

CHALLENGES FACED BY UNDERGRADUATE NURSING STUDENTS IN THE CLASSROOM AND CLINICAL SETTING AT PUBLIC AND PRIVATE INSTITUTES IN KARACHI

Yasmeen Siraj¹, Yasmin Amarsi^{*2}, Badil³

^{1,*2}Faculty of Nursing, Ziauddin University, Karachi,

³Dow Institute of Nursing and Midwifery, Dow University of Health Sciences, Karachi

^{*2}yasmeen.amersi@zu.edu.pk

Corresponding Author: *

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Abstract

Nursing education is generally comprised of theory and practice. Both clinical teaching and learning are essential parts of nursing education.

Objective: The study's objectives are to assess the challenges faced by undergraduate nursing students in the classroom and clinical environment in public and private institutes in Karachi.

Methods: This comparative cross-sectional study was carried out in one private and one public sector institution. BS nursing students enrolled in Year -II, Year -III, and Year- IV were included in the study. Statistical significance was set at $p < .05$. To compare clinical and institutional challenges faced by undergraduate nursing students in Public and Private Sector Institutions, non-parametric independent samples Mann-Whitney test was used.

Results: Out of 326 participants, there was a slightly higher proportion of females (55.42%) than males (44.38%) at the public sector institutes. 60.2% of students indicated that inadequate skills training at the institute needed to be improved. Moreover, a significant section of 60.2% noted that the curriculum's clinical placement objectives did not align with hospital job responsibilities. Students of the public sector raised more vital concerns regarding the capability of clinical preceptors and the readiness of clinical instructors.

Conclusion: The study determined the problems faced by nursing students in their classroom and clinical settings have a detrimental impact on the learning process.

Keywords: Challenges, undergraduate nursing students, classroom and clinical setting

Introduction

Nursing education combines theory and practice. Clinical teaching and learning are integral to nursing education, focusing on nursing students' theoretical knowledge and clinical experience [1]. A conducive educational and clinical environment is critical for nursing students to achieve theoretical and clinical competency [2]. A recent research study demonstrated that nursing students faced many challenges due to a lack of knowledge of staff nurses in the clinical setting and a limited understanding of educators in the classroom setting [3]. Furthermore, a current research study established challenges experienced by nursing students include unskilled nursing teachers, inaccessibility of nurse instructors, negative attitude of clinical staff, a demotivated environment, scarcity of equipment in the wards, and poor timetables [4]. Current research

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has documented that having no prior clinical experience, unfamiliar areas, critical patients, and fear of making errors are the challenges that influence students' teaching and learning [2]. It is affirmed by current research that bullying is a rising challenge for nursing students in higher education and clinical environments that has a detrimental effect on their learning [5]. The initial clinical placement in clinical areas has been found challenging as it causes stress and anxiety, which may cause a lack of interest in nursing students [6]. The need for more competent clinical instructors and mentors is challenging in clinical settings that hinder learning [7]. Nursing students encounter considerable challenges persistently in the clinical as well as classroom setting, leading to negative emotions, depressed mood, anger, loss of motivation, and sadness [8]. The conducive learning environment in the school and clinical settings may enhance the student's learning. Moreover, nursing instructors should be assigned to follow up with students and ensure hands-on practice to learn nursing skills [9]. Hospital clinical nursing faculty can play a pivotal role in guiding students through training [10]. More data is needed regarding the challenges faced by nursing students in classroom teaching and clinical settings in public and private institutions in Pakistan. Hence, the study aimed to assess the challenges faced by undergraduate nursing students in the classroom and clinical environment in public and private institutes in Karachi.

Materials and methods

The present comparative cross-sectional study was carried out by one private (Faculty of Nursing and Midwifery, Ziauddin University, Karachi) and one public sector (Dow Institute of Nursing and Midwifery, Dow University of Health Sciences, Karachi) institution in Pakistan. The study lasted two months, from October 2024 to November 2024. The participants were approached using a convenient non-probability sampling method. BS nursing students enrolled in Year -II, Year- III, and Year -IV and willing to participate were included in the study. Written informed consent was taken from all participants before data collection. The questionnaire was explained explicitly to all participants. The confidentiality of the data of participants was assured by assigning code numbers. The sample size was calculated by using "Open Epi" version 3.0. It was calculated by taking the previous study's prevalence of 69.6%. The level of significance was considered as ≤ 0.05 . The estimated sample size is 326 studies for both genders.

Data was collected using adopted and modified tools. It was adopted from a study conducted in Khyber Pakhtunkhwa province in Pakistan, and permission was obtained from the principal investigator via email. Some modifications were made after the pilot study. The primary investigator checked the validity and reliability of the tool. As per the calculation scale, the content validity index for clinical and classroom issues is 0.80 and 0.80, respectively. Reliability was found to be 0.82 and 0.85, respectively. The questionnaire was divided into demographic, clinical, and classroom-related issues. The questionnaire comprised a Likert scale with the options strongly agree, agree, disagree, and strongly disagree. A cut-off value of 70% agreement with the participant's opinion was considered a barrier.

Statistical analyses were performed using the Statistical Package for Social Sciences version (SPSS version 26.0). For the categorical variable, frequency and percentage were calculated. Statistical significance was set at $p < .05$. To compare clinical and institutional challenges perceived by undergraduate nursing students in public and private sector institutions, non-parametric independent samples Mann-Whitney test was used.

Ethical consideration

The Ethical Review Committee of Ziauddin University Faculty of Nursing Ref approved the study protocols. No. 8920724YSNUR dated September 9, 2024.

Results

Table 1 revealed the demographic characteristics of the study participants. At the public sector institutes, there was a slightly higher proportion of females (55.42%) than males (44.38%). On the other hand, the proportion of males was higher in private institutes (55.63%) than that of female students (44.58%).

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Table 1: Demographic Characteristics of Study Population (n=326)

| Parameter | Public n (%) | Private n (%) | P-Value |
|---------------|--------------|---------------|---------|
| Sex | | | |
| Male | 71 (44.38) | 89 (55.63) | |
| Female | 92 (55.42) | 74 (44.58) | <.05 |
| Year of Study | | | |
| 2nd Year | 49 (30.06) | 44 (26.99) | |
| 3rd Year | 52 (31.9) | 54 (33.13) | 0.1 |
| 4th Year | 62 (38.04) | 65 (39.88) | |

Table 2 exhibited challenges public sector student nurses faced in the clinical learning environment. The majority of respondents, 68.1%, strongly agreed or agreed that significant resources were unavailable. Similarly, 60.2% of students pointed out that the information concerning equipment provided by nursing staff needed to be more accurate. Additionally, over 62% of students demonstrated dissatisfaction regarding the hygienic standards in the clinical environment. 60.2% of the respondents agreed that fundamental facilities like drinking water, lifts, wheelchairs, and toilets were often unavailable. 74.2% of the respondents felt that their initial experience was more positive than succeeding clinical placements.

Furthermore, 58.9% of nursing students specified that preceptors did not provide regular supervision at the time of patient care situations. Besides, 52.2% indicated that they were discouraged by hospital staff from seeking guidance. Another issue identified was the non-cooperative behavior of patients' relatives by 51.6% of students. Moreover, anxiety while performing procedures was a prevalent issue among 57% of students. 51.5% of the students indicated that tasks assigned to them do not align with their clinical objectives. Most respondents, 68.7%, also pointed out the inadequacy of learning resources in clinical areas.

Further, 64.4% of students indicated a deficiency of experienced clinical preceptors. A substantial number of respondents (75.5%) found that the clinical environment was non-supportive due to patient workload pressures. Regarding personal protective equipment (PPE), 70.6% of students agreed that PPE was unavailable. In addition, 59.5% of students witnessed a lack of coordination between the college and the hospital.

Table 2: Challenges faced by Public Sector Student Nurses in the Clinical Learning Environment

| S. No | Question | SA | A | D | SD |
|-------|---|------|------|------|------|
| 1 | Adequate equipment is unavailable | 29.4 | 38.7 | 27.6 | 4.3 |
| 2 | The information provided by the nursing staff for the ward equipment needs to be more accurate. | 21.5 | 27 | 44.8 | 6.7 |
| 3 | The environment is not hygienic | 33.7 | 28.8 | 31.9 | 5.5 |
| 4 | Fundamental facilities (drinking water, lift, wheelchair, and toilets) are not available | 30.1 | 30.1 | 29.4 | 10.4 |
| 5 | The first clinical experience was more positive than the rest of the clinical duration | 24.5 | 49.7 | 23.3 | 2.5 |
| 6 | The preceptor does not supervise regularly during actual patient situations | 20.2 | 38.7 | 37.4 | 3.7 |
| 7 | During the clinical period, Hospital staff discourages seeking guidance from them | 17.8 | 34.4 | 43.6 | 4.3 |

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| | | | | | |
|----|---|------|------|------|-----|
| 8 | The patient's relatives are non-cooperative | 16.6 | 35 | 44.2 | 4.3 |
| 9 | Have a feeling of anxiety when performing procedure | 19.6 | 37.4 | 33.1 | 9.8 |
| 10 | Students do not assign as per their clinical objective | 22.1 | 29.4 | 42.3 | 6.1 |
| 11 | In clinical areas, the learning resources are inadequate | 23.3 | 45.4 | 26.4 | 4.9 |
| 12 | There is a deficiency of experienced clinical preceptors | 29.4 | 35 | 30.1 | 5.5 |
| 13 | The non-supportive environment due to patient workload in the clinical areas | 35.6 | 39.9 | 20.2 | 4.3 |
| 14 | In clinical areas, inadequate personal protective equipment (PPE) available | 27 | 43.6 | 23.9 | 5.5 |
| 15 | There is a lack of coordination between the college and the hospital | 22.1 | 37.4 | 31.9 | 8.6 |
| 16 | The clinical placement does not help in expanding awareness for nursing role transition | 18.9 | 41.5 | 35.2 | 4.4 |

SA=Strongly agree, A=Agree, D=Disagree, SD=Strongly disagree

Table 3 unveiled the challenges public sector student nurses face in the institutional learning environment. A substantial portion of respondents, 60.1%, expressed that the college needed more information to prepare accurately for clinical work. Likewise, 60.2% of students indicated inadequate skills training at the institute needed to be improved. Moreover, a significant section, 60.2%, noted that the curriculum's clinical placement objectives did not align with hospital job responsibilities. 54% of students were dissatisfied with the evaluation procedure adopted by the instructors. More than half of the students (54%) stated anxiety about starting a clinical practice, whereas 69.9% felt apprehension regarding getting criticism from clinical instructors. Moreover, 54% of students reported needing more competent clinical preceptors, whereas 53.9% felt their clinical instructors were required to be prepared. 63.2% of the students noted shortages of clinical preceptors, and 52.2% indicated that clinical instructors only visited students occasionally. Moreover, 46% of the students stated that student-instructor ratio was deficient. Regarding workload, 70.6% of students expressed being burdened with written assignments. Moreover, 56.4% voiced that their clinical placements must be more effective in increasing their awareness for future nursing roles.

Table 3: Challenges faced by Public Sector Student Nurses in the Institutional Learning Environment

| S.No | Question | SA | A | D | SD |
|------|--|------|------|------|-----|
| 1 | Inadequate information from the college to prepare nursing students accurately for clinical work | 22.1 | 38 | 33.1 | 6.7 |
| 2 | Inadequate preparation for skills training at the college for clinical | 16 | 44.2 | 33.1 | 6.7 |
| 3 | Clinical placement objectives of the curriculum not aligned with hospital duties | 20.9 | 39.3 | 35.6 | 4.3 |
| 4 | The clinical instructors evaluate students unfairly | 18.4 | 35.6 | 41.1 | 4.9 |
| 5 | Students are anxious about starting clinical practice | 25.8 | 54 | 18.4 | 1.8 |
| 6 | The students are afraid of criticism from clinical instructors | 27.6 | 42.3 | 27 | 3.1 |

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| | | | | | |
|----|---|------|------|------|------|
| 7 | Clinical preceptors need to be more competent. | 20.2 | 39.9 | 36.8 | 3.1 |
| 8 | Clinical instructors are not well-prepared | 20.2 | 33.7 | 42.3 | 3.7 |
| 9 | Shortage of clinical preceptors | 21.5 | 41.7 | 35.6 | 1.2 |
| 10 | Clinical instructors did not visit students in clinical areas | 20.9 | 27 | 42.3 | 9.8 |
| 11 | The number of students per clinical instructor is inefficient | 0 | 25.2 | 46 | 28.8 |
| 12 | Students are overloaded with written assignments the clinical instructors | 36.2 | 34.4 | 24.5 | 4.9 |
| 13 | The clinical placement did not contribute to raising awareness for future nursing roles | 23.3 | 33.1 | 39.9 | 3.7 |
| 14 | Lack of opportunities in hands-on practice | 22.1 | 39.9 | 34.4 | 3.7 |

SA=Strongly agree, A=Agree, D=Disagree, SD=Strongly disagree

Table 4 discloses private-sector student nurses' challenges in the clinical learning environment. A significant concern for the private sector students was the lack of adequate equipment, as 41.7% of students agreed or strongly agreed that essential resources were unavailable. Similarly, 39.9% of students pointed out that the information concerning equipment provided by nursing staff needed to be more accurate. Moreover, 22.7% of students raised concerns regarding the hygiene standards in their clinical environment. Only 20.8 % of the respondents agreed that fundamental facilities like drinking water, lifts, wheelchairs, and toilets were often unavailable.

Similarly, 55.2% of students expressed an opinion that the first clinical experience was more positive than succeeding clinical placements. Besides, 30.7% of students indicated that preceptors did not provide regular supervision during patient care situations.

Moreover, 41.7% confessed that they were discouraged by hospital staff from seeking guidance. Only 31.9% of students indicated the non-cooperative behavior of patients' relatives. Additionally, anxiety during performing procedures was reported by 63.8% of students. 64.6% of the students felt that their assigned tasks needed to align with their clinical objectives. Regarding personal protective equipment (PPE), 53.4% of students indicated that PPE was unavailable. A different lack of coordination between the college and hospital was witnessed by 47.3% of students. Lastly, 52.1% of students confessed that their clinical placement could not help prepare them for future nursing roles.

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Table 04: Challenges by Private Sector Student Nurses in the Clinical Learning Environment

| S. No | Question | SA | A | D | SD |
|-------|---|------|------|------|------|
| 1 | Adequate equipment is unavailable | 13.5 | 28.2 | 36.8 | 21.5 |
| 2 | The nursing staff provided information for the ward equipment is not accurate | 12.3 | 27.6 | 41.1 | 19 |
| 3 | The environment is not hygienic | 8.6 | 14.1 | 44.8 | 32.5 |
| 4 | Fundamental facilities (drinking water, lift, wheelchair, and toilets) are not available | 10.4 | 10.4 | 39.9 | 39.3 |
| 5 | The first clinical experience was more positive than the rest of the clinical duration | 8.6 | 46.6 | 30.7 | 14.1 |
| 6 | The preceptor does not supervise regularly during actual patient situations | 8 | 22.7 | 51.5 | 17.8 |
| 7 | During the clinical period, Hospital staff discourages seeking guidance from them | 13.5 | 28.2 | 33.1 | 25.2 |
| 8 | The patient's relatives are non-cooperative | 9.2 | 22.7 | 57.7 | 10.4 |
| 9 | Have a feeling of anxiety when performing procedure | 15.3 | 48.5 | 27 | 9.2 |
| 10 | Students do not assign as per their clinical objective. | 30.6 | 34 | 23.1 | 12.3 |
| 11 | In clinical areas, the learning resources are inadequate | 11.7 | 31.3 | 37.4 | 19.6 |
| 12 | There is a deficiency of experienced clinical preceptors | 10.4 | 31.3 | 41.7 | 16.6 |
| 13 | The non-supportive environment due to patient workload in the clinical areas | 23.9 | 31.9 | 31.3 | 12.9 |
| 14 | In clinical areas, inadequate personal protective equipment (PPE) available In clinical areas, insufficient personal protective equipment (PPE) available | 17.2 | 36.2 | 28.2 | 18.4 |
| 15 | There is a lack of coordination between the college and the hospital | 20.9 | 26.4 | 38 | 14.7 |
| 16 | The clinical placement does not help in expanding awareness for nursing role transition | 19 | 33.1 | 30.1 | 17.8 |

SA=Strongly agree, A=Agree, D=Disagree, SD=Strongly disagree

Table 5 depicts the challenges private-sector student nurses face in the institutional learning environment. A moderate portion of respondents (40.1%) expressed that the college furnished insufficient information to prepare accurately for clinical work. Similarly, 46.6% indicated inadequate skills training at the institute needed to be improved. Moreover, most students (57.7%) noted that the curriculum's clinical placement objectives did not align with hospital job responsibilities. Concern regarding the impartiality of instructors was raised by 41.7% of students. Nearly 68% of respondents disclosed feelings of anxiety while starting a clinical practice, whereas 62% felt apprehension regarding getting criticism from clinical instructors.

Additionally, 46.6% of students indicated a shortage of competency among their clinical preceptors, whereas 33.2% pointed out that their instructors needed to be prepared. A shortfall of clinical preceptors was noted by 52.1% of students. However, only 30% observed clinical instructors only visited students occasionally. The student-to-instructor ratio was also perceived as inadequate, with 32.5% agreeing that there needed to be more instructors for adequate supervision. Moreover, 32.5% of the students decided that student-instructor ratio was deficient. Regarding workload, 77.9% of students expressed that they were overburdened with written assignments, 47.2% voiced that their clinical placements could increase their awareness of future nursing roles more effectively, and 63.1% of respondents indicated that they felt an inadequate opportunity for hands-on practice.

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Table 5: Challenges by Private Sector Student Nurses in the Institutional Learning Environment

| S.No | Question | SA | A | D | SD |
|------|--|------|------|------|-------|
| 1 | Inadequate information from the college to prepare nursing students accurately for clinical work | 16 | 25.8 | 39.3 | 19 |
| 2 | Inadequate preparation for skills training at the college for clinical | 15.3 | 31.3 | 31.9 | 21.5 |
| 3 | Clinical placement objectives of the curriculum are not aligned with hospital duties | 17.8 | 39.9 | 27 | 15.3 |
| 4 | The clinical instructors evaluate students unfairly | 13.5 | 28.2 | 41.1 | 17.2 |
| 5 | Students are anxious about starting clinical practice | 23.9 | 44.2 | 23.3 | 8.6 |
| 6 | The students are afraid of criticism from clinical instructors | 23.3 | 38.7 | 25.2 | 12.9 |
| 7 | Clinical preceptors need to be more competent. | 13.5 | 33.1 | 39.3 | 14.1 |
| 8 | Clinical instructors are not well-prepared | 11.7 | 21.5 | 44.2 | 22.47 |
| 9 | Shortage of clinical preceptors | 18.4 | 33.7 | 36.2 | 11.7 |
| 10 | Clinical instructors did not visit students in clinical areas | 9.8 | 20.2 | 42.9 | 27 |
| 11 | The number of students per clinical instructor is insufficient | 9.8 | 22.7 | 44.2 | 23.3 |
| 12 | Students are overloaded with written assignments by the clinical instructors | 53.4 | 24.5 | 12.9 | 9.2 |
| 13 | The clinical placement did not contribute to increasing awareness for future nursing roles | 20.2 | 27 | 39.9 | 12.9 |
| 14 | Lack of opportunities in hands-on practice | 33.7 | 29.4 | 21.5 | 15.3 |

SA=Strongly agree, A=Agree, D=Disagree, SD=Strongly disagree

Discussion

The study's objectives are to assess the challenges faced by undergraduate nursing students in the classroom and clinical environment in public and private institutes in Karachi. The present study reported that 58.9% of nursing students at public sector institutions specified that preceptors did not provide regular supervision during patient care situations. The study results align with a review article's findings, which disclosed that supervisor nurses offered no support to student nurses in the clinical setting. The study further demonstrated the non-supportive behavior of head nurses towards the nursing students in the clinical areas [11].

In the present study, 70.6% of nursing students stated that hospital management does not provide the necessary equipment for personal safety. This finding is congruent with a qualitative study conducted in Namibia, which explored the lack of logistic facilities for the nurse's safety and medical equipment, compromising the patient's care [12]. In the present study, most respondents noted the need for more learning resources in clinical areas. Similar findings were highlighted in a study in the Kingdom of Saudi Arabia [13]. In the current study, more than half of the students, 54%, had anxiety about starting a clinical practice in the clinical setting. Dissimilar findings were demonstrated in a study in Pakistan, which found stress in nursing students during theory classes in classroom teaching [14]. In the present study, concerning challenges faced by nursing students in their clinical areas in private institutions, most nursing students 46.6% indicated a shortage of competency among their clinical preceptors. This study's findings parallel those of a study conducted in Iran, which affirmed that clinical instructors must be more knowledgeable and skilled. Furthermore, the clinical instructors do not support and motivate students at clinical placement [11]. The role of the clinical instructor is increasingly crucial for student learning in the clinical setting, and the instructor should have robust skills and knowledge

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that will help produce competent and skilled student nurses who will take on their essential responsibilities as nurses soon [15]. In the current study, challenges faced by nursing students at private institutions in their clinical areas, nearly 68% of respondents disclosed feelings of anxiety while starting a clinical practice. Similar results were established in a review study that indicated that students are not well prepared for clinical and feel anxiety in private institutions. The study further highlighted that students were anxious and feared working in new wards as preceptors and nurses did not support and guide them [11].

In the present study, 46.6% of students indicated a need for more competency among their clinical preceptors. This finding is congruent with a systematic review and meta-synthesis that demonstrated a lack of knowledge, poor practical skills, lack of confidence, and lack of motivation among clinical instructors [16,17].

Conclusion

The study demonstrated the problems faced by nursing students in their classroom and clinical settings have a damaging impact on the learning process. The public and private institutions should devise robust strategies and conducive learning environments to overcome the challenges in classroom teaching and clinical settings for nursing students.

Authors Contribution

Conceptualization: YS

Methodology: YS, B

Formal analysis: YA, YS

Writing, review and editing: YS, YA, B

Conflict of interest

All authors declare no conflict of interest,

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References

1. Sahir A, Afzal M, Hussain M, Gillani SA. The Impact of Stress on Competency Among Nursing Students in Lahore, Pakistan, *Journal of Advances in Education and Philosophy*. 2019;3(5):200-3. DOI:10.21276/jaep.2019.3.5.1
2. Amoo SA, Aderoju YB, Sarfo-Walters R, Doe PF, Okantey C, Boso CM, Abraham SA, Druye AA, Ebu Enyan NI. Nursing students' perception of clinical teaching and learning in Ghana: A descriptive qualitative study. *Nursing research and practice*. 2022; 2022(1):7222196. <https://doi.org/10.1155/2022/7222196>
3. Durgesham G, Naseer M, Srinivas S, Fatima N, Abdul SN. A qualitative study on challenges of higher education in India. *International Journal of Research Publication and Reviews*. 2022; 3(3): 1424-27.
4. Boukhris K, Zedini C, El Ghardallou M. Nurse students' perception of the academic learning environment in Tunisian Institutes of nursing sciences: a multisite cross-sectional study. *Nurse Education Today*. 2022 Apr 1; 111:105316. <https://doi.org/10.1016/j.nedt.2022.105316>
5. Abdelaziz EM, Abu-Snieneh HM. The impact of bullying on the mental health and academic achievement of nursing students. *Perspectives in psychiatric care*. 2022 Apr; 58(2):623-34. <https://doi.org/10.1111/ppc.12826>
6. Valiee S, Salehnejad G. Barriers to and Facilitators of Nurses 'Adherence to Clinical Practice Guidelines: A Qualitative Study. *Creative nursing*. 2020 Feb;26(1):1-7. <https://doi.org/10.1891/1078-4535.26.1.e1>
7. Kahriman I, Aksoy B, Kandaz U, Arslan Ü. Investigation of nursing students' emotional states toward challenging situations in clinical practice and symbolic perceptions of the concept of a nurse. *Nurse Education in Practice*. 2024 Feb 1; 75:103873. <https://doi.org/10.1016/j.nepr.2024.103873>

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8. Berhe S, Gebretensaye T. Nursing students challenges towards clinical learning environment at the school of nursing and Midwifery in Addis Ababa University. A qualitative study. *International Journal of Africa Nursing Sciences*. 2021 Jan 1; 15:100378. <https://doi.org/10.1016/j.ijans.2021.100378>
9. Shoghi M, Sajadi M, Oskuie F, Dehnad A, Borimnejad L. Strategies for bridging the theory-practice gap from the perspective of nursing experts. *Heliyon*. 2019 Sep 1;5(9): e02503. <https://doi.org/10.1016/j.nepr.2024.103873>
10. Al-Daken L, Lazarus ER, Al Sabei SD, Alharrasi M, Al Qadire M. Perception of Nursing Students About Effective Clinical Teaching Environments: A Multi-Country Study. *SAGE Open Nursing*. 2024 Mar; 10. doi:10.1177/23779608241233146
11. Jafarian-Amiri SR, Zabihi A, Qalehsari MQ. The challenges of supporting nursing students in clinical education. *Journal of education and health promotion*. 2020 Jan 1; 9(1):216. DOI: 10.4103/jehp.jehp_13_20
12. Kadhila JG, Tjirundu R. Experiences of University Nursing Students Regarding Overcrowding by Patients in The Training Health Facilities, Khomas Region Namibia. *Journal of Nuring Healthcare*. 2024;9(2):01-5.
13. Gasim Ahmed Mohammed R. Assessment of Challenges and Difficulties Facing Bachelor Degree Nursing Students during Hospital Clinical Practice at Al-Baha University, Kingdom Saudi Arabia. *Egyptian Journal of Health Care*. 2024 Mar 1;15(1):141-52. Doi: 10.21608/ejhc.2024.337797
14. Akhtar S, Akhtar N. Issues and Challenges of Academic Stress Among First-Year University Students: An Investigative Study. *International Journal of Social Science & Entrepreneurship*. 2024 Jan 30; 4(1):133-52. DOI: <https://doi.org/10.58661/ijssse.v4i1.250>
15. Rojo J, Ramjan LM, Hunt L, Salamonson Y. Nursing students' clinical performance issues and the facilitator's perspective: A scoping review. *Nurse education in practice*. 2020 Oct 1; 48:102890. <https://doi.org/10.1016/j.nepr.2020.102890>
16. Panda S, Dash M, John J, Rath K, Debata A, Swain D, Mohanty K, Eustace-Cook J. Challenges faced by student nurses and midwives in a clinical learning environment—A systematic review and meta-synthesis. *Nurse Education Today*. 2021 Jun 1; 101:104875. <https://doi.org/10.1016/j.nedt.2021.104875>
17. Rezakhani Moghaddam H, Aghamohammadi V, Jafari M, Absalan M, Nasiri K. Challenges faced by nursing students to work with nursing personnel: A qualitative study. *Advances in medical education and practice*. 2020 Apr 22:313-9. <https://doi.org/10.2147/AMEP.S246901>