

International Internship Collaborations: Rwandan Nephrology Graduate Nurses Describe Their Experiences Abroad

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Abstract

Background

International internships provide many benefits to graduate nurses, including bridging the gap between theory and practice. Yet, these internships in culturally diverse regions also present various challenges.

Objective

This study explored the experiences gained by nephrology graduate master's nurses from the University of Rwanda who attended clinical training in more advanced settings in Asia and Africa.

Methods

A qualitative design and semi-structured interview guide was employed to solicit individual opinions of nine nephrology graduate nurses who had attended international internships in India and Kenya. Content analysis was used to analyse and interpret the meaning of the textual data.

Results

Four themes emerged from the analysis, namely Inter-professional collegiality, Cross-cultural adaptation, Challenges of the internships, and becoming a Change agent upon return to work in Rwanda.

Conclusion

Participants reported many positive learning experiences and some challenges. These challenges could be rectified in future internships abroad. The training bridged the theory-practice gap and increased the graduate nurses' experiences as global citizens.

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Background

As the world becomes more multicultural and technologically advanced, nurses must incorporate cultural awareness and clinical competencies in their specialty. Some nursing educational programs propose that nurses learn about cultural awareness while enrolled at university.[1] Many schools promote international learning programs, and the student's perception is "positive" post-experience abroad.[2] In addition to students gaining a broader cultural view of the world, international internships provide specialty training for nursing students to learn advanced practice skills that may not be available in their home countries.[2,3] Rwanda, as a developing country that has started training nurses at the graduate level, has also opted to expose its graduates to internships in other parts of the world.

Rwanda is a small, landlocked country in Eastern Africa with a population of over 13 million.[4] The 1994 genocide against the Tutsi had a devastating effect on Rwanda's healthcare system. It resulted in a significant loss of healthcare professionals, including doctors and nurses, due to both deaths and displacement, but ever since, the Rwandan health system has significantly improved.[5] To further contribute to the strengthening of health care delivery, the University of Rwanda, a public institution, recently started a two-year Master of Science in Nursing (MScN) program with specialties incorporating advanced knowledge and clinical skills to provide preventive, curative, and palliative care in a growing nursing subspecialty of nephrology.[6] Nephrology is one of these eight specialty tracks selected, and generally, in Rwanda, the service of renal replacement therapy (RRT) is still new, and most kidney transplant patients must travel abroad, creating a practice gap for local students in the MScN nephrology program. Thus, the international internship was sought to respond to this critical practice gap.

Various studies have shown that international internships have many benefits as well as challenges. On the one hand, in international internships, there are gains concerning increased consciousness about client and nurse safety, critical thinking skills, clinical skills, professional behavior, relationships, caring, and increased career prospects.[7,8] Furthermore, nurses are prepared to provide high-quality, patient-centered care with evidence-based practice.[9,10] Some studies suggest the integration of international internships into formal education to enhance academic study and student learning, there are also some challenges.[11] Studies revealed challenges of discomfort, language barrier, isolation, and cultural coping associated with international internships.[3,12] Nevertheless, studies indicate that benefits and challenges are not similar, and experience may differ depending on other various factors.[13]

This study, therefore, aimed to explore the experiences gained by the University of Rwanda nephrology graduate nurses during their training in more advanced settings. The first MScN cohort traveled to India in 2017 and the second cohort to Kenya two years later. These collaborative training internships in hospitals abroad were initiated in Rwanda and funded by the Human Resources for Health (HRH), the Ministry of Health, and the UR School of Nursing and Midwifery (SONM) at the College of Medicine and Health Sciences (CMHS).

Methods

Study Design

A qualitative descriptive design was used for the study. This naturalistic method of inquiry was chosen as it describes the research in real-world settings and involves an interpretive component of the findings that remains near the contextual data, [14] as evidenced by numerous excerpts in the results section.

Participants

The study population included all 11 nurses who graduated from the UR Masters Nephrology Track program between 2017 and 2019 and attended an internship at St John's Medical Hospital, Bengaluru, India, or the Kenyatta National Hospital in Nairobi, Kenya. The 11 nurses were selected purposefully from those who attended the internship; nine agreed to participate, and two graduates living abroad were excluded due to no availability. Five female and four male students, three were university assistant lecturers, and six worked at referral hospitals. Two Rwandan faculty members accompanied the students but were not interviewed. Morse suggests a sample size of six to 10 participants to bring thick data and enrich the study; however, the sample size can be determined by data saturation when redundancy is achieved. [15] To have good data, the study not only intended to interview the population of the study but also to have a deep interview with each participant available.

Data collection

The research team developed a semi-structured interview guide based on the study objectives to aid data collection (instrument attached). Potential participants were contacted by phone and invited to participate voluntarily after receiving information about the study. If the response was positive, a mutually agreeable date, time, and location were arranged. Face-to-face interviews were conducted with six participants, and three were interviewed via the telephone due to their distance from the university. The participants were advised that the interview would be audio-recorded, no personal identifying information would be collected, anonymity and confidentiality were assured, and they could stop the interview without penalty. Participants asked questions, the researchers responded accordingly, and a consent form was signed before the interview started.

The interview began with the researcher asking general questions to converse with the participant before progressing

to specific questions. In addition, probing questions were used to seek clarification, and a second researcher took field notes. The interviews were conducted in English; however, participants who wanted to express themselves in Kinyarwanda (the local language) could do so. Six interviews were conducted in Kinyarwanda, and three were conducted in English. The interviews lasted from 60-90 minutes. The interviews were then transcribed verbatim and translated into English, which enabled the other two co-author researchers to analyse the data. The three data collectors, who are also co-authors, transcribed the audio-recorded interviews in Kinyarwanda and translated them into English.

Trustworthiness

Lincoln and Guba (1985) four criteria for the trustworthiness of the qualitative data were used to provide credibility, dependability, confirmability, and transferability to the study. [16] Purposive sampling was used to identify nurses who attended the internships to increase credibility. During the interview, prolonged engagement, continuous observation, peer debriefing, and member checking were done. Details about data collection and the audit trail, team meetings, detailed reflections, and data management procedures provided dependability and stability of the data. The objectivity of the two co-author researchers' independent analysis, unity of categories and themes, and reflexivity provided confirmability. Transparency of the audit trail and thick description increased the transferability to other settings. The range of rich excerpts of textual evidence is consistent with the interpretation and supports the authenticity of the participants' real-world experiences attending the international internships.

Data analysis

Qualitative content analysis was the method used to analyse and interpret the meaning of the textual data. "Qualitative content analysis is defined as a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and

identifying themes or patterns.[17] Two doctoral-prepared researchers (LR and PM) experienced with qualitative research independently analysed the data. One used a manual content analysis method, and the other used the Nvivo 12 software package for data management, yet they reached almost the same results.

Data were organized and coded, and categories were created to describe all content of the nine transcripts. A summative content analysis was used to develop coding categories inductively, and themes were derived from the textual data.[17] Three coding levels were followed during the process:

Level 1: The data were examined in detail, and codes were identified from all nine transcripts.

Level 2: The two researchers compared the coded data, creating categories after clustering and condensing the Level 1 coded data.

Level 3: From the coding and categories analysis, central themes revealed the experiences gained during the internship.

Both manifest and latent analyses were applied. Objective and subjective techniques were used to obtain the surface and deep meaning of the collected data, thus resulting

Table 1. Emerging themes

Themes	Sub-themes
Changing agent	Theory practice gap
	New knowledge and skills
	Efficient leadership
	Advanced technology
	Practice
Inter-professional collegiality	Education
	Teamwork
	Collaborative care
	Inclusiveness
Cross-cultural adaptation	Role clarity
	Cultural acclimatization
	Cultural acceptance
Challenges of internship	Cultural accommodation
	Food, language, and weather
	Logistical issue
	Inadequate time
	Pre-orientation

in a comprehensive understanding of the nephrology nursing graduates’ internship training experiences. The central themes and sub-themes were analysed manifestly, meaning that the sub-themes were directly derived from the interview content.

Ethical approval

Permission to conduct this study was obtained from the Institutional Review Board (IRB) at the University of Rwanda (UR), College of Medicine and Health Sciences (CMHS); approval No 250/CMHS IRB/2021.

Results

Nine out of the 11 eligible nephrology MScN graduates participated in the study. Participants’ ages ranged from 31 to 51 years, and their professional work experience ranged from eight to 15 years in Rwanda.

Emerging themes

The four themes identified were “Changing agent,” “Inter-professional collegiality,” “Cross-cultural adaptation,” and “Challenges of the internship.” The themes were generated from the data and then translated into narrative passages, with findings emerging logically from participants’ responses (Table 1).

1. Changing agent

Participants shared their acquired practice, education, and leadership experiences. They revealed that nephrology practice abroad is more advanced than in Rwanda. They shared their experiences teaching others about renal failure and the changes they initiated upon returning to their respective work environments due to the lessons learned abroad. In addition, participants shared their learning experiences during the four-week internships in India and Kenya. The opportunity to practice from both host countries bridged theory-practice gaps among the participants. Most shared that their learning experiences were unique, and they learned new knowledge and skills about RRT (not yet available in Rwanda). The participants also shared the benefit of observing efficient leadership and appreciated the work organization and role modeling. They acknowledged the machines' effectiveness, different RRT techniques, and reusable dialyzer for many patients for just one shift. These experiences are expressed in the following excerpts:

1.1 Theory practice gap

Participants responded that they gained substantial theoretical and practical knowledge through internships in India and Kenya by learning about various medical conditions.

"I gained a lot both in theory and practice by doing an internship in India. I learned about various conditions, RRT techniques, and pediatric dialysis, which we had only read about in class. I also learned how to focus on self-directed learning" (KI-1).

"I just saw peritoneal dialysis (PD) done in a private hospital in Rwanda. However, in Kenya, I learned how to manage a PD patient, both in real and simulated environments. I also gained more knowledge about the nutritional management of kidney failure patients" (KI-8).

1.2 New knowledge and skills

Participants revealed that they had gained new knowledge and skills, mastered the operation of hemodialysis machines, observed strict infection control measures

in India, participated in kidney transplant procedures in Kenya, and exposed themselves to technological advancements and new cases not seen in Rwanda.

"I have seen different technological advancements in RRT... I have mastered how to operate the haemodialysis machine. I learned how infection control measures are strictly followed in India, such as transplant insertion and care, which is a unique technique in the host countries" (KI-3).

"We observed and participated in providing care for transplant patients in Kenya, such as kidney transplant procedures... We gained a lot both in theory and practice. We had seen a lot of new cases that we had not seen in Rwanda. We followed them for three days" (KI-8).

1.3 Efficient leadership

Leadership experience inspired participants to implement changes in their health settings by emphasizing punctuality, infection control, and prompt emergency response.

"In India, dialysis services are provided 24/7. The nurse in charge comes at 7 am and maintains punctuality very strictly. She is a great example for other colleagues. Everyone knows what they are doing and functions independently" (KI-2).

"In Kenya, the hierarchy is well respected. Even the PhD-prepared lecturer works in the clinical area. The goal, or focus, is the well-being of the patient. The in-charge does not follow everyone, as they know what they are doing" (KI-7)

"The experience I gained in India was incredible. As a leader, I can bring some changes to our health settings. Punctuality is followed very efficiently there. Also, I have seen how quickly the nurses react to emergency problems. I am trying to teach our nurses in my setting within my capacity about punctuality, infection control, and reacting to emergencies" (KI-3).

"In my service, I use evidence-based practice and teach my nurses about teamwork, communication, nutrition, and infection control. Significant changes are happening since I am applying the leadership skills gained during my internship" (KI-9).

1.4 Advanced technology

Participants observed advanced technologies that enable reuse, continuous renal replacement therapy, and continuous ambulatory peritoneal dialysis machines, which they had previously only studied theoretically.

“In India, they have a machine that can clean the dialyzer, which allows it to be reused. This procedure is a new thing. If we buy it here, it will save the cost for the patient” (KI-6).

“I had an opportunity to observe a continuous renal replacement therapy machine and a continuous ambulatory peritoneal dialysis machine, which we used to learn theoretically here” (KI-9).

1.5 Practice

During internships, participants learned improved asepsis techniques, hemodialysis set packing, target weight management, and increased blood flow rates.

“I have seen how asepsis is done in India and packing the sets for hemodialysis... which helps to reduce the infection. I also learned how to manage the target weight without overloading the patient. I am trying to bring those changes to my unit” (KI-6).

“Here in “Centre Hospitalier Universitaire de Kigali” (CHUK), we have always kept the blood flow rate at 250. As you increase the blood flow, the quality of dialysis improves. After my internship, we have increased the blood flow rate to 400 for stable patients. We are getting success from that” (KI-4).

1.6 Education

The internship experience enabled participants to confidently teach fellow nurses about renal conditions, dialysis, infection control, and emergency management in their units.

“I can teach my fellow nurses about different renal conditions, dialysis, and infection control confidently from the knowledge and skills gained during my internship in Kenya” (KI-8)

“The experience I have gained during the internship is assisting me in teaching our interns and nurses how to manage the

different emergencies and renal conditions in my unit” (KI-5).

2. Inter-professional collegiality

This theme revealed four sub-components: teamwork, inclusiveness, role clarity, and collaborative care. Participants appreciated the collaborative care and strong teamwork approach between nurses, physicians, and other healthcare professionals in India and Kenya, as experts fulfilled their roles and came together to provide holistic patient care.

2.1 Teamwork

Participants observed highly efficient teamwork and strong communication in nephrology units in Kenya and India, with collaborative teaching and immediate support among team members in patient care.

“The teamwork was carried out efficiently in Kenya... We were in the domain of nephrology, so all the team members were involved in our teaching. When there is a pulmi cath insertion, they call the surgeon to teach us. The communication channel is maintained very well” (KI-8).

“The nurse, along with other team members, provides advocacy for the patient. When a nurse experiences a problem with the patient, other team members immediately come to assist, which I appreciate in India” (KI-4).

2.2 Collaborative care

Participants observed robust collaboration among healthcare team members with a multidisciplinary approach focused on patient well-being.

“In Kenya, there is a significant collaboration among team members. Nutritionists, cardiologists, social workers, and nurses worked collaboratively. They include the patient and family members during the care process” (KI-9).

“Collaboration is done efficiently in India with all the team members involved in patient care. All nurses know about the patients. The surgeon, nephrologist, dietitian, and counsellor all focus on the patient’s well-being” (KI-3).

2.3 Inclusiveness

Participants noted that nurses are highly valued for their observations and contributions.

“Nurses are appreciated and respected for their observations and contributions. They eat together and discuss the patients—you do not see this situation in Rwanda” (KI-6).

“Many physicians were interested in teaching us. They even call ... “where are Rwandan interns” and ask us to participate in learning new knowledge and skills” (KI- 9).

2.4 Role clarity

Participants observed that in Kenya and India, team members clearly understand their roles, ensuring holistic care and effective response to issues, with coordinated efforts in patient care and education led by clinical instructors and supported by various specialists.

“Each one knows their function clearly... they provide holistic care” (KI-7).

“When there is an alarm from the machine, the biomedical professional first checks the situation to solve the issue. At the time of serving food, the dietitian checks the laboratory tests such as the potassium and iron levels...” (KI-7)

There was harmonization, and everyone knew their role clearly in teaching us and providing care to the patient. The clinical instructor involves other academics and nurses in teaching us” (KI-8).

3. Cross-Cultural Adaptation

Participants shared their experiences with cultural acclimatization, acceptance, and accommodation. They identified the challenges they met regarding language, food, and attire, especially in India. However, they all emphasized that the people they met helped them cope with the situation. They had different challenges and adapted as needed, as demonstrated in the following excerpts.

3.1 Cultural Acclimatisation

Participants faced initial challenges in India, including language barriers and cultural differences.

“Oh! In India, it was difficult and challenging. We had a language barrier initially. Then, we called the local nurses to assist in communication and got used to it” (KI-1).

“Okay, I would not say it was easy... The food, the way we walked and dressed, and our colors were all different. Patients were examining our hair and touching us. They wanted to know about us. We became more familiar with the patients... after a few days” (KI-2).

3.2 Cultural Acceptance

Participants adapted with the help of local nurses and eventually became more familiar with patients over time.

“Initially, we had an issue with language (in India). They have many languages, and communication with them was difficult. We collaborated with our Indian colleagues and repeated the sentence. Since we had our objectives clearly, adaptation was easy” (KI-6).

“In Kenya, we did not experience many problems. Since we had the same skin color, the acceptance was good from the patients. We got used to it, and some of us were able to speak Kiswahili” (KI-8).

3.3 Cultural Accommodation

Participants initially faced challenges in India due to being perceived as extraordinary but adapted quickly with clear goals and acceptance from educated locals, while in Kenya, they adjusted smoothly by connecting with Kiswahili-speaking individuals despite being identified as foreigners through their English.

“In the beginning, it was hard for us in India... they look at you as an extraordinary person. The educated people accepted us easily. After a week, we got used to the people and surroundings. We also had our goal to achieve... so we have accommodated ourselves to the environment” (KI-7).

“In Kenya, when we speak in English, the patient knows we are from another country, but we connected with our Kiswahili-speaking friends and found a way to adjust” (KI-9).

4.0 Challenging Experiences

The food, language, and weather differed between Rwanda and the host countries. Challenges in Kenya were fewer, as the two countries share cultural similarities. There were challenges in India with language barriers, patient interactions, spicy food, heat and humidity, and attire. Participants shared that the time allocated to the internship was too short and suggested two months instead of one month due to the extensive internship objectives.

4.1 Food, Language, and Weather

Participants adapted to the different food and weather conditions in Kenya and India, overcoming challenges such as unfamiliar diets, language barriers, and climate with local support and adjustments.

“In Kenya, their food was made of too much meat. The food is different than in Rwanda; we eat beans, bananas, and maize flour. It is oily and expensive, but we have adapted to the situation. The weather was like ours” (KI-9).

“The diet in India was spicy, and we were unable to eat it in the beginning. Our lecturer advocated for us to get less spicy food. The language was challenging to talk to the patients, so we used to call the staff to help us communicate. The weather was hot compared to Rwanda. But, within a week, we found a way for it to work” (KI- 7).

4.2 Logistical issues

Participants recommended that preparation for international internships should include early financial arrangements, psychological support, and thorough background information about the destination, with improved communication between the partnering country and the university to avoid last-minute issues.

“Preparation should be done in the first semester in collaboration with the students. Financial issues need to be facilitated early so that we can prepare a passport and visa so that we do not run around at the last minute. We were stressed. There was no psychological preparation. We should know the background of the place we are going to and other necessary information.

In India, accommodation was arranged by our instructor in advance” (KI-1).

“In Kenya, we needed to wait a week to touch the patient due to the issue with the nursing license. Communication between the partnering country and the university should be done well in advance” (KI-9).

4.3 Inadequate time

Participants felt that a four-week internship was too short, suggesting a need for at least two months, including a week of orientation, to fully achieve objectives and gain meaningful experience.

“We just went for a four-week internship, it is not enough time. We need at least two months of internship, with the first week being orientation. By the time we were familiarised with the patients, nurses, and others, it was time for us to come home” (KI-8).

“The period was very short... We had finished our internship when we started enjoying and learning new concepts! In one month, we achieved only 80% of our objectives” (KI-5).

4.4 Preparation for Internship

Participants emphasized the importance of understanding a foreign country's culture, weather, food, and language before an internship and the need for psychological preparation and experience sharing for better adaptation.

“The first thing I feel is that when we are going to another country, we should have some information about the country, the culture, weather, food, and language. In India, we need local attire to move into the community”. (KI-6).

“People with this internship experience should meet and share the experience. Psychological preparation is strongly needed, especially when you go to another country”. (# 4).

Discussion

We examined the internship experiences of the UR MScN nephrology student graduates who traveled abroad for advanced training. The training was held in India and Kenya, where the students were immersed in the hospital environment for four weeks.

The results revealed that the nephrology graduates perceived the internship training as a significant factor that enhanced their theoretical knowledge, RRT skills, academic and professional development, and cultural competencies.

Traveling abroad for internship training expanded the students' learning in numerous positive ways, consistent with other studies.[18,19] The students expressed that the internship helped them develop soft skills such as professionalism, leadership skills, and cultural sensitivity. These findings are similar to another study conducted among mental health nursing students by Arguvanli and özkan in Turkey, whereby 73% expressed that the internship enhanced their critical thinking and communication skills.[20] These soft skills are vital to providing comprehensive and holistic care.

The intern participants in this study view the soft skill of communicating a patient's holistic needs to the team as a crucial practice they have gained. Communication skills enable healthcare providers to work effectively among themselves and with patients. Furthermore, the nephrology graduates agreed that handling the different hemodialysis machines exposed them to advanced technology. Studies conducted in China and the UK support this statement, demonstrating that information, technology, and communication improved interns' skills.[3,21]

A competent nurse has the opportunity to play an active and major role in teaching, enhancing critical thinking, and assisting the students and colleagues under supervision to improve patient care while undergoing an internship program.[22] In our study, the nephrology graduates expressed that they could change practice, education, and leadership and develop interprofessional collaboration with nutritionists, social workers, doctors, and a psychologist. In usual practice, a nurse is central in coordinating patient care.

In the context in which a nurse is empowered with knowledge, skills, and confidence, it is likely to influence the best practices of the healthcare team effectively.

Concerning the theme of cross-cultural adaptation, the nephrology graduates appreciated the value of understanding cultural differences, especially in India. The graduates who participated in the internship in Kenya shared similar African cultural values and belief systems; therefore, acclimatization and acceptance were easier than those who went to India. The fear of racial discrimination and traveling to a new country was dissipated once they developed improvisation and adaptation skills. The findings are consistent with a study conducted among Japanese female students and African nurses working in the UK who experienced discrimination and stereotypic behavior from the host country. [23–25] The findings from the current study suggest that traveling abroad helps nursing students develop ethnocentric attitudes and cultural competence. In turn, this could help improve the nursing care of a patient from a different culture.

Our students faced some challenges, particularly those who had attended the internship in India. The language barrier and food were two identified challenges. Insufficient language skills would create a communication gap between the staff and patients in clinical practice. Students from Rwanda received communication assistance from the local nurses and other healthcare professionals. Similarly, in Turkey,[26] communication and different foods posed challenges. While these challenges could have negatively impacted the interns' learning experience, they challenged the status quo and motivated them to learn from different cultures.

Another internship challenge was associated with logistical issues. The students expressed a lack of planning time, financial and psychological preparations, obtaining a visa, a nursing license, medical insurance, and the program's short duration.

Nursing students from Iran and Turkey who participated in the internship training expressed that financial issues and accommodation affected their mobility and caused psychological distress.[26,27] A study in Ghana revealed that even a short study abroad experience could help nursing students think critically, increase cultural competency, and significantly impact cultural awareness development, which is consistent with our findings.[28] Almost all graduates advocated for pre-orientation training before they travel to another country. The general orientation about the hospital setting and country is crucial for the students to be aware of weather, hospital policies, and procedures.

Limitations

The authors report a possible limitation of social desirability as the three data collectors were well known by the participants and did not go on the internship. Therefore, their pre-conceived ideas of the internship experiences could have influenced data collection.

Conclusion and Recommendations

The in-depth interviews with the nine participants uncovered valuable insights that resulted in four themes and several supporting sub-themes. The themes included inter-professional collegiality, cross-cultural adaptation, challenges faced, and becoming a change agent upon return to work in Rwanda. Students expressed significantly more positive learning experiences than challenges during the one-month training. Though considering the lengthy orientation the participants recommended at least a two-month program for future internships. A well-planned international internship could further enhance learning experiences and upon return to Rwanda, improve patient outcomes at the nurses' health facilities.

Conflict of interest

The authors declare no potential conflict of interest concerning the article's research, authorship, or publication.

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Authors' contribution

All authors participated in the conceptualization of the project, writing of the methodology, and writing the original draft of the manuscript.

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