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Research

Registered Nurse Anesthetists' Perceptions of Providing Care Within a Global Health Framework: A Qualitative Study

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A B S T R A C T

Purpose: The purpose of this study was to investigate how Registered Nurse Anesthetists (RNAs) who have been working for nongovernmental organizations in low- and middle-income countries perceive their role in global health.
Design: A qualitative design was used in this study.
Methods: Data were collected by means of semistructured interviews with 11 participants who met the inclusion criteria, and qualitative analysis of the interview content was performed.
Findings: The analysis resulted in three categories and six subcategories. Of the categories, "Using skills" includes the respondents' varying levels of responsibility, tasks, and perceptions of how far they are applying their expertise. "Encountering new cultures" is about adapting to new cultural norms in nursing, education, and cooperation in the international team. "Promoting change through volunteerism" comprises personal and professional development, and impact — both local and potentially global.
Conclusions: This study highlights the relevance of RNAs in global health and emphasizes the cultural encounters, exchanges, and challenges associated with volunteer medical missions. RNAs' knowledge of, and humble approach to the host country's culture are essential for their ability to provide nursing care, engage in cooperation and training, and promote global health in a high-quality, sustainable and effective way.

Before the COVID-19 pandemic, infectious diseases were declining globally while noncommunicable diseases requiring surgery were simultaneously on the increase.[1,2] Unfortunately, access to surgical and anesthetic care is inadequate in much of the world, especially its poorer regions.[1,3] In low- and middle-income countries (LMICs), anesthesia providers are scarce. Nongovernmental organizations (NGOs), often based in high-income countries (HICs), provide countries in need with anesthetic and surgical care, and also train local staff.[3] Registered Nurse Anesthetists (RNAs) make up the profession that performs most of the anesthesia in the world,[4-6] and their increased participation in NGOs help to enhance access to safe surgical care.[5,6] Nevertheless, there are few studies of RNAs' role in global health. To bring about an expansion of the international RNA corps and thus better global health, it is important to understand how RNAs who have worked in NGOs in LMICs have perceived their global health role.

Background

Over the past two decades, there have been remarkable improvements in global health, but the gains have not always been evenly distributed. One-third of the global burden of disease now relates to conditions that require surgery.[3,7] Achieving the third Sustainable Development Goal, Good Health and Well-being ("Ensure healthy lives and promote well-being for all at all ages"), calls for widespread and equitably distributed surgical and anesthetic care.[3] Global surgery, an indispensable component of global health,[2,7] covers every field related to surgical care, including surgical subspecialties, obstetrics, anesthesia, perioperative care, emergency medicine, and nursing.[7]

Conflict of Interest: None to report.

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In HICs, approximately one surgical procedure is performed for every 10 people annually. Yet billions of people worldwide have no access to an operating room. In the poorest countries, where over a third of the world's inhabitants live, only 6% of the annual 313 million surgical procedures undertaken globally are performed.[3] Safe surgery can save lives, prevent disabilities, and improve economic output for people and communities.[2,3] In LMICs, an additional 143 million procedures a year are needed.[3] Owing to COVID-19 and the resulting travel restrictions, which have made routine mission trips and established surgical partnerships complicated, global surgery has been significantly disrupted.[8]

In many LMICs, there is a critical shortage of specialist doctors and nurses in surgery and anesthesia.[1,4] The WHO Global Surgical Workforce database indicates that there are 1,112,727 specialist surgeons and 550,134 specialist anesthesiologists worldwide. Their distribution is uneven: Only a fifth of the surgeons and a sixth of the anesthesiologists attend to the poorest half of the world's inhabitants.[3] In HICs, the density of anesthesiologists is just under 20 per 100,000 people.[9] In 2014, 142.9 million — the aggregate population of Uganda, Kenya, Tanzania, Rwanda, and Burundi — had only 237 anesthesiologists. Among these countries, anesthesiologists were also unequally distributed: Density varied from 0.39 anesthesiologists per 100,000 in Kenya to 0.02/100,000 in Burundi.[4]

A "brain drain" — a tendency for doctors generally, after completing their degrees in LMICs, to take up jobs in HICs — has been reported.[3,6,10] The proportions of surgeons and anesthesiologists migrating from LMICs to HICs are slightly higher than those of doctors in other healthcare specialties. Data for other categories of surgery and anesthesia providers were not available in the WHO Global Surgical Workforce database.[3] However, anesthesia is known to be performed by non-physician providers in many countries, and it is the RNAs as a profession who provide most of the anesthesia practiced around the world.[4-6]

To improve access to safe surgery, save lives, and strengthen healthcare systems, a universal commitment to safe anesthesia is crucial. The World Federation of Societies of Anesthesiologists (WFSA) states that "anesthesia is complex and potentially hazardous, and optimal patient care depends on anesthesia being provided, led, or overseen by an anesthesiologist." The WFSA also highlights the importance of nonphysician providers. In some countries, especially where resources are scarce, the acute need of anesthesia may be met through training of nonphysicians, such as nurses, technicians, and clinical officers[9] — "task shifting", as it is called.[3,9]

NGOs can play a significant role in strengthening local healthcare systems in LMICs. They provide not only surgical and anesthesia care on a significant scale, but also an excellent environment for training and education.[3] To promote health and increase access to care in the long term, it is vital for NGOs to provide education and training of local staff.[6,11] One of the oldest nursing theories, the culture care theory, describes factors that must be considered when nursing and training take place in different cultural contexts. These factors include religion, biology, politics, education, and ways of life.[12] In alignment with this theory, the Lancet Commission states that to become sustainable, the NGOs' work should be based on local needs as well as on the prevailing context and culture.[3]

NGOs depend on volunteers and there are studies on the experience of anesthesiologists who have joined international missions through NGOs, but few on what nonphysicians have experienced. Lamb et al[5] describe being the first investigators, in 2015 to 2016, of Certified Registered Nurse Anesthetists (CRNAs) experience. In their study, the research participants felt a positive sense of exerting an impact on the local population, at both individual and societal level, and also underwent personal and professional development during their medical missions. There were concerns that volunteer missions might not have the desired beneficial effects on the local systems, and that there might be a tourism aspect. The CRNAs described how they did not always feel they were able to apply their expertise throughout the missions.[5]

In many locations, Roussel et al[6] witnessed anesthesiologists' resistance to recognizing RNAs as more than mere assistants; and they stress the low probability of the anesthesiologist shortage being remedied in the near future.[6] On the contrary, a growing shortage of anesthetics specialists is expected in the aftermath of COVID-19,[8]and they point out that RNAs are crucial to the provision of safe surgery.[6] This is similar to the WFSA's view of task shifting.[9] RNAs thus have a significant role to play in global health,[5,6] and for global health to improve, the RNA's perceptions of their role in NGOs also need to be explored.

Aim

The aim of this study was to investigate how RNAs who have worked for NGOs in LMICs perceive their role in global health.

Methods

Design

A qualitative design was used to describe how RNAs perceive their role in global health. Data were collected by means of semistructured interviews and qualitative content analysis used to describe variations, differences, and similarities in the participants' perceptions.[13]

Participants

Participants were recruited from NGOs that provide volunteer medical missions. These organizations included Operation Smile, Mercy Ships, the Red Cross, Skandinaviska Läkarbanken (Scandinavian Doctors), and Project Medishare. Reputational case sampling and snowball sampling were used when the participants were recruited. Those wishing to participate gave their consent to the authors by mail.

Inclusion criteria were that the respondents had to be Swedish-, Norwegian- and/or English-speaking RNAs with experience of at least one international volunteer medical mission through an NGO. In total, 11 participants were recruited from five NGOs, and they had visited 29 countries altogether. The study participants' characteristics are presented in Table 1.

Data Collection

Before the data collection, the authors F.S. and S.L. conducted a pilot interview that was included in the analysis. This was done to ensure that the semistructured interview guide used[14] contained relevant questions, and to test the technical equipment. After the test interview, the questions in the interview guide were evaluated and modified. In total, 11 individual semistructured interviews were held in February 2021. The interviews were conducted on Zoom, and all sound was recorded using external cell phones, with every participant's consent. Data were collected through semistructured interviews, with open questions to enable the participants to answer freely and express their feelings and perceptions. The interview guide is presented in Table 2.

Ten interviews were conducted in Swedish and one in English. The interviews lasted between 22 and 48 minutes. The authors agreed that data saturation had been reached after the 10th interview when data from new interviews began to repeat what had been expressed in previous interviews.[15] The 11th participant, a North American CRNA, was assumed to be able to contribute an additional perspective. After being

Table 1
Characteristics of Study Participants (n = 11)

Gender	Female	8
	Male	3
Age	Range	36 - 73
Number of missions	Range	1-25
Length of missions	Range	4 d - 2 y
Nationality	Swedish	9
	Norwegian	1
	North American	1
NGO	Operation Smile	4
	Mercy Ships	3
	Project Medishare	2
	Skandinaviska läkarbanken	1
	The Red Cross	1

Table 2
Semi-Structured Interview Guide

Questions
1. What is your opinion on the importance of nongovernmental organizations for global health?
2. Which organization have you been working for?
3. Please tell me about your role in the organization. How do you think your role could have had an impact on global health?
4. How did you feel that your knowledge and skills were utilized?
5. How do you experience the perioperative nursing process in a cultural context different than what you are used to?
6. How do you feel that these assignments have contributed to your professional role?
7. Is there any other matter you would like to raise?
8. Follow-up questions such as "Can you tell me more?", "What do you mean?" and "Can you explain?" were also asked.

interviewed, one participant sent the authors extra written information which was also included.

Data Analysis

The data analysis involved meticulously following every step in the description of qualitative content analysis as recommended by Graneheim and Lundman,[16] with the authors focusing on manifest content. To enable consistent interpreation of the interview material, the interviews conducted by one of the authors were transcribed verbatim in the original language by the other author and vice versa. The transcribed texts were read several times by both authors to gain an overall understanding of the interviewees' perceptions.

Every interview was seen as one unit of analysis, and meaning units related to the aim were extracted from every interview and condensed into shorter meaning units, preserving their core content. The condensed meaning units were labeled "codes" and sorted into six subcategories and three generic categories, as described by Graneheim and Lundman[16] and presented in Table 3. F.S. and S.L. were mainly responsible for the analysis and, furthermore, discussions among all the authors took place throughout the process until a consensus on the definitive main categories and subcategories was reached. The meaning units, both before and after condensation, were extracted in every participant's first language to enable the contents to be preserved, rather than being lost in the translation.

Ethics

At the time of the study, the authors F.S. and S.L. were students at the University of Gothenburg. Ethical approval was obtained from the ethical group of the University in February 2021, before collection of empirical data began. Every participant received a document containing information for research participants, drawn up in accordance with the World Medical Association's Declaration of Helsinki.[17] This informed them that their personal data would be treated confidentially, that participation in the study was voluntary, and that they could withdraw at any time with no need to give reasons.

Findings

The qualitative content analysis yielded three main categories and six subcategories classifying the participants' perceptions of their role in global health (Table 4). The first category, "Using skills," describes the nurses' perceptions of working on various tasks and in a range of functions during the perioperative process. The work involved varying levels of responsibility for them, and a shifting sense of fully applying their expertise. The second, "Encountering new cultures" covers challenges and adaptation to new cultures in nursing, education, and cooperation in the international team. The third, "Promoting change through volunteerism," comprises significant impressions that provided personal and professional development, and the respondents' sense of contributing to local and potentially global impact. Quotations from the participants are presented in all six subcategories.

Table 3
Examples From the Data Analysis

Meaning unit	Condensed Meaning Unit	Code	Subcategory	Category
It's not set in stone but it's more like getting to know each other, so that after the first and second day, you know that X gives the medication, Y does the assessment etc. So the cooperation is very close (P03)	Not set in stone, get to know each other, very close cooperation	Delegation	Teamwork	Using skills
Often they want to pray with you before you go in, and they may, and you stand with them then. I don't think it matters which religion you belong to but if they want me to stand with them I do that to increase their well-being (P01)	If they want to pray together I do it for their well-being	Person-centered care	Nursing	Encountering new cultures
It's very obvious that you change a person's life, so for that person and their family there'll be a huge difference. For instance, when kids who haven't been able to walk can start running and playing with other kids, it means the world for those families (P06)	Obvious that you change a person's life and it means the world for those families	Change a person's life	Local and global impact	Promoting change through volunteerism

Table 4
Subcategories and Categories

Subcategory	Category
Tasks	Using skills
Teamwork	
Nursing	Encountering new cultures
International professional culture	
Personal and professional development	Promoting change through volunteerism
Local and global impact	

Using Skills

In terms of *tasks*, the participants' work throughout the international missions involved those performed everywhere within the stages of the perioperative process: preoperative screening, intraoperative anesthesia, and postoperative care. Perceptions of responsibility levels varied; some participants served as assistants to the anesthesiologists, while others bore ultimate responsibility for anesthesia overall. The increased responsibility was described as follows:

> "But the times when I did the anesthesia, I had my own table just like the anesthesiologists, and that was quite different, of course, since at home we always have an anesthesiologist or some other support within reach." (P07)

Some participants had recruiting functions or positions involving leadership and/or management, and described the importance of creativity and an ability to improvise. Others had experienced having to follow strict rules and a sense of needing to toe the line. Some participants had teaching tasks at local NGO branches, focusing on training local staff. In their work in emergency units, difficult airway management was one problem that arose. The interviewees described how their expertise was both challenged and developed when access to medical technology was limited. One described how her own old knowledge of physics proved useful when the right vaporizer for a specific anesthetic gas was lacking, and she was thus able to conclude that the vaporizer available was relatively safe to use in administering the correct dose. Another participant explained:

> "The anesthesia machine was incredibly ancient, which is fine. But then the ventilator didn't work, and the monitors didn't work either." (P01)

The practice of anesthesia gained new, challenging dimensions. The clinical view was described as significant in these situations, since sometimes the only reliable techniques involved using a pulse oximeter and a manual blood pressure cuff.

Teamwork. The participants had varying perceptions of how far their skills were put to use, depending on the roles assigned to them in their teams. The majority felt that their expertise was well used and that a generally high degree of skill was required throughout the international missions. When their expertise was used optimally, the interviewees described how they performed tasks that enabled the anesthesiologist to devote time to other aspects of the work.

> "They saw it as an advantage to get that skill, and that I had it, because it could free the doctor for other tasks." (P05)

The teamwork involved international professionals in various categories but, above all, there was close cooperation with the anesthesiologists. The allocation of roles varied depending on personal chemistry, preconceptions about task distribution, and how well the cooperation worked. Being able to have a flexible approach was seen as relevant. Interviewees with experience of pediatric anesthesia considered their knowledge valuable to the team in the perioperative care of children. Anesthetic expertise was, according to some participants, useful in postoperative care. Others believed that their knowledge would have been more useful in intraoperative care, since a role for them there might have enabled more surgeries to be performed.

> "I could have done better, from a Swedish point of view — it would have been much better if there'd been [...] more nurse anesthetists, like we have at home, so that one anesthesiologist goes between two nurse anesthetists. Or there could have been more tables set up that way." (P07)

Encountering New Cultures

In terms of *nursing*, the international missions included cross-cultural encounters, and the nursing sometimes varied among the different cultural contexts. In seeking to create safety for the patients and their families, the interviewees saw communication as a challenge. It was helpful to know even a few words of the local language to reduce the communication barrier. Interpreters played an important role in the nursing, although the desired personal contact was challenging to establish.

> "We need that short period of time before anesthesia to establish contact, get information, and ensure safety. We had to deal with this through interpreters, which complicated it all considerably." (P06)

Relatives often wanted to pray with the staff before surgery and, to enhance their well-being, staff joined them in praying irrespective of their own religious affiliations. The respondents described how some families saw the staff as having a higher rank, and this was raised as an aspect to be aware of in efforts to reduce the power imbalance. Participants had sometimes experienced disagreements in the international team regarding how nursing should be conducted, but this also broadened their understanding of how different nursing methods can be used just as effectively. For example, one participant explained that blankets were often used to wrap the children postoperatively — a method she had not been accustomed to in her home country. Another interviewee gave an example:

> "They took care of the babies and put them on their backs in one of these cloths, tied on their backs, when they woke up and were in pain. And then they danced to music with them — as we often did too, as pain relief." (P06)

Promoting qualitative and realistic care, adapting to and becoming familiar with the prevailing culture, and trying to understand every individual cultural context were seen as essential. It facilitates care and enhances security for the patients if health professionals are well aware of family patterns, patients' views of health care, and the reasons why their family members have been affected by various diseases. Understanding that alternative explanations arise where science provides none was also perceived as relevant, and the interviewees also stressed the importance of ensuring the practicability of care.

> "They get postoperative instructions, like 'You must take this tablet four times a day [...].' But can they even afford the tablets? Are they available? [...] The organization has to recognize the culture it serves, know [...] what's feasible to promote health and so on, and not push for something that's not achievable in the day-to-day life of the people you want to help." (P01)

In terms of *international professional culture*, both similarities and differences in responsibilities and training among RNAs working in international missions were identified. In some countries, they anesthetize patients independently; in others, only anesthesiologists are authorized to perform anesthesia. The nurses' level of educational

attainment seemed to range widely, from high school diplomas to master's degrees. Even when their training differed from that provided in Sweden, their responsibilities might be higher, depending on their access to anesthesiologists.

> "There are lots of things we know that they don't — in Kenya, for instance, where I've mainly been working. On the other hand, they're extremely skilled in performing nerve blocks, spinals, and epidurals. They have very few anesthesiologists. At the hospitals where I've been, there haven't been any." (P10)

The professional culture of every team member's home country was perceived as influencing the team environment. Team members' mutual adaptation was said to be an essential aspect, but also described as challenging. Cultural conflicts might occur and female participants spoke of gender-related challenges, saying they sometimes felt that they weren't fully respected or accepted in their role. The study participants might be given greater responsibility when they were cooperating with an anesthesiologist who was familiar with the Swedish RNAs' expertise. When such cooperation existed, they had a stronger sense of making a difference. When they were engaged in training local staff, they described it as essential to observe and get to know the local staff, and learn how they worked, before initiating the training. Respecting local employees and knowing how they work best were perceived as important, as was learning from them in the simple conditions in which they worked, before telling them "what to do" or "how to change."

> "I think [...] you should try to [...] get as close to the locals and the local workers as possible; to try and understand [...] the context they're in and what they're working on, and to be humble toward their way [...] — not to barge in, thinking you know best, because you don't. They know their own [...] country, and their norms and healthcare, best." (P08)

Promoting Change Through Volunteerism

In terms of *personal and professional development*, the international missions had resulted in the participants developing both personally and professionally. Many of them related how they were affected by, and had experienced difficulties in, facing a new kind of reality — a depth of poverty and suffering that was hard to grasp. At the same time, they had felt satisfaction from being able to help people in need and contribute to a higher quality of life for them. These were perceptions they thought would last for the rest of their lives. They described how their encounters with local people during the missions could give their work a deeper meaning.

> "The fact that you can see you yourself might just as easily have been the one needing help means that you dont take these roles so seriously, somehow. [...] You have some kind of fellow-feeling, a sense that you belong together as human beings here on Earth, and that's actually what has meant the most for me." (P06)

There was a potential risk that the international missions would have repercussions on the volunteers' mental health. Based on her own experience, one of the participants had developed a unit providing mental health support for returning volunteers in the NGO she had worked for. Most interviewees perceived that the missions had broadened their readiness for action at the professional level after confrontations with diseases that were new to them. Perceptions of increased humility were widespread among the participants, both professionally and personally.

> "It's given me a new perspective on the world that (sighs) means I don't complain that much here at home. There are always people who are worse off, but it's very easy to sit and talk, and it's a whole different matter when you've seen with your own eyes how bad it can be." (P03)

In terms of *local and global impact*, the participants thought their role in every NGO was to have a positive impact on individuals and families, and potentially on global health as well:

> "I can't say my role has changed global health, but for individuals — both the local RNAs and the patients — I believe I've mattered." (P10)

The participants talked about how surgery for cleft lip and cleft palate prevents starvation, language difficulties and bullying, and how orthopedic surgery has given children who were previously unable to walk the ability to run and play with other children. Other patient groups were women whose menfolk had left them or who were ostracized by the community because of childbirth injuries such as gynecological fistulas, and people who were immobilized by burn contractures. Children's prospects were improved, and lifesaving surgery was performed as well. Effects on individuals were described repeatedly by participants. One participant explained that this was an opportunity to change one person's world, and a factor that motivates volunteers for international missions.

Belonging to an NGO also meant promoting global health, according to some participants. For example, surgery might make employment possible for individuals, enabling them to support and provide for their families. Permanent local centers developed and structured by an NGO, where people could get minor surgery done without having volunteers present, were also mentioned as having a positive global impact; and local impact was seen as part of global impact. Problematic aspects such as using resources in the form of the host country's energy and water were also raised, while the volunteers nonetheless give a lot back to the country. A need for more RNAs was pinpointed, and some participants saw it as their mission to inspire RNAs in their own home countries. One participant had lectured about her international missions to her colleagues in Sweden, influencing some of them to sign up with an NGO. Some interviewees thought that if more RNAs decided to volunteer, the RNA's role in global health could have a significant impact and would promote global health. Others thought RNAs have an important role, but only in a wider perspective.

> "Yes, I mean, you're a cog in the whole wheel, so to speak. It's not just the effort I make that counts: To have an impact on global health, the whole team has to function." (P09)

Discussion

All the participants agreed that, during their international missions, they had a local role in health promotion. Some made the point, like Lamb et al,[5] that if more RNAs made the decision to work internationally, RNAs as a workforce could have a beneficial impact on global health. The interviewees also described how the missions had helped to make them more humble in relation to other human beings' living conditions and, as Lamb et al[5] also described, to develop in their professional role. Indeed, development, both personal and professional, seems to be a common motive for volunteers, since similar perceptions have been described among anesthesiologists.[18,19] Bido et al[20] further discuss how the cultural exchanges that take place during international missions can enhance understanding of how hard it may be to change the role of nurses in care cultures that have historically revolved around the doctor, but also how cultural encounters may benefit and inspire change in hierarchical structures among various professionals. The fact that the world is ever more globalized and complex makes the culture care theory highly topical.[12] Although none of the study participants

mentioned the theory, it is clear that they are becoming, or have become more aware of transcultural factors. Health professionals should receive training in social, political, and economic conditions, and also instruction in the local language and cross-cultural communication of the country they are to work in.[21]

The participants gave examples of nursing actions, such as praying with the relatives, getting to know the workings of the family units and ensuring that they understand their own experience of health care, using various methods of pain relief, and prescribing medication that is affordable for and accessible to patients. Concerns about care not being practicable for the patients are justified, since millions of individuals face financial ruin as a result of seeking care,[3] and the above-mentioned nursing actions were performed to make the care more person-centered and as well adapted to the culture as possible. When these actions are seen in relation to the culture care theory, it is clear how the participants have taken *emic* — a concept described as the local or indigenous people's perception of various phenomena, such as care connected with their culture — into account.[12] Biological factors are among those that affect how people perceive care,[22] and painkillers can affect people differently depending on biological factors, such as ethnicity.[20] Just as the participants of this study discussed, it is essential to show respect for another culture in adapting nursing actions, such as prescribing medicine, to individuals and their cultures.

The participants emphasized how communicating in the local language facilitates the nursing, even if the nurse knows only a few words, and how language barriers are sometimes an obstacle in care. The topic of communication challenges was also raised by volunteer physicians[18] and, even with interpreters' help, the language barrier is often an obstacle that it is important to consider in nursing and education.[20] Furthermore, the interviewees brought up aspects such as first getting to know a culture, watching and learning from the local staff, being humble in relation to their knowledge, and adopting ways of working and perceptions of what causes disease before embarking on education or submitting proposals for change. NGOs' work should be based on the various cultures where they operate,[3] and Leininger[12] further describes it as crucial to listen to local people, and learn from them with an open mind, instead of imposing one's own ideas on how things should be done. Establishing long-term trusting relationships between international and local institutions may be the best strategy for creating sustainable and lasting change.[20] When two cultures collide, for a partnership to be possible, it is crucial for the representatives of at least one of them to be flexible and openminded about adapting.[23] The participants described how some of the NGOs have built up local, permanent branches of the organizations with trained domestic staff. Some interviewees who had the task of teaching local staff highlighted the multiplicity of ways to reach the same goal and the importance of being creative in the leadership role. They discuss both *emic* and *etic*; the latter is referred to as the stranger's or outsider's knowledge of culture and care in context.[12] According to the culture care theory, by approaching their own various courses of action creatively, nurses can promote negotiation or adaptation that benefits the health and well-being of cultures.[22]

The participants identified international universality and diversity among RNAs, with tasks and resource allocation indirectly affecting the nursing care provided for patients. The interviewees compared their role with RNAs from other countries and identified differences. McAuliffe and Henry[24] did the same in describing how the International Council of Nurses emphasized the worldwide variation in preparatory education for RNAs. The fact that the participants identified the same thing during their missions as McAuliffe and Henry[24] did in 1998 may indicate that the range of educational attainment is still the same, from high school to master's or doctoral degree. The interviewees saw differences in the roles of RNAs during the perioperative process, in everything from auxiliary tasks to anesthesia. Just like the participants, Epiu et al[4] describe how RNAs in low-income countries often perform anesthesia independently without an anesthesiologist. The participants identified this independence enjoyed by RNAs from HICs like the U.S., middle-income countries like Kenya, and low-income countries like Ethiopia. These RNAs also knew how to perform critical tasks like regional anesthesia on their own.

A country's level of development is not related to the use of RNAs, but these nurses provide anesthesia with or without an anesthesiologist in high-, middle- and low-income countries alike, and perform the critical and advanced tasks that anesthesia requires.[24] However, there is variation between one part of the world and another. In most European countries, for instance, anesthesia is administered jointly by an anesthesiologist and an RNA: Both are present in the operating room throughout surgery. In other countries, teams are larger; for example, five RNAs may have one patient each, while one anesthesiologist supports the five RNAs. Apart from cost-effective strategies, there is a need for effective allocation of human resources to enable health for all.[24] Some of the participants expressed the view that health could have been promoted more efficiently and more surgical procedures could have been performed if the work setup had been similar to the one in the above with, for example, one anesthesiologist and more than one RNA in every team.

These opinions expressed by the respondents may be interpreted as requests for task shifting, both in the NGOs and in healthcare systems in general. Task shifting, which is common in HICs and LMICs alike, enables rapid, cost-effective expansion of access to healthcare.[3] Some participants highlighted their perceptions, as female RNAs, of not being fully accepted and respected in their nursing or managerial role because of their gender, which may be an aspect that complicates task shifting. With growing globalization worldwide, information exchange, efficiency expectations, and cultural conflicts will be increasingly common. This requires flexibility from the representatives of each culture, and when one of them is flexible, the other one will most often notice the attempt and adjust as well.[23] Opinions on task shifting are divided, and opponents may have concerns about safety and disparagement of their professional roles.[3] The Lancet Commission states that nonspecialist anesthesia providers should supplement the existing system, not replace the specialist anesthetists.[3] To attain the aim of providing universal access to surgery, task shifting for safe anesthesia is essential.[9]

Summing up, some participants were entirely satisfied with their role during their international missions, while others felt that they had more to give than they were allowed scope for. The participants all agreed that ample knowledge and adaptability to new cultures are essential for an ability to nurse, cooperate, and train staff in a high-quality, sustainable and effective way.

Methodological Considerations

Qualitative content analysis was conducted, a suitable methodology for obtaining information about the RNAs' perceptions. In qualitative research, trustworthiness may be demonstrated through a study's credibility, reliability, confirmability, and transferability.[25] In the analysis, every step in the description of qualitative content analysis described by Graneheim and Lundman[16] was followed thoroughly to achieve trustworthiness. The sampling method resulted in variation among the participants in gender, age, nationality, type of NGO, number and length of international missions, and the countries they had been working in. This variation may strengthen the credibility of a study, since it enables the phenomena studied to be elucidated from several perspectives.[16] To boost credibility further, participants from additional NGOs would have been desirable. The missions for the organizations employing the participants probably affected the study results, since these organizations' assignments differ and are consequently performed in various ways.

Depending on what was raised in the interviews, the authors were obliged to ask the questions in a varying order. However, the fact that the authors nonetheless, in the course of every interview, posed all the questions in the interview guide may be regarded as

making the study more reliable.[16] However, most of the interviews were held in Swedish and essential data may have been lost in translation, which is a potential weakness of the study.

Confirmability was enhanced by the authors' discussions on the findings during the analysis. Furthermore, a clear description of the interviews and analysis is provided, with the results presented and illustrated with quotations to facilitate readers' assessment of the transferability of the study.[16]

Clinical Implications

Anesthesia providers are a crucial factor in surgical care, and more RNAs are needed for better access to safe surgery. This study highlights the crucial importance of optimal outcomes of medical missions, as well as knowledge about, and a humble attitude toward, the host country's culture. The authors suggest that this study may provide added value in preparing RNAs who are considering volunteer work, and may also facilitate recruitment to NGOs and volunteers' job satisfaction during medical missions. Since this study mostly comprised Swedish RNAs, it would be interesting to examine how RNAs from other countries perceive their role in global health. Information about the perceptions of RNAs who have been working for NGOs other than those represented in this study would also be of great value.

Conclusion

RNAs perceive their role in NGOs as broad and variable in terms of duties and responsibilities. It entails diverse cultural encounters, promotes personal and professional development, and influences public health both locally and globally. This study presents examples of the nurses' creativity and adaptability to other cultures while they provided care and training within the global health framework. Worldwide, there are both similarities and differences in RNAs' role. However, knowledge is lacking about national differences in the professional role and training of RNAs, and this shortcoming hinders optimal allocation of resources in an international team. The participants seem to agree with previous research on the importance of task shifting in global surgery, and they emphasized both potential obstacles to this task shifting and successful examples of it. This study is an important contribution to the previous knowledge about RNAs' perceptions of working in the global health framework and has laid a foundation for future research.

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