Global variations in Western medicine

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abstract

Each year, hundreds of health care students from across Canada embark on travel abroad with the goal of improving health and education for people in developing countries. Despite the altruistic goals of such endeavours, students and practitioners alike may find themselves confused when exposed to variations of western medicine. This article uses two examples to explore such variants. The first example looks at catheterization of postpartum women to prevent fistula formation, while the second example examines the practice of antibiotic prophylaxis in HIV+ patients. When practicing abroad, clinicians may believe these variations to be incorrect due to different current practices based on their training in their home countries. However, recognizing regional differences in medical practice, understanding the reasons for these differences, and realizing that these differences are not necessarily "incorrect," may help guide clinicians when practicing medicine abroad.

The Global Health Initiative at the University of British Columbia (UBC) is a student–driven project aimed at enhancing global health education and providing training to students from various faculties through a series of monthly skill–building workshops.[1] The program also runs international projects for students. Several of these projects involve a mix of research and clinical experiences, with many students publishing their findings upon project completion. This past summer, four medical students from UBC engaged in a research project and clinical shadowing experience in the rural area of Nakaseke District, Uganda. Most importantly, the project provided us with a new perspective on the status of health care within a global context.

We were all fairly well–traveled and well–aware of the differences among cultures, particularly the importance of cross–cultural acceptance without prejudice. But despite completing pre–departure modules on cultural competency and global ethics prior to arriving in Uganda, we were unprepared for the cultural differences that existed between ourselves and the local Ugandans. With our limited clinical experience and knowledge from one year of medical training, we were guided by Western physicians and our occasional Google connection. Together, we began to spot differences in treatment and began to question local practices. Yet, did the recognition of these differences in approach necessarily mean that the local practices of medicine in Uganda were unreasonable?

One of our first experiences in noting differences in care came during teaching rounds in a maternity ward where we met a newly postpartum woman with a Foley catheter. Recalling our lectures on infectious disease prevention, we saw what appeared to be a catheter with no obvious indications.[2*] We were thus excited by the prospect of preventing a urinary infection in this patient and proceeded to inform the physician. We asked the attending physician how long this woman needed to be catheterized post–partum and he replied, "Fourteen days." Having learned in school the importance of removing catheters from all patients in order to prevent urinary tract infections, we found it difficult to fathom the notion of continuous catheterization in this situation. After inquiring with the local attending physician and conducting our own research, we learned that this is common practice in Uganda when labour is prolonged or obstructed to prevent the serious complications of vesicovaginal fistula (VVF) and rectovaginal fistula (RVF) formation.[3,4] In these circumstances, as the fetus compresses tissues and reduces local blood supply, the mother becomes prone to developing necrotic muscle tissue within her uterus. Thus, prolonged labour can increase the risk of fistula development, which, although rare in the developed world, is common in Uganda and can cause lifelong uncontrolled, continuous vaginal leaking of urine and/or feces. Prolonged catheterization for 7-14 days reduces pelvic pressure, thereby limiting the formation of new fistula while promoting the repair of existing formations.[3,4,5] Therefore, despite the risk of infection from catheterization, this procedure is chosen to prevent shame, stigmatization, economic distress, and perhaps larger social consequences than would otherwise follow from the formation of VVF or RVF.

Another contradiction between our medical understanding and observation in practice occurred during our involvement in the outpatient HIV clinics of Nakaseke. In our first year, we learned about HIV and opportunistic infections, and how to manage patients presenting below certain CD4 cell count cut–off points. For example, in Canada, if a new HIV+ patient presents with a CD4 count below 200, the patient would be initially managed on prophylactic cotrimoxazole/trimethoprim (CTX) and combination antiretroviral therapy to protect against certain infections until their

* Indications for catheterization include a) urinary retention, b) obstruction to the urinary tract, c) close monitoring of the urine output of critically–ill patients, d) urinary incontinence that poses a risk to the patient because of a stage 3 or greater ulcer to the sacral area, and e) comfort care for terminally–ill patients.[2]

CD4 rises above 200.[6] After three months of CD4 counts above 200, the standard practice is to discontinue the CTX while continuing the combination antiretroviral therapy.[6] However, in Uganda, we saw multiple patients with CD4 counts above 500 and even 1000 for far over 3 months, all of whom were still on prophylactic CTX. From the local physicians, we discovered that Ugandan guidelines on HIV management differ from Canadian guidelines. In Uganda, all patients with positive diagnoses and symptoms of HIV receive CTX, regardless of CD4 counts.[7] Their practice guidelines are based on research, which shows that CTX reduces mortality and hospitalizations, while possibly stabilizing viral load and slowing CD4 cell count decline in HIV patients.[7,8]

An estimated 1.5 million people are currently infected with HIV in Uganda,[9] which is approximately the same number of people on daily CTX prophylaxis, making antibiotic resistance a significant concern. Existing evidence, however, suggests that in vitro susceptibility and resistance testing does not reflect the prophylactic ability of this antimicrobial agent; in other words, concerns of CTX resistance should not prevent its use as a prophylactic agent.[8,10] This practice of continuous CTX has been validated for continuous use up to 72 weeks in a large study and verifies that the Ugandan guidelines are appropriate.[7,11] In addition to this evidence, Ugandan physician, Dr. Alex Kayongo, explained to us that "a 14-28 day prescription of CTX brings patients back to clinic for follow–up. If they are not given CTX, they will not come back until they show symptoms of late stage AIDS–defining illnesses." We wondered if practices were different at the national referral center located in the more urban Mulago. According to Dr. Kayongo, "The way [he] practice[s] medicine in Mulago is different from how [he] would practice medicine in the village. There are many social considerations that must be taken into consideration in the village..." For example, he alluded to the fact that in Mulago, people live closer to health care facilities and can easily get follow–up care. However, in the village, distance is a huge barrier for patients, who often travel hours to days on foot to get to their nearest health facility.

A phenomenon called "ethnocentrism" has been recognized by social scientists, whereby an individual believes that his or her culture is greater than others.[12] Recognizing this phenomenon is important in order to remain neutral and objective when analyzing various cultures. When researchers' subjectivity and ignorance are entered into the equation, ancient civilizations are essentially described as "primitive" or "savage." The same concept of ethnocentrism can be applied to global health. As we witnessed the new mother with the catheter, our instincts screamed for it to be removed; after all, it is tempting to equate "different" practice with "improper" practice. It is in these situations that various cultural factors and broader contexts need to be considered.

The opposite of ethnocentrism is cultural relativism, which is the notion that each culture should be understood in terms of its own values and beliefs and that no culture is superior to any other culture.[12] To apply this principle from a critical perspective when studying medical practices around the world, foreign clinicians can learn from local clinicians and patients, while seeking to understand why differences in medical practices, clinical outcomes, and perceptions exist.

Recognition of different practices in medicine is the first step to understanding them. After that, how should foreign clinicians proceed? Foreign clinicians might consult with local clinicians to try to ascertain the medical reasoning behind such differences and might ask local patients about their beliefs and values when it comes to certain practices. Lastly, perhaps an investigation of these variations in medical practices could warrant observation of local clinicians at work, before the foreign clinician partakes.

It has been said that medicine is both a science and an art. This is especially true in the setting of global health where science can only take the clinician and trainee so far before cultural competency and awareness of social context fill the artistic aspect of medicine. We need to leave behind our western concept of health, our prejudice and assumptions, and embrace the broader perspective. To practice medicine in the true spirit of global health, we need to keep our own cultural beliefs in check.

disclosures

The authors do not have any conflicts of interest to disclose.

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