

Exploration of Clinical Learning Challenges among Moroccan Undergraduate Nursing Students



Hind Essfadi^{1*} , Abderahim Khyati², Omar Abidi³ and Mohamed Radid¹

¹The Laboratory of Sciences and Technologies of Information and Education (LASTIE), Faculty of Sciences Ben M'sik, Hassan II University, Bd Commandant Driss Al Harti, Casablanca 20670 Casablanca 20000, Morocco

²Interdisciplinary Team of Didactics of Sciences and Educational Sciences assigned to 3 Multidisciplinary Laboratory in Education Sciences and Training Engineering (LMSEIF) Normal Superior School (ENS), Hassan II University of Casablanca, BP 50069, Ghandi, Morocco

³Healthcare and Biology Team, 2S2D laboratory, Higher Institute of Nursing Professions and Health Techniques of Casablanca (ISPITSC), Rue Salem Cherkaoui, Quartier des hôpitaux, Casablanca 20503, Morocco.

Abstract:

Background: Clinical learning is an essential component of nursing education. It strongly contributes to the acquisition of students' clinical skills and enables them to link theory to practice. However, clinical learning is considered a challenging experience for undergraduate nursing students.

Objective: The study aimed to provide an in-depth understanding of the challenges experienced by undergraduate nursing students during their training in different clinical settings.

Methods: This study utilized a phenomenological qualitative design with data collected through semi-structured interviews. Thirty-four nursing students from the second and third years were interviewed between March and July 2023. The qualitative data were analyzed using thematic analysis following Braun and Clarke's six-step model.

Results and Discussion: The findings of the study revealed that all participants had experienced several challenges during their clinical learning, which had a negative impact on their skill development. As a result, four main themes emerged regarding the challenges associated with clinical learning, including the theory-practice gap, the unsupportive clinical environment, the lack of supervision and support, and the inappropriate scheduling of internships. Ultimately, all participants recognized the need for changes to be made to enhance learning in clinical settings.

Conclusion: The present study has concluded that Moroccan nursing students face numerous challenges when learning in clinical settings. This study contributes to the existing literature by providing guidelines for Moroccan nursing educators to effectively guide and support their students in clinical areas. Therefore, based on the findings of this study, further discussions regarding potential changes and future research can be conducted.

Keywords: Nursing education, Clinical learning, Students, Challenges, Qualitative research, Theory-practice gap, Clinical supervision.

© 2024 The Author(s). Published by Bentham Open.

This is an open access article distributed under the terms of the Creative Commons Attribution 4.0 International Public License (CC-BY 4.0), a copy of which is available at: <https://creativecommons.org/licenses/by/4.0/legalcode>. This license permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

*Address correspondence to this author at the The Laboratory of Sciences and Technologies of Information and Education (LASTIE), Faculty of Sciences Ben M'sik, Hassan II University, Bd Commandant Driss Al Harti, Casablanca 20670 Casablanca 20000; E-mail: hind.essfadi-etu@etu.univh2c.ma

Cite as: Essfadi H, Khyati A, Abidi O, Radid M. Exploration of Clinical Learning Challenges among Moroccan Undergraduate Nursing Students. Open Nurs J, 2024; 18: e18744346295835. <http://dx.doi.org/10.2174/0118744346295835240405071522>



Received: December 01, 2023
Revised: February 21, 2024
Accepted: February 26, 2024
Published: April 30, 2024



Send Orders for Reprints to
reprints@benthamscience.net

1. INTRODUCTION

Nursing education involves a dynamic alternation between classroom learning and clinical training in hospital settings [1]. This training methodology was pioneered by Florence Nightingale, the first founder of modern nursing training during the 19th century (1852) [2]. Clinical learning is a vital component of nursing education worldwide [3], comprising half of the learning experience for undergraduate nursing students [4]. In clinical settings, trainees have the opportunity to transfer their knowledge and develop nursing skills through complex and authentic situations. They also interact with practitioner nurses and socialize with their future professions [5]. This greatly enhances the students' learning experience and allows them to link theory to practice [3]. Through clinical learning, nursing students explore the responsibilities and challenges associated with the daily work of a nurse [6]. In Morocco, clinical learning plays a key role in the three-year training program for undergraduate nursing students.

Despite its essential role in student training, clinical learning is a challenging experience [7]. The literature demonstrates a significant number of challenges experienced by students during clinical learning. The main challenge faced by students during clinical learning is bridging the theory-practice gap [1, 8]. Several studies state that students perceive a disparity between theoretical knowledge in classrooms and practical application in the clinical setting [7, 9-12]. Sometimes, students view theory as idealistic and incoherent with clinical practice. This disconnection between theoretical and practical training leads to discouragement and confusion among nursing students [10].

The unsupportive aspects of the clinical environment also pose challenges in the learning experience of students. During their clinical training, students find it difficult to keep up with the fast-paced and unpredictable nature of the clinical environment, which hinders their skill development [13]. Berhe and Gebretensaye [9] stated in their study that most clinical settings do not always provide relevant learning situations for students during their internships. They may struggle to access clinical placements that offer adequate and diversified learning opportunities. Previous studies have identified a lack of equipment and resources as a common challenge in the clinical environment [6, 10]. This presents a significant barrier to integrating practical knowledge for trainees [4]. Furthermore, organizational problems, such as a high number of students causing competition issues [14] and the remote location of clinical placement [6], contribute to the difficulties faced by students. Additionally, the limited time dedicated to internships forces students to complete them during vacations to achieve their learning goals [10].

Emotional management is another prevalent challenge experienced by students, as they are constantly confronted with human suffering. Developing empathy while maintaining emotional balance proves to be a significant challenge for students [13]. Moreover, the interaction with

patients can be a source of stress for students due to the complexity of the cases [8], especially when they are solely responsible for patient care without support [15].

Insufficient supervision and support provided to students during their clinical training present a significant challenge [1, 3, 4, 6, 9, 16-20]. This can hinder their learning opportunities, as the clinical environment requires preparation for relevant learning situations [1]. Previous studies have shown a lack of clinical supervision, often attributed to a shortage of teachers, a high workload for nurses, and poor collaboration between nursing teams and educational staff [1, 3, 4]. Trainees have been reported to face various difficulties related to clinical supervision, including interpersonal communication issues [9], unsupportive reception from healthcare teams [21], limited availability and motivation from supervisors [11], lack of constructive feedback [6], subjectivity and irrelevance in clinical assessment [6], and negative attitudes from supervisors [22, 23].

Integration with the nursing team is an essential part of clinical training [18]. However, trainees perceive difficulty in becoming part of the team, encountering divergent perspectives and a lack of cooperation [6]. Students revealed that they simply follow the team's commands instead of actively interacting and asking questions. Additionally, communication with the healthcare team sometimes lacks respect, which influences the students' self-confidence and motivation for learning [18].

Such challenges are common at an international level. In Morocco, few studies have been conducted to gain insight into the clinical learning experience of undergraduate nursing students, particularly regarding the associated challenges. Maamri [21] demonstrated in his study that Moroccan undergraduate students face several challenges during their clinical learning, including the theory-practice gap, and the lack of engagement and motivation from nurses and educators regarding clinical supervision.

Exploring the difficulties experienced by nursing students is crucial for improving the field of nursing education [9]. Our study aimed to explore the clinical learning experience of Moroccan undergraduate nursing students. We sought to understand the challenges they face while learning in hospital settings from their unique perspective. The results of this study may contribute to the improvement of future nurses' training and enhance student satisfaction during clinical placements.

2. MATERIALS AND METHODS

2.1. Design

The phenomenological qualitative design was used for this exploratory study, employing content analysis. The qualitative method is widely used in learning and teaching research [24], making it a suitable method for gaining insight and interpretation in nursing education [25]. Phenomenology focuses on understanding people's experiences and phenomena [26]. Originally developed in

Table 1. Overview of the participant characteristics (n = 34).

Characteristics	Mean (SD), %
Age (Years)	20.64 ± 2.28
Min-max (Years)	18-30
Gender	
Female	24
Male	10
Level of Education (%)	
Second year	40
Third year	60
Specialty (%)	
General Nurse	56
Anesthesia and Resuscitation Nurse	9
Neonatal-Pediatric Nurse	15
Emergency and Intensive Care Nurse	3
Family and Community Health Nurse	6
Mental Health Nurse	3

the field of teaching and learning, this approach aims to answer questions about how individuals perceive the world around them [27]. This method was chosen for this study to explore the authentic experiences of undergraduate nursing students and gain a better understanding of the challenges they face during clinical learning. Data were collected from second and third-year nursing students at the Higher Institute of Nursing Professions and Health Techniques of Casablanca between March and July 2023.

2.2. Sample/Participants

Participants were recruited from the Nursing Care department at the Higher Institute of Nursing Professions and Health Techniques of Casablanca. The Institute is registered as a higher education establishment, not under the jurisdiction of universities. All the participants were informed about the study protocol and goals. Maximum variation purposive sampling was employed to obtain a variety of experiences. In qualitative research, this technique allows for exhaustive exploration of the phenomenon until data saturation is achieved [18]. The focus is on the quality of information obtained from individuals rather than the number of participants in qualitative research [25]. Several criteria were considered in the participant recruitment process to ensure maximum diversity in the themes studied, including age, gender, study specialty, level of study, number of completed and validated internship modules, and the variety of clinical settings visited (Table 1). A total of 34 participants were included, distributed across six different specialties: General Nurse, Anesthesia and Resuscitation Nurse, Emergency and Intensive Care Nurse, Neonatal-Pediatric Nurse, Family and Community Health Nurse, and Mental Health Nurse (Table 1). Recruitment of participants was continued until no new information was obtained. The main inclusion criteria in the study were enrollment in the second or third year of the study in one of the specialties of Nursing Care, age over 18, and voluntary participation.

2.3. Data Collection

The interviews were used as the qualitative data collection method in this study, recognizing the pheno-

menology to be concerned with the individual's relationship to the phenomenon being studied [27]. The first author, h.e, a female Ph.D. candidate, conducted the face-to-face interviews with the participants using a semi-structured guide. She is an experienced nurse educator in the field of clinical teaching. The interviews were transcribed verbatim in writing, respecting the participants' choice to not consent to the audio recording. Additionally, the researcher took note of the participants' non-verbal language. The interviews lasted between 20 and 45 minutes, with an average duration of 35 minutes. Participants were contacted by phone to schedule an appointment for the interview and confirm the location. They were informed about the interviewer's identity and profile. Three participants canceled the appointment because they did not feel comfortable discussing their difficulties. Their choice was respected because the study was based on respecting participants' free will. The interviews included open-ended questions about each participant's clinical learning experience, the difficulties they face daily, and their suggestions for improving the current situation. The questions were designed to elicit as much information as possible, and participants were encouraged to provide detailed responses about their experiences. In this type of interview, which falls between directive and non-directive, the interviewer asks open-ended questions and allows space for the interviewee to express their point of view. The interviewer refocuses the questions as needed to maintain the study's objective. One interview had to be repeated because the participant had to leave for an emergency case.

2.4. Ethical Consideration

The study was conducted voluntarily. Students were informed about the purpose and conduct of the study. Students who wished to participate were asked to provide their informed consent orally before participating in the interviews. Confidentiality and anonymity were guaranteed, and the participants had the right to withdraw from the study at any time. Interviews were not audio-recorded at the participants' request. Interview times and locations were agreed upon with the participants.

Table 2. Overview of the main themes identified from the analysis.

Themes	Subthemes
The theory-practice gap	The gap between classroom theory and clinical practice Difficulties in applying techniques Inconsistency between internship objectives and clinical activities Lack of theoretical and practical knowledge Limited access to resources
Unsupportive clinical environment	Irrelevance of learning situations Lack of equipment A large number of students Accelerated learning pace Difficult integration with the care team Lack of space for students Difficulty in managing emotions
Lack of supervision and support	Insufficient clinical supervision Lack of preparation before the course Lack of motivation on the part of nurses for supervisory tasks Lack of feedback Insufficient follow-up
Inappropriate scheduling of courses	Location away from course sites Insufficient internship time High travel costs and time Busy daily schedule Fatigue and loss of energy on the move

2.5. Data Analysis

Thematic analysis was used in this study to analyze the interview data and gain rich, in-depth information about the phenomenon being studied [25]. The data were transcribed manually, as audio recording was not possible. The thematic analysis involves systematically identifying, grouping, and examining the themes addressed in a corpus [28]. The six-step model of Braun & Clarke's was chosen for the content analysis [29]. The steps in the model include familiarizing oneself with data, generating initial codes, identifying themes and sub-themes, revising and redefining themes, and proceeding with writing. Two researchers coded the data using line-by-line coding. The list of themes had not been previously established before the study, so an open coding approach was employed, using the participants' terminology. Finally, the data were peer-reviewed to ensure reliability.

3. RESULTS

A total of 34 second and third-year undergraduate nursing students agreed to participate in the study. Table 1 presents the characteristics of the participants. 24 participants were female and 10 were male, with an average age of 20.64 ± 2.28 . The analysis revealed four main themes and several subthemes, as shown in Table 2. The main themes comprised the theory-practice gap, the unsupportive clinical environment, the lack of supervision and support, and the inappropriate organization of internships.

3.1. Theory-Practice Gap

Students expressed confusion regarding the disconnection between the theory learned in the classroom and its application in clinical practice. They perceived a break between the training institution and the clinical environment, posing a significant barrier to their clinical learning. Many students highlighted the disparity between the nursing care processes and what is done in practice. They reported that what they observe in practice often contradicts what they learn in theory. When learning care

practices, they tend to mimic what the nursing team does, even if it deviates from what is theoretically learned. This issue creates an epistemological obstacle for students. One student stated, "So far I don't understand what a nurse's job is, what I'm going to do when I become a nurse, will I follow what I'm taught in class or what the nurses I work with do? I feel overwhelmed... nobody provides me a clear answer" (second-year student, male, age 19).

Another student expressed, "The teachers come to evaluate us based on what they teach us, but we spend a lot of time in the training course and integrate what we observe...The clinical settings and the classroom are two different worlds when we talk to the teachers, they tell us to do what we're taught in class, but how do they expect us to do that when there is nothing in the clinical environment? No materials, no preceptor to guide us step by step" (third-year student, female, age 20).

Students also highlighted the incoherence between the learning objective outlined in certain internship modules and the actual learning situations they encounter in clinical settings. They reported that there are care practices prescribed in the internship book that are never encountered in clinical settings. Additionally, the language used in clinical environments is not always compatible with what is learned theoretically. Students felt the need to bridge the gap between theory and reality through practical work and simulation of the clinical environment.

3.2. Unsupportive Clinical Environment

Students believed that the clinical environment often does not support their learning. The clinical settings assigned for internships sometimes lack relevant learning opportunities, which hinders the students' progress through the internship modules. The pace of clinical settings is fast, so students have to increase their pace to avoid missing out on learning opportunities. They reported

that trainees face difficulties in integrating technical learning because the large number of patients or urgent cases leaves no time to progress at their own pace or ask for explanations from overwhelmed nurses. One trainee stated, "You have to act fast to ensure all patients are taken care of, otherwise, no one will wait for you and you miss the opportunity to provide care for patient" (second-year student, female, age 18).

All students mentioned that the lack of equipment hinders their ability to apply the techniques learned in class correctly. They have to buy materials, like gloves, stethoscopes, blood pressure monitors, and thermometers to carry out treatments. One student stated, "The lack of materials is a big problem for us. As a student, I have to buy gloves to dress patients" (third-year student, female, age 20). Furthermore, trainees expressed that the high number of students in clinical placements reduces the learning opportunities. This creates a tense climate and a sense of competition among trainees to provide patient care. One student mentioned, "There were a lot of us on the same placement site, more than 30 students, working with just one nurse. So just to see the patient, you have to get into the crowd" (second-year student, female, age 20).

Another student shared an incident of getting into a fight with a fellow student over a venous line because there were too many students and few patients. Fortunately, a nurse was there to manage the situation, but it disturbed the patient and may have scared them (third-year student, male, age 24).

Moreover, integrating with the nursing team has been declared a difficult task by students, since they attended multiple internship sites in the same year, working and communicating with different nursing teams. Students found it challenging to familiarize themselves with new teams and care protocols, as they often received contradictory instructions from different teams. Additionally, the poor quality of the first-day welcome has been reported to hinder the students' integration with the team.

In clinical settings, trainees also complained about the lack of dedicated spaces for them, such as changing rooms and classrooms. They stated that sometimes they cannot find a place to get dressed, as they are only allowed to dress using the staff changing rooms. The absence of classrooms for discussion and debriefing about clinical cases also hinders effective clinical learning. One student mentioned that during her hospital internship, she had to store her clothes in a nurse's cupboard. However, the nurse unexpectedly locked the cupboard and did not appear the following day. This situation caused a problem for the student, as her supervisor witnessed her working without a uniform. Consequently, she faced disciplinary action (second-year student, female, age 20).

According to all participants, emotional management has been deemed as one of the main challenges of clinical learning. Trainees mentioned that being exposed to patients suffering from the very first day could generate painful feelings. They are also often afraid of being

contaminated by infectious diseases. Some students have witnessed situations of aggression or violence from visitors or patients, which can be choking. Trainees perceived the clinical environment as unsafe where they should be maximizing their learning opportunities. Furthermore, students reported feeling frustrated when a patient refuses to receive care from them, which affects their self-confidence and performance. Most students expressed negative feelings about their clinical learning experiences, such as stress, fear, sadness, low self-esteem, frustration, and anxiety. Their non-verbal communication, including tears, melancholic looks, trembling hands, accelerated sentence flow, and change in voice, conveyed their negative feelings. In this case, students mentioned that learning in a clinical setting requires intensive preparation, in terms of stress management. They reported that they try to find solutions on social media and experiment with some techniques to decrease stress levels.

The following are the statements made by some students: "I'm full of stress and afraid to take the initiative to do something" (third-year student, female, age 25); "The fear that the nurse will call the supervisor who will not be understanding... I feel, stress, resentment, disagreement, panic, confusion" (second-year student, male, age 19); "I feel a destruction of confidence that I need a whole day to recharge" (second-year student, female, age 20).

3.3. Lack of Supervision and Support

The lack of supervision and support has been reported as a significant challenge by participants. They emphasized the need for guidance and support, especially during the first days of each internship. Trainees complained about the low presence or absence of supervisors in most clinical settings. They reported finding it difficult to access their supervisors during their time in the clinical setting. Trainees felt that they are left on their own to overcome all obstacles and manage difficult situations.

The results have shown that it is often the nurses who accompany the trainees, but their priority is patient care. Nurses lack the motivation to guide students, as they have to focus on patient care and respond to the department's demands. This leaves little time for nurses to have discussions with the students. At the patient's bedside, participants expressed the need to have someone to explain care procedures, demonstrate techniques, observe their clinical skills, and provide constructive feedback. Students emphasized that not receiving feedback is a significant barrier to their learning. Some participants mentioned the following:

"If we are talking about teacher supervision, they should either stop pretending to supervise when they come to reprimand us and judge us in the assessment. They rarely support us, or they should supervise us every day, or at least 2 to 3 times/week in the first year, and not leave us to our own devices" (second-year student, female, age 19).

“A teacher has to supervise students and support them during their internship, not just come and punish them because of the way of dressing or because they are in the break room or because they have their phones in their hands” (third-year student, male, age 20).

“Support from the supervisor during the course must be for the long term, not one day a month, only to tell us at the end that our level is not good” (second-year student, female, age 20).

3.4. Inappropriate Scheduling of Internships

Participants highlighted the challenge of traveling to clinical placements and navigating a large city, being time-consuming. When placements are far away, trainees have to rely on multiple modes of public transportation each day. This results in a significant waste of time and energy as they commute between internship sites, training institutions, and their homes. As a result, participants often get late to their clinical placements, missing out on important learning opportunities and sometimes facing punishment for their tardiness. To better manage their time, some participants have opted to move to student housing, especially if they lived a considerable distance from the city. Additionally, the scheduling of internships in the morning and courses in the afternoon has been reported to pose a challenge, particularly when the clinical setting is far from the institution. Some participants suggested that the schedule should be structured more like a boarding school system. Due to the extensive travel involved, participants no longer have time to study or rest at home. Furthermore, they expressed that the duration of the internship is not always sufficient for achieving the learning objectives and developing the necessary clinical skills. One student shared, “when the hospital is very far from my home...I become exhausted from the means of transport and the congested city traffic. During the rural training course, it took me two hours just to reach the site” (second-year student, female, age 19).

Another student stated “I wake up at 5 a.m. to arrive at the training site by 8 a.m., then I go to the institute for a class at 2 p.m., and I do not get home until 8 p.m. I’m often tired ” (third-year student, female, age 24).

A male student in the second year added, “The schedule is too busy, and I struggle to get enough sleep... It is difficult to manage everything with morning internships and afternoon classes in very remote locations” (second-year student, male, age 20).

4. DISCUSSION

The present study aimed to explore the challenges experienced by future nursing students during their clinical learning experience. The results have shown the main challenges hindering clinical learning among undergraduate nursing students to be the theory and practice gaps, unsupportive clinical learning environment, lack of supervision and support, and inappropriate scheduling of internships.

To make learning meaningful, students have reported to not only needing a solid theoretical foundation, but also

experiencing theory in a real clinical environment [30]. However, the present study has revealed the main difficulty for students to be the mismatch between the theory learned in the classroom and the practice observed in the clinical setting. This discrepancy has been reported to act as a barrier to the integration of knowledge during clinical learning, creating a disconnection between theory and practice, even though clinical learning aims to link theory to practice. This finding is consistent with several studies that highlight the influence of the gap between classroom learning and clinical reality on students' clinical learning process [1, 4, 9, 10, 13, 31]. Clinical learning requires students to use logical reasoning, make care decisions, and perform procedures with real patients, which necessitates adequate preparation for the student. The results of the study have also revealed that moving from a classroom environment directly to the clinical environment without sufficient preparation increases the perception of the theory and practice gap. Jamshidi *et al.* [25] also confirmed that lack of preparation influences the clinical learning process of students, leading to high levels of anxiety. Addressing this barrier has been reported as important in helping students effectively transfer their knowledge to the real-world clinical setting. These findings are not congruent with those of Abreu and Interpeler [30], who revealed students to be very satisfied with clinical practice, as it complements theory and offers them the opportunity to apply learning in complex care situations. This could be attributed to the beneficial preparation provided to students and better collaboration between the institution staff and the nursing staff. In summary, it is recommended to use innovative pedagogical tools, such as simulation and exchange workshops, to help students bridge the gap between theory and practice before entering the clinical environment. This will aid in facilitating the transition for trainees and nurses.

The clinical environment plays a crucial and pivotal role in training future nurses. However, the study has revealed that this environment does not always support the development of students' learning process. Previous studies have also found the same issue [3, 9, 18, 32]. The first barrier perceived by students to effective clinical learning has been the lack of equipment. They reported to struggle in applying care procedures according to the standards they have learned. At times, students have to compensate for this shortage by purchasing certain devices, which leads to financial problems. This finding aligns with previous studies that have also emphasized the impact of equipment scarcity on limiting students' learning opportunities [3, 9, 32]. Amoo *et al.* [1] explained that the lack of equipment compels supervisors to improvise and present non-standard clinical scenarios. Moreover, clinical sites lack relevant care situations consistent with their training objectives. This issue aligns with the findings of Amoo *et al.* [1], who also emphasized the lack of care opportunities as a challenge faced by students. The results of our study have revealed a high number of students in clinical placements, exacerbating

the previous problem. Consequently, there has been reported competition among students for learning opportunities. This finding is consistent with previous studies that have highlighted the presence of numerous students at the same clinical site and its impact on the development of their clinical skills [1, 9, 18, 32]. The increasing demand to train new healthcare professionals in Morocco has been reported to lead to a saturation of clinical settings by trainees. Therefore, a strategic measure is required to address this issue. Additionally, effective clinical learning necessitates collaboration and acceptance of students within the work team [18]. However, integrating students across multiple care teams in the same semester of study has been reported to pose a challenge. Moghaddam *et al.* [18] and Jamshidi *et al.* [25] also noted in their studies that students struggle with team integration, particularly in terms of communication.

The success of the clinical learning experience depends on the availability of instructors and nurses who facilitate the students' access to the nursing profession through two main processes: role modeling and clinical supervision [33]. Students need supervision and mentorship to develop their professional posture. However, the study results have indicated a lack of clinical supervision and support, primarily due to the limited presence of instructors at the practicum sites. These findings align with previous studies that have discussed the impact of inadequate direct supervision by instructors on the reduction of opportunities for clinical learning [3, 4, 9, 18, 21, 34]. The presence of instructors at the clinical sites is seen as a form of security by the students, as students already have an established relationship of trust with them. This ensures a supportive learning environment for students. According to Amoo *et al.* [1], when teachers accompany students to clinical sites, it generates enthusiasm, motivation, and self-confidence. The study has also revealed a decrease in motivation among nurses to supervise students, which can be attributed to the heavy workload and demands of the department. Asirifi *et al.* [3], Amoo *et al.* [1], and Maamri [21] also confirmed in their studies that nurses in clinical settings are not always available to students, particularly for correction and feedback. However, the study by Arkan *et al.* [4] has presented a contrasting finding, with students expressing satisfaction with the high level of involvement from teachers and nurses, as well as good communication with nursing staff, indicating a positive impact on their learning process. These discrepancies can be explained by the presence of favorable working conditions for supervisors and the application of a structured clinical supervision framework.

Finally, the study has highlighted that the scheduling of internships, instead of supporting students, decreases their productivity and poses a challenge to the students' clinical learning. Travel-related problems have also been reported as very frequent, which influence the motivation level of students, often leading to physical, mental, and emotional exhaustion. This finding was supported by the study conducted by Arkan *et al.* [4], who explained that

traveling to clinical sites is a serious challenge as it wastes a significant amount of time and energy, especially in big cities. Moghaddam *et al.* [18] also demonstrated that the reduced duration of internships limits learning opportunities for students. This aligns with our study results as the achievement of clinical learning objectives is often unsatisfactory due to insufficient time dedicated to internship modules. At the beginning of each internship, students are exposed to various factors, such as the complexity of clinical cases, the discovery of different site departments, the novelty of pathologies, the diversity of caring protocols, and integration with a new team. Therefore, the length of the internship must be reasonable to allow students to fully experience clinical learning.

5. LIMITATIONS

Some important limitations must be addressed. This study's unique focus on recruiting individuals from a single Moroccan institution is one of its limitations. Although this method offers insightful information about nursing students' experiences in that particular setting, it restricts the applicability of findings to a larger population. To ensure wider application, future studies could incorporate a variety of student groups from various institutions. Another study's limitation is the lack of previous research at the national level on the identified topic. The absence of an extensive body of literature at the national scale constrains the ability to contextualize findings within a broader academic and healthcare context.

CONCLUSION

The study's results have indicated nursing students to face multiple challenges. The existence of a gap between theory and practice emphasizes the need for pedagogical innovation to transform classroom learning into a more meaningful and coherent experience that aligns with the reality of the clinical environment. Additionally, there is a need to enhance clinical supervision and support for students by implementing structured and oriented supervision models. Collaboration and the creation of spaces for exchange between instructors and nursing teams are essential for improving students' clinical learning conditions. Lastly, future studies are needed using a larger sample of students and integrating nurses and instructors in order to gain a broader understanding of the topic.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The present study was approved by the IRB of ISPITS - Institut Supérieur Des Professions.

HUMAN AND ANIMAL RIGHTS

No animals were used in the studies that form the basis of this research. All procedures performed in studies involving human participants were in accordance with the 1975 Declaration of Helsinki, as revised in 2013.

CONSENT FOR PUBLICATION

To conduct the study, we adhered to the established procedure of informing the department of research within the institution and getting oral consent from participants who voluntarily agreed to take part in the study.

STANDARDS OF REPORTING

COREQ guidelines were followed in the study.

AVAILABILITY OF DATA AND MATERIALS

The data supporting the findings of this study will be available from the corresponding author [H.E] upon special request.

FUNDING

None.

CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

ACKNOWLEDGEMENTS

The authors thank all the students who agreed to participate in this study.

REFERENCES

- [1] Amoo SA, Aderoju YBG, Walters SR, *et al.* Nursing students' perception of clinical teaching and learning in Ghana: A descriptive qualitative study. *Nurs Res Pract* 2022; 2022: 1-9. <http://dx.doi.org/10.1155/2022/7222196> PMID: 35478927
- [2] Omansky GL. Staff nurses' experiences as preceptors and mentors: An integrative review. *J Nurs Manag* 2010; 18(6): 697-703. <http://dx.doi.org/10.1111/j.1365-2834.2010.01145.x> PMID: 20840364
- [3] Asirifi M, Ogilvie L, Barton S, *et al.* Assessing challenges of clinical education in a baccalaureate nursing program in Ghana. *J Nurs Educ Pract* 2017; 7(10): 109. <http://dx.doi.org/10.5430/jnep.v7n10p109>
- [4] Arkan B, Ordin Y, Yilmaz D. Undergraduate nursing students' experience related to their clinical learning environment and factors affecting to their clinical learning process. *Nurse Educ Pract* 2018; 29: 127-32. <http://dx.doi.org/10.1016/j.nepr.2017.12.005> PMID: 29274524
- [5] Zhang J, Shields L, Ma B, *et al.* The clinical learning environment, supervision and future intention to work as a nurse in nursing students: A cross-sectional and descriptive study. *BMC Med Educ* 2022; 22(1): 548. <http://dx.doi.org/10.1186/s12909-022-03609-y> PMID: 35841091
- [6] Woo MWJ, Li W. Nursing students' views and satisfaction of their clinical learning environment in Singapore. *Nurs Open* 2020; 7(6): 1909-19. <http://dx.doi.org/10.1002/nop.2.581> PMID: 33072376
- [7] Ama Amoo S, Innocentia Ebu Nyanyan N. Clinical learning experiences of nursing and midwifery students; A descriptive cross-sectional study. *Int J Afr Nurs Sci* 2022; 17: 100457. <http://dx.doi.org/10.1016/j.ijans.2022.100457>
- [8] Soussi S. Learning in a clinical environment for future health professional students: Between empowerment and educational constraints. Thesis; University of Lyon; Virtual University of Tunis, 2019 French 2019.
- [9] 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. *Int J Afr Nurs Sci* 2021; 15: 100378. <http://dx.doi.org/10.1016/j.ijans.2021.100378>

- [10] Kertu SH, Nuuyoma V. Theory - practice gap: Challenges experienced by nursing students at the satellite campus of a higher education institution in Namibia. *Int J High Educ* 2019; 8(5): 1-28.
- [11] Jouanchin N. The practical internship in nursing training, representations and professional implications of the actors: Future nurses, trainers and internship managers/tutors. 2010. Available from: <https://www.cairn.info/revue-recherche-en-soins-infirmiers-2010-2-page-42.htm?ref=doi>
- [12] Saifan A, Devadas B, Daradkeh F, Abdel-Fattah H, Aljabery M, Michael LM. Solutions to bridge the theory-practice gap in nursing education in the UAE: A qualitative study. *BMC Med Educ* 2021; 21(1): 490. <http://dx.doi.org/10.1186/s12909-021-02919-x> PMID: 34517861
- [13] Brignon B, Ravestein J. Contributions and limits of clinical activity to the development of the professional identity of nursing students. *Trav Hum* 2015; 78(3): 257-83. <http://dx.doi.org/10.3917/th.783.0257>
- [14] Gemuhay HM, Kalolo A, Mirisho R, Chipwaza B, Nyangena E. Factors affecting performance in clinical practice among preservice diploma nursing students in Northern Tanzania. *Nurs Res Pract* 2019; 2019: 1-9. <http://dx.doi.org/10.1155/2019/3453085> PMID: 30941212
- [15] Manson-Clot M, Pahud P, Müller R, Dederding B, Héliot C, Mendelzweig DM. The reference nurse: Positions on supervisory practice. *Rech Soins Infirm* 2005; 81(81): 28-55. <http://dx.doi.org/10.3917/rsi.081.0028> PMID: 16008135
- [16] Strandell-Laine C, Salminen L, Blöndal K, *et al.* The nurse teacher's pedagogical cooperation with students, the clinical learning environment and supervision in clinical practicum: A European cross-sectional study of graduating nursing students. *BMC Med Educ* 2022; 22(1): 509. <http://dx.doi.org/10.1186/s12909-022-03445-0> PMID: 35765065
- [17] Manninen K, Henriksson EW, Scheja M, Silén C. Supervisors' pedagogical role at a clinical education ward - an ethnographic study. *BMC Nurs* 2015; 14(1): 55. <http://dx.doi.org/10.1186/s12912-015-0106-6> PMID: 26549985
- [18] Moghaddam HR, Aghamohammadi V, Jafari M, Absalan M, Nasiri K. Challenges faced by nursing students to work with nursing personnel: A qualitative study. *Adv Med Educ Pract* 2020; 11: 313-9.
- [19] Hall-Lord ML, Theander K, Athlin E. A clinical supervision model in bachelor nursing education - Purpose, content and evaluation. *Nurse Educ Pract* 2013; 13(6): 506-11. <http://dx.doi.org/10.1016/j.nepr.2013.02.006> PMID: 23465848
- [20] Stoffels M, van der Burgt SME, Stenfors T, Daelmans HEM, Peerdeman SM, Kusurkar RA. Conceptions of clinical learning among stakeholders involved in undergraduate nursing education: A phenomenographic study. *BMC Med Educ* 2021; 21(1): 520. <http://dx.doi.org/10.1186/s12909-021-02939-7> PMID: 34607586
- [21] Abdellatif M. Quality of the practical and theoretical teaching of the winners of the IFCS of Oujda, MOROCCO. 2007. Available from: <http://rgdoi.net/10.13140/RG.2.1.3677.7043>
- [22] Anarado AN, Ezeome ER, Ofi OB, Nwaneri AC, Ogbolu Y. Experiences and desired nursing assistance of women on outpatient breast cancer chemotherapy in Southeastern Nigeria. *Psychooncology* 2017; 26(3): 385-91. <http://dx.doi.org/10.1002/pon.4034> PMID: 26585674
- [23] Anarado AN, Agu GU, Nwonu EI. Factors hindering clinical training of students in selected nursing educational institutions in Southeastern Nigeria. *Nurse Educ Today* 2016; 40: 140-5. <http://dx.doi.org/10.1016/j.nedt.2016.02.022> PMID: 27125164
- [24] Maguire M, Delahunt B. Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *AISHE-J* 2017; 8(3): 3351-33513.
- [25] Jamshidi N, Molazem Z, Sharif F, Torabizadeh C, Kalyani NM. The challenges of nursing students in the clinical learning environment: A qualitative study. *Sci World J* 2016; 2016: 1-7. <http://dx.doi.org/10.1016/j.ijans.2021.100378>

- <http://dx.doi.org/10.1155/2016/1846178> PMID: 27366787
- [26] Auger AI, Mercier A, Baumann L, Drylewicz LAM, Imbert P. Introduction to qualitative research. *Exercer* 2008; 84: 142-5.
- [27] Stoffels M, Peerdeman SM, Daelmans HEM, Ket JCF, Kusurkar RA. How do undergraduate nursing students learn in the hospital setting? A scoping review of conceptualisations, operationalisations and learning activities. *BMJ Open* 2019; 9(12): e029397.
<http://dx.doi.org/10.1136/bmjopen-2019-029397> PMID: 31818833
- [28] Paillé P, Mucchielli A. Qualitative analysis in human and social sciences. 2021. Available from: <https://www.cairn.info/l-analyse-qualitative-en-sciences-humaines-9782200624019.htm>
- [29] Braun V, Clarke V. One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qual Res Psychol* 2021; 18(3): 328-52.
<http://dx.doi.org/10.1080/14780887.2020.1769238>
- [30] Abreu WCD, Interpeler SS. Effective mentorship to improve clinical decision making and a positive identity: A comparative study in Turkey and Portugal. *Int J Inf Educ Technol* 2015; 5(1): 42-6.
<http://dx.doi.org/10.7763/IJIET.2015.V5.473>
- [31] Lee JE, Sim IO. Gap between college education and clinical practice: Experience of newly graduated nurses. *Nurs Open* 2020; 7(1): 449-56.
<http://dx.doi.org/10.1002/nop2.409> PMID: 31871730
- [32] O'Brien AT, McNeil K, Dawson A. The student experience of clinical supervision across health disciplines - Perspectives and remedies to enhance clinical placement. *Nurse Educ Pract* 2019; 34: 48-55.
<http://dx.doi.org/10.1016/j.nepr.2018.11.006> PMID: 30458410
- [33] Chamberland M, Hivon R. Skills of clinical teachers and role models in clinical training. *Med Educ* 2005; 6: 98-111.
<http://dx.doi.org/10.1051/pmed:2005015>
- [34] Memarian R, Vanaki Z, Baraz S. Learning challenges of nursing students in clinical environments: A qualitative study in Iran. *J Educ Health Promot* 2015; 4(1): 52.
<http://dx.doi.org/10.4103/2277-9531.162345> PMID: 26430679