



Assessment of Nursing Students' Knowledge and Behavior Toward Time Management: A Cross-sectional Survey

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Abstract

Time management is a vital skill for nursing students, as they must balance academic coursework with clinical training demands. This study aimed to assess nursing students' knowledge and behavior regarding time management. A descriptive cross-sectional design was conducted at Riyadh Elm University. Data was collected using a structured questionnaire that included demographic characteristics, knowledge assessment, and behavior evaluation. A total of 120 undergraduate nursing students were selected using a simple random sampling technique. Data was analyzed using descriptive statistics and correlation tests. The results indicated that nursing students had varying levels of knowledge and time-management behaviors. Additionally, a positive association was found between knowledge and behavior. The study highlights the importance of enhancing time management skills among nursing students to improve academic achievement and clinical performance.

Introduction

In nursing practice and education, time management is an essential skill for nursing students. They frequently have a variety of clinical and academic obligations that call for good planning, setting priorities, and making decisions. Stress, poor academic performance, and decreased clinical efficiency can all result from ineffective time management [1]. Conversely, effective time management fosters improved learning outcomes, lowers burnout, and increases productivity. Despite its significance, a lot of nursing students find it difficult to manage their personal lives, clinical responsibilities, and academic obligations. Therefore, it is crucial to evaluate nursing students' time management knowledge and behavior in order to create educational interventions that encourage self-discipline, planning, and prioritization [2].

It is a difficult task for nursing students to balance their study time with their social and/or personal obligations. It is important to consider that students will experience periods of anxiety associated with academic stress. If they have not managed their time well, they will not be able to control their activities or determine which are more crucial to

achieving their objectives, which will result in a noticeable increase in academic stress [3].

For nursing students, time management is an essential skill since it has a direct impact on their academic achievement, clinical readiness, and general professional growth. Students must successfully manage their time and prioritize work because nursing education entails rigorous academic classes, hands-on training, and clinical duties [4]. Additionally, Fu, et.al., (2025) cited that many students, however, find it difficult to manage this many obligations, which results in stress, lower productivity, and worse learning outcomes [5]. Therefore, time is crucial to evaluate nursing students' time management behavior and knowledge in order to find any gaps that could impede their future clinical competency and academic performance. In order to help educators create focused interventions, training programs, and supportive techniques that improve students' time-management abilities and foster a more effective and successful learning experience, this study offers insightful information about students' present knowledge and practices.

Aim of the study:

This study aimed to assess nursing students' knowledge and behavior toward time management.

Study objectives:

- 1- To assess the level of knowledge regarding time management among Nursing students at REU.
- 2- To measure the health behavior level toward time management among Nursing students at REU.
- 3- To examine the relationship between knowledge and behavior toward time management among nursing students.

Research Hypotheses:

- Nursing students have insufficient knowledge and poor time-management behaviors.
- There is a positive association between nursing students' knowledge about time management and their time management behaviors.

Materials & Methods

Study Design

A descriptive cross-sectional was utilized to assess nursing students' knowledge and behavior toward time management at Riyadh Elm University.

Data Collection Methods

Data was collected using a structured self-administered questionnaire divided into three parts: The first part was concerned with the demographic characteristics of nursing students which included age, gender, semester of study, marital status and academic level of student). The second part contains nursing students' knowledge regarding time management, which was assessed through 10 true/false questions. Each correct answer was given one point, while incorrect answers or "I don't know" responses received zero points.

The total score was ranged from 0 to 10 points and was categorized as follows: low knowledge (0–3 points), moderate knowledge (4–6 points), and high knowledge (7–10 points). The third part contained behavior toward time management – assessed using a five-point Likert-scale questionnaire (Never(0)- Seldom (1)- Sometimes (2)- Usually (3)- Always (4) which was assessed through 20 items covering areas such as planning, goal setting, prioritization, and task scheduling. The instrument tool of the study was on both Arabic and English to better understand by the respondents.

The questionnaire was pilot tested on approximately (12 students) who were included in the final study sample. These participants had similar characteristics to the target population. The pilot test was conducted once and necessary modifications were made based on feedback. The questionnaire was reviewed by a panel of 7 experts in the specialty field to ensure content validity. The instrument reliability was tested by using Cronbach's alpha, an internal consistency score with a value of 0.7 or higher is deemed satisfactory.

Sample characteristics:

The stratified random sampling method was used to select 120 undergraduate nursing students from different academic years in the Nursing Department at the College of Pharmacy, Nursing and Medical Sciences, Riyadh Elm University. The population was stratified into eight academic levels. Random sampling was conducted within each stratum based on the lists of students provided by the Deanship of Admissions and Registration. This was done based on the approval of the institution. This was done to reduce selection bias and improve the sample's representativeness. The inclusion criteria included nursing students currently enrolled in the nursing program and willing to participate in the study while exclusion criteria included students who are on leave or internship outside the campus.

The sample size was calculated using the standard formula for estimating proportions at a 95% confidence level ($n = Z^2 \times p(1-p) / d^2$). Using $Z = 1.96$ and $p = 0.5$, the initial sample size was $n=153$. After applying for finite population correction for a total population of 550 students ($n = n? / [1 + (n? - 1)/550]$? 120), a final sample of 120 students was selected, corresponding to an estimated margin of error of approximately $\pm 7.9\%$ at the 95% confidence level.

Survey Administration

This study was conducted from December 1, 2025, to March 30, 2026, after obtaining an approval from the university research center. After obtaining the lists of respondents at hand, the researchers contacted the study participants to administer the research questionnaire. A reminder also was sent to participants for them to answer before taking the questionnaire.

Study Preparation

The researchers were making sure that they had the permission letter upon requesting the list of the study participants from the university. The researchers were attending by their research supervisors for some approaches before the conduct of the study.

Ethical Considerations

Confidentiality and anonymity were maintained by the researcher throughout the conduct of this study. Securing an informed consent from the respondents and approval from the IRB REU Institutional Board were important.

Statistical methods:

The Statistical Package for the Social Sciences (SPSS) was used to evaluate the collected data. The primary study variables and demographic information will be summarized using descriptive statistics (means, standard deviations, frequencies, and percentages). Appropriate statistical tests, such as the Chi-square test or Pearson's correlation, will be used to evaluate the relationship between knowledge and behavior. A p-value of less than 0.05 will be regarded as statistically significant.

Results:

Table I: Sociodemographic Profile of the Study Participants (N = 120)

Variable	Category	Frequency (n)	Percentage (%)
Age	14–24	21	17.5
	25–34	21	17.5
	35–44	70	58.3
	≥45	8	6.7
Gender	Male	80	66.7
	Female	40	33.3
Semester of Study	First	41	34.2
	Second	79	65.8
Marital Status	Married	81	67.5
	Single	33	27.5
	Divorced	4	3.3
	Widowed	2	1.7
Academic Level	Level 1	10	8.3
	Level 2	7	5.8
	Level 3	8	6.7
	Level 4	22	18.3
	Level 5	11	9.2
	Level 6	7	5.8
	Level 7	13	10.8
	Level 8	42	35.0

In the present study that aimed to assess the Knowledge and Behavior of Nursing students regarding the importance of time management, a total of 120 study participants participated in the study. The study participants included undergraduate nursing students who were enrolled in various academic years during the study period. Most study participants (58.3%) were aged between 35–44 years, mostly males constituted two-thirds of the sample (66.7%), and most participants were students from the second semester (65.8%). In terms of marital status, the majority were married (67.5%), followed by single participants (27.5%). The academic level distribution showed that the highest proportion of students were in Level 8 (35.0%), followed by Level 4 (18.3%) and Level 7 (10.8%). Other levels had relatively lower representation. The socio-demographic profile of the study participants is summarized in Table I.

Table II: Knowledge Regarding Time Management Among Students (N = 120)

No.	Statement	True (%)	n	False (%)	n	I Don't Know (%)	n
1	Time management directly helps improve academic performance	97 (80.8)		13 (10.8)		10 (8.3)	
2	Students with good time planning achieve better academic results	98 (81.7)		10 (8.3)		12 (10.0)	
3	Managing time helps reduce stress and academic pressure	95 (79.2)		14 (11.7)		11 (9.2)	
4	The importance of time is limited only to exam periods	51 (42.5)		52 (43.3)		17 (14.2)	
5	Understanding the importance of time helps better academic decisions	94 (78.3)		15 (12.5)		11 (9.2)	
6	Valuing time is a skill that can be learned and developed	92 (76.7)		18 (15.0)		10 (8.3)	
7	Wasting time does not affect the quality of student learning	50 (41.7)		58 (48.3)		12 (10.0)	
8	Awareness of time importance helps in setting priorities	92 (76.7)		11 (9.2)		17 (14.2)	
9	Lack of time management awareness increases procrastination	86 (71.7)		15 (12.5)		19 (15.8)	
10	Time awareness is unrelated to organizing personal/academic life	57 (47.5)		50 (41.7)		13 (10.8)	

Overall, most study participants were well-informed about the importance and significance of time management in their daily life as well as in professional life. Most participants reported and agreed that time management has a positive influence

on their academic performance (80.8%) and that students with good time planning performed well academically. (81.7%). Similarly, 79.2% acknowledged that time management can markedly contribute to less academic stress.

Majority of the study participants (78.3%) reported that the knowledge of the significance of time results in improved academic decision making. Additionally, 76.7% agreed that time management is a learnt skill that can be acquired. Moreover, 76.7% agreed that knowledge about importance of time management helps in setting priorities.

However, some misconceptions were also observed. Approximately 42.5% of respondents felt that the

significance of time is only crucial during exams, while 41.7% believed that wasting time has no effect on the learning quality. Moreover, 47.5% agreed that knowledge and awareness of time is not linked to organizing and planning personal and academic life. Regardless majority of the study (71.7%) agreed that lack of awareness of time management often leads to procrastination. Knowledge of Time Management is summarized in Table II.

Table III: Students' Behavior Rating Scale Toward Time Management (N = 120)

No.	Statement	Never (%)	n	Seldom (%)	n	Sometimes (%)	n	Often (%)	n	Always (%)	n
1	Read selectively and highlight important material	28 (23.3)		14 (11.7)		41 (34.2)		13 (10.8)		24 (20.0)	
2	Make a daily task list	25 (20.8)		15 (12.5)		29 (24.2)		22 (18.3)		29 (24.2)	
3	Keep everything in proper place	20 (16.7)		18 (15.0)		21 (17.5)		19 (15.8)		42 (35.0)	
4	Prioritize tasks by importance/urgency	21 (17.5)		8 (6.7)		32 (26.7)		19 (15.8)		40 (33.3)	
5	Focus on one important task at a time	21 (17.5)		13 (10.8)		42 (35.0)		18 (15.0)		26 (21.7)	
6	Make short task lists (5–10 min tasks)	18 (15.0)		19 (15.8)		35 (29.2)		23 (19.2)		25 (20.8)	
7	Divide large projects into smaller stages	19 (15.8)		15 (12.5)		36 (30.0)		22 (18.3)		28 (23.3)	
8	Review planner daily	16 (13.3)		20 (16.7)		30 (25.0)		24 (20.0)		30 (25.0)	
9	Do important tasks at best time of day	14 (11.7)		11 (9.2)		35 (29.2)		22 (18.3)		38 (31.7)	
10	Have uninterrupted work time daily	21 (17.5)		7 (5.8)		40 (33.3)		24 (20.0)		28 (23.3)	
11	Avoid procrastination	19 (15.8)		14 (11.7)		31 (25.8)		25 (20.8)		31 (25.8)	
12	Evaluate time use regularly	20 (16.7)		19 (15.8)		34 (28.3)		22 (18.3)		25 (20.8)	
13	Set personal deadlines	23 (19.2)		11 (9.2)		37 (30.8)		26 (21.7)		23 (19.2)	
14	Use waiting time productively	16 (13.3)		17 (14.2)		39 (32.5)		19 (15.8)		29 (24.2)	
15	Avoid time wasters	19 (15.8)		13 (10.8)		33 (27.5)		26 (21.7)		29 (24.2)	
16	Finish at least one task daily	22 (18.3)		10 (8.3)		40 (33.3)		20 (16.7)		28 (23.3)	
17	Schedule personal time daily	23 (19.2)		9 (7.5)		30 (25.0)		22 (18.3)		36 (30.0)	
18	Set long-term (annual) goals	22 (18.3)		8 (6.7)		35 (29.2)		20 (16.7)		35 (29.2)	
19	Set semester goals	18 (15.0)		15 (12.5)		31 (25.8)		20 (16.7)		36 (30.0)	
20	Seeking ways to improve time efficiency	19 (15.8)		13 (10.8)		35 (29.2)		17 (14.2)		36 (30.0)	

The behavioral assessment showed that nursing students had different levels of time-management practices. A considerable proportion reported that they practice effective behaviors occasionally but not always. 34.2% of respondents reported they read selectively and highlight important material only sometimes, while 24.2% of respondents reported of making a daily task list. Notably, 35.0% of nursing students keep their materials organized always, and 33.3% of respondents always prioritize tasks according to importance and urgency. Regarding productive habits, 31.7% claimed that they always do important things when they are most

productive during the day. Similarly, 25.8 percent never procrastinate whilst 25.8 percent frequently procrastinate. Goal-setting behaviors were moderately practiced, with 30.0% always scheduling personal time daily and setting semester goals. Additionally, 29.2% of respondents reported setting long-term goals.

In general, although a positive time management behavior was observed in many students, it was more often performed at a moderate (sometimes) level and less often at a consistent (always) level. The Student Behavior Rating Scale regarding Time Management is summarized as Table III.

Table IV: Association of sociodemographic factors with Time Management knowledge and behavior

Variable	Question	p-value	Significance
Age	Valuing time is a skill that can be learned and developed	0.023	Significant
Gender	Awareness of time is important to help in setting priorities	0.026	Significant

	Time awareness is unrelated to organizing personal/academic life	0.014	Significant
Semester	Managing time helps reduce stress and academic pressure	0.040	Significant
Marital Status	Time management directly helps improve academic performance	0.010	Significant
	Valuing time is a skill that can be learned and developed	0.000	Highly Significant
	Awareness of time importance helps in setting priorities	0.002	Significant
Academic Level	Time management directly helps improve academic performance	0.030	Significant
	Managing time helps reduce stress and academic pressure	0.005	Significant
	Understanding the importance of time helps better academic decisions	0.027	Significant
	Valuing time is a skill that can be learned and developed	0.042	Significant
	Wasting time does not affect the quality of student learning	0.006	Significant
	Awareness of time is important to help in setting priorities	0.005	Significant
	Time awareness is unrelated to organizing personal/academic life	0.029	Significant

Statistical testing showed that there were significant correlations among various sociodemographic factors and knowledge of time management as shown in Figure IV. Age indicated that there was a significant relationship between age and perception of valuing time as a skill that can be learned ($p = 0.023$). Gender was found to be strongly linked to being aware of the importance of time in prioritization ($p = 0.026$) and with the misconception that time awareness has nothing to do with organization of life ($p = 0.014$). Semester of study was significantly associated with the understanding that time management helps reduce stress and academic pressure ($p = 0.040$).

Marital status demonstrated strong associations with multiple knowledge variables, including the belief that time management improves academic performance ($p = 0.010$), valuing time as a learnable skill ($p = 0.000$, highly significant), and awareness of importance of time in setting priorities ($p = 0.002$). Academic level was significantly associated with several knowledge aspects, including time management's role in improving academic performance ($p = 0.030$), reducing stress ($p = 0.005$), aiding academic decisions ($p = 0.027$), and being a learnable skill ($p = 0.042$). It was also significantly linked with misconceptions regarding wasting time ($p = 0.006$), setting priorities ($p = 0.005$), and organizing life ($p = 0.029$).

Discussion

The present study assessed nursing students' knowledge and behavior toward time management in Saudi Arabia and revealed generally good knowledge but only moderate implementation of time management practices. The findings of this study highlight critical gap between knowledge of time management and behavioral practices for time management. The current study demonstrated that a high proportion of students recognized the importance of time management in improving academic performance, reducing stress, and

supporting decision-making. These findings are consistent with recent evidence from Saudi Arabia, where time management skills have been shown to significantly correlate with improved academic performance and reduced stress among nursing students [6].

Similarly, a recent study conducted in Saudi nursing institutions reported that students generally possess positive attitudes toward learning-related competencies and demonstrate adequate awareness of academic skills, including planning and prioritization. This supports the notion that nursing students in Saudi Arabia are cognitively aware of effective academic strategies, including time management [7].

Internationally, similar findings have been reported. Studies among nursing and medical students in different regions have consistently shown that most students understand the importance of time management and its role in academic success and stress reduction. For example, research among medical sciences students indicated that time management knowledge is widely recognized as a key determinant of academic achievement and productivity [8].

Although this study findings showed good awareness levels of Nursing students regarding importance of time management, it also highlighted certain misconceptions particularly the belief that time management is crucial for exam time only and it contributes little to daily planning and organization of daily activities. This is consistent with global trends where students often possess fragmented or incomplete knowledge of time management therefore limiting its practical application [9].

Though the level of knowledge was high, the students in the current study reported to have practiced time management behaviors most often as "sometimes" instead of always. This shows a lack of consistency in the use of time management strategies. These finding are aligned with a recent study conducted in Saudia Arabia showing that though

educational interventions enhance knowledge and attitudes of students, behavioral compliance is inconsistent, with most students unable to apply and incorporate these practices in real-life contexts [10]. Similarly, studies in Saudi Arabia have also showed that nursing students often struggle to translate theoretical knowledge into consistent day to day practices due to academic workload and clinical demands.

This observation is also supported by international literature. Research done in different nations has indicated that students often exhibit moderate time management practices, with inconsistent application of techniques like prioritization, goal setting and avoidance of procrastination. Such inconsistency is usually ascribed to other issues like stress, lack of organized training and competing academic responsibilities [11].

Moreover, the moderate behavioral scores reported in this study could be attributed to the demanding nature of nursing education. A recent study conducted in Saudia Arabia also highlighted that complex learning environments produce psychological distress and academic pressure among the nursing students and could have a detrimental effect on their capacity to effectively manage time [12].

The current study showed significant relationship between sociodemographic factors and knowledge of time management. There was significant correlation of Age, gender, academic level, semester, and marital status with different elements of knowledge. The results are in line with both national and international literature. In Saudi Arabia, academic level and year of study have been shown to significantly influence students' competencies, including learning strategies and skill development. Senior students often demonstrate better awareness and understanding due to increased academic exposure [13].

In the same manner, international studies indicate that older students and students with higher levels of academic performance are more likely to have improved time management skills owing to maturity, experience, and adaptation to the academic demands. Marital status can also play a role in time management since married students can have more responsibilities and hence require more planning and organization

Despite providing valuable insights, this study has several limitations that should be considered when interpreting the findings particularly the cross-sectional study design, the reliance on self-reported data which may lead to social desirability bias. Additionally, the study was conducted in a single setting with limited sample size due to time constraints which might have limited the generalizability and External validity of the study findings.

Conclusion

The findings of this research point to a significant problem: even though nursing students have enough knowledge of time management, there is a noticeable deficit in behavioral implementation. This implies that knowledge is inadequate and there should be a structured intervention that places emphasis on skills and behavior change. Thus, time management training can be considered an effective intervention in nursing education as a means of improving academic achievements and overall well-being of students. Overall, this research highlights the necessity to implement specific interventions going beyond the theoretical knowledge and orientation on the acquisition of the practical skills of time management in nursing students.

Recommendations and Future studies:

Based on the findings of the study, the following recommendations are proposed:

- Workshops, seminars, and skill-based training sessions should be regularly conducted to reinforce effective time management behaviors. Educators should integrate time management strategies into teaching methodologies, such as guided planning for assignments and clinical tasks.
- Development of digital tools or mobile applications for scheduling and task management may enhance students' engagement in time planning.
- Further longitudinal studies are recommended to assess causal relationships between time management knowledge and behavior. Future research should explore additional factors such as stress, mental health, and academic workload. Comparative studies across different disciplines and countries would provide a broader understanding of time management practices among students.

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