Challenges of Clinical Education: From the Perspective of Clinical Instructors and Clinical Staffs at Dire Dawa University, Dire Dawa, Ethiopia, Qualitative Study

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ABSTRACT

OBJECTIVE: To explore the challenges of clinical education from the perspective of clinical instructors and clinical staff at Dire Dawa University College of Health Science.

METHODS: An institutional-based phenomenological qualitative study was conducted. Clinical instructors and staff provided data through in-depth interviews and key informant discussions, which were facilitated by a semistructured tool and a voice recorder. A total of 17 participants, including 11 in-depth interviews (IDIs) with clinical instructors (including two key informants) and six IDIs with clinical staff were included in this study. A purposive sampling method was used to select study participants, and the data were analyzed thematically using the computer-assisted qualitative data analysis software Atlas.ti7. The thematic analysis with an inductive approach involves six steps: familiarization, coding, generating themes, reviewing themes, defining and naming themes, and writing.

RESULTS: Clinical instructors and clinical staff noted a number of challenges in clinical education, including insufficient medical equipment, low incentives, clinical site repetition, unfavorable clinical practice sites, lack of communication from instructors, skill attrition, lack of orientation for instructors and students, client/patient unwelcomingness, uncooperative healthcare workers, and poor university cooperation.

CONCLUSION: The aforementioned issues contributed to the quality of clinical education and its desired impact, as outlined in this research. A multidisciplinary and collaborative effort is needed to address these challenges.

KEYWORDS: challenges, clinical education, clinical instructors, clinical staff, qualitative study, Ethiopia

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Introduction

Clinical education is a learning process that occurs in the clinical learning environment, where it is facilitated through clinical accompaniment by the clinical instructor and clinical staff at health institutions.[1] It plays a vital role in health profession education because clinical experience strengthens the theory content that health professions already have with more practical and hands-on skills. It teaches collaboration and teamwork to integrate theoretical knowledge into real-life care and develop a professional identity.[2]

The role of a clinical educator mainly requires collaborative work between healthcare settings, interprofessional teams, health science faculty teaching in the classroom, and students assigned to clinical learning experiences in the healthcare setting.[2] In particular, the responsibilities of a clinical nurse educator include: leading, educating, and assessing student skills, knowledge, and clinical judgment; collaborating with course faculty to develop, implement, and test student evaluation processes; and implementing strategies and learning opportunities for nursing students in the clinical setting to ensure that students function within the policies and standards of the healthcare environment.[3]

In the clinical learning environment, there are a variety of factors that can significantly promote and hinder clinical learning among health profession students.[4] Different studies have mentioned challenges in clinical education, such as students' activities in the clinical learning environment being incidental, not planned, and unorganized.[5] This will create anxiety and stress when patients think about a clinical placement, which leads to poor performance at the clinical site.[6]

Challenges in the clinical learning environment are the major factors that affect the academic performance of students. For example, the quality of student's relationships with clinical faculty significantly impacts student's perceptions of the clinical learning environment.[7] The unsupportive environment is due to a shortage of healthcare staff at clinical placement sites, a lack of clinical instructors and nurse tutors, and high patient loads for staff in the ward.[8] A gap between theory and practice has been suggested as one of the challenges in clinical education. The theory content that has been learned in the classroom

has disparities with actual practice, which has dragged students into confusion.[9,10]

Since the clinical environment is dynamic and encompasses different variables that may influence student's learning experiences.[11] it needs serious attention from responsible bodies. Therefore, strengthening clinical education should be a priority for all institutions.[12]

Most of the studies conducted worldwide have focused on students' experiences. However, the challenges are not limited to the students alone; rather, they also include the clinical instructors, clinical staff, and clinical infrastructure. In addition, there are limited data regarding this problem in developing countries, specifically in Africa and Ethiopia. *Therefore, the current study aimed to explore the challenges of clinical education faced by clinical instructors and clinical staff at Dire Dawa University, Ethiopia.*

Methods

Study setting and design

An institution-based qualitative design with a supporting philosophy of phenomenology was conducted at Dire Dawa University College of Health Sciences, Dire Dawa, Ethiopia, from June 1 to June 30, 2022. The College of Health Sciences is one of the colleges at Dire Dawa University, hosting five departments at the undergraduate level and one postgraduate program. All the students in the undergraduate program in three departments (midwifery, nursing, and anesthesia) have at least one clinical attachment starting from the second year of every semester up to the fourth year. Since Dire Dawa University College of Health Sciences has signed an MOU with all health facilities found in Dire Dawa City, students are assigned to each public health facility for clinical practice. When students reach their fourth year, they are assigned to different primary and referral hospitals for an internship program. At this stage, students are expected to practice independently and become familiar with complex procedures with close follow-up for an average of 6 months. During clinical practice, students are mentored by one clinical instructor and preceptors at each health facility. There were 34, 61, and 131 nursing, anesthesia, and midwifery students, respectively. There is one referral hospital, one general hospital, and eight health centers in the town where students are assigned for clinical education.

Table 1. Themes of qualitative data.

Themes	
Challenge of clinical education among health science students in Dire Dawa University from clinical teacher and clinical staff perspective	1. Insufficient medical equipment 2. Low incentive 3. Clinical site repetition 4. Unfavorable clinical practice site 5. Lack of communication from instructors 6. Skill attrition 7. Lack of orientation for instructors and students 8. Client/patient unwelcoming 9. Uncooperative Health care workers 10. Poor university cooperation

Study population and sampling procedure

All clinical instructors who participated in clinical attachment at least twice composed the source population. In addition, clinical coordinators and quality assurance officers were included as key informants. Clinical staff who had worked for at least 2 years at their respective health institutions were also included as a source population for this study. A non-probability-purposive sampling technique was used to select the study participants. The data were collected through in-depth interviews (IDIs) and key informant interviews (with clinical coordinators and quality assurance officers). The sample sizes for the IDIs were determined by the saturation level of the information collected during the data collection. A total of 11 clinical instructors and six clinical staff members were included as study participants.

Eligibility criteria

Clinical instructors who participated in clinical attachment at least twice and clinical staff who had worked at the respective health institution for at least 2 years were included as study participants.

Data collection tools and procedures

The data were collected at health institutions and offices of Health Science College using an interview guide through IDIs. IDIs and key informant interviews were conducted using a semi-structured interview tool translated into local language aided by a voice recorder and key-note keeping. The participants were interviewed once in a quiet place, and the interviews lasted approximately 30 to 40 min. *Each interview was transcribed word by word by experts and then translated to English.*

Data processing and analysis

The data were analyzed thematically using the computer-assisted qualitative data analysis software, Atlas.ti7. The thematic analysis with an inductive approach involves six steps: familiarization, coding, generating themes, reviewing themes, defining and naming themes, and writing. The first step was familiarization—gaining a thorough overview of all the data we collected before we started analyzing individual items. The data were transcribed by replaying the tape-recorded interviews. The participant's inductive meanings were extracted and

described in narratives using well-said verbal information. Next, the data were coded. Each code describes the idea or feeling expressed in that part of the text. Next, we look over the codes we created, identify patterns among them, and start with themes. The generated themes were reviewed to ensure the accuracy and representation of the data. The definition and naming of the themes were performed, after which the data were analyzed.

Results

A total of 11 clinical instructors and six clinical staff members participated in this study. As shown in Table 1. A total of 10 themes were identified from the perspectives of the teachers and clinical staff, and they are presented in order of importance based on the opinions of the study participants.

Challenge of clinical education among health science students at Dire Dawa University from the perspective of clinical teachers and clinical staff

Insufficient medical equipment. *Almost* all of the clinical instructors responded that there was insufficient medical equipment. *Almost* all of the respondents agreed that there is a lack of dedicated effort or focus from government institutions such as the Higher Education Relevance and Quality Agency (HERQA) and the Ministry of Health in allocating sufficient funds to purchase learning equipment to universities as per curriculum requirements. The biggest gap is not in the curriculum design; rather, there is not a fair distribution of learning materials across regions and lack of priority from higher authorities to purchase medical equipment that is essential for demos.

> "As a developing country, our curriculum does not consider the availability of learning instruments. Especially for the health department, the instruments and equipment are expensive and not easily available for purchase from the local market. The higher officials should give priority to purchasing requests for skilled lab equipment."
>
> (Teacher from IDI)

The research also revealed that there is insufficient medical equipment and safety materials for attachment students, according to the interview of clinical staffs. Almost all of the clinical staffs agreed that this scenario has great impacts on the safety of the students and practical learning opportunities.

> "The biggest challenge we face is the lack of materials. The hospital only provides gloves and reagents for the hospital staffs. The hospital does not have budget for the students. The university should provide us at least learning lab materials. How do you expect me to teach a student who is not wearing a glove?"

Low incentive. The experience of teachers revealed that, due to low or no incentives from government universities, the respective hospitals in the city are prioritizing private schools. This created discrimination among students, who were treated differently based on the monetary value they brought to the assigned staff.

> "Health professionals need monetary incentives. Unlike private universities, we don't have any law or budgets to give to attachment hospitals. Some private universities pay money per student. The students are suffering in between compromising the quality of the training they get from these hospitals."
>
> (IDI participant)

Clinical site repetition. Most of the clinical instructors revealed that similar attachment sites are used repeatedly due to the accessibility of other nearby sites. In addition, these sites are not equipped enough to provide practical demo sessions for students. The site assessment fails to give sufficient weight to the availability of equipment versus other parameters. However, at the end of the day, none of the sites qualify fully for attachment; rather, the assessment is used as a tool to choose the best available sites.

> "We repeatedly use common sites for attachment. This brings a challenge to showing them rare cases for students. For example, with respect to orthopedics, mobilization devices such as scalps and splints are not available most of the time. We normally do site assessments. The assessment covers areas such as the security of the area, the safety of the environment for students, and the availability of basic needs such as water and electricity. The outcome of the assessment is cumulative and considers the time duration. We cannot send students for one week of attachment to faraway places, as this does not make sense from a cost perspective. In general, the challenge is not having the site that qualifies for our objectives."
>
> (Teacher from IDI)

Lack of communication from instructors

The study revealed that there is no cascade of proper communication from the university to the sites before attachments are sent or from the administration of the site to the staff. Hence, the students do not receive adequate support from the assigned staff at the site. In addition, most of the clinical staff stated that the absence of follow-up from university instructors was one of the factors affecting student's motivation.

> "When we ask where the students come from in our labs, we are told they are from Dire Dawa University. We have never seen the coordinator. Who is guiding them? They should at least communicate to us to guide them or they need to be present".

A lack of follow-up from instructors can be an influential factor for the proper achievement of clinical learning outcomes. One of the clinical staff members from the health institution described the following experience:

> "The students get demotivated due to lack of follow up. They just hand over the students to us without coordinators and without

proper communication. Since there is lack of accountability for who is responsible for their learning, I only show them for students who ask me ".

Unfavorable clinical practice site

Almost all of the clinical staff interviewed reported a communication gap between the institution and the attached hospitals before assessing the capacity of facilities. The number of allocated attachment students surpassed that of the capacity in space, human resources available and material available in attachment hospitals.

> "There is nothing that hinders us from passing knowledge to our students. However, there are many challenges. When every university sends students for attachment, the number of students is high. They sent them without confirming our capacity. If these universities align based on our capacity, it would be convenient for us to teach everyone. However, now, almost half of the students finish their attachment time without proper training and learning."
>
> (Preceptor from IDI)

Lack of incentive for preceptors

Most of the clinical staff reported that there is a shortage of university cooperation, such as providing scholarships, training programs and monetary incentives for preceptors at hospitals. As a result, the staff are not cooperative in supporting the assigned students because they do not receive any financial or educational benefits.

> "The university should support us on materials. We don't support the interns as well. They strive to learn by themselves. We need to be supported as a staff by providing training to us and purchasing medical equipment, as it is very expensive."
>
> (Preceptor from IDI)

The above finding is also supported by the finding of another preceptor from a different institution.

> "The other challenge we face is from the universities. There is no support from these universities to provide educational opportunities for hospital staff, such as midwives and clinical staff. This would have created a sense of belonging to the university, and the staff would be encouraged to support attachment student I wish universities would work on community problems such as providing skill labs and upgrading the skills of community health workers. . If the university offers free education for hospital staff, they will feel a sense of belonging to the university community. This motivates the staff to support the students fully. This will increase capacity and benefit all of us as a country."
>
> (Preceptor from IDI)

Skill attrition

Almost all teachers reported that there is a skill gap among clinical instructors. The quality of education is impacted by a lack of proper training to build the capacity of teachers in specific areas, such as skill development laboratory (SDL). The current quality of education that is given by untrained teachers is merely based on checking boxes rather than imparting in-depth practical knowledge to students.

> "The challenge is that not all teachers taking these trainings and lack knowledge in this area. They can teach the students by looking at the check lists, but they struggle to pass on in-depth knowledge to guide the students. I suggest that every teacher at least take the training before giving classes on SDL and clinical sites."
>
> (Teacher from IDI)

Lack of orientation for instructors and students

Most instructors revealed a great opportunity to work on proper orientation for junior staff before they were assigned to a site. Currently, there are no orientation sessions for junior staff on the objectives of the attachment assignment.

> "If you look at the junior staff, they are not properly briefed on orientations on how they will perform their jobs and do evaluations… Junior staff are eager to be assigned for attachment but are not properly given orientation on way of working and objectives. Junior teachers are mostly science diggers who are not aligned with the objectives"
>
> (Teacher from IDI)

Another teacher also shared an experience that lacked proper induction and briefing on the expectations and objectives of their learning before they were assigned to attachment sites.

> "The last gap is related to students. They need to be properly briefed on their expectations and learning objectives before they are assigned to attachment sites. I see many students asking questions such as, what am I going to do here. Students are expected to spend time on practices. SDL is mandatory. It is evaluated during site assessment. However, there is s lack of practical materials at this site."
>
> (Teacher from IDI)

Client/patient unwelcoming

The findings also show that that there is dissatisfaction from hospital clients when they are treated or visited by students. One of the clinical staff members shared his experience as follows:

> "The additional challenge we face is from the client side. The clients do not become happy when they are visited or treated by students. If the number of students was low, the clients would not even notice if they were students. However, at the moment, the number of students is high and can easily be identified by the client when they visit a patient in mass numbers."
>
> (Preceptor from IDI)

Uncooperative health care workers

The experience of *almost* all clinical educators shows that there is an unpleasant approach and ignorance from the respective health institutions where health science students attend their clinical attachment. Participants from the IDI shared their experience as follows:

> "Many teachers felt that the first problem was an administration issue. They do not perceive students as future resources that will benefit the country; rather, they only focus on the incentives they receive. They complain that their facility will become congested and that the client will not be comfortable when they interact with students. Unless this issue is sorted out, the students will not be confident, and we cannot teach them properly."
>
> (Teacher from IDI)

This finding is also supported by another participant from the IDI.

> "We see a gap in lack of cooperation among staff in dire dawa. Especially during my work at Sabian Health Center, we had many students in the OBS and delivery wards. I witnessed that the staff were not willing to give support and were not cooperative with the students. There was one instant where one midwife expelled a student without even teaching them properly. In general, the staff are not cooperative in teaching the students."
>
> (IDI participant)

Poor university cooperation

The hospital staff reported that there is a shortage of university cooperation, such as providing scholarships, training programs and monetary incentives for preceptors at hospitals. As a result, they are not cooperative in supporting the assigned students because they do not receive any financial or educational benefits.

> "The university should support us on materials. We don't support the interns as well. They strive to learn by themselves. *We need to be supported as a staff by providing training and purchase of medical equipment, as it is very expensive.*"
>
> (Preceptor from IDI)

The above finding is also supported by the findings of another preceptor from a different institution.

> "The other challenge we face is from the universities. There is no support from these universities to provide educational opportunities for hospital staff, such as midwives and clinical. This would have created a sense of belonging to the university, and the staff would be encouraged to support attachment students. I wish universities would work on community problems such as providing skill labs and upgrading the skills of community health workers. . If the university offers free education for hospital staff, they will feel a sense of belonging to the university community. This motivates the staff to support the students fully. this will increase capacity and benefit all of us as a country."
>
> (Preceptor from IDI)

Discussion

This study provided a chance to explore the challenge of clinical education among health science students at Dire Dawa University from different perspectives, such as from a clinical teacher perspective and from a clinical staff perspective.

One of the challenges that students and clinical instructors encounter that prevents them from achieving the purpose of health science education is the unwillingness of healthcare practitioners in healthcare institutions. Another qualitative study that examined the difficulty of clinical education confirmed this conclusion.[13] The attitudes and behaviors of healthcare professionals, such as their disinterest in their work and willingness to complete jobs unrelated to it, are some of the issues that have indirect detrimental consequences for clinical education.[14]

A lack of collaboration between schools and clinical settings constrains effective communication and affects vital components of clinical teaching and learning. A lack of communication between faculty and hospitals is one of the other challenges explored in this study from a clinical staff perspective. It appears that there is a lack of efficient communication between the authorities of the faculty and the hospital authorities. The number of patients does not match the number of students. As other qualitative findings supported, the experience of participants showed that the relationship between faculty and practice is an affective factor improving the clinical education process. They stated that cooperation without fear, blame, and suppression between the clinical environment and faculty would create a sincere atmosphere and alleviate the fears and concerns of students, and education would be more effective.[15,16]

The placement of students at the clinical site without a coordinator and proper follow-up at the clinical site are the other challenges explored in this study. This finding is supported by many other studies conducted around the globe.[17] The above finding is also supported by another qualitative narrative, which emphasized that there was insufficient support from clinical instructors, hence a reduction in their motivation for learning and performing educational activities. Participants believed that assigning only the ward to students and not offering direct supervision could be a deterrent to effective clinical education.[18]

The experience of clinical teachers and students revealed that the current quality of education that is given by untrained clinical instructors and SDL technicians is merely based on ticking boxes rather than imparting in-depth practical skills to the students. Skill attrition is one of the challenges of clinical education and can negatively impact the goal of clinical education. This finding is supported by another qualitative study [13, 15][15]: participants experienced poor training planning in clinical education and inadequate skills of instructors in clinical education, which is considered a factor in poor clinical training. Nursing students believe that the poor skills of the instructor in

clinical training affect their motivation and interest in learning in the clinical teaching environment.[18]

This study revealed that the shortage of materials and medical equipment at both the SDL and the health institution where students attend their clinical education is one of the obstacles to an effective clinical teaching and learning process. As the above finding is supported by a study conducted in Ghana, participants shared their frustration with providing care with limited equipment. Most of the participants indicated that inadequate equipment in both school and clinical practice settings is a major barrier to effective clinical teaching and learning in Ghana.[16,19]

The research also revealed issues such as inadequate clinical supervision, a lack of understanding in specific nursing specialties, and an absence of orientation for clinical education. Some have noted that one of the issues impeding the quality of clinical education is the lack of orientation of instructors and students to the clinical teaching task before clinical practice.[20,21]

The experiences of the participants in the study showed that direct participation in activities and healthcare techniques led to more sustainable learning for them. On the other hand, despite the existence of learning opportunities in the ward, some of the participants complained about the failure of cooperation between the patients and students as a major challenge during their clinical attachment.[22]

This study revealed that a lack of compensation or incentive was another source of frustration. The time and effort necessary to be a good preceptor, although frequently rewarding, was often viewed as upsetting because of the lack of appreciation, such as incentives and scholars, for career development. This finding is also supported by another qualitative study. Preceptors indicated that their general working conditions made their roles as educators more challenging at times. Preceptors felt frustrated with their workload and lack of compensation, which made it difficult to approach their job with excitement.[23]

Limitations of the study

The study's conclusions cannot be generalized to other settings. The generalizability of this study may be limited because it concentrated on a single university in a specific regional area. Because small samples are chosen and nonrandom sampling is performed, generalizations of the results are usually impossible. The other limitation of this study is that the interview guide was not pilot-projected before the actual data collection.

Conclusion

Clinical educators and clinical staff play important roles in achieving clinical education. The participants' experiences from the perspectives of clinical educators and clinical staff indicate numerous challenges in clinical education. The highlighted challenges include a lack of cooperation from health centers to provide easy learning processes, insufficient educational and monetary incentives, the absence of adequate SDL equipment, and learning medical materials. The aforementioned issues contributed to the quality of clinical education and its desired impact, as outlined in this research. A multidisciplinary and collaborative effort is needed to address these challenges.

Abbreviations

DDU	Dire Dawa University
CMHS	College of Medicine and Health Science
IDI	In-depth interview
SDL	*Skill* Development Laboratory

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Availability of data and materials

The data that supports the findings of this study is available from the corresponding author upon reasonable request.

Authors' contributions

DT developed the study proposal, served as the primary lead for study implementation and data analysis and interpretation, and was a major contributor to writing and revising all drafts of the paper. YS supported the study implementation and data analysis and contributed to the writing of the initial draft of the paper. MH and FT supported study recruitment and contributed to writing the final draft of the paper. DT, MH, and FT conceptualized, acquired funding, and led protocol development for the study; coded study implementation and data analysis and interpretation; and were major contributors to writing and revising all drafts of the paper. All authors contributed to its content. All the authors have read and approved the final manuscript, and MH will be the corresponding author.

Ethics approval and consent to participate

Ethical approval was obtained from DDU-CMHS-IRB (DDU-IRB-2022-17-112), and an official letter from the Research Affairs Directorate Office of Dire Dawa University was submitted to each department of the CMHS and the respective health institutions. The importance of the study was explained to the respondents, and written consent was obtained from the participants.

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