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Research Article

**INTEGRATING PATIENTS SAFETY'S CONCEPTS IN  
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*Modifications to the curriculum could be made if everyone has agreed that patient safety must be incorporated into the curriculum and has made a commitment to doing so. It will be necessary to first examine the present nursing curriculum created in order to determine what is currently there and where patient safety might be added without overburdening the curriculum. The formulation of patient safety learning objectives, teaching and learning methodologies, and formative and evaluation techniques for both clinical and classroom learning are important tasks. The WHO "Patient Safety Curriculum Guide: Multi-professional Edition" is one of the suggested curriculum guides for integration. The study of the material revealed that patient safety was not an explicit or distinct topic. Patient safety was not an explicit or distinct topic in the curricular documents, according to the content analysis. Four key topics that came out of the thematic analysis were given together with the faculty members' viewpoints. According to the survey results, students were typically more confidence in their ability to learn about the clinical components of patient safety than the sociocultural aspects, and they were more confident in their ability to learn in a classroom setting than in a clinical setting. According to the hospital survey, the personnel had a favorable opinion of the patient safety culture as a whole, although the mean score fell short of the worldwide standard. The results led to the development of solutions for the incorporation of patient safety ideas in nursing curriculum.*

**Keywords:** Educating classroom, clinical setting, the curriculum, nursing and, patient safety

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**INTRODUCTION:**

Designing educational strategies that give nurses the abilities they need to deliver safe care is a problem for nurses <sup>[1]</sup>. Patient safety is not presently taught to students as a separate subject; as a result, nursing students upon graduation do not have a thorough understanding of the phenomena of patient safety and the role nurses play in enhancing the safety of services provided. Practice errors appear to be accepted as a common occurrence in nursing practice due to a lack of information, and nurses appear to be losing awareness of how harmful mistakes may be. Furthermore, in those nursing programmes that include patient safety, there is little attention spent on the subject <sup>[2]</sup>. Healthcare safety is an important concern for both healthcare professionals and individual patients, despite the fact that research reveals that healthcare may not be as safe as it may be (World Health Organization [WHO] <sup>[3]</sup>). Patient safety is described by the WHO as "the reduction of needless damage linked with healthcare to an acceptable level." minimum. The aggregate conceptions of given existing knowledge, resources, and the setting in which care was provided, compared against the danger of non-treatment or alternative therapy, are referred to as an acceptable minimum (WHO) <sup>[4]</sup>. The WHO determined that the comprehension of these by the actors concerned would be skewed in the absence of a conceptual definition of patient safety and its associated words that is widely agreed. As a result, they started an effort to create a global categorization for patient safety. Specialists from the domains of patient safety, classification theory, health informatics, user activism, law, and medicine made up the writing committee that carried out this task. They created the definitions for 48 important patient safety concepts as well as a conceptual framework for the worldwide categorization of patient safety. For the sake of this study, the author decided to utilize the WHO standard. Due mostly to the complexity of health delivery systems, medical errors had developed into one of the most significant problems that face

healthcare systems worldwide. Medical technology has undergone a transformation with scientific innovations and technology developments that has improved healthcare and lifetime outcomes. However, this has also raised the general patient risk demonstrating that a genuine and important problem in contemporary healthcare is the threat to patient safety.

**RESEARCH DESIGN AND METHODS:**

To accomplish the ultimate aim of the research, that was to ascertain the level to which patient safety ideas are incorporated into nursing degree curriculum, both quantitative and qualitative research methods were used. The study was broken up into two distinct phases, each with a set of goals. Two distinct goals from the study's first phase were met via a qualitative methodology. It was determined which patient safety topics are included in the pre-registration curriculum and whether they are studied and evaluated at two schools of nursing by a content analysis of the curriculum papers.

The curriculum files and practice review materials were gathered during this phase of research, and they were then analyzed using a predesigned coding framework with better able from pertinent literature, the WHO "Patient Safety Curriculum Guide: Multi professional Edition," and the QSEN concepts. By conducting semi-structured interviews, the researcher further investigated the viewpoints of the staff nurses to patient safety education in the nursing degree curriculum. The goal was to determine the scope toward which patient safety concepts are addressed in the nursing curriculum as well as the obstacles and implementers to their integration into the curricula of their institutions. As in stage 2, the researchers applied a quantitative technique to evaluate the nursing students' perceived levels of patient safety knowledge and competences. 180 nurses at two nursing schools took the Health Professional Education in Patient Safety Survey (H-PEPSS).

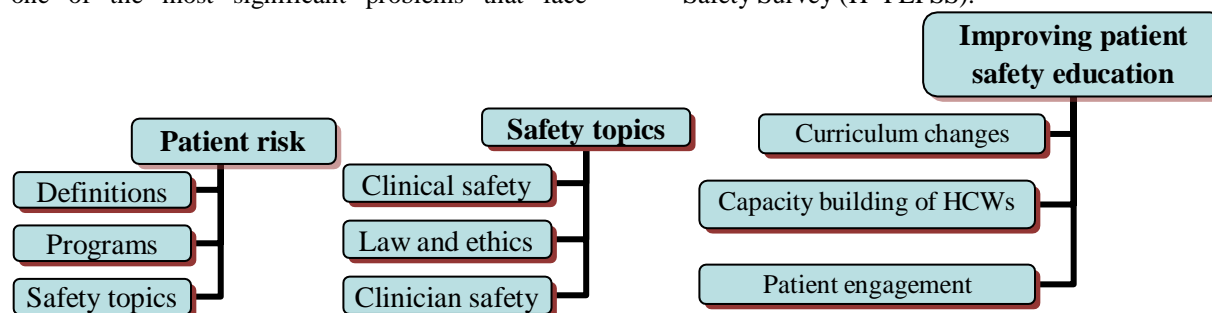


Fig.1, Classified Patient risk, Safety topics and Strategies of Improving patient safety education n (WHO)<sup>[5]</sup>.

## RESULTS & DISCUSSIONS

### Demographic characteristics

Gender, college, and year of study were the examples of variables, which are summarized in Table 1. The respondents' average age was 22 years, with a range of age between 19 and 30. From the 180; Male participants made up 162 (90%) whereas female respondents made up 18 (10%). There were two nursing schools represented among the respondents, with 90 (50%) coming from School A and 90 (50%) from School B. In addition, 85 (47.22%) were in their third year of study, followed by 52 (28.89%) and 43 (23.89%) students in their fourth and second academic years. The demographics of the students by academic year were also examined. A Kruskal-Wallis test was used to examine the correlation between age and year of study, and a chi square test for freedom was used to determine whether there was a statistically significant link between the demographic characteristics and the year of study. Statistical significance was set at  $p < 0.05$  for both tests (Table 1). According to Table 1, there was no discernible gender difference between the academic years ( $p > 0.05$ ).

### Clinical safety

The H-Clinical PEPSS's safety sub - scale featured four items that examined the clinical elements of safety: safe and appropriate practice generally, hand hygiene, infection control, and safe pharmaceutical use. But since tool's primary focus was on the latter, the designers of the tool claim that this subscale was included to the H-PEPSS to aid respondents in differentiating between the clinical and sociocultural components of patient safety. The frequency

distribution of the participants' stated levels of classroom learning confidence for each item in the clinical safety area is shown in Table 2.

Responses of "Strongly accept" or "Accept" showed that nursing students were confident in what they had learned about the topics in class.

The majority of the participants, as seen in the table, expressed confidence in what they had learned regarding clinical safety in the classroom. Out of the 180 valid responses in this section, 139 (77.22%) participants said they felt confident in what they had learned in the classroom about safe clinical practice in general; 144 (80.0%) said the same about hand hygiene; 148 (82.22%) said the same about infection control; and 141 (78.33%) said the same about Safe use of medications. The pupils' stated average score for classroom setting trust was 4.30. (SD 0.80). Respondents were asked to rate how confident they felt with studying about patient safety in the clinical context from a clinical safety perspective (Table 2). The majority of respondents (78.33%), (75.00%), (74.44%), and (78.89%) expressed confidence in their ability to acquire safe clinical practice in general, hand hygiene, infection control, and safe medication procedures in the clinical context. The average confidence rating for understanding clinical safety was 3.96(0.80) SD. The findings in Tables 2 show that the respondents had confidence in both their classroom and clinical experiences. This is also apparent. Student nurses and other healthcare workers have been the subjects of research in the past [6-8].

**Table 1: Characteristics of the informants' demographics (n = 180)**

		No.	%
Sexuality	male	162	90.00
	female	18	10.00
Classroom	A	90	50.00
	B	90	50.00
Academic year	second	43	23.89
	third	85	47.22
	fourth	52	28.89

**Table 2. Level of assurance in acquiring clinical safety knowledge in a clinical context**

		Accept		Reject		Neuter	
		No.	%	No.	%	No.	%
Classroom setting	General safe clinical practice	139	77.22	16	8.89	25	13.89
	Controlling infection	148	82.22	14	7.78	18	10.00
	Perform hand hygiene	144	80.00	12	6.67	24	13.50
	Safe use of medications	141	78.33	9	5.00	30	16.67
	Normal Rating (SD)	4.3 (0.80)					
Clinical setting	General safe clinical practice	141	78.33	11	6.11	28	15.56
	Controlling infection	135	75.00	13	7.22	32	17.78
	Perform hand hygiene	134	74.44	18	10.00	28	15.56
	Safe use of medications	142	78.89	15	8.33	23	12.78
	Normal Rating (SD)	3.96 (0.80)					

**Culture of patient safety:**

The scale includes examined respondents' beliefs regarding the value of a questioning mindset, the necessity of having a supportive environment, the nature of systems, and the influence of classroom and clinical learning about the complexity of healthcare. The outcomes in the classroom and clinical settings are displayed in Tables 3. The majority of the students expressed trust in what they had learned regarding the safety culture in the classroom, as seen in Table 3. One hundred and fifteen respondents (63.89%) said they were confident in their ability to learn about the value of a supportive atmosphere, 122 (67.78%) the necessity of keeping a questioning mindset, 130 (72.22%) the complexities of healthcare, and 112 (62.22%) the nature of systems. In the classroom, this subscale's average score was 3.78 (0.79) SD.

With 65.1% of the students stating that they were comfortable as to what they learned about the importance of exhibiting a questioning attitude,

which was less than in the classroom, the frequency distribution of those who agreed on the subscale's items was likewise lower. With a mean score of 3.58, respondents' degree of trust in their ability to learn about a culture of safety in clinical settings was considerably lower than it was in a classroom (SD 0.90).

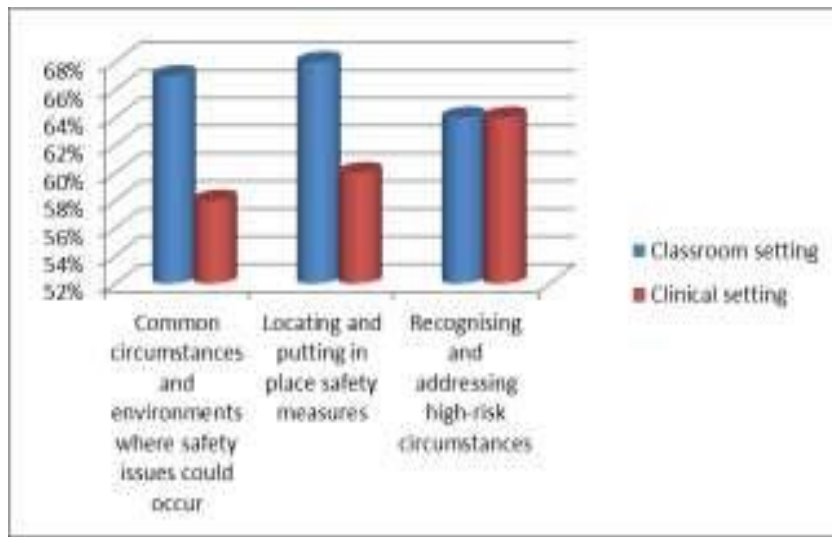
The disparities in learner confidence found in this study are comparable to those reported by Saudi nursing students in a study; that self-reported confidence mean score on the culture of safety subscale in that research was 4.24 in the classroom and 3.72 in the clinical environment [9]. Managing safety risks: Educating about recognizing common scenarios and environments where safety issues may develop, finding and putting safety solutions into practice, as well as being able to predict and deal with these issues, were all necessary components of learning about managing safety risks. Handle risky circumstances.

**Table 3. Assurance level in developing a safety-conscious culture in a healthcare context**

		Accept		Reject		Neuter	
		No.	%	No.	%	No.	%
<b>Classroom setting</b>	Healthcare's complication	115	63.89	25	13.89	38	21.11
	the value of asking questions attitude	122	67.78	21	11.67	35	19.44
	Effects of a positive environment	130	72.22	18	10.00	31	17.22
	System characteristics	112	62.22	23	12.78	45	25.00
	Normal Rating (SD)	3.78 (0.79)					
<b>Clinical setting</b>	Healthcare's complication	108	60.00	32	17.78	41	22.78
	the value of asking questions attitude	115	63.89	30	16.67	33	18.33
	Effects of a positive environment	111	61.67	28	15.56	40	22.22
	System characteristics	86	74.78	34	18.89	60	33.33
	Normal Rating (SD)	3.58 (0.90)					

According to the findings, nursing students felt more at ease learning the items on this subscale in a classroom environment than in a clinical situation. The outcomes of this constructs in both the clinical and classroom settings were comparable to those from earlier research. The identical instrument was given to Saudi Arabian nursing students<sup>[9]</sup>. They reported mean scores of 3.80 for the classroom environment and 3.69 for the clinical context for the Managing Safety Risks subscale. They also discovered that "locating and putting in place safety measures" was the subscale item where most students reported feeling confidence in what they had learned, with a proportion of those in agreement being 67.22% (N=121) for the classroom environment and 59.00% (N=106) for the clinical context (Fig.2).

Differences in patient safety

**Fig2. Managing safety risks: Classroom vs Clinical setting**

The t - test used to compare the mean scores on the nursing students' self-reported competency in learning in both academic and clinical contexts. Statistical significance was defined as a p value 0.05. Additionally, a Cohen's d effect size was calculated for each subscale to estimate how different the two environments were from one another. The researcher All subscales' total value decreased statistically significantly from the classroom context to the clinical setting, with the exception of the Clinical safety sub - scale, according to the results of the paired t-tests for the subscales (p value 0.08). This means that the students felt more secure in their knowledge gained in the classroom than in clinical settings for all of those subscales, with the exception of the Clinical Safety subscale. Indicating that learning in the classroom environment raised confidence in these subscales more than learning in the clinical context, the Cohen's d for those subscales with a significant difference showed that there was a moderate to large magnitude impact ranging from 0.5 to 0.8. Similar investigations have produced findings that are identical to those in this research; reported that the subscales Clinical safety and the subscales of communicating effectively, both in the clinical context and the classroom setting, were the learning followed Cohen's advice on how to interpret the

effect size, according to which  $d = 0.2$  is a "small" effect size,  $d = 0.5$  is a "medium" effect size, and  $d = 0.8$  is a "large" effect size<sup>[10]</sup>. The comparison of the mean scores between the two settings, the t-values, and the effect sizes are displayed in Table 4 areas in which the students felt the most secure<sup>[11,12]</sup>. A previous research that also found better student trust in clinical safety corroborated this<sup>[13]</sup>. They continued to hypothesize that this was the case so the clinical components of patient safety (hand hygiene, infection control, and medication safety) are often reinforced in pre-registration nursing curricula more so than the cultural aspects of patient safety. These results are also in line with those obtained through faculty interviews and a review of the curriculum documents, which revealed that while the clinical components of the curriculum were adequately integrated, the sociocultural components of patient safety were conspicuously absent. Students have a tougher time learning in a clinical setting than they would in a classroom since it is more intricate and has more underlying factors that might affect learning<sup>[14]</sup>. Additionally, because they are balancing their various obligations, the preceptors could not spend enough time instructing the students in the clinical context<sup>[15]</sup>.

**Table 4. Differences on self-reported patient safety competence in different learning settings**

learning settings	Clinical safety		Culture of safety	
	Classroom	Clinical	Classroom	Clinical
Mean	4.10	3.94	3.78	3.57
SD	0.79	0.79	0.79	0.90
Mean diff.	0.09		0.22	
t- value	1.94		4.32	
p -Value	0.08		0.00*	
D	0.10		0.25	

\*p&lt;0.05

**Easily raising concerns regarding Patient safety:**

The three elements in this section concentrated on speaking safety behavior. Notwithstanding their expertise of patient safety, the student spoke about patient safety in the clinical context. Table 5 is a summary of this section's findings. 150 students (83.33%) believed that the talk of undesirable effects in the clinical settings was helpful. Instead of focusing primarily on the person, events tended to be system-related. Ninety-four Students who agreed (52.22%) that disclosing a patient safety issue would have unfavorable effects while 100 (55.56%) of the pupils experienced consequences reported feeling comfortable approaching someone they saw indulging in hazardous medical practice. The culture of the clinical setting, which is a hidden curriculum to which they are exposed. A patient safety culture is one that views mistakes as chance. The reporting and raising of any concerns regarding patient safety by both staff and students is a crucial component in creating a culture of safety. The results of this study

are in line with research demonstrating that underreporting and failing to voice concerns about mistakes by both students and staff is a widespread problem in many organizations [16]. A study of the literature was done by the Council of The results provided evidence of the patient safety culture in clinical settings, supporting the findings of the subscale Culture of safety of the H-PEPSS. This research implies that students' learning about patient safety is influenced by Deans of Health [17] to help nursing, midwifery, and allied health professional students in the UK who had 181 patient safety concerns. The evidence revealed three key themes: students need to feel empowered and supported to raise concerns about safety issues; there are some patient safety issues that students perceive as more dangerous, leading them to speak up; and students may choose not to report an incident out of concern that it will affect the results of the clinical assessment.

**Table 5. Easily raising concerns regarding patient safety**

	Accept		Reject		Neuter	
	No.	%	No.	%	No.	%
Speaking about adverse events focuses mainly on system-related issues	150	83.33	30	16.67	56	31.11
a patient safety problem will result in negative results for me	94	52.22	43	23.89	43	23.89
I feel comfortable approaching anyone I notice exhibiting risky treatment practices.	100	55.56	36	20.00	44	24.44
Normal Rating (SD)	3.4(1.10)					



### Strategies for integration of patient safety

In in order to create strategies that will improve the integration of patient safety definitions in the nursing curriculum and serve as a guide for nursing schools, the purpose of this research study was to examine the degree to which patient safety concepts are integrated. The results demonstrate how many stakeholders and elements that have an impact on nursing education and the nation's healthcare system interact in order to successfully integrate patient safety into the curriculum. The researcher suggests the following strategy elements for the integration of patient safety in nursing education based on these concepts:

#### -Sensitivity of governance

Rising internet service has made information concerning dangerous healthcare and the public's right to safety more accessible. This calls for the leaders of the health industry to reorient their priorities to include the security of the public's healthcare. The national and local governments, the Ministry of Health, the organizations that accredit and license healthcare professionals, the heads of the private sector, the heads of educational institutions, and other administrative leaders who play a part in the development of policy in the country are the important players in this situation. Sensitizing the leadership is crucial because it wants to make sure that students who have completed training with a patient safety-based curriculum won't face opposition when they enter the job. The two main steps in this strategy are patient safety education based on the findings of a scenario analysis of patient safety in the healthcare system and leadership engagement on the need for patient safety improvement. Stakeholder forums, conferences, and round-table talks can be used for this. To further educate leaders on what patient safety is and includes, it is crucial undertaking fundamental training on the subject <sup>[18]</sup>.

#### -Changes in policy

A change in the nation's healthcare and educational policy is necessary for the second option. Based on years of studies from all across the world, the healthcare system unintentionally affects the individuals it is designed to care for. Therefore, it is essential that the government create a patient safety agenda utilizing a bottom-up strategy for sustainability. This may be done by including patient safety into the national health policy and strategic framework. In doing so, this will establish a stepping stone for changes to be made in the healthcare industry in order to achieve a secure healthcare system. The WHO's <sup>[19]</sup> guidance for building national patient safety policies and strategic plans can

be used by the government to include patient safety into national policy.

- **Development of core** competencies This is crucial to ensuring that the institutions can assess education in a qualitative and quantitative way. There are several fundamental skills for patient safety from many nations, Players from the Ministry of Health, accreditation and license organizations, educational institutions, and healthcare systems must be included in order to achieve this. Once the basic competences are identified, they should be included into the standards for nursing education programs, as well as the accreditation and licensing criteria for nurses.

- **Building faculty capacity** The fourth method is to increase the faculty's ability at nursing schools and in clinical settings in order to win their support for incorporating patient safety within the nursing curriculum. The research's findings demonstrate that because patient safety science is a relatively young topic, the faculty lacks understanding in this area. Building capacity may be accomplished by holding faculty-only seminars and workshops and raising awareness of patient safety problems across the nation.

#### -Lecture changes

Changes to the curriculum can be made if everyone has agreed that patient safety must be incorporated into the curriculum and has made a commitment to doing so. It will be necessary to first examine the present nursing curriculum created in order to determine what is currently there and where patient safety might be added without overburdening the curriculum. The formulation of patient safety learning objectives, teaching and learning methodologies, and formative and evaluation techniques for both clinical and classroom learning are important tasks. The WHO "Patient Safety Curriculum Guide: Multi-professional Edition" is one of the suggested curriculum guides for integration.

#### -Assessment of the curriculum

An assessment strategy is developed and put into action to assess the policy, the programmed, and the learning impact once an agreement on integration has been reached and it has been implemented in the nursing schools. The stakeholders, the aim of the assessment, and the format of the evaluation to be used must all be specified in detail in the evaluation plan, according to the WHO <sup>[3]</sup>. After the assessment is completed, the schools should share the findings and implement the required changes.



**-Interpretational learning**

The necessity for inter professional education was a major problem that came out of the research. This gives the student the chance to learn from and collaborate with other healthcare professionals, boosting cooperation and collaboration in practice and enhancing patient safety. The many 242 frameworks that have been presented, like as the WHO Framework for Action on Inter professional Education & Collaborative Practice, can be used by nursing schools to embrace IPE<sup>[4]</sup>.-Career guidance The importance of mentoring cannot be overstated in any educational programs. The creation of organized mentorship programs for students at nursing schools, the institutional and medical environments. Giving the kid the opportunity to apply is part of mentoring. Theory to practice, fostering learning through evaluation, assessment, and feedback helping people reflect on practice, performance, and experience. The organized Mentorship programs have to be very specific about: a set of guidelines for good mentoring practice, objectives of the mentoring, roles and duties of mentors and mentees, mentorship credentials, the mentors' abilities and results, Mentors' ongoing professional growth and Setting aside time for mentoring activities.

**-Patient security in medical facilities**

Ensuring that the students can apply their understanding of patient safety theory to the level of patient safety in the environments where they get clinical education is crucial to practice. Therefore, it is crucial that the nursing faculty choose clinical sites with excellent patient safety standards and cultures when choosing the ones for clinical placements. They should evaluate the staffing levels and resources available at those locations, check that the patient safety culture encourages learning from mistakes, that staff members have a positive attitude toward patient safety, and that the clinical setting has a dynamic patient population that exposes students to the complexity present in real-world situations.

**-Collaborations between academic practices**

Partnerships between academia and industry are essential for the success of patient safety education. These are deliberate, formal partnerships that are built on respect, common knowledge, and shared objectives. The leadership in both sectors must be involved and committed for these connections to succeed, and this commitment should be cascaded to all relevant levels. These collaborations result in higher levels of staff and student happiness, more productive research, and the delivery of high-quality, secure healthcare<sup>[20]</sup>. According to the AACN academic practice partnership toolbox, nursing

schools and practice settings can select from a variety of cooperation modes<sup>[21]</sup>.

**CONCLUSION:**

In order to give the reader a comprehensive grasp of the degree to which patient safety ideas are incorporated in the Nursing programs and to comprehend the factors that impact the patient safety education and learning. The goal of the degree nursing programs is to prepare safe nurses, however patient safety is not officially included in the curriculum; rather, it is implied through a series of comments and inferences made throughout the programs.

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