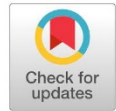


Research Article

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Professional Attitudes among Nursing Students at Al-Hasahisa College of Medical Sciences and Technology, Sudan: A Cross-Sectional Study

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Abstract

Nurses' professional attitudes begin to develop as soon as they start their nursing education and are usually fully developed by the end of their studies. To assess professional attitudes among nursing students at Al-Hasahisa College of Medical Sciences and Technology. A descriptive cross-sectional study included 140 nursing students from the second, third and fourth academic years. Data was collected using the Instrument of Professional Attitude for Student Nurses (IPASN) scale. Data was analyzed using SPSS. The total IPASN score among nursing students was found to be 54.56 ± 8.44 . Based on the predefined scoring classification of the IPASN scale, this score falls within the low range (28–65), indicating a low level of professional attitudes among the study participants. Overall, no statistically significant differences were found in the mean total IPASN score according to age, sex, academic year, or marital status ($p > 0.05$). The study concluded that the nursing students demonstrated a low level of professional attitudes, as reflected by the total IPASN score.

Keywords: Nursing, Students, Professional, Attitudes, IPASN

INTRODUCTION

Professional attitudes are a central component of nursing professionalism, encompassing internalized values, identity, ethical commitment, and behaviors that sustain safe, patient-centred care and public trust in the profession. Strong professional attitudes in nurses have been linked to higher quality of care, patient safety, and better teamwork, making their early formation during undergraduate education a core goal of modern nursing curricula (Green, 2020; Sümen et al., 2022). Globally, nursing education is expected not only to develop clinical competence but also to cultivate professional identity, values, and attitudes that support lifelong commitment to the profession.



Studies from diverse settings show that professional attitudes and values begin to form as students enter nursing programmes and continue to develop across the years of study, influenced by learning experiences, role models, and clinical exposure (Elbashir, 2024; Salih et al., 2025).

Recent studies concluded that stronger nursing professional attitudes identified with positive caring and safer behavior, more intentions humanistic practices. A study conducted in Turkey found a positive statistical relationship between caring behaviors and students professional attitudes scores. That means the students who strongly adhere to professional norms are more likely to provide respectful patients care. (Sümen et al., 2022). Multiple determinants shaped the professional attitudes, comprising academic self- efficacy, professional identity and perceptions of preparedness for practice.

In China the higher vocational nursing students showed that academic self- efficacy and professional identity significant positive predictors of professional attitudes, especially values, professional will and professional cognition (Xu et al., 2021). A study shows that professional identity were linked to perceived professional preparedness for readiness to practice among senior nursing students. (Dharmarajlu & D AM, 2025). The researches highlight how the professional values development influence by the nursing education. The professional attitude affected with gender and educational attitude; female nursing students experience higher professional identity and stronger role strain, partly due to stereotypes and curricular factors (Chen et al., 2020). Systematic reviews including MENA countries revealed that the examination, clinical workload and patient care responsibility represent the main stressors for very high levels of stress among nursing students (Chaabane et al., 2021). In Africa the quality of curriculum, faculty mentorship and clinical exposure influence the attitude of nursing students toward their profession (Muliira et al., 2016). The nursing student faced high academic and clinical stress, resource constraints especially in North Africa region, including Sudan. A study in Sudan done by Fadlalmola et al (2023) reported that most undergraduate nursing students complain moderate stress caused by environmental pressure, the study recommended structured counseling program to face these challenges. There are further contextual factors affect the professional attitude formation. The COVID-19 markedly affected the clinical practice in nursing colleges in Sudan, reducing period of clinical practice and increasing anxiety level among educators (Khalid et al., 2025).

Then recently the displacement and psychological distress caused by Sudan war has severely disrupted education generally, the major interruptions in clinical training, raising concerns about the quality of education and the future of nursing work force (Fernández-Feito et al., 2019). These disruptions may affect nursing student's professional identity and commitment. A study done by Mohammed et al (2025) found that nursing students rarely reported their frequently medication errors due to fear from negative reactions of supervisors and punishment, revealing gaps in patient-safety culture and professional responsibility during training. Sudanese nursing post graduates and graduates reported high levels of intention to migration and willingness to work abroad if chance is given raise extra worries about long term professional commitment to the health system in their country. Despite regional and international recognition that nursing professional values and attitudes essential for positive caring behaviors, ethical, safe and sustainable nursing practices (Bleda et al., 2020). In Sudan most studies focused on issues such as knowledge in specific clinical domains, stress, teaching and assessment methods, or medication safety. There is insufficient of systematic assessment of overall professional attitudes among nursing students in Sudan, and little is known about the education conditions, stressors and health system instability affects their professional orientation, specially professional attitudes to patient safety and ethical practices. Such evidence can help educators and policymakers identify strengths and vulnerabilities in students' professional for-

mation and design targeted curricular and institutional interventions to support a resilient, ethically grounded nursing workforce. To evaluate the readiness of nursing students for ethical-centered care, it's inevitable to assess the professional attitude. Studies revealed that Code of Ethics adherence improvement and medical errors reduction correlate with positive professional attitudes (International Council of Nurses [ICN], 2021; Numminen et al., 2017). This study aimed to assess professional attitudes among nursing students in Al-Hasahisa College of Medical Sciences and Technology.

MATERIALS AND METHODS

Study Design

This descriptive cross-sectional study was conducted in August 2025 at the Nursing Department of Hasahisa College of Medical Sciences and Technology in Hasahisa, Sudan. A total of 140 nursing students were included using a census approach targeting all available students from the second, third, and fourth academic years who resumed their attendance during the first month following the college's official post-war reopening at its premises. First-year students were excluded from the study as they were primarily engaged in general and foundational courses and had not yet progressed to in-depth specialized nursing subjects.

Data collection was conducted using a self-administered questionnaire consisting of two main parts. The first part included the demographic information (gender, age, academic level, and marital status). The second part comprised the Instrument of Professional Attitude for Student Nurses (IPASN) scale developed by Hisar et al. The IPASN scale consists of 28 items. This instrument is designed to assess various aspects of professional attitudes among nursing students, such as their desire for further education (master's/PhD), contribution to scientific research, membership in professional associations, adherence to ethical standards, application of nursing models and theories, and desire for professional development. The IPASN questionnaire (19) is a validated scale, and its reliability and validity have been confirmed in multiple previous studies across different cultural contexts. For instance, previous studies have reported overall Cronbach's alpha values for the questionnaire ranging from 0.869 to 0.91, indicating high internal consistency. The content validity of the questionnaire was ensured through a review by a panel of experts in the nursing field to confirm the suitability and comprehensiveness of the items for the Sudanese context.

Data were analyzed using SPSS version 26. Frequencies, percentages, means, and standard deviations were used. The inferential statistical tests (Mann–Whitney U and Kruskal–Wallis) were used for analysis ($p < 0.05$).

Ethical Considerations

Permission was obtained from the management of Al-Hasahisa College of Medical Sciences and Technology to conduct this research. Written consent was obtained from each participating student after ensuring their full understanding of the research objectives, and confidentiality was ensured. All data were handled with strict privacy.

RESULTS

This table shows that the majority of students were female ($n = 115$, 82.1%), while males constituted 17.9% ($n = 25$). Most participants were aged between 20 and 25 years ($n = 121$, 86.4%). Regarding academic year, over half were third-year students ($n = 79$, 56.4%), followed by fourth-year students ($n = 48$, 34.3%) and second-year students ($n = 13$, 9.3%). The majority of students were single ($n = 88$, 62.9%), followed by married ($n = 42$, 30.0%) and divorced students ($n = 10$, 7.1%).

Table (1). Sociodemographic data of nursing students (N = 140)

Variable	Category	Frequency	Percent (%)
Sex	Female	115	82.1
	Male	25	17.9
Age	≥ 20 years	7	5.0
	20 - 25 years	121	86.4
	≥ 26 years	12	8.6
Academic year	2nd year	13	9.3
	3rd year	79	56.4
	4th year	48	34.3
	Single	88	62.9
Marital status	Married	42	30.0
	Divorced	10	7.1

Table (2). Distribution of IPASN subscale scores (N = 140)

IPASN	Number of items	X $\pm$ SD
Contributing to the enhancement of scientific information	6	1.81 $\pm$ 0.61
Autonomy	3	2.30 $\pm$ 0.77
Cooperation	5	2.47 $\pm$ 0.71
Competence and continuing education	3	1.70 $\pm$ 0.66
Participating in professional organizations and professional development	3	2.10 $\pm$ 0.71
Working in committees	2	1.73 $\pm$ 0.77
Community service	3	1.59 $\pm$ 0.64
Ethical codes and theory	3	1.60 $\pm$ 0.56
Total	28	54.56 $\pm$ 8.44

Table 2 shows the distribution of professional attitude scores. Across the 8 IPASN subscales, the highest score was observed for Cooperation (2.47 $\pm$ 0.71), whereas the lowest mean score was for Community Service (1.59 $\pm$ 0.64). The mean total IPASN score among nursing students was 54.56 $\pm$ 8.44.

Table 3. There was no statistically significant difference in the total IPASN score according to sex ($p = 0.460$). Similarly, no statistically significant differences were observed according to age group ($p = 0.320$). The results also revealed no statistically significant differences in the total IPASN score across academic years ($p = 0.187$). Overall, no statistically significant differences in professional attitudes were found according to the sociodemographic characteristics of nursing students ($p > 0.05$).

Table (3). Associations between total IPASN score and demographic characteristics (N = 140)

Demographic characteristics	Test	Value	df	p-value
Sex	U	0.74	-	0.460
Age group	H	8.79	2	0.320
Academic Year	H	3.35	2	0.187
Marital Status	H	2.17	2	0.863

DISCUSSION

Educational experiences play a crucial role in promoting constructive professional attitudes, contributing to the development of favorable perceptions toward the nursing profession. It is widely recognized that appropriate professional attitudes among nursing students should be developed during their educational period (Dikmen et al., 2016; Sabancıoğulları et al., 2011). As in all fields of education, affective variables such as beliefs, emotions, feelings, interests, expectations, and motivation play a crucial role in shaping these attitudes (Çelik et al., 2016). In nursing education, these factors are particularly important, as they influence students' professional development and readiness for clinical practice (Sabancıoğulları et al., 2011). This study was conducted to assess the professional attitudes of nursing students in Hasahisa College of Medical Sciences and Technology, as measured by the IPASN scale, and to explore their relationships with key sociodemographic variables. The demographic characteristics of the study sample showed that the majority of participants were female, which is consistent with the global trend in nursing education. The largest age group was between 20 and 25 years, and more than half of the participants were third-year students. The majority were single. These basic demographic characteristics of the sample are consistent with the nature of a study conducted in an academic college.

The present study revealed that, across the 8 IPASN subscales, the highest scores were for Cooperation (2.47 ± 0.71) and Autonomy (2.30 ± 0.77), whereas the lowest mean scores were for Community Service (1.59 ± 0.64) and Ethical Codes and Theory (1.60 ± 0.56). Nursing students demonstrated a low level of professional attitudes, as reflected by the total IPASN score (54.56 ± 8.44), which falls within the low range of the scale when considering the maximum possible score of 140. This finding aligns with that of Çelik et al. (2016), who reported a total IPASN score of 65.03 ± 15.90 among participants. This result is inconsistent with the study conducted by Dikmen et al. (2016), which reported that students' professional attitude levels were above the medium level (113.43 ± 15.39). In contrast, a study by Al Shammari et al. (2017) reported a score of 113.6 ± 15.0 . The discrepancy between the current study and previous research may be attributed to differences in educational settings and levels of clinical training or to a curriculum that focuses more on clinical training than on deeply rooted professional values.

This study revealed no statistically significant differences in the mean total IPASN score across sex, age, academic year, and marital status; this finding aligns with some recent reports in the nursing education literature. The current results showed no statistically significant relationship between age and the total IPASN score. These results are consistent with the findings of Al Shammari et al., who indicated that no relationship was found between age and professional values. However, Kubsch et al. (2008) found a positive significant relationship with professional values scores. The results also revealed no statistically significant differences in the total IPASN score across academic years. This result is similar to the study by Kayrak and Yilmaz (2020), who reported that there was no association between nursing students' academic standing and professional orientation. However, some studies have noted that age and academic progression modestly enhance professional attitudes (Al-reshidi et al., 2021).

This finding contrasts with previous research and may be attributed to differences in educational environments, curriculum design, and variability in clinical exposure. Cultural and institutional factors, educational policies within the institution, or standardized clinical exposure could contribute to the homogenization of attitudes. This effect may be even more pronounced in settings where nursing professionalization is systematically emphasized across all student groups, independent of individual attributes.

CONCLUSION

The study concluded that nursing students demonstrated a low level of professional attitudes, as reflected by the total IPASN score, and that no statistically significant differences in professional attitudes were found according to the sociodemographic characteristics of nursing students ($p > 0.05$). These results reflect a lack of awareness of the importance of professional development and adherence to the standards of the modern nursing profession. To enhance professional attitudes, the study recommended that nursing education implement targeted, intensive workshops designed to help nursing students develop professionalism and implement longitudinal assessment tools to monitor their development throughout their years of study.

ETHICS

There are no ethical issues that may arise after the publication of this manuscript.

Duality of interest

The authors declare that there is no conflict of interest associated with this manuscript.

Author contributions:

Susan Ali Zroog conceptualized the study, designed the research, collected and analyzed the data, interpreted the findings, and drafted the original manuscript. Abdelhakam Ali contributed to the study methodology, data interpretation, and critically revised the manuscript for important intellectual content. Fatima Elhag Ahmed participated in data collection, interpretation of the findings, and manuscript revision. Sabah Hasan Lamloom supervised the research, provided academic guidance throughout the study, critically reviewed the manuscript, and approved the final version for publication. All authors read and approved the final manuscript and agreed to be accountable for all aspects of the work.

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