Sleep Quality of Nursing Students During Clinical Practice at Universitas Advent Indonesia

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Abstract *– Adequate and quality sleep is essential for maintaining overall health and well-being. Insufficient rest can impair cognitive function and physical health, leading to reduced productivity and a higher risk of illness. This study aims to assess the sleep quality of nursing students at Advent Indonesia University during their clinical practice. The varying clinical schedules and assignment deadlines require students to carefully manage their sleep time. This study employed a descriptive, cross-sectional design to capture a snapshot of nursing students' sleep quality, using the Pittsburgh Sleep Quality Index (PSQI) questionnaire as the primary tool for data collection. A total of 192 nursing students participated, including 155 females and 37 males. Among the participants, 119 were undergraduate nursing students and 73 were professional nursing students (NERS), all actively involved in clinical practice during the 2024–2025 academic year. The findings revealed that most students experienced poor sleep quality, with 78.2% of undergraduates and 67.1% of professional students (NERS) reporting poor sleep. Poor sleep quality was particularly prevalent during clinical practice. Future research is needed to explore the underlying factors contributing to sleep disturbances among nursing students.*

Keywords: clinical practice, nursing students, sleep quality.

I. INTRODUCTION

Sleep constitutes approximately one-third of the average human lifespan (Chokroverty, 2017). Sleep is a fundamental physiological need that plays a critical role in maintaining optimal physical health, emotional well-being, and cognitive performance. It is essential for physical and mental rejuvenate, reducing fatigue, conserving energy, and promoting alertness upon waking (Berman et al., 2022). Nevertheless, sleep-related complaints are among the most frequently reported issues. It reported that approximately 30% of the adult population experiences poor sleep quality (Leschziner, 2022). According to the ResMed 2025 Global Sleep Survey, about one-third of the population experiences difficulties falling or staying asleep, and consequently, unsatisfactory rest (Resmed's 2025 Global Sleep Survey, 2025).

Poor sleep quality is a problem for more than just adults; it affects teenagers and young adults as well (Olaithe et al., 2024). The prevalence of sleep disturbances among young people is a subject of significant concern (Liang et al., 2021; Yang et al., 2024). Juveniles and young adults, including university students, demonstrate a heightened susceptibility to sleep disturbances. The vulnerability in question is influenced by a number of factors. Sleep is frequently compromised

during university life due to a range of lifestyle and behavioral changes. The transition to university frequently involves increased autonomy, reduced parental supervision, and greater exposure to social activities. These changes, in conjunction with rigorous academic schedules and evolving peer relationships, have been identified as contributing factors to poor sleep habits (Memon et al., 2021). Consequently, university students often report insufficient sleep duration and unsatisfactory sleep quality. These issues can have adverse consequences on their academic performance, emotional regulation, and general well-being(Salmani et al., 2020; Wang, Zhu, et al., 2024; Xu et al., 2025).

This phenomenon is especially evident among nursing students, particularly during their clinical practice placements. The clinical environment presents additional stressors, including irregular shift patterns, such as night shifts, extended hours on the ward, high patient acuity, and the emotional strain of delivering direct patient care. These challenges frequently disrupt students' sleep-wake cycles and increase psychological stress, both of which have a detrimental effect on the quantity and quality of sleep. Furthermore, the dual burden of academic obligations and clinical responsibilities frequently restricts students' time for rest and recovery (Guadiana & Okashima, 2021).

Previous studies have been conducted on university students, particularly those in health-related fields such as medicine and nursing (Abubakar et al., 2024; Balqis et al., 2025; Bousgheiri et al., 2024; Hasianna et al., 2025). Research on sleep quality among nursing students in Indonesia has primarily focused on academic stress during the final stages of study, such as completing a thesis or during the professional (Ners) program (Manoppo et al., 2023; Sandayani et al., n.d.; Sanger et al., n.d.). However, no studies have specifically examined sleep quality among nursing students currently undergoing clinical practice. Given this gap in the literature, the present study aims to assess the sleep quality of nursing students at Universitas Advent Indonesia, including both undergraduate and professional nursing students (Ners) engaged in clinical practice.

II. LITERATURE REVIEW

Sleep is a fundamental human need and a natural biological process experienced by every individual. During sleep, the brain undergoes a period of recovery, while the body actively eliminates adenosine, resulting in a restorative and refreshing effect (Berman et al., 2022; Potter et al., 2021). The purpose of sleep remains a subject of considerable debate, with numerous theories postulating its function. These theories encompass restoration, energy conservation, and memory consolidation (Kirsch, 2025). Therefore, when a person does not get enough sleep, it can negatively affect their health and overall well-being. It has been reported that individuals who experience sleep deprivation are more likely to develop health problems such as obesity, cardiovascular disease, stroke, and cancer (Onyegbule et al., 2025; Peng et al., 2025; Vaughn & Vaughn, 2025). Given the critical importance of sleep for human health, one of the objectives of Healthy People 2030 regarding sleep is to improve health, productivity, well-being, quality of life, and safety by helping people get enough sleep. The prerequisites for healthy sleep include sufficient sleep duration, appropriate timing, regularity, the absence of sleep disorders, and good

quality. The presence of these elements can be indicated by both self-rated and objective sleep continuity variables (Ramar et al., 2021).

The duration spent in each sleep stage evolves as individuals age, often reflecting a decline in the overall biological necessity for sleep in individuals over time (Patel et al., 2024).

1. Newborn and Infants: 16-18 hours per day (types: quiet sleep, active sleep, and indeterminate sleep.
2. Toddlers and children: 11-13 hours. Children have longer Rapid Eye Movement Sleep (REM) latencies.
3. Adolescents: 9-10 hours each night. Hormonal changes can alter sleep latency time, and daytime sleepiness occurs more around mid-puberty.
4. Adult: Over 7 hours. Older adult awakens earlier than younger adult.
5. Gender differences: Women maintain slow-wave sleep longer than men and tend to complain more often of difficulty falling asleep, and sleepiness increases during pregnancy and postpartum.

Humans possess a circadian rhythm, a biological pattern that regulates the sleep-wake cycle in accordance with the diurnal cycle. This rhythm functions in conjunction with the sleep drive, which amplifies over time spent awake, resulting in drowsiness at night and alertness in the morning. The hormone melatonin is released as nightfall commences and its levels decrease with the arrival of morning, accompanied by changes in body temperature that promote sleepiness at night and wakefulness during the day (Leschziner, 2022). Sleep consists of several stages that form the sleep architecture and allow physical and mental restoration to occur. The sleep cycle is divided into three non-REM stages and one REM stage, which together take about 1.5 to 2 hours and repeat several times throughout the night. Disruptions in this cycle, including sleep disorders such as sleep apnea, can negatively affect both physical and mental health (Berman et al., 2022).

1. N1: The lightest stage of sleep, lasting only a short time.
2. N2: The longest sleep stage in adults; brain activity slows, with occasional bursts that support memory retention.
3. N3: Also known as deep sleep or slow wave sleep, this stage is essential for physical recovery and is marked by lowered blood pressure and the release of growth hormone.
4. REM: The most active dreaming stage, characterized by temporary muscle paralysis and memory consolidation. REM sleep increases in duration toward morning.

III. MATERIALS AND METHODS

The objective of this study was to assess the sleep quality of nursing students at Universitas Advent Indonesia during their clinical practice. The present study employs a descriptive, cross-sectional approach. The respondents in this study were students from the Faculty of Nursing

Science at Universitas Advent Indonesia, specifically those enrolled in the Bachelor of Nursing program and the Professional Nursing (NERS) program who were undergoing clinical practice during the 2024-2025 academic year. The data was obtained through the implementation of a questionnaire. The participants completed the questionnaire during the last two weeks of the practice schedule. The questionnaire was completed via Google Forms. This study has obtained an ethical approval letter from the Health Research Ethics Committee of the Faculty of Nursing, Universitas Advent of Indonesia.

The Pittsburgh Sleep Quality Index (PSQI) was utilized to assess sleep quality during the clinical practice period. The present questionnaire is a self-report instrument consisting of 19 questions that evaluate seven components of sleep quality. The seven components are as follows: subjective sleep quality, sleep duration, sleep efficiency, sleep disturbances, use of sleep medication, and daytime dysfunction. Each component is evaluated on a scale of 0-3, with a total score ranging from 0-21. Scores of 6 or higher on this scale are indicative of poor sleep quality. The data collected was tabulated and subjected to analysis using SPSS, a statistical software program, to ascertain the presentation of sleep quality and the seven components of sleep quality. This study certainly has limitations. It only focuses on examining the sleep quality of nursing students during clinical practice without considering in depth the factors that affect sleep quality.

IV. RESULTS AND DISCUSSION

A total of 192 respondents participated in this study, comprising both undergraduate and professional nursing students (NERS) program. The characteristics of the respondents are delineated in Table 1.

Table 1. Characteristics of the participants

Characteristics	N	%
Gender		
Female	155	80.7
Male	37	19.3
Total	192	100
Study Program		
Bachelor of Science in Nursing	119	62
Professional Nurse (Ners)	73	38
Total	192	100

As illustrated in Table 1, there is a noticeable disparity in the gender distribution of students, with a higher proportion of female students compared to male students. The nursing profession is predominantly female. However, there has been a recent trend of an increasing interest among males in pursuing careers in nursing. The challenges faced by these professionals include social bias, limited guidance, and difficulties in forming professional identities, especially in clinical

environments and specializations traditionally considered female-dominated(Prosen & Čekada, 2025) Female students demonstrate a higher level of motivation in regard to professional interests and the pursuit of specializations when compared to their male counterparts (Maurud et al., 2022). A study found that female students expressed a stronger inclination towards professional roles involving altruism, while male students demonstrated a greater preference for leadership roles (Prosen, 2022). It is important to acknowledge that gender biases and stereotypes are common in within the nursing profession. However, it is equally crucial to emphasize that the roles of female and male nurses in society should be predicated on individual competence rather than on gender (Masibo et al., 2025).

The nursing students who participated in this study were enrolled in both undergraduate and professional nursing programs, as illustrated in Table 1. In accordance with the professional nursing education level in Indonesia, after completing bachelor nursing degree, students must continue their education in a professional nursing program (NERS). These educational levels are characterized by distinct curriculums; however, all of them include clinical practice requirements (Haryanti et al., 2022; Kementrian Kesehatan, 2018).

Table 2 presents the results of the study, which examined the sleep quality of nursing students. The sleep quality scores of both undergraduate and professional nursing students were classified as poor, with a score of ≥6. The proportion of undergraduate nursing students exhibiting suboptimal sleep quality surpasses two-thirds of the total undergraduate nursing population, constituting 78.2%. Concurrently, the proportion of professional nursing students exhibiting suboptimal sleep quality has surpassed 50%, amounting to 61.1%.

Table 2. Sleep Quality of Nursing Students

Sleep Quality	Bachelor of Science in Nursing Program		Professional Nurse (Ners) Program	
	N	%	N	%
Good Sleep Quality (1-5)	26	21.8	24	32.9
Poor Sleep Quality (6-21)	93	78.2	49	67.1
Total	119	100	73	100

The findings of this study are in concordance with the results of previous studies, which have demonstrated that a significant proportion of nursing students experience poor sleep quality. The quality of sleep is not determined by a single factor alone. Poor sleep quality is thought to result from a combination of multiple factors. Research conducted among medical and nursing students has demonstrated a correlation between poor sleep quality and high smartphone usage, as well as intense levels of physical activity (Bousgheiri et al., 2024). Moreover, extant research has indicated that cohabitation with multiple roommates who generate noise is a contributing factor to poor sleep quality (Abubakar et al., 2024; Daryaswanti et al., 2025)). Additional studies have identified factors contributing to sleep disturbances among nursing students during clinical practice. These

factors include weekly work hours, clinical hours, and on-campus living (Wang, Scott, et al., 2024), as well as working while studying, also coffee and soda consumption (Daryaswanti et al., 2025). Nursing students at Universitas Advent Indonesia typically reside in dormitory environments or in nearby off-campus housing, where they often share rooms with one or more roommates. In the context of clinical practice, students are systematically assigned to a weekly rotational schedule encompassing morning and afternoon shifts. Individuals engaged in the morning shift are expected to depart from the university premises at 6:00 a.m. and return by approximately 3:00 p.m. Those assigned to the afternoon shift, in contrast, commence their duties at 1:00 p.m. and are expected to be back on campus by 10:00 p.m. Alongside their clinical responsibilities, students are also obligated to submit case reports and evidence their clinical skill and competency achievements. This additional requirement contributes to the already considerable demands of their schedules. Furthermore, students frequently utilize smartphones in their daily lives, engaging in activities such as social media, gaming, and watching online videos. As indicated in previous studies, these factors may contribute to suboptimal sleep quality among nursing students. However, these specific factors were not examined in the present study.

Table 3. Sleep Quality Components of Nursing Students

Sleep Quality Components	Categories	Bachelor of Science in Nursing Program		Professional Nurse (Ners) Program	
		N	%	N	%
Subjective Sleep Quality	Good	18	15.1	41	56.2
	Fairly Good	64	53.8	29	39.7
	Fairly Poor	29	24.4	3	4.1
	Poor	8	6.7	0	0
	Total	119	100	73	100
Sleep Latency	0-10 minutes	29	24.4	6	8.2
	16-30 minutes	41	34.5	36	49.4
	31-60 minutes	31	26.0	22	30.1
	≥ 60 minutes	18	15.1	9	12.3
	Total	119	100	73	100
Sleep Duration	>7 hours	37	31.1	25	34.3
	6-7 hours	45	37.8	24	32.9
	5-6 hours	32	26.9	22	30.1
	≤ 5 hours	5	4.2	2	2.7
	Total	119	100	73	100
Sleep Efficiency	85%	36	30.2	55	75.3
	75-84%	24	20.2	8	11.0
	65-75%	32	26.9	4	5.5
	<65%	27	22.7	6	8.2
	Total	119	100	73	100
Sleep Disturbances	Score 0	8	6.7	1	1.4
	Score 1-9	80	67.2	52	71.2
	Score10-18	30	25.2	19	26.0
	Score 19-27	1	1	1	1.4
	Total	119	100	73	100
Using of Sleep Medication	Never	112	94.1	63	86.3
	1 time a week	7	5.9	7	9.6

	2 times a week	0	0	2	2.7
	≥3 times a week	0	0	1	1.4
	Total	119	100	73	100
Daytime Dysfunction	Score 0	5	4.2	0	0
	Score 1-2	32	26.9	11	15.1
	Score 3-4	60	50.4	47	64.4
	Score 5-6	22	18.5	15	20.5
	Total	119	100	73	100

Table 3 presents the data for the seven components of sleep quality. In the subjective sleep quality component, the majority of undergraduate nursing students (53.8%) reported having fairly good sleep quality, while the majority of professional nursing students (56%) reported good sleep quality. With regard to sleep latency, a higher percentage of both undergraduate (34.5%) and professional students (49.4%) reported falling asleep within 16–30 minutes. With regard to the sleep duration component, the majority of undergraduate students reported sleeping 6–7 hours per night, whereas professional nursing students exhibited a tendency to sleep more than 7 hours per night. With respect to sleep efficiency, the majority of both undergraduate and professional students exhibited sleep efficiency levels greater than 85%. With regard to sleep disturbances, the majority of nursing students, irrespective of their academic status (i.e., undergraduate or professional), exhibited scores ranging from 1 to 9, indicative of some degree of disturbance. A mere fraction of the undergraduate student population, amounting to 5.9%, reported utilizing sleep medication on a weekly basis. Among professional nursing students, the utilization of sleep medication was marginally elevated, with 9.6% reporting its use once a week, 2.7% reporting its use twice a week, and 1.4% reporting its use three times or more per week. A more frequent utilization of sleep medication was observed among professional nursing students. For the final component, daytime dysfunction, both undergraduate and professional nursing students scored between 3 and 4, indicating a relatively high level of dysfunction in daily activities. While the initial four components exhibited relatively favorable scores, the subsequent three components revealed more substantial indications of sleep disturbance.

V. CONCLUSION

The present study indicates that nursing students experience suboptimal sleep quality during clinical nursing practice. Both undergraduate and professional nursing students encounter sleep disturbances to varying extents. Given the well-documented importance of quality sleep for both physical and mental health, it is imperative that nursing students develop effective time management skills and learn strategies to enhance their sleep quality, even in the face of the demands posed by clinical practice and mandatory tasks.

The present study focuses exclusively on the sleep quality of nursing students, as measured by the PSQI, without considering other factors that may influence sleep quality, such as health status,

stress levels, exercise habits, and gadget usage. It is anticipated that subsequent research endeavors will encompass a more extensive sample size and will pursue a more profound exploration of the factors that influence sleep quality among nursing students. These future studies will also seek to identify solutions to the prevailing issues.

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