
Challenges of Implementing Nurse Educator Core Competencies as Perceived by Clinical Instructors in Erbil City, Kurdistan Region, Iraq.

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ABSTRACT

Background and objective: The quality of nursing education in the clinical setting in nursing colleges, especially in the Middle East, is based solely on the clinical instructors' ability to provide and creating the most productive clinical environment possible. The World Health Organization (WHO) identified eight domains as core competencies for clinical nurse educators. However, studies on contemporary clinical education and educators' role indicate that clinical instructors continuously face challenges in adopting the competencies recognized by the WHO. Therefore, this study aimed to explore the challenges of implementing the nurse educator core competencies as perceived by the clinical instructors in Erbil in the Kurdistan Region of Iraq.

Method: The interpretive phenomenological approach of the qualitative study and SWOT analysis was adopted to explore the clinical instructors' experience of clinical education's challenges.

Result: The main challenges of the academic institutions were shortages of qualified clinical instructors, lack of confidence among instructors, and difficulty in achieving learning outcomes. Challenges reported among health institutions include inappropriate selection for managerial roles, poor recognition of clinical education, and poor teaching environments.

Conclusion: The study results highlighted challenges for clinical instructors to carry out their role in a safe and less stressful environment, including inadequate strategic plans for clinical teaching from academic institutions and stakeholder involvement in health institutions.

Keywords: Clinical Instructors, Clinical Educators, Clinical Education, Challenges, Competencies

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INTRODUCTION

Clinical education is a vital component of nursing education [1]. The quality of nursing education at the clinic is based solely on the clinical instructors' (CIs) ability to provide and creating the most productive clinical environment possible. The terms

clinical nurse instructor and clinical nurse educator are used interchangeably in the field of nursing education. CIs teach mainly at clinical placements and support nursing students in gaining theoretical knowledge, practical skills, and

understanding of the nursing roles and responsibilities [2]. The World Health Organization (WHO) identified eight domains as core competencies for clinical nurse educators [3]:

- Integrate contemporary teaching theories, principles, and models in teaching nursing adult learners
- Design, implement, monitor, and manage nursing curriculum based on sound, contemporary educational models, principles, and best evidence
- Teaching contemporary nursing practice based on the best available evidence
- Conduct research and utilize the finding to solve educational and practical problems
- Communicate, collaborate, and partner with other health professionals
- Develop policies, procedures and decision making based on the legal, ethical, and professional values
- Utilize effective strategies to monitor and evaluate, nursing programs, curricula, and students' learning outcomes
- Demonstrate the skills of system management and leadership to create, maintain, and shape the future of educational institutions

The purpose of developing nurse educator core competencies was 'to enable educators to effectively contribute to the attainment of high-quality education, and the production of effective, efficient and skilled nurses who can respond to the health needs of the populations they serve' (WHO, p.5) ³. The ability to master these domains enables CIs to utilize the most updated clinical teaching strategies to promote undergraduate nursing students' competencies and help them to be lifelong learners [3]. Previous studies have revealed that supervised clinical practice by competent CIs enhances the professional growth

of the students, thereby ensuring patient safety and reducing medical errors. However, studies on contemporary clinical education and educators' role indicated that CIs continuously face challenges in adopting the competencies recognized by the WHO while teaching in clinical settings [4]. Positive clinical teaching could be encouraged by empowering CIs [5, 4]. Power is the ability to activate resources to achieve organizational goals. CIs could be empowered to face challenges when support is received from health care institutions and academic institutions. Enhancing the practical environment by providing learning opportunities is a crucial role of health care institutions. It empowers CIs to utilize the most effective learning strategies. Additionally, the academic institutions could be better involved in clinical education by letting CIs access educational materials, organizational clinical guidance, providing access to continuous training courses, financial support, and rewards. On the contrary, less involvement of academic and health care institutions in the clinical education program causes CIs to be confronted by various challenges, including relying on personal knowledge and clinical experience to plan clinical education programs rather than on an institutional strategic program [5]. In such cases, the clinical learning objectives are short and less dependable, compromising and hindering academic institutional goals and vision. The need to achieve a higher level of education and develop skills needed to meet the health organizations' demands and diversity of patient care made more students enroll in nursing colleges in recent years. The record number of enrollments calls for more competent nurse instructors clinical nursing education. The critical shortage of CIs causes various challenges to appear. Therefore, this qualitative study was conducted to explore the significant

challenges in attempting to implement the core competencies developed by the WHO [3].

METHODS

Study design: SWOT and the interpretive phenomenological approach were used. A SWOT analysis is a “methodology to identify a department’s strengths, weaknesses, opportunities, and threats” [6].
Time of the study: The study was conducted from January to May 2020.
The setting of the study: College of Nursing of Hawler Medical University
Sample size and data collection: The data were collected in two phases: The first phase was a workshop held 30 January 2020 on that focused mainly on clinical practice. Forty faculty clinical educators of the college were invited to a semi-structured focus group discussion to talk about their experiences and challenges at the clinics. The clinical educators were divided into several groups based on their specialty. After oral discussion, a group SWOT analysis was conducted to obtain reliable and written data. The second phase used the interpretive phenomenological approach to explore the CIs’ experience of clinical education challenges. A convenient sample of nine academic educators at the college was recruited to participate in individual interviews. The participants have taught clinical practice at the college in different specialties, including adult nursing, pediatric nursing, and maternity care, for more than two years. The eligible criteria for recruitment of both genders included two or more years of clinical teaching experience, completion of a Master’s or Ph.D. degree, and full-time employment. With the help of the interview guide (see Table 1, Appendix 1), the in-depth semi-structured interviews were conducted to obtain data from the participants over six weeks starting from March 2020. The original interview guide was developed

based on the WHO competencies for nurse educators. The interview guide included questions related to challenges in meeting competencies. Due to the COVID-19 pandemic and the participants' safety, the research team decided to interview using a digital program (ZOOM). Permission was obtained from the participants, and the informed consent was signed and sent back through email and Viber application. The interviews lasted between 60 to 80 minutes and were digitally recorded. The researcher reassured participants about the confidentiality of the interview records and the anonymity of participants’ names. Anonymity in qualitative research is the key to assisting participants in unveiling sensitive information [7, 8]. The participants chose the Kurdish language in the interview to express themselves because they felt more comfortable and confident with their mother tongue. The quotations used in the study were translated to English by an independent professional translator. **Ethical considerations**

Ethical approval was obtained from the Ethical Committee of the College of Nursing of Hawler Medical University No. (4) on 29 January 2020. Before data collection, written informed consent was obtained digitally. The participants were informed about the study's purpose, benefits, and risks, and they were permitted to withdraw at any point if they felt insecure or uncomfortable. **Data analysis** This study used thematic analysis as the method of data analysis. Thematic analysis is widely used in a phenomenological study for compatibility [9]. The SWOT analysis was written in English and did not need to be translated, only anonymized. The data analysis process was done manually after the digital records of the second phase interviews were anonymized and transcribed. Braun and Clarke's six phases of Thematic Analysis [10] was applied in the

analysis process:

1- Listening and relistening to the recorded data for familiarization; the SWOT analysis were read several times by the researchers and one independent coder

2-Extracting initial codes by allocating interesting features relevant to the research question: “challenges of teaching undergraduate nursing students at teaching hospitals”

3-Generating initial themes by analyzing and combining potential codes; the codes were clustered and labelled based on their similarities and differences to generate main themes and sub-themes

4-Reviewing initial themes in relation to the research question

5-Naming and defining themes and sub-themes in a few sentences to explain what they are consisted of

6-Producing the final report with the final themes and subthemes written and presented with dialogues extracted from the interviews and SWOT analysis

RESULTS

Table 2 shows the demographic characteristics of the participants in the second phase of data collection. Out of nine participants, most were male and from adult nursing specialty (n= 6). The highest age of the participant was 38 years, who also had the highest years of experience in clinical education. The demographic characteristics of the participants in the first phase were not collected since they were divided into subgroups for data collection. The analysis of the overall study data revealed the following themes: academic institutional challenge and health institutions. The three principal subthemes under academic institutional challenge were the shortage of qualified CIs, CIs' lack of confidence, and lack of clarity in the learning outcomes. Inappropriate selection for managerial roles, poor recognition of clinical education

importance, and poor teaching environment were the subthemes under health institutions. Academic institutional challenges

a) Qualified CIs shortage

The nursing profession is in demand in Erbil City, the capital city of the Kurdistan Region of Iraq. In recent years the number of private government hospitals have dramatically increased, positively affecting the recruitment of nurses holding baccalaureate degrees. The fast-growing number of nursing students has put a lot of pressure on the college, requiring CIs to fill all the gaps present in the clinical schedule.

“Some of the time I have to cover two areas, helping nearly 25 students with the simple and short task without focusing on the actual learning objectives... I prefer to look after six students as a maximum number, otherwise, it is hard to set clear learning outcomes” (Participant #1).

The study participants reported that their lack of ability to cover all of the clinical areas caused the college to recruit some clinical educators that have no expertise in supervising nursing students.

“It is common to hear from students complaining about wasting their time in the areas where they are supervised by unqualified clinical teachers” (Participant #2).

B) CIs lack of confidence

Assigning the CIs to a clinical placement without the appropriate training course or previous clinical experience in the area is stressful and puts CIs in a risky and unsafe environment. Some CIs disclosed their lack of expertise in the clinical area they are assigned to in terms of skills and finding learning opportunities. The interviews with participants revealed that CIs are more

textbook oriented and avoid being clinically oriented to stay safe and make fewer errors in the practice.

"I was assigned to teach at the urology unit, which I never did before. I struggled a lot. I had to familiarize myself with the area while teaching undergraduate students. A lot of learning objectives could be achieved if I had previous experience at urology unit" (Participant #3).

The college administrators announced the clinical schedule shortly before students started their clinical placements. Most CIs were relocated to a new clinical area they had never taught before. *"Teaching in a new clinical setting is hard work. I would prefer to be informed early to familiarize myself with the staff, cases, and learning opportunities"* (Participant # 1).

Concerning the problems of clinical settings, participants who spent more than one year in the same clinical setting complained less. *"If I compare my clinical objectives now to the first time, I can say it is more productive and clinically oriented. Now, I am more familiar with the environment, cases and staff"* (Participant # 9).

C) Difficulty achieving learning outcomes

There are a limited number of teaching hospitals (government hospitals) in Erbil City where students can practice their clinical teaching. Furthermore, the inadequacy of the health service at public hospitals results in more patients using non-teaching private hospitals rather than public health care institutions. These barriers forced the clinical committee of the college to distribute students to teaching hospitals based on the availability of the patients rather than learning objectives causing, a huge gap in applying theory to practice.

"The area I used to teach in, which was related to my specialty, no longer received patients. Therefore, I had to distribute students in the areas that had patients so that students could practice required

procedures, and this affected learning outcomes" (Participant #4).

Changing clinical areas in the middle of the semester is challenging and requires extra hard work as reported by participants.

"When I arrive at the clinic, either I ask the staff for activities that can be done by the students or I search by myself to see what procedures are available. Finding learning opportunities by myself is difficult and I do not feel comfortable going to clinical placement without appropriate, previously planned activity" (Participant #5).

Moreover, none of the students has a portfolio. Students' learning progress is not documented or shared between CIs when the clinical area changes. Some procedures and skills might be repeated several times in one clinical area. Students never get the chance to practice some activities. Most practical activity is planned daily when the students arrive at the clinic which does not necessarily fulfil the desired learning outcomes.

"When students' group changes, I call their CIs to see what activities I should focus on, and what students are lacking in so time is not wasted on repeated procedures and skills" (Participant #3).

Health institution challenges

- a. Inappropriate selection for managerial positions

The first sub-theme identified under health institution challenges is the CI's weak authority in clinical settings. Most of the CIs are holding a master's degree, or higher, in nursing science, whereas the managerial and administrative positions in the health service are filled by doctors or by nurses holding diploma degrees or lower. Unfortunately, promoting staff to a higher

position in government organizations usually happens based on staff loyalty to a political party, not professional capability. As a result, a vacant position might be filled by staff that has no experience or qualification relevant to that position. This lack of professionalization causes a significant misunderstanding regarding the importance of nursing education, which sometimes means that nursing students are seen as a future threat to the way authority is distributed among health care staff. *"Most clinical areas where I used to teach had a team leader with a very low qualification in nursing. It was difficult to explain the role and purpose of good quality clinical education"* (Participant #5). According to the participants, lack of authority forces CIs to use the personal relationships with the staff to be allowed into the clinical placement and find learning opportunities. *"I try to teach in the clinical settings where I used to work or have friends, so that I can have freedom in using clinical equipment and find the best learning opportunities for students"* (Participant # 6). In addition, hospital staff distance themselves from academic faculty, staff, and students, by creating an environment where no students are welcomed. *"I always advise my students and myself to avoid any argument or criticism with the staff, in fear of losing permission to practice teaching nursing care"* (Participant #4).

B. Poor recognition of clinical education importance The participants reported that the health institutions do not see students as their future employees. The quality of clinical education is of least concern of teaching hospitals. They believe that the students will ultimately learn the role of nursing even in the absence of supervisors. *"Lack of knowledge about nursing role and importance of having mentor, preceptor or supervisor forced us to look after students alone, which I am positive, they would the*

learn more if hospital staff were involved in clinical education" (Participant #5). Additionally, the teaching hospital staff perceive CIs and nursing students as a burden. They demand that the college should have its own teaching hospitals. Some participants mentioned that teaching hospitals have no rules or regulations concerning teaching students, which is a sign that clinical education is not welcomed at the teaching hospitals as indicated at the beginning. *"Last year in the first week, with my students we had to wait more than one hour outside of emergency department because we were not allowed to enter the department that claimed that we did not have a permission"* (Participant #7). *"Not acknowledging the importance to practice clinical education at teaching hospitals was discussed with the director at the Ministry of Health, who claimed that the best solution is to have a private hospital belong to the college of nursing"* (Participant #8). CIs and nursing students, during clinical days, have, however, solved some of the problems of nursing shortages by putting a lot of effort into looking after admitted patients and their relatives. During the interviews, only one participant said that she got a letter of appreciation from the hospital while others are still in a continuous argument with the hospital administration and staff over clarifying their role in improving the health care services. *"Hospital staff leave them alone to look after the patients, while it is illegal, but students under our supervision carry out their duties professionally"* (Participant # 9).

C. Poor teaching environment:

One of the main challenges that CIs face at the clinic is the lack of standardization. At the college, the most updated version of nursing books is used in the theory lectures and clinical simulation laboratory sessions. Students are familiar with various equipment and techniques used in nursing

procedures. On the contrary, clinical placements are not equipped with the necessary equipment. CIs must involve students in clinical skills with minimal or sometimes old versions of medical equipment. In this way, students get confused between what they studied and what they are experiencing in the clinical settings. CIs are the first people to be criticized and blamed for these differences. *“So many times, we did not have waterproof pad or sheet to create a sterilized field. I had to teach my students using gloves paper or gauze to put under the equipment during procedures”* (Participant # 9). Procedures are a daily challenge for CIs. Some nursing cares are such as Foley catheter insertion, NG tube insertion, and dressing of wounds are no longer done by nurses, are being claimed as doctors’ jobs, and have been banned by the Ministry of Health to undertake. Of course, it is not the same in all areas and there are differences between hospitals. *“One of the relatives did not permit my students to participate in the dressing of her mother’s wound. She said: ‘I prefer it to be done by a doctor like yesterday.’”* (Participant #3). Other issues with the teaching environment are lack of libraries, conference rooms, and most importantly locker rooms. Most of the clinical discussions, according to the study participants, are taking place in the corridors or empty patient rooms. *“Some hospitals have conference room, but the priority is given to medical students, on one occasion we were even asked to leave the room because medical students’ lecture started”* (Participant #2).

Table 1: Please describe any challenges in implementing the core competencies developed by WHO (3) by answering the following questions:

Interview questions

How many years of clinical experience do you have?

In how many clinical areas you have taught so far? Were they related to your specialty?

Please explain the challenges of teaching in a new clinical setting.

Please explain any challenges that would prevent you from adapting theoretical nursing expertise to clinical teaching practice.

Please explain any challenges you may face in defining teaching objectives and integrating them for teaching students.

Please explain any challenges you may face in teaching nursing practice to nursing students.

Please explain any challenges you may face when undertaking research and applying results in the field of clinical teaching.

Please explain any challenges you may face in including health care providers in the process of teaching.

Please explain any legal and ethical challenges that may prohibit you from delivering professional nursing education.

Please explain any challenges you may face when assessing students’ performance and the effectiveness of the curricula.

Do you assist in developing policies and protocols for nursing students at your institution? If yes, please explain any challenges in developing them.

Table 2: Demographic characteristic of the study participants (second phase)

No	Sex	Age	Educational level	Speciality	Work experience/years
1	Male	38	Master degree	Adult nursing	11
2	Female	36	Master degree	Pediatric nursing	10
3	Male	35	Master degree	Adult nursing	7
4	Male	32	Master degree	Adult nursing	9
5	Male	32	Master degree	Pediatric nursing	9
6	Male	32	Master degree	Adult nursing	8
7	Female	32	Master degree	Adult nursing	7
8	Female	30	Master degree	Maternity nursing	5
9	Male	29	Master student	Adult nursing	4

DISCUSSION

The findings of the present study revealed that CIs face various challenges in implementing core competencies for nurse educators identified by WHO [3]. The challenges related to the academic institutions were the first theme identified by the study participants and included three sub-themes: the shortage of CIs, CIs' lack of confidence, and difficulty achieving learning outcomes. Interviews with the participants revealed that the college had been running clinical education with a short-term plan instead of having a long-term plan that can tackle minor and major issues more efficiently. The fast-growing population and developing nursing services have made a larger number of students pursue nursing as a career. However, the College of Nursing/ HMU still works according to the plan that has been in situ since 2001. Many full-time and part-time CIs have been recruited and given the role of CI without previous preparation. The only requirement was holding a bachelor's degree in nursing science and at least one year of clinical experience. The shortage of CIs is universal [11,12]. Many studies document the urgent need of nurse educators [13, 14]. Filling the shortage gap in the teaching faculty staff is challenging and transitioning nurses to

novice instructors requires an extensive orientation program. The importance of training CIs before assigning them to clinical placement is paramount [15]. CIs play a crucial role in developing students' competency and shaping the future of the health care system. Clinical practice skills and knowledge are the two most important components of CIs' role, and they have a strong effect on the confidence level. In addition, conducting research, improving curriculum based on contemporary educational models and theories, monitoring and evaluating students' learning outcomes, demonstrating effective communication skills with other health care professionals, and professionally enhancing nursing education policies, procedures, and decision-making as requested by WHO [3] are other components that every CIs must-have. Although competency is developed by practice, novice CIs should go through a relevant and recognized training program to acquire basic information on how to master the role of qualified CI. Nonetheless, the clinical environment is complex and each practical situation requires a unique learning experience [4]. Although the unavailability of dependable resources is a major challenge in adopting core competencies mentioned by many WHO experts [16], many strategic methods could

be applied to achieve this task. An innovative approach implemented by nurse educators in Canada is through a project using Open Education Resources (OERs), where all necessary materials are made freely accessible online for novice nurse educators and the progress of learning monitored and supported by volunteered educators. The developers of the OERs are confident that faculty members and higher education institutes that lack organizational and financial support would benefit from such a program [17]. Lack of clarity regarding the learning outcomes was another challenge identified by the participants. Continuous political conflicts and economic crises negatively influence education systems worldwide. Unfortunately, the Kurdistan Region of Iraq has seen various conflicts, which have not given the region the chance to build a well-organized structure in the education system and learning process across all levels. Participants disclosed their concern with the lack of viable educational clinical settings and lack of learning opportunities. Inability to fulfil health staff demand by the government resulted in providing low-quality service in the teaching hospitals. In the search to find better services, patients use private hospitals if possible. Simply expressed, no patients mean no learning opportunities. Well clarified and articulated learning objectives are the key to achieving learning outcomes [18]. However, even consistent learning objectives cannot be accomplished when the clinical setting continuously changes based on the availability of patients. This issue challenges the CIs to choose learning outcomes that are realistic and achievable. The second theme identified by this study was concerned with the challenges related to the health institutions included three sub-themes: weak authority, lack of acknowl-

edgement and poor teaching environment. The role of the manager in hospital settings in most countries is practiced by registered nurses who hold a BSc or higher degree in nursing science. Contrary to this, in Erbil City's teaching hospitals, this role is practiced by nurses who often have a lower degree and are loyal to a particular political party. Due to the lower number of graduated nurses who hold a BSc this problem has not been resolved yet. The presence of a nurse manager is most important for preparing hospitals to receive nursing students [19]. CIs find that dealing with someone who understands the purpose of the clinical practice is much easier [2] and that learning opportunities and learning outcomes could be designed more effectively through stronger collaboration between CIs and nurse managers [18]. Planning clinical teaching in public sector academic health institutions across all of Erbil City is authorized by the government, namely the Ministry of Health, under specific rules and regulations. Nursing students like other medical students should be given the chance to experience practice in the most supportive environment. However, not valuing the importance of clinical nursing training by health staff is a huge challenge as experienced by the study participants. The exact role of nurses or what nurses can and should do at the hospital is still vague. Presently nurses are not involved in providing holistic care, and the services they provide are simple and can be learned within a couple of weeks. This mentality leads the hospital staff to think that the students do not need extensive clinical practice or supervision. There is no doubt that the success of clinical training in nursing education depends largely on strong, structured, collaboration and relationships between health care services and academic institutions [12, 20]. Not having this strong bond forces CIs to practice the

role alone and in an extremely unsupportive environment. Worldwide, clinical education is a shared task. Mentors and preceptors who are experienced clinicians and have skills take part in educating nursing students [20]. However, clinicians in many studies reported that other challenges come with adopting these roles, mainly student's assessment and the amount of time each student needs to achieve a specific task [18, 20]. Students need constant attention, which means that the supervisor should not be distracted with other duties in clinical settings [21]. On the other hand, faculty CIs can focus only on the students' need, but has the least amount of clinical experience, which ultimately affects the learning opportunities they provide [22]. Therefore, achieving the best learning outcomes requires the involvement of both sides and all supervisor's contributions at the clinic should be acknowledged regardless of their background or position. The clinical environment is the real world where students finally get the chance to apply what they have learned at college to the real practice situation [23]. Students must find similarities between textbooks, simulation laboratories, and clinical settings. Students expect to see role models and advanced techniques used in nursing care [19, 23]. Teaching in a poor environment that is far from students' expectations, make CIs struggle to keep students motivated and not lose interest. When the differences are huge students feel doubt and accuse CIs of putting unnecessary pressure on them at the college to master the role of a qualified nurse. Study participants pointed out that teaching in a pedagogical atmosphere would be more productive. However, as has been mentioned, due to continuous political problems and economic crises, teaching hospitals are

still not ready or able to provide the learning environment requested by the academic institutions.

CONCLUSION

The perceived challenges of clinical instructors while teaching undergraduate nursing students have been scrutinized in the current study. The shortage of qualified CIs, CIs' lack of confidence and lack of clarity in the learning outcomes are the three principal issues under the main theme of the academic institutional challenge. Inappropriate selection for managerial roles, poor recognition of clinical education importance and poor teaching environments were recognized as the most difficult challenges under the theme of the health institutions as perceived by the study participants. The outcome of the study reasserted and supported the premise that inadequate strategic plans for clinical teaching from the academic institution and the lack of more positive involvement of the health institutions in the clinical study made it much more difficult for CIs to carry out their role in a safe and less stressful environment.

RELEVANCE TO CLINICAL PRACTICE:

The findings of this study can be used to reform clinical education and to empower CIs based on the core competencies developed by WHO [3] for nurse educators to achieve a more productive clinical teaching and learning. The study also recommends the following points:

- 1-Reforming the policy and mechanism of supervising students at the clinic, most importantly involving health staff as mentors or preceptors in the process of education.
- 2-Addressing CIs challenges and empowering CIs with basic needs and opportunities to practice the role more productively.
- 3-Developing a strategic plan to tackle the issue of the fast-growing number of

nursing students' enrollment.

4-Adopting a well-prepared program based on the core competencies³ recommended for transitioning expert nurses to expert educators.

5-Designing well-structured collaborations and partnerships with the health care institutions.

LIMITATIONS

The interviews with the participants disclosed various issues related to clinical education, most of which have been discussed in this paper. However, the challenges of teaching nursing students in the Kurdistan region have not been highlighted in the study. The teaching style in high schools when compared to the universities is different, with universities having a more modern approach, which affects the academic ability of the new student cohorts. The researchers would like to undertake a research study focusing only on this subject. The participants did not adequately describe the challenges of conducting educational research itself. Therefore, further research is also needed in this arena.

1.1 Rigor

The research question and the interview guide were discussed with multiple researchers who had expertise in qualitative research. To ensure dependability and transparency of the study results, the transcribed data from the video records and SWOT were analyzed, coded, and categorized by an independent reviewer and the researchers separately. The researchers compared and verified their analysis with the reviewer's conclusions.

Conflicts of interest

No conflict of interest has been declared by the authors.

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