial support can help improve nursing students' self-regulation skills and minimize the risk of decreased academic performance (Broadbent, 2017).

Although there have been many studies on self-regulation in the context of higher education, the research gap lies in the lack of specific research on nursing students. Therefore, further research makes researchers interested in the description of Self-regulated learning nursing students in University in Bandung.

2. METHODS

Study Design

This study used a descriptive research approach to describe in detail the picture of Self-regulated learning for students of the Faculty of Nursing. This approach allows researchers to identify and describe the characteristics and patterns of self-regulation behavior in the nursing student population.

Sample Selection

The research sample was selected from students of the Faculty of Nursing who were actively pursuing the study program. In this study, the sampling technique used was convenience sampling, which is the selection of samples based on ease of access and the availability of respondents who meet certain criteria. The inclusion criteria in this study include active students who are registered in certain study programs, aged 17-22 years, and willing to participate in this study by filling out the questionnaire provided. The sample in this study was 210 respondents.

Data Collection

Data were collected through online questionnaire distribution using the Self Regulated in Online Learning Questionnaire (SOL-Q) instrument. SOL-Q will focus on aspects of self-regulation in the context of online learning, including aspects such as planning, monitoring, and self-evaluation. The results of the validity test conducted have a range of values (0.206-0.686), and the results of the reliability test showed a Cronbach's alpha value of 0.924, indicating that this instrument is valid and reliable for use. Online data collection will facilitate student participation without requiring physical presence, given the scope of the research involving students from various locations.

Ethical Considerations

Ethical principles were upheld in this study. This research has received ethical approval from the Ethics Commission of Padjadjaran University with number 487/UN6.KEP/EC/2021. Students' autonomy was respected by providing clear information and ensuring voluntary participation. The principle of fairness was upheld through sample selection that reflected the diversity of the nursing student population. Beneficence and maleficence were observed to ensure that the study provided benefits and did not pose unnecessary risks to participants. Data security was maintained through the use of identification codes, secure data storage, and publication of research results that paid attention to confidentiality.

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Data Analysis

Data analysis was performed using descriptive statistics using univariate analysis. Frequency, mean, and standard deviation were used to describe the characteristics of nursing student self-regulation. Univariate analysis provides an in-depth description of the data distribution and the main characteristics that arise from the variables studied. Data analysis used the Statistical Program for Social Science 24.0 application.

3. RESULT

The results of data analysis related to the description of Self-regulated learning in nursing students are presented in a table. Researchers also describe the demographic data of prospective respondents. Table 1 distribution of respondents based on age and gender. Based on the gender of the respondents, most of the respondents were female (54.1%). The age distribution of respondents was mostly at the age of 17-19 years (57.4%) (Table 1).

Table 1. Demographic Data

	Characteristics	Frequency	Percentage
Gender	Male	21	54.1%
	Female	189	45.9%
Age	17-19 years	156	57.4%
	20-22 years	54	42.6%

Table 2 shows that more than half of the respondents or 126 students have low regulation in learning (60%). Less than half of the respondents have high Self-regulated learning (40%). In addition, the mean score of Self-regulated learning for nursing students is 167.2 (Table 2).

Table 2. Results of Distribution of Self-Regulated Learning

Variable	*Mean*	SD	Frequency (f)		Percentage (%)	
			High	Low	High	Low
Self-regulated learning	167,2	28,661	84	126	40	60

Table 3. Frequency Distribution of Self-Regulation in Student Learning Based on Components (n=113)

Self-Regulation Dimensions in Learning	Measurement results	Frequency (f)	Percentage (%)
Metacognitive Skills	Tall	83	39.52
	Low	127	60.48
Time Management	Tall	116	55.24
	Low	94	44.76
Environmental Planning	Tall	110	52.38
	Low	100	47.62
Persistence	Tall	84	40
	Low	126	60
Search Help	Tall	80	38.10
	Low	130	61.90

Table 3 shows the frequency distribution of self-regulation in students' learning based on specific components. In the metacognitive skills dimension, 83 students (39.52%) demonstrated high metacognitive skills, while 127 students (60.48%) demonstrated low metacognitive skills.

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For the time management dimension, 116 students (55.24%) had high time management, while 94 students (44.76%) had low time management. In the environmental structuring dimension, 110 students (52.38%) demonstrated high environmental structuring, and 100 students (47.62%) had low environmental structuring. In terms of perseverance, 84 students (40%) demonstrated high perseverance, while 126 students (60%) had low perseverance. Finally, in the help-seeking dimension, 80 students (38.10%) demonstrated high help-seeking, and 130 students (61.90%) demonstrated low help-seeking.

4. DISCUSSION

The results of the study generally illustrate that more than half of the nursing students showed low levels of Self-regulated learning. These findings reflect significant challenges in students' ability to self-regulate in the context of nursing learning. Factors that may contribute to the high incidence of learning self-regulation problems among nursing students include the complexity of the curriculum, high academic pressure, and the demands of practice in the healthcare field (Daumiller & Dresel, 2018; Zhou & Wang, 2023). Inability to manage stress, low motivation, and lack of social support and a conducive learning environment are also major contributors to these self-regulation problems (Tri & Kristian, 2017).

Metacognitive skills are one of the important components in self-regulation that affect the effectiveness of students' learning process. This shows that many students may not be fully able to manage and evaluate their own thinking processes in learning. Metacognitive skills include the ability to plan, monitor, and evaluate the learning strategies used, which can directly affect understanding and mastery of the material (Hikmat et al., 2022). Improving metacognitive skills, through appropriate training and teaching, can help students become more aware of how they learn and identify the most effective strategies (Lucieer et al., 2015).

Effective time management is one of the important skills that support students' academic success, and the results of the study showed that 55.24% of students have good time management. Students who are able to manage their time well tend to be more productive, can complete assignments on time, and have a balance between academic and non-academic activities (Rodriguez Groba et al., 2014). Good time management allows students to plan and allocate time to study, rest, and participate in other activities without feeling rushed or stressed (Zhu et al., 2020).

The arrangement of a supportive environment for learning plays a very important role in improving students' concentration and academic productivity. The results of the study showed that 52.38% of students had a good arrangement of the environment for learning, which reflects that almost half of the students have been able to create a conducive atmosphere for the learning process. The physical environment such as adequate lighting, cleanliness, comfort, and minimal distractions can help students focus and reduce stress during learning (Yosep, Mardhiyah, Suryani, et al., 2023). Conversely, an unsupportive environment, such as a noisy or overly crowded place, can distract attention and reduce learning effectiveness (Süss-Havemann et al., 2020).

The results of the study showed an imbalance between students with high (40%) and low (60%) persistence, which illustrates that most students may lack the drive to continue trying despite facing difficulties in learning. Persistence or perseverance in learning is very important for achieving long-term success, because persistent students tend not to give up easily and are able to

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overcome obstacles in the learning process (Bransen et al., 2020). Students who have high intrinsic motivation, such as the desire to achieve personal goals or feel challenged, are more likely to maintain their persistence (Yosep, Mardhiyah, & Sriati, 2023).

This study shows that 61.90% of students have a low level of help-seeking, which reflects the tendency of students not to actively seek help when facing difficulties in the learning process. This reluctance to seek help can be influenced by various factors, such as shame, fear of being considered incapable, or the feeling that they should be able to solve learning problems independently (Çebi & Güyer, 2020). Some students may also feel anxious or uncomfortable asking for help from lecturers, classmates, or others, potentially limiting their access to resources that can support academic success (Yosep, Suryani, Mediani, et al., 2023).

The possible impacts on adolescent nursing students due to learning self-regulation problems include reduced academic performance, high stress levels, and potentially reduced psychological well-being. These issues can affect nursing students' quality of life and form a less stable foundation for their professional career development in nursing (Carter et al., 2020). Therefore, the need to improve Self-regulated learning in nursing students with various efforts is a must (Hapsari & Wu, 2022). Educational interventions that focus on developing self-regulation skills, such as time management and study planning, need to be designed and implemented (Pérez et al., 2018).

Efforts to prevent self-regulation problems in learning in nursing students are not only limited to the academic environment, but also involve the role of parents and schools. Parents need to support their children by creating a supportive learning environment and providing guidance in stress management (Pelikan et al., 2021; Sleeman et al., 2021). Schools have the responsibility to provide coaching programs and psychosocial support that can help students overcome self-regulation problems (Oyelere et al., 2021; Theobald, 2021).

The role of health workers also has relevance in improving Self-regulated learning in nursing students. By including aspects of self-regulation in the health education curriculum, health workers can make an important contribution in equipping students with the necessary skills to manage stress and maintain a balance between academic demands and mental health (Bransen et al., 2020; El-Adl & Alkharusi, 2020; Taub et al., 2020). Through this cross-sectoral collaboration, it is hoped that an educational environment that supports the development of optimal self-regulation in nursing students can be created (Oates, 2019).

5. CONCLUSION

Based on the results of the study, the authors found that 126 students have low regulation in learning (60%). This shows that more than half of the respondents have low Self-regulated learning. The role of educational institutions is important to provide programs to improve Self-regulated learning. In addition, health workers also play a role in creating school-health nursing programs in improving self-regulation in student learning. Recommendations for further research are the need for research that analyzes the factors that influence Self-regulated learning nursing students.

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7. CONFLICT OF INTEREST

The authors state no conflict of interest.

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