



Clinical Learning in Nursing and Midwifery Education in Northern Morocco: A Fragile Balance Between Relational Support and Structural Constraints

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Abstract: Background: Clinical learning is a core component of nursing and midwifery education, shaping the development of professional competencies and students' engagement in real care settings. While quantitative studies have widely examined factors influencing clinical learning, fewer studies have explored students' lived experiences through qualitative approaches, particularly in low- and middle-income contexts such as Morocco. **Aim:** To explore the factors perceived by nursing and midwifery students as facilitating or hindering their clinical learning experiences in Northern Morocco. **Methods:** A descriptive qualitative study was conducted using inductive thematic analysis of responses to two open-ended questions embedded within a broader quantitative survey. Of the 311 students participating in the quantitative study, 289 provided usable responses to the two qualitative questions, which addressed factors that facilitated and hindered learning during clinical placements. Participants were second- and third-year nursing and midwifery students enrolled at Higher Institutes of Nursing and Health Techniques (ISPITS) in Northern Morocco. **Results:** Two main thematic axes were identified. Facilitating factors included support and availability of healthcare staff (63.7%), positive relational dynamics and team spirit (55.3%), integration of theoretical knowledge into clinical practice (43.1%), diversity of clinical situations and procedures (38.3%), and personal motivation and engagement (28.0%). Hindering factors included insufficient clinical supervision (72.0%), high numbers of trainees and workload pressure (64.6%), lack of equipment and material resources (56.6%), relational difficulties and lack of recognition (38.9%), stress and anxiety (35.0%), and organizational and coordination problems (30.9%). **Conclusion:** Clinical learning in Northern Morocco appears to be shaped by a fragile balance between relational and pedagogical facilitators and persistent structural constraints. Supportive relationships with healthcare professionals and positive team dynamics can foster students' engagement and learning, but insufficient supervision, overcrowding, resource limitations, and organizational difficulties substantially restrict learning opportunities. These findings provide context-sensitive evidence to inform improvements in clinical supervision, placement organization, and pedagogical support in Moroccan nursing and midwifery education.

Key Words: Clinical Learning Environment, Nursing Education, Qualitative Research, Clinical Supervision, Morocco

INTRODUCTION

Clinical learning is a cornerstone of initial education in nursing and midwifery. It is during clinical placements that theoretical knowledge is confronted with real practice and progressively transformed into professional competence, through direct involvement in patient care and clinical decision-making processes [1]. These learning settings also expose students to the relational, emotional, and situational

complexity inherent in real-life care, requiring adaptation, communication, and professional judgment [2].

Despite its central role, clinical learning does not constitute a uniform experience. Students placed in comparable clinical contexts may report markedly different learning experiences, ranging from supportive and enriching environments to placements perceived as stressful or poorly conducive to learning [3]. Such variability is largely

explained by differences in supervision quality, interpersonal relationships within care teams, organization of clinical placements, and availability of material and human resources [4].

Clinical learning can be understood through the lens of experiential learning theory, which conceptualizes learning as a process through which knowledge is constructed and transformed through experience. In clinical education, authentic care situations provide students with opportunities to connect theoretical knowledge with practice, while observation, active participation, feedback, and reflection contribute to the progressive development of professional competence. From this perspective, the quality of clinical experiences and the support provided by healthcare professionals are essential conditions for transforming exposure to practice into meaningful learning [5,6].

Over recent years, research in health sciences education has predominantly relied on quantitative approaches to identify factors associated with the development of clinical competencies, particularly clinical reasoning. These studies have highlighted the influence of individual variables such as self-efficacy and perceived stress, as well as contextual factors including the clinical learning environment and satisfaction with training, in shaping students' learning outcomes during clinical placements [7].

While these explanatory models have contributed substantially to identifying key determinants of clinical competence, they provide limited insight into how students actually experience clinical learning in their everyday practice. Large-scale quantitative studies primarily describe associations and outcomes, but they offer less understanding of the processes through which learning unfolds in clinical settings [8]. Qualitative approaches can complement this evidence by giving students an opportunity to describe, in their own words, the relational, emotional, pedagogical, and organizational conditions that shape their clinical learning experiences [9].

In the Moroccan context, this methodological complementarity appears particularly relevant. Nursing and midwifery education is delivered through Higher Institutes of Nursing and Health Techniques (ISPITS), where students combine classroom-based theoretical instruction with compulsory clinical placements across a range of healthcare settings. These placements may involve heterogeneous clinical environments characterized by differences in workload, availability of healthcare professionals, material resources, supervision practices, and opportunities for active student participation [10]. Such contextual variability may influence the extent to which students can translate theoretical knowledge into practice and engage meaningfully in clinical learning.

Although several studies have examined factors influencing clinical reasoning and clinical learning among Moroccan nursing and midwifery students [10,11], the available evidence remains predominantly quantitative or focused on specific dimensions of the learning environment. Less is known about how students themselves describe the

factors that facilitate or hinder their learning during clinical placements, particularly across the heterogeneous educational and healthcare settings of Northern Morocco. This gap is important because the same structural conditions may be experienced differently depending on the quality of supervision, interpersonal relationships, and opportunities for participation available to students. Exploring students' own accounts may therefore provide complementary evidence for understanding the mechanisms through which clinical learning is supported or constrained.

Objectives

This study aimed to explore nursing and midwifery students' perceptions of the factors that facilitate or hinder their clinical learning experiences, with particular attention to relational and pedagogical support, supervision, and organizational and structural conditions within clinical placements.

More specifically, the study was guided by the following research questions:

- What factors do nursing and midwifery students perceive as facilitating their learning during clinical placements?
- What factors do nursing and midwifery students perceive as hindering or constraining their learning during clinical placements?

METHODS

Study Design and Methodological Approach

This study adopted a descriptive qualitative design based on an inductive thematic analysis of textual data derived from open-ended questions. Qualitative descriptive designs are particularly appropriate when the aim is to explore participants' perceptions, experiences, and viewpoints regarding complex educational phenomena, without seeking to generate formal theory or establish causal relationships [12].

Unlike interpretive or theory-driven qualitative approaches, qualitative description allows researchers to remain close to participants' own words and meanings, while offering a structured and transparent analytical account of the data. This approach is widely used in nursing science and health professions education to examine students' clinical learning experiences in real-world settings [13].

The present qualitative analysis was conducted as a complementary component of a broader quantitative survey carried out among the same population. The qualitative component was designed to provide contextual and descriptive insights into students' perceptions of their clinical learning environment by allowing them to express, in their own words, the factors they perceived as facilitating or hindering their learning. Given that the data were derived from two open-ended questionnaire items rather than interviews or focus groups, the study was intended as a broad descriptive exploration rather than an in-depth interpretive qualitative inquiry. This methodological positioning is

consistent with the use of open-ended questionnaire responses to complement quantitative findings in health and educational research [14–16].

Two open-ended questions were completed by 289 students out of the 311 who participated in the quantitative phase. All available textual responses were included in the qualitative analysis.

Researcher Positioning and Reflexivity

The qualitative analysis involved four researchers familiar with the nursing and midwifery educational context. The initial coding was conducted by two researchers, while two additional researchers independently reviewed the coding and the emerging thematic structure. Differences in interpretation were discussed collectively until consensus was reached on the final themes and subthemes. Given the researchers' familiarity with the educational context under study, particular attention was paid to limiting the influence of prior assumptions by grounding codes and interpretations closely in students' written responses.

Study Context

The study was conducted within the Higher Institutes of Nursing and Health Techniques (ISPITS) of the Tangier–Tetouan–Al Hoceima region, located in northern Morocco. These public institutions are responsible for the initial training of nursing and midwifery students and operate under a curriculum combining classroom-based theoretical instruction with compulsory clinical placements.

Clinical placements were undertaken across diverse healthcare settings, including university and regional hospitals, primary healthcare centers, and specialized clinical services. Depending on their training pathway and rotation, students were therefore exposed to different types of clinical units, patient populations, care activities, workloads, and supervision arrangements. These heterogeneous placement conditions resulted in varying opportunities for observation, participation in care, interaction with healthcare professionals, and supervised practice. Such variability is particularly relevant when examining students' perceptions of their clinical learning environment, as organizational conditions, available resources, and supervision practices may differ across placement settings [10].

Participants and Sampling

Participants were nursing and midwifery students enrolled in the second and third years of training (S3 and S5) at the ISPITS institutions of the studied region.

The broader survey included 311 second- and third-year nursing and midwifery students. The overall sample was predominantly female (83.3%), with most participants aged 19–22 years; 54.7% were second-year students and 45.3% were third-year students. Of the 311 participants, 289 (92.9%) provided usable responses to both open-ended questions and constituted the qualitative subsample analyzed in the present study. As the qualitative component was

embedded within the broader survey and analyzed from anonymized textual responses, separate sociodemographic characteristics were not retained for the qualitative subsample.

Qualitative data originated from responses to two open-ended questions embedded within a self-administered questionnaire distributed as part of a broader quantitative survey. All students who provided responses to both open-ended questions were included in the qualitative analysis, with no additional sampling or exclusion criteria applied.

This strategy corresponds to an exhaustive convenience sampling approach based on the availability of textual data. Such an approach is commonly used in large-scale qualitative analyses derived from open-ended questionnaire responses and is considered methodologically appropriate when the aim is descriptive exploration rather than theory generation [15].

The qualitative sample therefore constituted a response-based subgroup of the broader quantitative sample (289 of 311 participants). Because inclusion in the qualitative analysis depended on completion of the open-ended questions, a potential participation bias cannot be excluded, as students who chose to provide written comments may have differed from those who did not respond in their motivation, experiences, or willingness to express their perceptions.

Inclusion criteria were:

- Being enrolled in the second or third year of nursing or midwifery training
- Having voluntarily responded to the open-ended questions related to the clinical learning environment

Qualitative Data Collection Instrument

Qualitative data were collected through two open-ended questions embedded within a structured questionnaire addressing the clinical learning environment. These questions were designed to elicit students' free and spontaneous perspectives on their clinical placement experiences, without constraining responses to predefined categories.

The open-ended questions were formulated as follows:

- In your opinion, what are the main factors that facilitate your learning in clinical settings
- In your opinion, what are the main factors that hinder or make your learning in clinical settings more difficult

Embedding open-ended questions within a broader questionnaire can provide complementary contextual insights into participants' experiences while allowing respondents to express perceptions in their own words [16]. In the present study, these questions were intended to support a descriptive and exploratory qualitative analysis rather than the depth of inquiry typically achieved through individual interviews or focus groups. The qualitative data analyzed in this study had not been previously analyzed or published.

Data Collection Procedure

Data collection took place between March and May 2025 in the classrooms of the participating institutions. The

questionnaire was administered in paper format and completed through self-administration.

Prior to participation, students received oral and written information regarding the objectives of the study and provided informed consent. Participation was entirely voluntary, and students were informed that participation or non-participation would have no consequences for their academic evaluation or clinical placement. No identifying information was requested on the questionnaire, and responses could not be linked to individual students, supervisors, or clinical placement sites. Students were encouraged to express their views freely, including critical perceptions of their clinical learning experiences. Responses to the open-ended questions were subsequently transcribed verbatim into a working file without any identifying information.

The open-ended questions were administered in French, and students provided their written responses in French, the language of instruction used in the study context. The qualitative coding and thematic analysis were conducted directly on the original French responses to preserve participants' meanings and linguistic nuances. Representative quotations selected for inclusion in the manuscript were subsequently translated into English for reporting purposes, with attention to preserving their original meaning.

Data Analysis

Textual data were analyzed using an inductive thematic analysis, following the phases proposed by Braun and Clarke [17]. This analytical approach enables the systematic identification, analysis, and organization of recurring patterns within qualitative data, while remaining grounded in participants' narratives.

The analysis followed several successive phases:

- Familiarization with the data through repeated readings
- Identification of meaningful units of analysis
- Initial open coding
- Grouping of codes into provisional categories
- Development of themes and subthemes
- Review and refinement of themes to ensure internal coherence
- Selection of representative verbatim excerpts to illustrate each theme

The analysis was conducted manually using structured coding tables. Initial coding was performed by two researchers, who identified meaning units and assigned preliminary codes to the textual responses. Codes were progressively grouped into categories, subthemes, and broader themes through an iterative comparison process. Two additional researchers subsequently reviewed the coding and the emerging thematic structure to assess coherence between the original responses, codes, and final themes. Differences in interpretation were discussed collectively until consensus was reached. Coding tables and

successive versions of the thematic structure were retained throughout the analysis to ensure traceability of the analytical process. Manual coding was considered appropriate for the descriptive nature of the study, provided that systematic documentation and researcher comparison were maintained [18].

Methodological Rigor

Several strategies were implemented to enhance the rigor and trustworthiness of the qualitative analysis, including:

- Traceability of the analytical process through systematic documentation of coding and theme development
- Fidelity to participants' discourse through the use of verbatim quotations
- Continuous comparison between meaning units and emerging themes
- Inclusion of a substantial volume of textual data (n = 289 responses)
- Verification of thematic recurrence across the dataset

These strategies are consistent with established quality criteria for qualitative research in nursing science and health professions education [18,19].

Ethical Considerations

The study was conducted in accordance with the principles of the Declaration of Helsinki. Ethical approval was obtained from the Regional Health Directorate of Tangier-Tetouan-Al Hoceima (Reference: 3508).

Participation was voluntary and anonymous. Students were informed that their participation or refusal would have no impact on their academic trajectory or clinical placement. No identifying information concerning students, clinical supervisors, or placement sites was included in the qualitative dataset. Given the potential power relationships inherent in educational and clinical settings, particular attention was paid to protecting students' anonymity and allowing them to express both positive and critical perceptions of their clinical learning experiences without individual attribution. All data were treated confidentially and used exclusively for research purposes.

RESULTS

The 289 qualitative respondents provided written accounts of the factors they perceived as facilitating or hindering their learning during clinical placements. The inductive thematic analysis identified two overarching thematic axes: facilitating factors and hindering factors. Within these axes, five facilitating themes and six hindering themes were identified. Although frequencies are reported to indicate the recurrence of themes across the dataset, the findings are interpreted primarily in terms of their qualitative meaning rather than their numerical distribution.

The identified themes and their frequencies are presented in Table 1.

Table 1: Frequency of Identified Themes in Open-Ended Responses (N = 289)

Dimension	Theme	n	Percentage
Facilitating factors	Support from healthcare staff	198	63.7
	Relational dynamics / team spirit	172	55.3
	Contribution of theoretical courses	134	43.1
	Diversity of clinical situations	119	38.3
	Personal motivation	87	28.0
Hindering factors	Lack of supervision	224	72.0
	High number of trainees / overload	201	64.6
	Lack of equipment / resources	176	56.6
	Relational difficulties / lack of recognition	121	38.9
	Stress / anxiety	109	35.0
	Poor organization of placements	96	30.9

A single respondent could mention several factors; therefore, percentages do not total 100%

Table 2: Illustrative Verbatim Examples

Theme	Example quotation
Staff support	"When staff explain and support us, learning becomes much easier."
Lack of supervision	"There was no one to guide us or correct our mistakes during the placement."
High number of Trainees	"The high number of trainees limits access to procedures."
Lack of equipment	"The absence of equipment prevents us from practicing certain procedures."

Factors Facilitating the Clinical Learning Experience

Analysis of students' narratives revealed several positive dimensions contributing to a meaningful and enriching clinical learning experience.

Support and Availability of Healthcare Staff

Support from nursing staff and other healthcare professionals emerged as the most frequently reported facilitating factor (n = 198; 63.7%).

Students' accounts suggested that staff support encompassed several complementary dimensions. It included pedagogical support through explanations and guidance during care activities, relational support through encouragement and approachable interactions, and practical support through assistance when performing clinical procedures. Staff availability also appeared to facilitate students' integration into clinical teams and to strengthen their confidence in participating in patient care. Expressions such as "support from staff," "encouragement from nurses," and "help from healthcare personnel" reflected these interconnected dimensions of support.

Relational Dynamics and Team Spirit

The quality of interpersonal relationships was identified as a key facilitator of clinical learning (n = 172; 55.3%).

Students frequently referred to cooperation among peers, mutual support between trainees, and positive communication with healthcare teams. These elements contributed to a psychologically safe environment, fostering observation, participation, and active engagement in patient care.

Contribution of Theoretical Courses and Prior Knowledge

A substantial proportion of students highlighted the facilitating role of theoretical courses and knowledge acquired at the ISPITS in understanding clinical situations (n = 134; 43.1%).

The ability to mobilize theoretical knowledge in real clinical contexts was perceived as essential for consolidating learning and developing professional reasoning.

Diversity of Clinical Situations and Performed Procedures

Exposure to a wide range of services, pathologies, and nursing procedures was highly valued (n = 119; 38.3%).

Students mentioned rotations across different units, participation in diverse care activities (e.g., nursing procedures, sampling, wound care, patient education), and observation of complex clinical situations, all perceived as major opportunities for experiential learning.

Personal Motivation and Engagement in Learning

Intrinsic factors such as personal motivation, willingness to help patients, active engagement in group work, and individual initiative were reported by a subset of students (n = 87; 28.0%).

These elements reflect students' active involvement in their clinical learning and may partially compensate for contextual constraints.

Factors Hindering the Clinical Learning Experience

Conversely, the analysis identified several obstacles perceived as limiting effective learning during clinical placements.

Absence or Insufficiency of Supervision

Lack of supervision emerged as the most frequently reported hindering factor (n = 224; 72.0%).

Students described the absence of a designated tutor or clinical supervisor, insufficient explanations during care activities, and lack of feedback or pedagogical guidance, leading to feelings of abandonment in the learning process.

High Number of Trainees and Workload Pressure

Overcrowding due to a high number of trainees in clinical units was widely reported (n = 201; 64.6%).

Students referred to limited access to procedures, competition among trainees, and reduced individual learning time, all of which constrained active participation in care.

Lack of Equipment and Material Resources

Insufficient material and equipment constituted a major barrier to practical learning ($n = 176$; 56.6%).

The absence of necessary resources limited opportunities to perform certain procedures and increased dependence on healthcare staff.

Relational Difficulties and Lack of Recognition

Relational difficulties with some staff members were reported by a notable proportion of students ($n = 121$; 38.9%).

Narratives included negative attitudes, reluctance to share knowledge, and lack of recognition of students' learner status, leading to frustration and decreased motivation.

Stress, Anxiety, and Organizational Pressure

Clinical stress was frequently mentioned ($n = 109$; 35.0%).

Students associated stress with heavy workloads, fear of making mistakes, implicit evaluation, and occasionally tense clinical environments, all of which hindered concentration and learning.

Deficient Organization and Coordination of Clinical Placements

Organizational dysfunctions were also identified ($n = 96$; 30.9%), including insufficient placement duration, poor distribution of trainees, distant clinical sites, and inadequate coordination between training institutions and clinical settings.

Overall, structural and organizational barriers were particularly prominent in students' accounts. Insufficient supervision, trainee overcrowding and limited material resources were among the most recurrent themes, suggesting that constraints affecting clinical learning were not limited to interpersonal experiences but were also embedded in the organization and resourcing of clinical placements.

Overall, findings indicate that the clinical learning experience is shaped by a fragile balance between facilitating relational and pedagogical factors (staff support, team dynamics, diversity of clinical exposure) and persistent structural constraints (insufficient supervision, overcrowding, lack of resources, and organizational shortcomings). These findings provide a broad descriptive account of students' perspectives and identify concrete relational, pedagogical, and structural dimensions that may be targeted to improve the quality of clinical placements.

DISCUSSION

This qualitative study explored nursing and midwifery students' perceptions of factors that facilitate or hinder their clinical learning experience. The findings highlight a learning process shaped by a complex interplay of relational, pedagogical, and organizational dimensions, reinforcing the

central role of the clinical learning environment in health professions education [3,8].

Support and availability of healthcare staff emerged as the most influential facilitator of a positive clinical learning experience. Students described encouragement, informal guidance, and feedback provided by nurses as essential for their integration into clinical units and for building confidence during care activities. Similar findings have been reported in previous studies, which identify supportive interactions with healthcare professionals as a key determinant of effective clinical learning [3,4].

Beyond technical skill acquisition, staff support also appeared to contribute to students' emotional security and sense of professional legitimacy within care teams. Emotional engagement in clinical contexts has been shown to play a significant role in learning processes and in the development of clinical reasoning. In this regard, quantitative evidence from the Moroccan context demonstrated that the functional use of emotions significantly predicts clinical reasoning among undergraduate nursing students [20].

The findings further suggest that relational support should not be viewed as a single dimension. Students' accounts point to at least three interconnected functions: emotional support, reflected in encouragement and reassurance; pedagogical support, expressed through explanations, guidance, and feedback during care activities; and professional recognition, reflected in students' inclusion and acknowledgement as legitimate learners within clinical teams. These dimensions may operate together to create a psychologically and pedagogically supportive environment in which students feel more confident to participate, ask questions, and progressively develop professional autonomy [4,21].

Positive relational dynamics, including peer support and constructive communication with healthcare teams, were also identified as major facilitators of clinical learning. Such relational climates foster psychological safety, student engagement, and active participation in care activities, all of which are essential conditions for experiential learning [21]. In high-workload clinical environments, relational support may partially compensate for organizational and material constraints affecting clinical training [22].

However, previous research also indicates that dysfunctional or conflictual interpersonal relationships can become sources of stress and hinder learning. This highlights the importance of pedagogical supervision capable of regulating team interactions and sustaining a positive learning climate [23].

The contribution of theoretical courses was also perceived as a facilitating factor. Students reported that prior academic knowledge enabled them to better understand clinical situations and give meaning to their practical experiences. This integration of theory and practice has been shown to enhance competence development and support clinical reasoning when explicit pedagogical links are established [2, 24].

Exposure to a diversity of clinical situations and nursing procedures was another key facilitator highlighted by students. Rotations across different units and care activities were viewed as opportunities to broaden experience, strengthen adaptability, and enrich clinical reasoning processes [21].

Finally, intrinsic factors such as personal motivation, engagement, and initiative were identified as contributors to effective learning. These findings are consistent with self-regulated learning models, which emphasize motivation as a central driver of persistence, active engagement, and learning in complex clinical environments [23].

Conversely, the absence or insufficiency of clinical supervision emerged as the most frequently reported barrier to effective learning. Students described the lack of identified tutors, limited feedback, and insufficient guidance during care activities as generating feelings of pedagogical abandonment. Similar concerns have been reported in previous studies conducted in the Moroccan context, highlighting poorly structured supervision practices that restrict learning opportunities and hinder the development of clinical reasoning [10].

Although concerning, insufficient clinical supervision does not appear to be unique to this context. Studies conducted in North Africa and the Middle East describe supervision systems that rely predominantly on passive observation rather than explicit pedagogical support. In such contexts, heavy clinical workloads and limited institutional recognition of healthcare professionals' educational roles further exacerbate supervision gaps [26,27]. In contrast, educational systems in which clinical supervision is formalized and integrated into curricula report more favorable outcomes, including stronger clinical reasoning skills and reduced student stress [28].

Taken together, insufficient supervision and trainee overcrowding suggest that the barriers identified by students may extend beyond individual supervisory practices to broader organizational conditions. High clinical workloads may reduce healthcare professionals' availability for teaching, while the simultaneous placement of large numbers of students can restrict access to procedures and individualized feedback. In addition, when the educational role of clinical supervisors is insufficiently formalized or coordinated between training institutions and placement sites, supervision may depend largely on the availability and individual engagement of healthcare professionals. These interconnected conditions may help explain why students reported substantial variability in supervision and learning opportunities across clinical placements [8].

The lack of equipment and material resources also emerged as a significant obstacle to clinical learning. Insufficient availability of basic equipment restricted opportunities for skills practice and impeded the acquisition of technical competencies. Evidence from resource-constrained healthcare settings confirms that inadequate material conditions directly compromise the quality of clinical training, particularly in public healthcare institutions [29].

Relational difficulties and lack of recognition further hindered students' learning experiences. Participants

described devaluing attitudes and reluctance to share knowledge from some healthcare professionals, leading to frustration and disengagement. These findings reinforce the importance of competent clinical mentorship and supportive educational relationships in promoting students' integration and learning within clinical teams [4,21].

Finally, stress, anxiety, and organizational dysfunctions—such as insufficient placement duration, poor coordination between training institutions and clinical sites, and geographical distance—were perceived as major barriers to learning. High levels of stress during nursing education have been associated with adverse effects on students' well-being and learning experiences [23]. In the present study, these stressors rarely appeared in isolation but tended to accumulate, amplifying their negative impact on students' clinical learning experiences.

Although some stressors may function as challenges that stimulate engagement under certain conditions, the present findings predominantly reflect hindrance stressors associated with structural and organizational constraints. Their cumulative nature appears more likely to impede than facilitate students' clinical learning experiences [30].

The findings of this study highlight several practical priorities for improving clinical learning. As an immediate priority, clinical supervision should be strengthened through clearer definition of tutor roles, regular pedagogical guidance, and targeted preparation of healthcare professionals involved in student supervision. A second priority concerns the organization of placements, particularly a more balanced distribution of trainees across clinical units to reduce overcrowding and improve access to learning opportunities. At the institutional level, stronger coordination between training institutions and clinical placement sites is needed to align student numbers, rotation planning, supervision capacity, and available resources. In the longer term, formal recognition of the educational role of clinical supervisors could contribute to more consistent and sustainable supervision practices [4,21].

Moreover, enhancing the pedagogical climate through respectful relationships, explicit support, and recognition of students' learner status emerges as a central lever for fostering engagement and competence development. These organizational and pedagogical actions are particularly relevant in the Moroccan context, where the findings suggest that clinical learning opportunities remain strongly influenced by the availability of supervisors, trainee distribution, material resources, and coordination between educational institutions and clinical placement sites. The convergence of these constraints indicates that improving clinical learning requires not only strengthening individual supervisory practices but also addressing the organizational conditions within which supervision takes place.

Strengths and Limitations

This study draws on a substantial corpus of written responses from 289 nursing and midwifery students, providing broad

insight into clinical learning experiences in an underrepresented context and complementing findings from the broader quantitative survey.

Several limitations should be acknowledged. Data were collected through two open-ended questionnaire items, which allowed broad participation but did not permit the probing or clarification achievable through interviews or focus groups. As the qualitative sample included only participants who completed both open-ended questions, potential response bias cannot be excluded, and separate sociodemographic characteristics were not retained for this subsample. The findings also rely on self-reported perceptions without triangulation with observations or supervisors' perspectives and originate from a specific region of Northern Morocco, which may limit their transferability to other contexts.

CONCLUSIONS

This qualitative study provided an in-depth exploration of factors perceived by nursing and midwifery students as facilitating or hindering their clinical learning experience. The findings reveal a learning experience shaped by a complex interaction between relational, pedagogical, and organizational dimensions, confirming the central role of the clinical learning environment in the development of professional competencies.

Facilitating factors primarily included healthcare staff support, positive relational dynamics, effective integration of theory and practice, and exposure to diverse clinical situations. Conversely, insufficient supervision, overcrowding, lack of material resources, relational difficulties, and organizational dysfunctions emerged as major barriers to high-quality clinical learning.

These findings highlight the limitations of approaches focused solely on academic or structural indicators and emphasize the importance of considering students' lived experiences as a key marker of training quality. They also confirm that, in the Moroccan context, clinical learning still relies heavily on individual initiatives by healthcare staff and peer solidarity, in the absence of formalized and systematic supervision mechanisms.

By giving voice to students, this study contributes a qualitative perspective that complements existing quantitative research and opens avenues for the development of targeted pedagogical and organizational interventions aimed at improving supervision practices and optimizing clinical learning environments.

This study represents a crucial diagnostic step to inform the future design of targeted pedagogical interventions aimed at improving clinical supervision and students' learning experiences. By precisely identifying factors perceived as facilitating or hindering clinical learning, the findings provide an empirical framework for the development of pedagogical support strategies adapted to the realities of clinical training sites, particularly in resource-limited contexts. Future research should combine in-depth interviews with students and clinical supervisors, comparative studies across training institutions, and longitudinal or interventional designs to better understand

clinical learning processes and evaluate the effectiveness of structured supervision strategies over time.

Author Contributions

Souad Arhoun contributed to the conceptualization, methodology, data collection, qualitative analysis, and preparation of the original manuscript. Malika Rmili, Mohamed Dakkach, Jihad El Hachhach, Houyam Jelloul, Majida Mramel, and Jawhar Laamech contributed to the methodological development, interpretation of findings, and critical review of the manuscript. Mourad Madrane provided supervision and contributed to the conceptual and methodological development of the study. All authors reviewed and approved the final version of the manuscript.

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Conflicts of Interest

The authors declare no conflicts of interest.

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