

ATTITUDE OF UNDERGRADUATE NURSING AND MIDWIFERY STUDENTS TOWARDS PATIENT SAFETY

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ABSTRACT

Background: Patient safety is an essential factor of healthcare quality. Enhancing students' attitudes towards patient safety is a challenge that requires education, especially nursing and midwifery education, which has to be fulfilled to achieve. Therefore, it is important to assess the nursing and midwifery students' attitudes towards safety to improve education programs and promote students' engagement in patient safety practices. **Objectives:** To assess the attitude of nursing and midwifery students toward patient safety at Can Tho University of Medicine and Pharmacy and its related factors. **Material and methods:** A cross-sectional descriptive study design was used to involve 139 undergraduate nursing and midwifery students in the third and fourth years at Can Tho University of Medicine and Pharmacy. A 12-item questionnaire was used for collecting data. The attitude score ranged between 12 and 60 and was divided into negative and positive attitudes. SPSS version 26.0 was used for data analysis. **Results:** The mean score of nursing student participants' attitudes towards patient safety was 39.1 ± 6.6 score. 71.9% of students had positive attitudes. There was a statistically significant relationship between major and students' attitudes of patient safety ($p=0.04$). Besides, students in their final academic year showed a statistically significantly higher level of attitude in relation to the third-year students ($p < 0.001$). **Conclusion:** Nursing students showed positive attitudes of safety. However, the incidence of negative attitudes was still quite high. Therefore, it is suggested that nursing educators should focus more on the improvement of patient safety education and the establishment of supportive study environments to enhance undergraduate students' attitudes towards safety culture, especially midwifery students.

Keywords: Patient safety, attitude, nursing and midwifery education, quality of care.

I. INTRODUCTION

Patient safety is the main concern and the central element of healthcare organizations globally. It is the avoidance and prevention of injuries or adverse events resulting from the processes of healthcare. Nurses and midwives play a vital role in ensuring patient safety due to the nature of their work [1]. Besides, promoting patient safety is one aspect of nursing and midwifery essential competencies [2], [3]. Nursing and midwifery students constitute a distinct subgroup of healthcare providers in the complicated healthcare system [4]. Their attitudes towards safety can highlight areas of strength and weakness in both educational and clinical settings. Then, education has to be faced with the requirement of enhancing students' attitudes regarding patient safety, which has been confirmed as a related factor of their practices in ensuring safety in caring activities [5]. It is important to assess the attitudes towards patient safety among nursing and midwifery students in order to understand the weaknesses and aspects that are needed for improvement. Therefore, the main objective of this study was to evaluate the attitude

of undergraduate nursing and midwifery students toward patient safety at Can Tho University of Medicine and Pharmacy and its related factors.

II. MATERIALS AND METHODS

2.1. Materials

The study sample was drawn from undergraduate nursing and midwifery students who were in the third or fourth year and willing to participate in the study. All undergraduate students who met the inclusion criteria were invited into the study. Finally, we received 139 completed responses from 175 invited students (79.4% response rate).

2.2. Methods

- **Study design:** This research was conducted as a descriptive cross-sectional survey to achieve the objectives.

- **Study instrument:** A two-part questionnaire was used for the data collection. The first part was about demographic information of the students, including age, gender, major, year of education, and patient safety training. The second part consisted of 12 questions examining students' attitudes regarding patient safety. They were on a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). The attitude questions consist of two categories: causes of errors and error management. The attitudes score ranged between 12 and 35, classified as negative, and 36 to 60, classified as positive attitudes [6]. The study instrument was translated following a back-translation procedure with 3 bilinguals. Then, it was evaluated by 5 experts in nursing education and research. In addition, by using a pilot test with 30 students who had similar characteristics to study participants, the Cronbach's Alpha value was 0.79. This result suggests an approved internal consistency and suitability for use by nursing and midwifery students.

Data were collected by self-reported questionnaires. They took about 15 to 20 minutes to answer.

- **Statistical Analysis:** The data were analyzed by using SPSS software version 26.0. The analysis included descriptive statistics such as frequencies, percentages, means, and standard deviations. The Chi-Square was used to analyze relationships between attitude levels with sociodemographic factors, including major, year of education, and patient safety training. Fisher's exact test was used to examine the association between students' attitudes towards safety and gender.

- **Ethical approval:** The study was approved by the Ethical Review Board before data gathering (approved decision No. 23.075.SV/PCT-HĐĐĐ at December 25th, 2023). The purpose of the study informed consent and the respondent criteria regarding privacy and confidentiality were attached and briefly explained before data gathering.

III. RESULTS

Table 1. Demographic characteristics of the student participants (n=139)

Variables	Frequency (n)	Percentage (%)
Age	Mean±S.D. = 21.78±0.99	
Gender		
Male	15	10.8
Female	124	89.2
Major		

Variables	Frequency (n)	Percentage (%)
Nursing	83	59.7
Midwifery	56	40.3
Year of education		
3 rd year	61	43.9
4 th year	78	56.1
Patient safety training		
Not yet	14	10.0
1-2 courses	96	69.1
≥3 courses	29	20.9

As shown in Table 1, the mean age of nursing and midwifery students was 21.78 ± 0.99 . 89.2% of the students were female. More than half had experience with 1 or 2 courses about patient safety.

3.1. Attitudes towards patient safety of undergraduate nursing and midwifery students

The study results showed undergraduate students' attitudes towards patient safety. They revealed that students had positive attitudes related to safety with the mean score of 39.1 ± 6.6 scores.

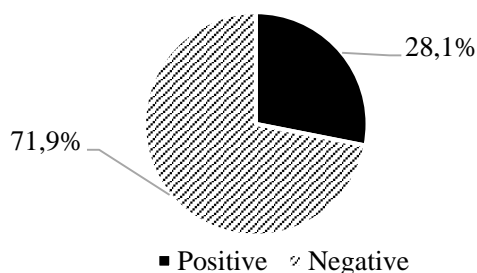


Chart 1. Classification of student participants' attitude towards patient safety

The chart 1 indicated that most of students had positive attitudes towards patient safety (71.9%).

Table 2. Attitudes towards patient safety among the undergraduate nursing and midwifery students (n=139)

Items	Positive attitudes	
	Frequency (n)	Percentage (%)
Making errors in medicine is inevitable	63	45.3
There is a gap between what nurses/midwifery known as "best care" and what is being provided on a day-to-day basis.	75	54.0
Competent nurses/midwifery do not make medical errors that lead to patient harm	30	21.6
The majority of errors occur as a result of circumstances beyond the control of nurses/midwifery*	28	20.1
If I saw a medical error, I would keep it to myself*	99	71.2
If there is no harm to a patient, there is no need to address an error*	89	64.0
Only nurses/midwifery can determine the causes of a medical error*	95	68.3
Reporting systems do little to reduce future error	25	18.0
An effective strategy after making an error is to work much harder and be more vigilant.	62	44.6

Items	Positive attitudes	
	Frequency (n)	Percentage (%)
Nurses/midwifery should not tolerate uncertainty in inpatient care.	68	48.9
The medical community makes it simple for providers to deal constructively with errors.	65	46.8
Nurses/midwifery routinely report medical errors.	77	55.4

*item reversed score

Based on the table 2, more than half of student participants agreed with the statement that they should report if a medical error presented. However, there were only 18.0% of students who agreed with the statement "Reporting systems do little to reduce future error".

3.2. Factors related to attitudes towards patient safety of undergraduate nursing and midwifery students

Table 3. The relationship between gender, major, year of education, patient safety training and students' attitudes towards patient safety (n=139).

Variables		Attitudes towards patient safety		p
		Negative (n, %)	Positive (n, %)	
Gender	Male	3 (20.0%)	12 (80.0%)	0.46*
	Female	36 (29.0%)	88 (71.0%)	
Major	Nursing	18 (21.7%)	65 (78.3%)	0.04
	Midwifery	21 (37.5%)	35 (62.5%)	
Year of education	3 rd year	27 (44.3%)	34 (55.7%)	0.01
	4 th year	12 (15.4%)	66 (84.6%)	
Patient safety training	Not yet	4 (28.6%)	10 (71.4%)	0.61
	1-2 courses	29 (30.2%)	67 (69.8%)	
	≥3 courses	6 (20.7%)	23 (79.3%)	

*using Fisher's exact test

There were significant relationships between major, year of education, and students' attitudes regarding safety ($p < 0.05$). Contrastly, gender and patient safety training were not associated with students' attitudes.

IV. DISCUSSION

4.1. Attitudes towards patient safety of undergraduate nursing and midwifery students

At present, there is an increased number of patients experiencing harm during hospitalization as a result of a range of errors and adverse events. The level of attitude of nurses towards patient safety has a great impact on the provision of safe patient care. In this study, the results indicated that 71.9% of undergraduate nursing and midwifery students

were found to have positive attitudes regarding patient safety. The finding of this study was comparable to other studies conducted in different parts of the world. It is consistent with the study conducted in Malaysia (76.3%) but higher than a study conducted in Ethiopia (56.1%) and China (55%) [7], [4], [8]. This difference might be due to differences in the mode of delivery of different educational and training programs and the developmental status of the country, like the presence of separate patient safety units in healthcare institutions where the undergraduate students practiced [8]. The difference might be due to variations in educational status, curriculum, and developmental status across the countries and methodological differences like variations in study design [9]. Besides, when we considered the items, our participants also highly agreed that there was a gap between what nurses/midwives know as "best care" and what is being provided on a day-to-day basis. It was consistent with the finding from a previous study [9].

4.2. Factors related to attitudes towards patient safety of undergraduate nursing and midwifery students

In this study, there were statistically significant relationships between major, year of education, and students' attitudes toward patient safety. The study findings were consistent with previous studies [8], [10]. Fourth-year student respondents had better attitudes as compared to students who were third-year, and participants who studied the nursing program presented a higher rate of positive attitudes regarding safety than those who studied midwifery. This finding is in line with studies conducted in South West Ethiopia [10]. It might be due to the truth that experience and safety training increase the chance of the trainees getting up-to-date information about patient safety [8]. In addition, previous studies also revealed that experiences and having updated information about patient safety during education increase nurses' attitudes and confidence in caring for their patients and make their work evidence-based, which increases patient safety [8]. On the other hand, midwifery students had lower scores of safety attitudes compared with nursing ones. The finding might be due to the variations in practical environment. The nursing students usually work in more complex healthcare environments where they might present more experiences with patient safety procedures.

In this study, attending a patient safety training course was not associated with respondents' attitudes towards safety. The finding was not consistent with previous studies and suggested the requirement of evaluating the effects and value of safety training courses [8], [9].

V. CONCLUSION

71.9% of students had positive attitudes. There was a statistically significant relationship between major, year of education, and students' attitudes toward patient safety. Therefore, to enhance attitudes of patient safety among undergraduate students, especially midwifery students, nursing educators should focus more on the improvement of patient safety education and the establishment of supportive study environments.

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