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Safety of undergraduate nursing students during their clinical education: A review of the literature

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ABSTRACT

Background: Areas of clinical training such as hospitals and community health centers are difficult to control and considered sources of risks that threaten the safety of the students which affects their success and fulfilling the goals of nursing education and may have long-term effects on their quality of life.

Aim: This review aimed to critically review the scientific evidence related to students' risk perception regarding the effect of clinical education on their safety.

Methods: A systematic search was carried out for quantitative studies published between January 2010 and April 2023 to investigate undergraduate nursing students' perceptions regarding the effect of clinical education on their safety. Six studies were identified to meet the aim of this review based on the titles and abstracts.

Results: The total score of the nursing students' occupational risk perception scale was high in 3 studies. The highest nursing students' risk perception scale was psychological and ergonomic, followed by physical and clinical environment risks. Several factors were identified to affect students' perception of risks during their clinical education: age, gender, students' level of anxiety, the clinical environment, and the level of students' knowledge about safety in the clinical environment.

Conclusion: The findings of this review show worthy data for clinical educators regarding the students' perception of the effect of clinical training on their personal safety. Moreover, this review highlights certain points; there are inadequate studies investigating the concepts of risks and safety from undergraduate nursing students' perceptions. Future studies should pay attention to the perceptions of students with different levels of study and educational backgrounds and in different cultures and countries.

Keywords: *Clinical Education, Clinical Training, Literature Review, Safety, Risks, Undergraduate Nursing Students*

1. INTRODUCTION

Nursing education aims to prepare students to achieve their future roles as professional nurses. Clinical learning is an essential part of nursing education which helps in the implementation of theoretical and practical training in nursing education (Warne et al., 2010). Training in the clinical area helps nursing students develop the main core nursing competencies and apply the skills of critical thinking, problem-solving, time management, decision-making, and effective communication. (Azizi-Fini et al.,2015). In the clinical training area, undergraduate nursing students -as professional nurses- are surrounded by several sources of environmental stressors which are mainly; patients their complex conditions, patients' families, health team members/professionals/ instructors, supervisors, medical equipment & technology, and the nature of the environment itself,

in addition to being students under observation and mentoring from instructors. In other way, students as professional nurses are exposed to the same risks, adding to these, they are still in the learning period, and therefore, they do not have all the necessary knowledge and skills to manage the different situations effectively (Amare et al., 2021).

Studies revealed that undergraduate nursing students face many risks including chemical, biological, physical, psychological, and ergonomic risks during their clinical training. (Al Wutayd et al., 2019). In the study of Elewa & El Banan, (2016), nursing students perceived the physical hazards as the highest risk followed by chemical; and biological hazards as the lowest risk. Nearly seventy percent of students in Shivalli (2014) study, considered HIV exposure as a high risk. The students' risk perception was at a moderate level as reported by Pavani et al., (2015) study. Students rated their psychological hazards are the highest in Eljedi (2015) study. They expressed their highest level of stress because of the provision of patient care which may be accompanied with exposure to body fluids spilled on the skin and mucosa, sharp injuries; injuries due to direct exposure to chemicals, musculoskeletal disorders in the lower back, neck, and shoulders, fear from dealing with patients with infections, or critical conditions as severe burn injuries or life-threatening problems. (Huang, Yi, Tang, and An (2016).

To achieve the objectives of nursing education, students should feel safe during their education and learning journey. Areas of clinical training such as hospitals and community health centers are difficult to control and considered sources of risks that threaten the safety of the students which affects their success and fulfilling the goals of nursing education and may have long-term effects on their quality of life (Alzayyat et al., 2014). Identifying the risks facing nursing students during their clinical training from their point of view is an important step to prevent and/or decrease the risks of clinical training to maintain their safety and empower them to achieve their future roles as professional nurses.

Aim and objectives: This study aimed to critically review the scientific evidence related to students' risk perception regarding the effect of clinical education on their safety. To achieve this broad aim, two objectives were formulated: (i) identify undergraduate nursing students' perception of risks that threaten their safety during the period of clinical training, and (ii) determine factors affecting their perception of risks during this period.

Method: Search strategy: A systematic search was carried out for quantitative studies published between January 2010 and May 2022 reporting undergraduate nursing students' perceptions regarding the effect of clinical education on their safety. The databases searched included PubMed, CINAHL Plus, ProQuest, Ovid, the search engine Google Scholar, and Medline. Keywords included clinical learning environment, clinical training, clinical education, clinical placement areas, clinical experience, clinical practice, practical training, Occupational Health and Safety occupational hazards & undergraduate nursing students, risk & nursing students, occupational risk, perception of nursing students, occupational injuries, occupational accident & risk perception, risk perception & undergraduate nursing students, nursing students' practices, risk perception & nursing students, preregistration nursing students.

Eligibility criteria of this review: Articles were included in the review according to these inclusion criteria: published between 2000 and 2023; original quantitative articles, reported in English; included a focus on risk perception among nursing students and addressing clinical education. Studies addressing risk perception among nursing students in special circumstances such as outbreaks or pandemics, specific risks such as HIV, blood-borne disease, or respiratory infections exposure, studies concentrating on stress and certain courses or management such as psychiatry, stress reduction interventions for nursing students, clinical placement in areas other than hospitals such as nursing homes, students' knowledge about occupational hazards, and qualitative studies were excluded because they were beyond the scope of this review. To determine the quality and rigor of the findings, all studies were subjected to a standardized method of critical appraisal, depending upon their design.

2. RESULTS

Fifty studies were identified (out of 295) to meet the aim of this review based on the titles and abstracts. After the complete reading and analysis of studies, 6 studies only met the eligible criteria, and 44 studies were discarded for many reasons: the participants include registered nurses or medical students, studies assess students' knowledge and/or attitude, qualitative studies, interventional studies that measure pre and post-training on occupational safety, and studies that measure the rate of exposure or prevalence of occupational injuries, not students' perception.

As Table 1 reflects, all studies used a descriptive cross-sectional design. Four studies were carried out in Turkey one (Elewa and Banan, 2016) in Egypt, and the other (Amare et al., 2021) in Ethiopia. Türen et al., 2022 study was a multi-center study that was conducted in 6 universities and Amare et al 2021 study was conducted on an institutional level. The size of the sample ranged from 104 to 1719 students, undergraduate students were selected in all levels (first, second, third, fourth, and internship), except in Elewa and Banan, 2016 study, students were in the internship level. All studies used questionnaires for data collection which were tested for validity and reliability using Cronbach's alpha. However, some studies used scales to measure the level of perception of undergraduate students (Aksoy et al 2022, Türen et al., 2022, and Elewa and Banan, 2016).

Undergraduate nursing students' perception regarding risks and/ or hazards that threaten their safety during the period of clinical education

The total score of the nursing students' occupational risk perception scale was high in 3 studies [Aksoy et al., 2022 and Türen et al., 2022 studies]. The highest nursing students' occupational risk perception scales were related to the psychological and ergonomic risks subscale, followed by the institution-related risks subscale, and physical environment risks subscale in Aksoy et al., 2022, Amare et al., 2021, and Türen et al., 2022 studies. While, in Elewa and Banan, 2016 study, students ranked the risks/hazards in the clinical training as they perceived, from the highest to the lowest level as the following: physical, chemical, psychological, social, accidental, and biological. Similarly, Eyi, S and Eyi, I. 2020 study reported students' perception of occupational risks regarding physical, psychological, and chemical risks. The study of Ören et al 2019, added verbal violence as a form of hazard that students faced in clinical training. Ören et al 2019 explained the physiological effects of hazards on students' health (insomnia, low back pain, shoulder or arm pain).

Factors affecting undergraduate nursing students' risk perception during the period of clinical education.

Several factors were identified in Table (2): The demographic characteristics of students included age, which was mentioned in two studies; Aksoy et al., and Türen, et al., 2022], and Gender [mentioned in two studies; Aksoy et al., and Türen, et al., 2022]. Personality traits which are the level of anxiety [mentioned in three studies; Aksoy et al., 2022, Ören et al., 2019 and Eyi, S & Eyi, I. 2020]. Factors related to the clinical environment included student's perception of the clinical learning environment and the level of students' knowledge about safety in the clinical environment as in Aksoy et al., 2022, receiving educational courses or training on occupational health safety as in Türen, et al., 2022, and Elewa and Banan 2016, and lack of regular medical examination for students, insufficient adherence to policies and procedures for occupational safety, and ineffective supervision during clinical training which were mentioned only by Elewa and Banan 2016.

Table 2: Factors affecting undergraduate nursing students' risk perception during the period of clinical education

Factors		Aksoy et al., 2022	Türen, et al., 2022	Eyi, S & Eyi, I. 2020.	Elewa and Banan	Ören et al 2019 Turkey.
Demographic characteristics	Age	√	√			
	Gender	√	√			
Personality traits	Anxiety	√		√		√
Clinical environment	Level of knowledge about protection from injuries.	√				
	Students' perception regarding Clinical learning environment	√				
	Training on occupational health safety		√			
	Educational program		√		√	
	Regular medical examination				√	
	Policies and procedures for occupational safety				√	
	Supervision				√	

3. DISCUSSION

This review showed that most of the studies were performed in Turkey. Students' perceptions regarding risks and hazards they encounter in their clinical training as mentioned in the studies were nearly the same, this may be because these studies were conducted in the same country with the same culture and students were experiencing similar clinical teaching experiences and exposed to similar environmental factors (Savcı et al., 2018). More studies are needed to investigate

undergraduate students' perception regarding risks that threaten their safety during the period of clinical training and to address the influence of other factors on students' perception such as cultural and economic factors. All studies were descriptive and applied quantitative measures (self-administered questionnaires) which may result in objective findings. However, the self-administered questionnaires even if they are well structured and tested for validity and reliability, may hinder the in-depth understanding of the students' perception regarding risks. Therefore, future studies should pay more attention to using qualitative approaches for investigating students' risk perception during their clinical training period. All the studies were cross-sectional in one setting, and only two studies utilized institutional and multi-center approaches. This showed that the dynamic nature of risks related to clinical education and its effects on students' safety has not been investigated adequately in the current literature. Further research should measure this changeable nature of risks by employing prospective, and longitudinal designs.

The generalizability of the literature results may be limited because sample sizes in the studies were so varied, the range was from 108 to 1707 nursing students. Nursing researchers should use a sample size that can achieve higher levels of power (Faul et al. 2009). In addition, studies included all levels of undergraduate students except in Elewa and Banan, 2016 which included only interns. This makes a full understanding of students' perception regarding the effect of clinical education ((D'Souza et al., 2013) on their safety difficult because students' perception may be affected by their level of study, the period of clinical training, the previous exposure to risks, studying specific courses or training in specific clinical training areas such as the emergency, burn wards, or intensive care units.

Also, with time and increasing students understanding, their perception of risks and safety may be affected. Thus, it is highly recommended to compare students' perceptions regarding the effect of clinical education on their safety among students with different levels of education or experience. It will help design specific safety training programs according to students' levels of study.

It is difficult to compare findings among studies in this review because of using different questionnaires. In addition, the nature of the clinical environment where clinical training was conducted, was explained and measured only in one study (Aksoy et al., 2022). The clinical environment has its effects on students' perception (Masilaca et al., 2018; Pitkänen et al., 2018, Savcı et al., 2018)) which not only includes the physical buildings but also all equipment, facilities, patients, and their relatives, health team members, instructors & other supportive personnel, policies and procedures. Future research should pay more attention to the clinical environment with its different characteristics and its effects on the perception of students' safety. The majority of studies agreed that the psychological risks were the highest perceived risks by the students which was similar to Eljedi, A., (2015). However, in the study of Morsy and Sabra (2016), students ranked the physical risks as the highest hazards followed by the psychological and social risks. Similarly, students in Abidoye et al., (2016) study perceived the physical risks as the highest followed by the chemical and biological risks. Regarding the factors affecting undergraduate nursing students' risk perception; half of the studies reported age as an important factor affecting students' risk perception, which is in agreement with the findings of Aliyu and Auwal (2015) study who found significant association between risk perception and age. However, Elewa and Banan 2016 did not find any significant relation between risk perception and age.

Moreover, other factors such as gender, students' anxiety level, lack of educational courses and training programs about safety during the clinical training period, irregular medical examination for students, absence or ineffective safety policies and procedures and ineffective supervision were reported as factors affecting undergraduate nursing students' risk perception during the period of clinical training. In agreement with these findings, the results of Almurr (2013) reported the unavailability of safety policies and procedures in the clinical training areas, a lack of medical treatment, and reported absence of educational courses and training programs about safety during the clinical training period.

Implications for clinical education and training

The clinical training period is a stressful experience for students because they face several risks which are psychological, physical, social, chemical, and biological risks. Students should be well prepared to handle the risks during their clinical training period (Karabacak et al., 2012 Shaban et al., (2012). Therefore, specific safety training programs should be designed and implemented according to students' levels of study and the context of the clinical learning environment.

Implications for research

Further studies are needed using different approaches to examine the risks and hazards facing nursing students during their clinical training such as using qualitative approaches for investigating students' risk perception during their clinical training period, measuring the changeable nature of risks by employing prospective, and longitudinal designs, compare students' perception regarding the effect of clinical education on their safety in different students' levels and investigate the effect of clinical environment with its different characteristics on students 'perception of risk and safety.

Limitations of the review

The following limitations were identified in this review. Most of the studies were conducted in one country which resulted in nearly similar findings. There are very limited studies assessing students' risk perception during the clinical training period which made the review and discussion of the results challenging. Tools used to collect data in the included studies are

heterogeneous which made generalizing the results difficult.

4. CONCLUSION

This review discussed undergraduate nursing students' risk perception during the period of clinical training. The findings of this review show worthy data for clinical educators in the students' perception of the effect of clinical training on their safety, it helps to synthesize evidence regarding students' perception of risks and factors affecting their risk perception during the period of clinical training. Moreover, this review highlights certain points; there are inadequate studies examining the concepts of risks and safety from students' perceptions with different levels of study and educational backgrounds and in different cultures and countries. In addition, the dynamic nature of risks related to clinical education and its effects on students' safety have not been investigated adequately in the literature.

Table (1) Undergraduate nursing students' risk perception during the period of clinical education

Authors and settings	Students level & N	Design	Data collection instrument	Undergraduate nursing students' perception regarding risks and/ or hazards and its related factors	Strengths and limitations
Aksoy et al., (2022) Turkey	562 students All levels (2nd, 3rd and 4th years)	Descriptive, cross-sectional	"Occupational risk perception scale in nursing students" (Cronbach's alpha, 0.85.) and the "Clinical Learning Environment Scale" (Cronbach's alpha value was 0.71)	The total score of the Risk/ hazards Perception in Nursing Students was high (71.36±8.17) The highest nursing students' risk perception scale was psychological and ergonomic risks subscale (31.63±3.84), followed by person and institution-related risks subscale (21.24±2.90), and physical environment risks subscale (18.48±3.61).	Strength: results are much in accordance with recent relevant studies. Limitation: Small sample size
Türen, et al., 2022 Six universities in Turkey	728 students All levels	Descriptive, cross-sectional, and multi-center	"Occupational Risk Perception Scale". (Cronbach alpha value 0.857)	The mean total perception score of t was high (71.8±11.27). Mean psychological and ergonomic risks perception score was 31.6±5.16, personal and institution-based risks perception score was 21.3±3.65 and physical environment related risks perception score was 18.8±3.82.	Limitation: Self-administered questionnaire prone to bias
Eyi, S & Eyi, I. 2020. Turkey.	140 students All levels	Descriptive, cross-sectional	A questionnaire about occupational health safety. (validated by experts)	Students had Risk perception regarding physical, psychological, and chemical risks	Limitation: sample represents a single center; small sample size

Elewa and Banan 2016 *Egypt.*	(108). nurses ' intern	Descriptive, cross-sectional	Three tools were used 1- Occupational hazards assessment questionnaires (Cronbach's coefficient alpha 0.97) 2-. Contributing factors questionnaire (Cronbach's coefficient alpha 0.85) 3- Protective equipment assessment questionnaire. (Cronbach's coefficient alpha 0.95)	Nursing interns had ranked the risks/hazards from the highest to the lowest level as the following: physical (65.35%), chemical (56.40%), psychological (54.03%), social (53.62%), accidental (47.56%), and biological (45.73%)	Limitation: sample represents a single center; small sample size
Amare et al., 2021 Ethiopia	151 students All levels	Institutional-based cross-sectional	self-administered questionnaire	Students' risk perception was identified as the following: psychosocial hazards140 (92.7%), mechanical hazards128 (84.8%), biological hazards 100 (66.2%), and physical 100 (66.2%),	Strength: structured, and pre-tested tool limitations: bias due to being self-reporting and the nature of the study design.
Ören et al., 2019 Turkey.	1719 students All levels	Descriptive, cross-sectional	Occupational Health Problems in Clinical Environment Questionnaire, (Cronbach alpha coefficient 0.80.) & the State-Trait Anxiety Scale. (Cronbach's coefficient alpha 0.90)	Interns: Total score for perception was 2.15 ±0.71. The scores related to specific hazards: verbal violence (2.13 ± 1.17), and needle stick injury (2.10 ± 1.13). the scores of students' health problems insomnia (3.57 ± 1.22), low back pain (2.84 ± 1.29), shoulder or arm pain (2.68 ± 1.29).	Limitations: Small sample size Self-administered questionnaire

REFERENCES

[1] Abidoye , A., Abidoye , A., Adebisi,T., Aluko, O., Ewegbemi, M., and Popoola, B., (2016). Knowledge, attitudes and perceptions of occupational hazards and safety practices in Nigerian healthcare workers. BMC Research Notes.9(1), 71.

[2] Aksoy, B. (2016). Occupational risk perception in nursing students: A scale development study. Unpublished master's thesis Edirne: Trakya University, Turkey.

[3] Aliyu, S., and Auwal, I. (2015). Occupational Risks And Hazards Exposure, Knowledge Of Occupational Health And Safety Practice And Safety Measures Among Workers Of A Nigerian Bottling Company Plc, Maiduguri, Borno State. Journal of Harmonized Research In Medical & Health Sci. 2(3), 2015, 92-101.

[4] Amare TG, Tesfaye TT, Girmay B, Gebreagziabher TT. (2021). Exposure to Occupational Health Hazards

Among Nursing and Midwifery Students During Clinical Practice. Risk Manag Healthc Policy. 28;14:2211-2220.

[5] Almurr, B.,(2013). Knowledge and Practice of Standard Precaution and Sharp Injures among Nurses in the Northern West Bank Hospitals ; Palestine, An-Najah National University Faculty of Graduate Studies This Thesis is Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Public Health, Faculty of Graduate studies ,An Najah National University, Nablus, Palestine. 2013.

[6] Al Wutayd, O., AlRehaili, A., AlSafrani, K., Abalkhail, A., & AlEidi, S. (2019). Current Knowledge, Attitudes, and Practice of Medical Students Regarding the Risk of Hepatitis B Virus Infection and Control Measures at Qassim University. Maced J Med Sci, 7(3), 435-439.

[7] Alzayyat A, Al-Gamal E. (2014). A review of the literature regarding stress among nursing students during their clinical education. Int Nurs Rev. 61(3):406-15.

[8] Azizi -Fini, I., Hajibagheri, A., & Adib -Hajbaghery, M. (2015). Critical thinking skills in nursing students: A comparison between freshmen and senior students. Nurse Midwifery Stud, 4(1), 1-5.

[9] D'Souza, M. , Venkatesaperumal, R. , Radhakrishnan, J. and Balachandran, S. (2013) Engagement in clinical learning environment among nursing students: Role of nurse educators. *Open Journal of Nursing*, 3, 25-32.

[10] Elewa, A. H., & El Banan, S. H. A. (2016). Occupational hazards as perceived by nursing interns and protective measures. IOSR Journal of Nursing and Health Science (IOSR-JNHS), 5(6),107-118

[11] Eljedi,A., (2015). Prevalence and Response to Occupational Hazards among Nursing Students in Gaza Strip, Palestine: The Role of Personal Protective Equipment and Safety Regulations. Public Health Research;5(1): 32-38

[12] Eyi, S.Ç., & Eyi, İ. (2020). Nursing Students' Occupational Health and Safety Problems in Surgical Clinical Practice. *SAGE Open, 10*.

[13] Farrokhi, N., Juibari, L. and Sanagu, A., (2010). The relationship between knowledge of ergonomic science and the occupational health among nursing staff affiliated to Golestan University of Medical Sciences. Iran Journal of Nursing and Midwifery Research, 15(4), 185–189.

[14] Faul, F., Erdfelder, E., Buchner, A. & Lang, A.G. (2009) Statistical power analyses using G* Power 3.1: tests for correlation and regression analyses. *Behavior Research Methods*, 41 (4), 1149–1160.

[15] Huang, H., Yi, Q., Tang, S., & An, R. (2016). Occupational exposure among Chinese nursing students: current status, risking factors and preventive interventions. International Journal of Clinical & Experimental Medicine, 9(8), 16578-16586.

[16] Karabacak, Ü., et al. (2012) First day in clinical practice: evaluating stress of nursing students and their ways to cope with it. *HealthMED*, 6 (2), 596–602.

[17] Masilaca, O., Kumar, A., & Balekiwai, S. (2018). Clinical Learning Environment and Clinical Learning Outcomes as Perceived by Final Year Baccalaureate Nursing Students in Fiji National University, the Republic of Fiji. Journal of Nursing and Health Sciences, 4, 23-31.

[18] Morsy, S., and Sabra, H., (2016). Occupational Health Hazards among Nurses at Quena University Hospital. Journal of Nursing and Health Science .5(3). 28-34

[19] Ören B, Zengin N. (2019). Assessing Health Threatening Problems among Nursing or Midwifery Students during the Clinical Education Course in Turkey. Iran J Public Health. 48(1):85-94.

[20] Pavani, K., Srinivas Rao, M. S., Vinayaraj, E. V., & Dass, M. (2015). A study on awareness, occupational risk perception level of vaccination against hepatitis-B among medical nursing students in tertiary care hospital, Hyderabad. Int J Res Med Sci, 3(3), 583-7.

[21] Pitkänen S, Kääriäinen M, Oikarainen A, Tuomikoski AM, Elo S, Ruotsalainen H, Saarikoski M, Kärsämänoja T, Mikkonen K. (2018). Healthcare students' evaluation of the clinical learning environment and supervision - a cross-sectional study. Nurse Educ Today ;62:143-149.

[22] Savci, C., Serbetci, G., & Kilic, U. (2018). Status of Health Discipline Students to Receive Training on Occupational Health and Safety and Exposure to Occupational Accident. Journal of Health and Nursing Management, 5(1), 36-47.

[23] Shaban, I.A., Khater, W.A. & Akhu-Zaheya, L.M. (2012) Undergraduate nursing students' stress sources and coping behaviours during their initial period of clinical training: a Jordanian perspective. *Nurse Education in Practice*, 12 (4), 204–209.

[24] Shivalli, S. (2014). Occupational exposure to HIV: Perceptions and preventive practices of Indian nursing

students. Advances in Preventive Medicine.

[25] Türen S. , Efil S. , Bülbül E. , Yeni T. , Yıldız Ayvaz M. , Atakoğlu Yılmaz R. (2022). Occupational risk perception of nursing students, affecting factors and their association with occupational accidents: A crosssectional, multicenter study. J Contemp Med. 2022; 12(6 (Early Access-Erken Görünüm)): 1-1.

[26] Warne T, Johansson UB, Papastavrou E, Tichelaar E, Tomietto M, Van den Bossche K, Moreno MF, Saarikoski M. (2010). An exploration of the clinical learning experience of nursing students in nine European countries. Nurse Educ Today. 30(8):809-15.