PERSPECTIVES

Volunteering in Nha Trang, Vietnam: Senior Medical Students’ Perspectives of a Surgical Mission Trip

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Vietnam has had a long history of international mission teams that volunteer needed surgical care to underserved populations for various medical problems. As senior medical students, we joined a non-profit organization’s surgical mission trip led by a community practice surgeon and staffed by 32 health care professionals to provide cleft lip and palate reconstructions for 75 patients at a local hospital in Nha Trang, Vietnam. As a surgical mission team in a resource-poor country, we intended to fill gaps and unmet areas of need by offering care that patients would otherwise not receive. But in doing so, we encountered other gaps in health care for which we did not have adequate preparation or solutions: insufficient primary care, lack of understanding of others’ cultural contexts, absence of knowledge of patients’ socioeconomic contexts, and problems in other countries’ health care systems. Although the purpose of our mission was to provide a specific service, we felt it is important to examine the service in the context of these broader issues. We considered these concerns from two different perspectives: what a medical mission gives and what it does not. In this article, we present several issues that our medical mission confronted and how they were both addressed and overlooked.

THE GAP IN CARE

Cleft lip and cleft palate comprise some of the most common congenital deformities in the world (Figure 1). When left untreated, these defects prohibit children from developing normal feeding, dentition, speech, hearing, aesthetic features, and psychosocial skills [1-4]. Cleft defects affect 1 in 500 to 700 births worldwide, with Native American and Asians suffering at higher rates. In Vietnam, the prevalence of cleft defects ranges from 0.146 percent [5] to 0.160 percent [6] of the population (approximately 123,151 to 172,412 individuals); the incidence of Vietnamese children born with cleft defects each year ranges from 1,750 [4] to 2,000 [7]. Surgeons in Vietnam are able to repair cleft defects, but they are limited in number and resources, especially when it comes to providing services to poor patient populations. Interna-

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†Abbreviations: OR, operating room.
tional mission teams, including surgeons, anesthetists, and the multidisciplinary specialists who provide pre- and post-surgical care, offer a much-needed service not readily accessible in third world countries like Vietnam [8-11].

Surgical Care

Our surgical mission consisted of 34 health care providers, including attending plastic surgeons, anesthesiologists, pediatricians, OR and PACU nurses, and residents and medical students, from U.S. medical institutions. A native Vietnamese anesthesiologist was also part of the team. Over 5 days, the team operated out of five rooms at the Khanh Hoa General Hospital, performing more than 85 surgical procedures on 75 patients. Half of the cases were primary cleft defect repairs in which cleft lips were closed in order to ensure adequate feeding during infancy and cleft palates were repaired to promote normal speech and dentition development. A proportion of the patients received operations to revise previous lip and nasal surgeries for improved aesthetics and reduced disability. These second surgical interventions had clear indications and optimal results, with only one complication of wound infection.

By engaging the skills and time of medical professionals to provide useful surgeries that would otherwise not be completed, the team filled an obvious gap in the host country’s health care. However, given the timeframe, our mission was limited in how much help could be offered. Cleft lip and palate repair often involves a series of surgeries. During the mission, only one stage of surgery could be performed. This corrects one problem, but not all. While this creates a problem in continuity of care for short-term medical missions, it does not negate the medical benefits of completing one stage of surgery. Not being able to do everything did not deter us from doing something. Within this particular window of opportunity, our surgical mission addressed a specific need with a specific service.

Holistic Care

We are taught in medical school that health care should always comprise holistic care, regardless of how specific the need may be. While a mission may not be able to provide long-term care beyond its presence in a country, it should strive to make its short-term care as comprehensive as possible. When operating on a patient, the context surrounding the operation is as important as the operation itself. This encompasses assessing patient health before and after surgeries. To attend to these needs, our mission formed a multidisciplinary team, including a pediatric primary care team that addressed pre-surgical medical screening, post-surgical medical care, and social services such as how patients would be safely transported home.

In addition to the concrete aspects of health, the patient-provider relationship is essential to patient care. Specifically, communication with the patient about the operation and follow-up is crucial. Due to a language barrier between patients and their providers, patients often do not understand the details of their surgeries. A number of our patients having palate surgeries developed esophageal discomfort and soreness
from a combination of being intubated and having pharyngeal flaps harvested. As these details were not always thoroughly discussed, many parents developed a heightened sense of fear and anxiety before the surgery; watching their children in the recovery room with a greater than expected amount of discomfort led to discrepancies between expectations and actual results — and anger in one parent’s case.

Patient-centered care is a component of medicine that is conspicuously absent in Vietnam, where the patriarchal health system often perceives physician opinion as dictates to be followed, leaving little room to address patient concerns and preferences. Observing patients for preoperative screening, we saw that patients hardly asked questions regarding their expected care. In fact, a large majority had no questions. After speaking to the family and friends of several patients who had not returned for scheduled surgeries, we learned that their lack of knowledge and understanding of the operation made them uncomfortable following through with care. Here, then, is another issue in Vietnamese health care that we can address as a mission team by facilitating communication in the context of patient-centered care.

Missions do not always consider these needs when raising funds or in interaction with patients. For example, funds were not allocated for professional translators. Using the vocabulary we’ve accumulated by growing up in Vietnamese homes and asking for assistance from native speakers with only a couple years of English language training, we were able to increase interaction with patients but were still limited in our capacity to discuss their concerns. In one case, it became frustrating that we could not provide to a mother and her child, Nam, the adequate details regarding Nam’s encephalocele diagnosis and prognosis other than that the plastic surgeons could not operate on his anomaly safely during this trip.

In terms of follow-up, while it cannot be expected that these missions follow patients over years to complete multi-stage surgeries, they should be responsible for informing patients about the process to understand the possibilities for future surgeries and when to seek such additional surgery. Instead, many of our patients were simply told to wait for the next mission, without any reference to who or when would provide such care. If we are concerned with addressing deficiencies in Vietnamese health care, we need to look beyond the physical gap closed by surgery to other problems hindering complete care, both in the Vietnamese delivery of care and in our own (Table 1).

THE BRIDGE BETWEEN CULTURES

In order to provide either a specific service or holistic care as mentioned above, mission teams need to work within the context of the host country. When a medical mission team brings its people and tools into another country, it has the opportunity to impart knowledge and skills developed in its country (Figure 2). The team is also in a position to absorb aspects of another culture. Understanding where the gaps between cultures are helps us learn how best to integrate our dual resources, systems, and viewpoints to provide maximum patient care [12].
The interactions between the American and Vietnamese medical teams provided an opportunity to learn about each other’s practices. However, the exchange of surgical technique and knowledge was informal at best and mostly unidirectional from the international to the domestic physicians. Throughout the surgical mission, local Vietnamese surgeons observed and shadowed in the operating rooms. The surgeons at this hospital did not provide cleft defect repairs to patients and thus did not participate in surgeries. Because the usefulness of medical missions are maximized when long-term outcomes are considered, it would be useful for missions to invest in the education of the local care providers. With more formal education, such as lectures and direct patient care training, host country providers may begin to develop their own practices.

However, under the premises of this mission and many others, it is difficult to balance patient care and educational training. With limited resources of this surgical mission, immediate patient care had to be the priority. In order for education to be practical, two obstacles have to be addressed, namely 1) language barriers and 2) the feasibility of local physicians to provide direct patient care after the mission team leaves.

Furthermore, there was also the opportunity to give to patients. From our encounters with patients and their families, there seemed to be an overwhelming gratitude for our services. One parent offered to cook our team an entire meal with what little food she had managed to bring with her on a 12-hour train ride. Whether surgeries corrected serious medical issues or improved aesthetics, patients conveyed a humbling sense of appreciation for our work. Speaking with Mai, a mother of two boys afflicted with cleft lip and palates, we learned of patients’ affinity for Western physicians. For Mai, she reflected on her belief in the superiority of Western training and skills, which came with a greater show of compassion. The source of this belief was unclear. Perhaps international surgical missions offer the most visible form of this care (surgeries are performed in mass with concrete results), while treatment by Vietnamese surgeons specialized in cleft defect repairs are often unaffordable for individuals like Mai. The
visibility of care, combined with its pro bono nature, creates a sense of the efficacy associated with Western surgical missions.

While it is satisfying to know that our culture and background enable us to give to people with needs and that the recipients recognize this offering with gratitude, it is important to evaluate the quality of what we give [13-14]. Several patient families responded to the surgeries with disappointment over aesthetic outcomes. The family of a 28-year-old female receiving a rhinoplasty revision to correct a previous cleft lip palate surgery was quite disappointed that she was not given a nose that would attract a suitable mate. Although multiple surgeons and staff were content with the degree of reconstruction offered, expectations differed. Improved communication with patients at the outset about expectations must take place to better prepare them for the surgical results. Although limited resources can be cited for limited education of local providers and communication with patients, investing in these aspects of care may more fully recognize the goal of giving.

How to Receive

While medical missions are open to sharing our resources, we are less aware of the need to accept opportunities for learning from the community they are serving. In part, this mentality grows from the philanthropic foundation of a medical mission. We are there to give. This focus can obscure the idea that giving requires an understanding of the people to whom we are giving. One might reasonably ask why this matters when a surgical procedure in one place is the same as in another.

It matters because while care may technically be the same, the interpretation of the care may not be equivalent. In a surgical consultation for a child requiring a cleft lip revision, it was noticed that the child also had an extra digit next to his thumb. The surgeon offered to amputate what one Vietnamese health professional mentioned as being a lucky charm to some, resulting in the parents taking offense and refusing even the cleft surgery. Faced with culturally based aesthetic expectations, the mission team needed to cater to different patient needs. In other words, mission teams should be open to receiving input from host countries and patient expectations.

Fueling the potentially detrimental one-way approach to what should be an exchange of perspectives is a sense of having better and more. We come from a privileged, developed place and assume that our ideas and practices naturally take precedent over the less advanced system established in a third world country. It is often true that we have the benefit of more in-depth training and technology. But asserting this mindset is damaging in several areas: It alienates members of the community in which we work; it delays us from adapting to a different system in order to realize our goals; and it prevents us from learning about new ways of studying and practicing medicine.

For example, at Khanh Hoa Hospital, the local pediatricians were required to examine patients the day before surgery for medical clearance. Not only was our team unaware of this practice, but when there were conflicts between the teams, we asserted our validity over theirs. An infant appeared to be suffering from a mild infection, and our pediatric team administered antibiotics in preparation for the surgery. The Vietnamese pediatric team, unaware of our actions, also examined the infant and deemed him unfit for surgery. The next morning, when the infant did not arrive for surgery, our team struggled to navigate the system to ensure that the infant would receive his operation. As translators, we also became negotiators. Our team instructed us to tell the Vietnamese staff that our pediatric team was highly experienced, found the infant suitable for surgery, and therefore should bring the infant to the operating room. This approach stripped authority from the Vietnamese staff over those whom they perceived as their patients, as much as we saw them as ours. By putting effort into understanding the hospital operations structure, we could have implemented communication between the two teams to more efficiently care for the patient. In this
way, receiving is another, and significant, means of giving (Table 2).

RELIEVING ECONOMIC BURDEN

When speaking about giving and receiving on a mission, this often involves addressing economic need. Medical missions seek to serve patients with scarce financial resources. Missions offering services free of charge are most useful to populations most unable to afford these services on their own. In Vietnam, 14.8 percent of the population lives below the poverty line [15]. With an average per capita annual income of $1,052 USD and the price of a cleft lip surgery (performed by a local surgeon) of roughly $80 USD [16], one operation comprises 7.6 percent of annual income. A significant burden for the average household, this expense is clearly more difficult for a poor household to shoulder. It is this gap in economic resources that medical missions strive to fill.

Measuring Need

When inquiring into the demographics of our patient population, we were told that they were all “poor.” In a developing country, we assume that anyone we serve is in need. In a country where health costs are a burden on even households with relatively abundant resources, this is reasonable to believe [17]. However, if we frame the function of our mission as filling a gap in patient resources, we need to know at the very least what resources our patients possess.

In that vein, we conducted a survey to assess the poverty level of the patients. We distributed a previously validated poverty scorecard [15] designed to more easily and accurately assess poverty based on actual resources (such as housing and water supply) rather than income (Table 3). The tabulated score according to guidelines set by Chen and Schreiner [15] correlates to a percentage likelihood of being below the poverty level. The results show that while only a handful of our patients have a high likelihood of being below the poverty line, a third have no likelihood of being below the poverty line and another third have 15 percent or lower likelihood of being below the poverty line (Figure 3). We were surprised to find that a majority of the patients we treated were relatively well-off.

Our patient population may be explained in large part due to the fact that households with the most socioeconomic burden may not own radios or televisions and thus will not hear advertisements about
the medical mission, or they may live in remote areas where word of mouth does not travel and access to transportation is negligible. The fact that we did not entirely target patients who would most benefit from our services highlights the need to invest in knowing the patients we serve and seeking the patients we wish to serve. Perhaps future missions will benefit from surveying areas with a higher proportion of need and relying on scouting reports from other medical missions or physicians who do have access to hard-to-reach areas of the country. Even though the average Vietnamese household can benefit from a free operation, if we want to maximize the effect of our work, we should concentrate our resources among the most resource-poor patients. And perhaps most importantly, this highlights how little we know of the need that we are striving to fill.

Filling Need

While many of the families we served were living above the poverty line, they still had a significant need for our services. Paying for an operation whose cost comprises several months’ salary can be a substantial deterrent to seeking care. In pursuing health care, patients face a disorganized, bureaucratic medical system driven by financial incentives over quality of care [17]. These issues constitute a gap in care that can be filled by international surgical teams motivated by patient care and not by financial gain.

Currently, there is debate over the distribution of economic resources in providing cleft lip and palate surgeries. With limited financial resources, some argue that it makes more financial sense for the western industrialized donors to provide resources to local surgical teams to perform operations [16]. While the discrepancy in the cost of operation per patient for an international versus local team ($1,000 for international teams compared to $78 for a local Laos team) may support this argument, there are other variables to consider.

Most importantly, we should ensure quality of care. If donors invested in training local teams, this endeavor would require training not only surgeons, but pediatricians, anesthesiologists, nurses, and ancillary staff. All of these components must be in place for adequate care. During our mission, we encountered a large number of children who had previously received operations by local surgeons and came to our team for revisions, due to failed procedures or unsatisfactory aesthetic results. Although it may be a more

Figure 3. Results of survey evaluating patients’ poverty likelihood.
Table 4. Future considerations to relieve economic burdens

To best serve a population, we need to know the characteristics of that population.

Organize missions based on the question: how do we best target people most in need?

Consider whether helping local staff provide our services would be more beneficial to patients long-term, and whether this is feasible. When this is not feasible, the care we provide is still in need.

Figure 4. Patients await surgical consultation with our medical team.

long-term solution to train local surgical teams, it remains acutely practical for international surgical teams who are already well trained to be care providers, such that there is less uncertainty regarding the quality of care.

Quality of care also can be compromised by financial considerations. In health care systems such as the one in Vietnam, where out-of-pocket payments drive care, health care providers are often motivated by financial compensation above all else. This can result in an uneven distribution of care, where wealthier patients receive more care than people with fewer resources. In contrast, international mission teams are not financially compensated for their services and can offer similar quality care to all patients.

Some argue that when services are rendered for free, they do not constitute the same quality as paid service. However, many organizations prioritize quality in a variety of ways; Smile Train provides international resources to cleft lip and palate surgical missions like ours and requires that missions provide photographs of children before and after surgery prior to allocating funds. Because host countries may offer fewer resources than mission teams are accustomed to, our team transported many of our own supplies to ensure that quality of care abroad was comparable to what we can deliver at home. Given these factors, being able to provide care that people would otherwise be unable to afford fills an important need (Table 4).

PROGRESSING IN A REGRESSIVE SYSTEM

When bringing resources into another country, we also bring the system in which these resources function (Figure 4). In the case of Vietnam, we have the opportunity to bring the advantages of our health care system to one characterized as placing a disproportionate burden on poor patients. Under the Vietnamese user-fee system, patients pay out-of-pocket (prior to receiving care) for 80 percent of health expenses. This does not take into account unofficial payments regularly imposed on patients by health care staff. Although there is health insurance for the poor, providers prioritize patients who can immediately pay user fees, leaving insured patients at risk for going untreated or charged user fees in spite of having insurance. Drawing on more resources and with the primary goal to provide care, we can seek to compensate for the inequities and inefficiencies of the local system.

Navigating an Unknown Maze

Without understanding how the host country’s system works, it is difficult to integrate positive elements of our system to best serve the patients. This applies both to the individual hospital in which we worked and the structure of the health care system
as a whole. Not knowing the logistics of the hospital workings prevented us from maximizing our help. For example, although we brought our own antibiotics to distribute, the team did not know how medicine would be administered within the hospital. Two days of the mission (nearly half its duration) passed before we fully determined and navigated the logistics of this process. In addition to bringing the raw materials, knowing how prescriptions are written, documented, and implemented would ensure that our intentions and resources are put to use. This applies to all hospital protocols and practices. We cannot work by assuming that a different system will readily accommodate our services; we need to integrate our services within that system.

We also need to look beyond the structure in which we’re working to the overarching framework of health care in the country. Few people on our team came to Vietnam with an understanding of its health care system and its problems. This made it hard to anticipate and prevent complications before they happened and to efficiently resolve them when they did. When an infant developed a postoperative infection, the mission team spent several hours evaluating the patient, transferring her to the intensive care unit, and ensuring she was settled for the night. The next morning, the team discovered that the patient’s family had been asked to pay out-of-pocket for continued care, despite insurance covering such cases, and told that treatment would be withheld if the family, which could not afford it, did not pay. Having already done everything to care for the patient, several of the mission team members were surprised at being hindered by this unforeseen problem. Fortunately, the Vietnamese Minister of Health, who helped sponsor the mission, successfully intervened.

If we had known that this common situation could occur, we would have had opportunities to prepare. Instead of waiting for the matter of payment to become an issue, we had an opportunity to learn about the host country’s system and address it in advance. We can engage local authorities with influence during the mission to prevent patients from being mistreated. Other issues similar to this one and less severe in degree may have occurred without our knowledge, in large part because we were not aware of how the Vietnamese system lends itself to particular complications. These obstacles may well arise despite our best efforts, because we cannot control another country’s health care system, nor can we anticipate every possible problem. But if we are to enter another country to treat patients, we need to do what we can to understand the system in which we are delivering care.

**Capitalizing on Established Structures**

When learning about another country’s health system, it is important to examine not only areas in need of improvement but also areas of strength. In terms of medical facilities, the Khanh Hoa General Hospital was better equipped than expected. One might expect second tier operating rooms (OR) devoid of the technological advances taken for granted in the United States. However, for the mission team, the surgical setting felt much like home with standard operating room lights, anesthetic machines, autoclaved instruments, and air conditioning.
These ORs were host to the same surgeries we see in the United States, from routine Cesarean sections to trauma cases involving pneumothoraces, requiring the removal of foreign bodies and the insertion of chest tubes. The staff roles and structure were also similar to the system seen in other developed countries. Each surgical team consisted of a scrub nurse, circulator, surgeon, and a first-assist in the OR. Their expertise in the surgical process from scrubbing and gowning to preparation and operation of the patient was superb. They even had a Zeiss microscope for meticulous microvascular surgical procedures. And yet, they never performed their own cleft lip and palate surgeries.

Recognizing these abilities is important when considering how best to integrate our services. Beyond the obvious convenience of having the facilities and staff to help our mission team, there is the question of whether these strengths are sufficient for the local team to perform their own surgeries. As discussed in the section on economic burden, the difficulty lies not within the ability of individual surgeons to perform procedures, but within the overall structure of health care in which surgeries are wholly driven by financial incentives. Most individuals with cleft lip and palate defects cannot afford repairs, and as a result, there is no drive for the medical system to train local surgeons. Many plastic surgeons trained in Vietnam enter the private cosmetic market, focusing on operations that can be performed quickly on many patients who can afford it.

Until the medical system infrastructure can incentivize physician training to prioritize this medical problem, it may not be possible to establish a local system for cleft palate and lip repairs. While this gives international teams with these surgical skills an opportunity to help, we should not overlook the capacities that local caregivers do have. Even if they are not able to perform the operations on their own after missions leave, they could be given more direct responsibility during the missions. This integration of care would take advantage of the strengths of both the host and mission teams (Table 5).

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