Nursing Students in a Developing Nation using the Internet: A phenomenological study
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Abstract
Using a qualitative phenomenological method, this study’s semi-structured interviews illuminate the lived experience of nursing students from a developing nation, Malawi, Africa, in using the Internet as an educational resource. Analysis proceeded according to van Manen’s qualitative phenomenological method.

Five essential themes emerged from the students’ stories of their experiences: maintaining interpersonal connections with family and friends, using the Internet to find information, adapting information to fit their culture, using the information they find from developed nations as a comparative standard for care, and facing the challenges of learning to use technology.

Ultimately, the Internet provides these undergraduate nursing students a window of hope. They now know how to provide quality nursing care and bring change to the lives of those they serve by searching for and using the information they find on the Internet and linked research databases. The insight into the students’ experiences demonstrates the value of increasing Internet availability to college communities in developing nations.

Key Words
Internet, Nursing Education, Nursing Education in Malawi Africa, Nursing Education in Developing Nations, Internet in Nursing Education, Nursing Students in Malawi.

Introduction and Background
The Internet is a virtual world of electronic information used by all but three nations of the world.1, 2 Nursing students at all levels of nursing education in the United States (U.S.A.) and other developed nations, as defined by the World Bank, have access to thousands of professional research journals via the databases and Internet connections in their libraries. Educational researchers in the U.S., United Kingdom (U.K.), Canada, and Australia have done extensive research on how their students use the Internet and computer technology. However, there have been no studies on student perceptions of the usefulness of information technology beyond these developed nations.

The disparity between Western educational research and research from the developing world is appalling: currently, developing countries receive only 10 percent of healthcare research funding.10 The complete absence of research on Internet use in developing nations and the enormous healthcare problems many of these nations face points to the Internet as a possible solution for quickly and effectively disseminating information. This study is an initial attempt to bridge the gap between what we know about healthcare needs and how students in modern, technology-driven societies access and use this information. It is an attempt to describe the meaning this technology has for these students.

Nurses are “essential to the creation of a healthy world...[and] unless the nursing community is sustained in innovative ways, worldwide, the health of everyone on the planet will be in serious jeopardy.”11 In the U.S.A., nursing Students are taught to use the Internet to search for up-to-date, evidence-based, scientific research and practice recommendations. In the same way, Internet access brings comparable information to nursing students in developing countries through access to professional research journals and databases. For students in low-income countries, lack of access to up-to-date healthcare information can compromise their ability to continue to improve the health of their communities. Because we have become an information-based global society, the skills needed to survive in today’s world are increasingly linked to our ability to access and keep up with important information.

In addition to accessing basic information, educational researchers tell us that computers can be used for drills, tutorials, testing, simulation, information processing, problem solving, management of instructional resources, and many other uses.4 Nursing researchers list some of the newest uses of technology in nursing education as web-based courses, simulations, and use of hand-held electronic devices.5 Several phenomenological studies have looked at the meaning of online education for U.S. nursing students6,7,8. Atack9 reported that nurses saw web-based courses as meeting their learning needs, and that the nurses changed their practices based on the education and information they had obtained through such courses. However, no research has been done on the use of the Internet for nursing courses in developing nations. A literature search performed between 2007 and 2010 revealed several educational studies about variations in learning styles in different cultures, but no research discussed student perceptions of the Internet.

This study was completed at a college of nursing that offers both basic baccalaureate and advanced nursing degrees in Malawi, Africa. Malawi was chosen as the location for this study in part because it is considered a low-income country that faces many challenges similar to those in other low-income nations.11 Some of these challenges include high rates of infant mortality, maternal death, malaria, and HIV/AIDS. There are also few resources for malaria treatment or effective treatments for suspected simple infections like pneumonia11,12. For example, in 2005, the estimated number of people of all ages living with HIV in Malawi was between 480,000 and 940,000.12 Malawians, like many people in developing nations, have incomes far below poverty standards in Westernized nations, which leave the government a small tax base to pay for total healthcare expenditures. As of 2010, total Malawian expenditure on health care is $64.00 USD per
person per year: 12.2 percent of Malawi’s GDP. The average life expectancy for Malawians is 53 years.

Malawi is located in the southeastern region of sub-Saharan Africa and has a population of between 13 and 14 million. According to the World Bank Key Development Statistics, the Gross National Income for Malawi is $280.00 USD per capita. The country faces healthcare challenges similar to those of other sub-Saharan African nations. The African continent has the fewest Internet users; however, since 2000, Internet use has grown over 800 percent. The former, British colony of Malawi, created a society where today, Erasmus, the language of business and education. Students study and access the Internet in English, making it an appropriate place to collect data. An invitation to collect data from a school of nursing finalized my decision to choose this country and location for the study. The College of Nursing in this study allows students to access scientific databases in its library’s Internet café. The Internet café, established with private donor funding, gives students access to a variety of nursing journals and research databases made available by the World Health Organization, such as the WHO-HINARI database, EBSCO HOST, Blackwell Synergy, and Pubmed.

The college where data were collected is one of three colleges in Malawi that offer the Bachelors of Science in Nursing degree (B.S.N.). The curriculum and course requirements are similar to the coursework required in U.S. and Western four-year baccalaureate nursing programs. Students on campus access the Internet at an Internet café in the college library, which holds about 25 computers. The librarian and the nursing administrators at the college of nursing have ensured Internet access for their students through a variety of donations and grants and have access to HINARI, the Health Information Network sponsored by the United Nations. The Malawian nursing students seemed determined, studious, and at times idealistic. Like other college students, they are looking forward to what they will become, and they are looking forward to a bright future. As of 2006, only 55 percent of children in Malawi completed their primary education: the young people who graduate from the college of nursing in Malawi are exceptional in their country.

Method

Van Manen’s approach to phenomenological research was used to design the study. Phenomenology seeks to make explicit universal meaning, especially meanings that may be hidden or veiled. Phenomenology allows educators to gain insight into the lived experiences of our students and to what is being taught: the object and the student’s perception of that thing, or in this case, the path to what is being taught. By using this approach, the researcher attempts to contrast a lifeworld. This method provides researchers a framework for discovering what it is like to live in an experience. Educators pursue relevance: they ask how students perceive aspects of their educational experience because they are continuously working to create intersections between the learner’s life-world and the subjects being taught. In this study, the phenomenological method was chosen to describe the experiences of nursing students in Malawi who are using the Internet as an educational resource. It asks: what are the experiences of nursing students in a developing nation in using the Internet as an educational resource?

Students enrolled in the second- and fourth-year classes of the Baccalaureate Nursing Program at the participating college in Malawi were invited to participate in this study. The student sample was non-random and purposive. Participants were required to speak English, have taken a course that requires the use of the Internet, and be between 19 and 61 years old. Twelve students initially participated in the study; 10 returned to review their transcripts and participate in a follow-up interview. Data from the final 10 participants were included in the analysis, and at this point, data saturation was reached. Institutional Review Board approval was obtained from the institution where the students attended college, and where the researcher was completing her doctoral degree. Faculty from the college handed out an informational flyer, and students who were interested in participating in the study arranged to meet with this researcher in a private office on the college campus, provided by the College of Nursing.

When students arrived for interviews, the purpose of the research was explained, and the students had the opportunity to ask questions about the study and interview process. All participants signed the informed consent form and consented to having interviews recorded. Students created pseudonyms so that data could be coded and participants’ names could remain confidential.

A semi-structured interview process was used to ask the student participants to describe their experiences using the Internet. The interview started with basic demographic information: name, current year in the nursing program, hometown and other residences. I then learned about the size and structure of the students’ families. These questions helped paint a portrait of life as the students knew it, and allowed me to build trust and an understanding of the participants’ formative years. The question, “please tell me about your experience using the Internet as an education resource” began a more open-ended portion of the interview. Students described their experiences, how often they used the Internet, and how relevant they found the information for their studies and clinical work. They also discussed their experiences with technology itself and the amount of assistance available.

Initial interviews lasted between 45 minutes and one hour. Follow-up interviews were conducted within three to six days of the initial interview. During the second interview, the participants were asked to review the transcriptions and validate the information they had provided. In the follow-up interviews students reviewed the transcripts of their initial interviews and answered questions to clarify meanings in the initial interview. The follow-up interviews lasted between 20 and 45 minutes.

Using van Manen’s framework, interviews were transcribed and the process of phenomenological reflection was employed to grasp essential meanings. Stories the participants told about their experiences were read and re-read, and taped interviews were reviewed to determine the major themes and subthemes that the participants shared. These themes became the “experience of focus, of meaning, of point” that participant’s share. The selective reading and holistic approaches guided the interpretive process. This researcher isolated thematic statements and grouped statements with similar meanings together, identifying themes from experiential structures. The stories the students shared were recognized, clarified, and refined into a summative constitution of meaning.
Lincoln and Guba describe four major criteria for rigor in qualitative research: truth value, applicability, consistency, and neutrality. To demonstrate truth value, participants were asked to validate the truth of the information extracted from the interviews. After reviewing their transcripts, the participants were asked, "Is this what you said?" and "Is this what you meant?" All of the participants either stated that the transcripts were written correctly or offered minor editing and clarification of their statements. To demonstrate applicability, the data were used to describe themes that the participants consistently described in their stories. These similar ideas then became the major themes and subthemes. Consistency in this study comes from using a consistent approach to the research interview with each research participant. All of the students were asked the same demographic questions and the same questions about their impressions and uses of the Internet. Neutrality was maintained by reviewing the findings with the research subjects and having them validate the meanings that they had intended.

Validity was established using VanKaam's expert validating approach. A PhD-level nurse who has done research in the field of phenomenology, has experience with international education, and has done international research reviewed the findings and meanings extracted in the study and discussed them with me to ensure and maintain validity. This nurse-researcher has fifteen years of both qualitative and ethnographical research experience.

Findings

During the interviews, the students talked about their lives and experiences in nursing school, doing assignments, and using the Internet. Analysis of the transcripts revealed five major themes: maintaining interpersonal connections, finding information and making learning easy, finding information for comparative practice, adapting information to fit Malawian culture and resources, and facing issues with technology.

Maintaining Interpersonal Connections

The first theme that emerged from the interviews with students was that they use the Internet because it allows them to make interpersonal connections. The students use the Internet and e-mail frequently for making interpersonal connections for one reason or another.

Chamoh said the first reason she uses the Internet is for "writing e-mails to friends." Paula, a second-year student, said, "Personally, it also helps me to communicate with my friends, especially those that are out of this country. Those are my Malawian friends who have gone outside the country.... They are friends from here." Peaches, a second-year student, said, "It's very important, because at least you exchange information. We don't know what other nurses are doing out there, and people there don't know what nurses are experiencing here in Malawi." Jennie said, "I also use the Internet to get some information as well for personal issues.... in my family, something happens, I know there is the Internet and people get information." Martha, Jane and Susie, in the second and fourth years, made similar observations.

Finding Information—Making Learning Easy

All of the students also felt that using the Internet helped them to find information easily, and that in turn made learning easier. Martha said:

It's a simple and straightforward way of...finding information.... When we are given an assignment, and I can't find the information, I go straight to the Internet, maybe [to] Google and type the question....it gives straightforward information....like learning easy...and maybe knowing what is happening....

Susie added, "When you want to find the information about something, you type it and it is everyone (everything). When it is a book, we have to wait for long time for this." Rita said, "It's fast," while Paulia said:

It means quick and fast information. It also means that I'm able to get almost everything that I'm asked for my lectures.... We have few books in the library, so...people will go scramble for the books and then the obvious option is the Internet, and then I just go to the Internet...download the information that I want....I get information and I use it.

Peaches added:

Most of the books that we have in the library, they are books [from the]...1980s, 90s. ...We need information that is up-to-date. So [we]...get that information...from the Internet. We have to find up-to-date information about the....current issues in nursing.

All of the students stated that they enjoyed using the Internet, and that it is an easy way to access information as a part of their daily lives as students. Sometimes the information they search for is information for research projects and homework assignments; sometimes they are looking for up-to-date information about the nursing care they give patients and situations they see in a clinical setting. The students do have books and a few journals in their library, but because of the age and limited availability of printed resources, using the Internet is a key part of their educational experience. The meaning of the experience of using the Internet for these students is quickly finding up-to-date information for classes and research projects. However, it does not stop there.

Finding Information for Comparative Practice

Nursing students in Malawi know that many health problems exist in their country. Given the severity of the diseases they witness, and the fact that they seek to provide up-to-date health care to the people in their country, they are constantly looking for information to compare their practices with those who practice nursing outside of Malawi. Khwi said that she would “want to know all of the new practices that have been researched.” Later, in the follow-up interview, she added, “In my studies I could use a tool, for example, to find what nurses in America do and wherever, and then you know what others are doing and then you do the same.” Paulia said, “We will learn what other people have figured out there, and we will be able to use it in our own city to know how we can also improve our situations here.” Chamoh said, “At least you are updated on what others out there are doing.” Jessie summed it up:

I feel [that] for me as a nursing professional, the use of the Internet in collaboration with others may help to access certain information. Maybe...information within the country.
and outside what nursing is like out there. It may be important because I feel it’s only by doing that…you can realize whether you’re nursing or the nursing you are giving is a standard or not. It may help you to actually evaluate it.

The students in Malawi use the information they find on the Internet as a standard and benchmark for comparing their nursing practice with nurses in other countries. They are eager to learn what others are doing and whether they need to make changes in their own nursing practices. They are looking for up-to-date, relevant, practical information when they search the Internet as part of their studies: information that will demonstrate how they can (or already do) provide their clients with high-quality nursing care.

Adapting Information to Fit Malawian Culture and Resources

The next theme that emerged was that nursing information found on the Internet often had to be adapted in some way to fit either Malawian culture or resources. The students described very specific examples of information they found, and often they described ways that this information needed to be adapted to “fit” Malawi. Khwi said:

Okay, for example, when you’re looking for some diseases that are only common in Malawi, it is difficult to find that information because most of the [existing research was done in] U.K. or U.S. So, to find that information concerning [those diseases] is difficult. There are things that we learn that are ideal, but at the hospital there is no equipment or facilities to do that nursing. Mostly, we improvise to solve problems.

Rita said, “The only problem is that the management you do outside Malawi is certainly different from what we do here because of the resources we have.” Chamoh estimated that only about 50 percent of the information she finds is applicable to nursing practice in Malawi:

If I look at nursing care, [the] resources are not the same as in developed countries. Conditions are different. Health conditions, you have cardiac problems, hypertension…. In Malawi, you have diarrhea…. There is not as much information on what they actually see as I [wish] there was.”

Jane reported, “Some of the medications we use in Malawi are not the ones used in other countries, like the treatment for malaria.” Martha expanded upon Malawi’s major healthcare problems:

I was thinking of…malaria. I always think that maybe because the ones who are giving that information, like in the West, I should say like that, maybe the hospital settings, where there are patients, where maybe their conditions which are there is not always seem like the same as what we have in our hospitals, yeah. Sometimes they’re like, but not exact. So, we may be seeking information in the book for malaria and it is not enough information for malaria…and my thinking was that maybe because it is not, they say, yeah it is not a common condition and in our country, we do have those conditions most of the times, malaria, malaria, malaria.

Martha went on to fully describe in-depth nursing management for a patient with malaria. Since she couldn’t find the information in textbooks, she explained that her lecturers had taught her how to care for these patients, and that she wasn’t sure whether that information was published. Priscilla expanded on the issue of adapting information and finding relevant, up-to-date evidence-based information based on Malawian nursing research:

In Malawi, the problem that I was telling you about, you find related issues, like in America and other countries. The research is done in Malawi but then it’s not published. So, you have a problem relating what is happening in Malawi and what is happening outside. But the issues—I won’t say [they] don’t relate. They do relate somehow.

The stories and descriptions of finding information on the Internet that the students shared demonstrate that they do find medical and nursing information that relates to their practice. Oftentimes, however, they have to adjust this information in some way. The students also explained that they rely on their professors and other healthcare providers to explain how to handle the differences. In addition, the students said that articles and reports about research done in Malawi and culturally relevant nursing and healthcare practices in Malawi are not readily available.

Facing Issues with Technology

The final theme that emerged in conversations with the students was the issues they face related to using technology. In this category three subthemes emerged: learning to search for information, dealing with technical difficulties, and imagining no Internet.

Learning to search for information. Although all of the students talked about their experiences of finding information on the Internet, not all of them always found the search easy. In describing her experience of searching for information, Chamoh said:

You just go [to the library], maybe you don’t know how to use the Internet or you don’t know what to do with the Internet, so you just click everywhere, so it really becomes very hard for somebody to read. Mostly in Malawi, it’s not always like when you’re in primary school, secondary school you don’t have that experience, so just come see the computer, it’s your first time to use, it’s somehow frustrating, you don’t know what to do with the computers, where to go and sometimes it is difficult.

Priscilla added:

In the first place I would explain that it’s difficult for us here, as I mentioned the courses, take notes, you did not hear me saying there’s an orientation course for utilization of the Internet. There’s nothing about computers, nothing like that….in secondary school, there’s nothing like introductory courses [on using] computers, or the Internet services. So when you come here it’s a bit difficult. Where do you find the information? Where do you go from there? The most difficult things that I found, initially using [the] Internet, was that I really didn’t know how to go about doing it; where to find information, I mean.

The students explained that it takes time to learn to both search for information and use the research databases. Initially, the students find these challenges frustrating, and sometimes they do not know what words or phrases to use to search. Practice and appropriate assistance with searching seems to play a role, as all of the students did say that eventually they came to enjoy using the Internet.

Dealing with technical difficulties. The second subtheme that emerged was that of student frustrations with technical difficulties. Jennie noted:
On the negative side, one thing that I can point out that I experienced is that sometimes when you want to go into the Internet, you may not access it. I can see that it is technical problem. I don’t know, but you go, and you want to search, and you can’t access it, the page cannot open. Of course, it is, it happens once in a while, but still, it disturbs.

In a separate discussion, Chamoh echoed this thought:

Well, it is not that easy. Like here, if I talk to the students here, it is not easy, because … the Internet supply is not sufficient. So it is not … very easy; because in the first place, you have to pay if you want to search the Internet. If you are in fourth year you are given a chance to go there in the evening for free, for one hour, but you cannot go daily, because your friends also want to go. So it is easy sometimes, you get the information very fast, it can be fast, but most of the times it is very slow.

Several other students also mentioned access problems. Khwi said, “Sometimes networks go down, or the computers are too crowded and you have to pay for 30 minutes at a time, so it’s difficult to get the money.”

Most of the students did not complain about technical difficulties that they experienced when accessing the Internet. Several, however, did. These students rely on the library staff to keep the computers and Internet interfaces functioning smoothly. When glitches occur, it affects the student’s experience. Furthermore, in order to manage access to the few computers available and to maintain these resources, the students must pay a nominal fee for Internet use, approximately 40 cents per hour (USD). Although senior nursing students working on research projects are allowed to use the resources for free, this fee is an added financial strain for some students.

Imagining no Internet. In order to ensure that the deeper meaning had been fully revealed, I asked the students how they thought their academic life would be affected if they had no Internet access. Priscilla said:

Wow, if I [didn’t] have Internet, that [would mean] no communications from friends, no updated information. I mean, I don’t know, but it would be something very difficult. Well, I would say the Internet’s part of our lives.

Peaches Said

It would affect me so much because [of] my research project. I’m using much information from the Internet [that isn’t in]... the books so, yeah, it [would]...affect me so much. I would have a lot of problems. That means I would need to go in the library and spend hours and hours looking for information.

Jane said, “It would mean it would be long, long times of trying to get information in the books.” Chamoh said:

I think for me, it would be very difficult if the Internet was not there...because as I have already told you...we get much of the information from the Internet. Recent information, you can only find on the Internet, because...we don’t have the recent journals that have just been published in the library.

Jessie summarized

I feel it would be closed, the campus. Of course in the past they were coping, but nowadays we are used [to it], that if you want this, you do this. If you want this, you do this, and we are used [to having the Internet]. We know where we can find the information, but if the Internet [was] not there, it would be difficult to access some information. Especially the recent information, because in our campus we have the problem that the books...we are using...old books.

Conclusions

The Internet is by nature a cross-cultural phenomenon. It spans countries and cultures and reaches anyone who can read the language printed on its pages and gain access to these pages via a computer and a dial-up, satellite, or broadband connection. What we read on the Internet, however, is interpreted in light of our unique experiences. Stated another way, what is interesting or useful for one user and the reasons for that interest may be completely different for another.

In the West, we use the Internet for gathering information, social networking, marketing, education, and research, and individuals in developing nations use the Internet for similar purposes. However, upon closer examination, the meaning of the experience for the nursing students in Malawi lies within the lens and cultural differences unique to these students.

The students stated that using the Internet means being able to connect with family and friends. Kraut et al.18 stated that the Internet had a positive effect on social and psychological well-being and that most people use the Internet to keep up with offline relationships. Malawian nursing students, like people all over the world, use Internet technology and e-mail as a means of communication. The cost and limited availability of computers, however, prohibits students’ extensive use of the Internet, even for e-mail communication. Nevertheless, they rely on this form of communication, especially when family and friends are not living nearby.

Next this study showed that finding up-to-date information is very important to this group of students, but for different reasons. The first reason is that the nursing students in Malawi don’t have many up-to-date books or professional journals. According to one student, “most of the time at this school, most books are not enough....most of the time we use the Internet when we are trying to find information.” Unlike students in, say, the U.S. or the U.K., the students in Malawi do not have the financial resources to buy their own textbooks. According to the librarian, the library does have a budget for new textbooks, but as the students stated, the numbers of these textbooks are limited. Spending the equivalent of $100.00 USD on a textbook would be equivalent to spending one-third to one-half of a Malawian’s annual income. In addition, all of the students know that they may find information on the subjects they are studying; they also know they must share their textbooks with 60 to 100 other classmates. Therefore, in order to quickly find up-to-date information, nursing students often turn to the Internet. If the Internet were not available, it would be much harder for them to access this lifeline to up-to-date information. Additionally, the senior nursing students are required to do database searches for their research projects, making access to professional journals essential.

The third theme emerging is using the Internet for finding information to compare nursing practices. Students stated that they find information to be able to compare Malawian healthcare practices with those in the rest of the world, since they felt it was very important to have a standard for comparison. Healthcare providers all over the world seek to provide their clients with the best services and medical care.
In Malawi, however, the need to address healthcare problems appropriately, with the most up-to-date, relevant, cost-effective treatments and strategies, is critical because of the health problems and disparities that exist. Nursing students are taught to search for information and ways to improve these disparities. They hope to provide nursing care that meets the standards set by those who publish information and that is appropriate for their patients.

The fourth theme is adapting information to fit Malawian culture and resources. Students stated that they “adjust information” to fit either the local patient’s health problem or the resources available to treat the problem. While the Internet allows them to connect with people around the world, nurses need to provide care that is culturally sensitive and appropriate.\(^1\) The students recognize this and understand that the most prevalent diseases, illnesses, and treatments discussed in Western nursing publications are different from those they will see in their client base: malaria, diarrheal diseases, cholera, and malnutrition.

Additionally, the resources suggested for use in patient care situations are often different from the resources that are available in Malawi. Simple items like antibacterial soaps or oxygen tubing may not always be available, let alone complex traction equipment or wound management material. Malaria treatments effective in one zone are not necessarily those prescribed or proven most effective for the patients they will see, and the names of the medications discussed in journal articles may be different from those available or suited for use in Malawi. Students stated that they knew Malawian healthcare research is being done, but that it is not published and/or is not readily available on the Internet. They suggested that they needed more locally applicable information.

The last main category that emerged from the data was the issues students faced in using technology. Students noted that it can be difficult learning to use Internet technology because there are technology glitches and hassles that would frustrate any user, let alone someone who is fairly new to using computers. They also stated that Internet access can be difficult because of usage costs.

Several students reported multifaceted technical issues that come with using satellite-based Internet connections. This frustration complicates matters for the students. At the time of data collection, the Internet connection used by the students in Malawi came from a satellite link, which is than the high-speed or broadband connections commonly used in the West. The reason for this slow speed is that fewer kilobytes of data are transferred per second via satellite; furthermore, fewer providers mean that satellite access is comparatively very expensive. The library covers most of the connection fees; however, students who are not seniors must pay nominal fees for any Internet time. At the time the data were collected, college administrators were hopeful that the East Africa cable being laid would improve the quality and lower the cost of access for the school and the students.

The final subtheme to emerge was the students’ perceptions of how life would be different if there were no Internet. They all explained that they would not want to go back to a world without the Internet and found it very difficult to envision life without it, since the Internet brings them information and connects them to the rest of the world. For these students, the educational process is an important part of becoming a successful adult, and improving healthcare outcomes for clients. The significance of using the Internet for these students is best expressed in the thoughts they shared when they imagined it ceasing to exist. These students know that improving health outcomes is possible, and they know that by using up-to-date information, they can work to improve health outcomes and disease statistics right where they live. Ultimately, the Internet provides these students a window of hope and possibility.

This qualitative phenomenological study has illuminated the meaning of the lived experience of nursing students from a developing nation, Malawi, in using the Internet as an educational resource. Results of qualitative studies should not be generalized to larger populations. However, the evidence presented points to the need for further research on Internet use in developing countries. The focus on use of the Internet in healthcare education and nursing education should be a high priority for educators, researchers, and policy makers.

Researching the lived experience of nursing students who use the Internet as an educational resource provides insight into the experiences of the students and demonstrates the value of extending Internet availability to the nursing communities in underdeveloped nations. Leininger states that “knowledge of meanings and practices derived from world views, social structure factors, cultural values, environmental context, and language use are essential to guide nursing decisions and actions in providing culturally congruent care.”\(^1\) This study has demonstrated that Internet resources connect us with our colleagues around the world, and that sharing knowledge via this information super-highway is and can continue to be very beneficial.

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