

Service Learning Initiatives in Rural Populations: Fostering Cultural Awareness

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Abstract

This article focuses on the implementation of service learning initiatives with rural populations to foster cultural awareness within undergraduate nursing students. The results of student reflections and how they relate to increased awareness of global rural health, cultural awareness, and health disparities is presented.

Objectives: (1) To describe an international service learning project conducted through a short-term medical mission to the United Republic of Tanzania for Baccalaureate nursing students; and (2) explore student observations and perceptions regarding culture and health in a rural community. Overall, we hope to gain information about the impact of student experiences regarding international service learning, rural health, and cultural perspectives and awareness.

Methods: The study used the qualitative method of reflective journaling to investigate student observations and perceptions during a medical mission trip regarding culture and health in an international rural community. Journals were analyzed using content analysis and thematic identification.

Results: Student reflections revealed themes of increased awareness in global cultural differences, interprofessional relationships, compassionate care, and health disparities in a variety of rural

settings. Students who participated in service learning initiatives within these international medical trips stated they were more globally aware and were now more likely to provide services to rural communities in their future nursing careers.

Conclusions: This SL project effectively evaluated the benefits of a short-term international mission trip. Study results showed student benefits of increased awareness of community needs, decreased stereotyping, increased confidence in working with culturally diverse populations, and increased personal and professional growth for cultural competence. We identified a need to include and develop core interprofessional education competencies in future trips.

Keywords: Rural, Rural health, Service-learning, Medical mission, Cultural competence

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Background

Across the globe there is a growing need for culturally appropriate healthcare. It is important to understand concepts that impact world health from global, rural, and cultural perspectives. Therefore, it is imperative to prepare healthcare professionals with global, rural, and cultural awareness. Integrative teaching strategies are needed that both educate providers and meet the changing healthcare needs of culturally diverse rural populations around the world. Using service learning (SL) within an international medical mission trip can provide students with organized learning experiences directed toward improving the health of communities in underdeveloped rural areas of the world.

Global awareness relates to understanding of concepts of global and cultural perspectives. These concepts that impact the world include, but are not limited to, environmental, social, cultural, political, and economic relations. Cultural differences exist internationally across countries and regions as well as from urban-to-rural areas. Rurality is a concept with aspects

relevant to both global and cultural awareness. Aspects of both international and urban/rural cultural differences create barriers to healthcare resources and services. Many health disparities exist due to the barriers and lack of healthcare resources and services.

Service learning, an active learning approach, has been shown to provide students with experiential learning while they provide valuable healthcare services within communities in need. Furthermore, SL embedded in study abroad can increase student awareness of global health, rural health as well as cultural differences and offer opportunities to learn and participate in culturally appropriate healthcare.

Global and Cultural Rural Health Awareness

“The term rural suggest many things to many people, such as agricultural landscapes, isolation, small towns, and low population density” (Crosby, Wendel, Vanderpool, & Casey, 2012). According to the United Nations (UN, 2017) rural areas are large and isolated areas of open country with low population density. This can vary from remote villages, to non-urban neighborhoods, to countryside. These areas and communities can be exemplified with a low ratio of inhabitants to open space. Agricultural activities tend to be prominent in rural areas (UN, 2017). Rural and remote populations naturally experience reduced access to healthcare. The resulting health disparities are a major source for concern for people living in rural communities and especially in less developed countries around the world.

The United Nations (UN, 2014) reports that around the world more people live in urban areas than in rural areas and a pattern of global urbanization is expected to continue. In 2014, the rural population accounted for almost half (47%) of the total global population (The World Bank Group, 2016). Globally, the rural population has grown slowly since 1950 and could peak in a few years. While urban population growth is nearly universal, rural population change shows wide variation. “Around two-thirds of countries are projected to experience reductions in their rural populations

between 2014 and 2050...” (UN, 2014, p.77). A notable problem is that the world’s rural population is increasingly concentrated in the less developed countries (UN). What is problematic in regards to this global pattern of urbanization is the potential implication to lead to further reductions in the already inadequate supply of rural healthcare resources and services. Therefore, the global challenge is how to deal with these widely varying regional patterns in urbanization and reduced services to rural population. There continues to be a large portion of the world without immediate access to even the most basic of healthcare needs.

Culturally competent nurses are needed to be provider culturally competent healthcare globally. It is therefore important to develop nurses who are aware of both international and urban/rural differences. There is a need for nurses who are not just culturally aware, but also with cultural sensitivity and the ability to provide global, culturally competent care. Teaching strategies that allow for immersion within different populations and cultures can help students identify core values, connect classroom theories with their experience and develop cultural sensitive approaches to care.

Service Learning (SL)

For this project (academic) SL is defined as a “subset of service engagement ...as a course-based, credit-bearing educational experience in which students participate in an organized service activity that meets identified community needs, use knowledge and skills directly related to a course or discipline, and reflect on the service activity in such a way as to gain: a further understanding of course content, a broader appreciation of the discipline, an enhanced sense of personal values and civic responsibilities” (Purdue Center of Instructional Excellence, n.d., p.1). The idea of experiential learning is a key concept in SL. SL opportunities facilitate students in becoming involved in real world, community focused activities that contribute in meaningful and

positive ways to their learning in addition to their “academic and social development” (Simpson, 1998; McKinnon & Fealy, 2011, p. 95).

Nokes, Nickitas, Keida, and Neville (2005) present that SL is based on the idea that classroom learning alone cannot provide experience that allows students to develop a sense of civic responsibility and cultural awareness. In addition, participation in SL provides the opportunity to prepare future students not only for their role as nurses, but also as citizens. Qualitative research has shown that SL can be “eye opening”, “filled with intense emotion”, and “an insight to the common bond between those served and those serving” (Stallwood & Groh, 2011, p. 299). The real-world experience of participating in SL provides invaluable knowledge that can be used in future nursing careers as well as life in general.

Kohlbry and Daugherty (2013) relate that SL provides students with activities that involve them directly with people in the communities and with meeting health needs of communities. They become directly involved in patient care, assessment of communities, and health education. In addition, the students are encouraged and given time to reflect on their experience and the process of the experience.

In addition, many student benefits are associated with SL. Some of these include improved cognition, enhancement of the professional nursing role, improved cultural competence, accomplishment of key learning outcomes, increase in the number of globally prepared nurses, improved skills and knowledge level, heightened sense of caring, better overall communication, and even a greater sense of confidence for the student (Amerson, 2010; Kohlby & Daugherty, 2013; Groh, Stallwood, & Daniels, 2011; Green, Comer, Elliott, & Neubrandner, 2011). Students most often come away from SL projects with more knowledge, a better sense of how to use this knowledge, and what this knowledge meant for their patients and themselves.

Students can travel to remote, underdeveloped countries and become actively involved at the community level. They provide direct healthcare as well as community assessment with the goal to improve both health and quality of life within that specific rural population. Students are guided to process the learning experience through reflective journaling. The literature shows that student reflections often reveal themes of increased awareness in global cultural differences, interprofessional relationships, compassionate care, and health disparities in a variety of rural settings. Students who participate in SL initiatives within these international medical trips stated they were more globally aware and more likely to provide services to rural communities throughout their future nursing careers.

Riner (2011) notes the importance of both reciprocity and bidirectionality between student and community as the best pedagogy. Those involved in SL should gain from each other, one through providing service and gaining knowledge, and the other from being served and gaining needed help. Not only are students meeting the needs of underserved populations through service, but they are also learning skills and gaining knowledge in a way that is relevant to their program of study (Stallwood & Groh, 2011; McKinnon & Fealy, 2011).

Growing evidence supports SL as a strategy that provides students with opportunities to apply academically learned skills in real-world situations (Groh, Stallwood, & Daniels, 2011; Gehrke, 2008). SL strengthens leadership skills, social responsibility, and both interpersonal and interprofessional collaboration. Dalmida et al (2016) further outline the benefits of SL for students: “(a) improved skills in health education; (b) increased awareness of community needs and empathy; (c) improved abilities to work with diverse clients; (d) decreased stereotyping attitudes about disadvantaged populations; (e) increased civic awareness and responsibility; (f) personal and professional growth; (g) greater flexibility, creativity, and innovation that later influenced both

their personal and professional lives; (h) increased self-efficacy related to cultural competency and a commitment to international service (p. 520).

Research has clearly shown that SL can help bridge the existing gap between rural populations and the lack of access to basic healthcare. The application of SL strategies within a medical mission trip can enhance experiential learning and expand student perceptions of both cultural competence and global rural health. Intentionally structured international SL within a model of a medical missions is one strategy that can provide solutions for the problem of decreased access to healthcare worldwide.

Short-term Medical Mission to Tanzania

Short-term medical missions are common and provide a mechanism to address health needs in low-income, underserved countries. International SL trips provide students with real-world learning experiences in a rural, low-resource setting. SL is one strategy used to by our college of nursing to achieve the mission, vision, and values of the program. The strategy of SL is used within a program of study abroad international medical trips.

Approximately five years ago our university study abroad partnered with a non-profit faith-based organization to provide nursing students with international medical trips to underdeveloped rural areas around the world. The selected faith-based Christian organization, with a mission to provide healthcare and compassion in a world of need, focuses on basic health screenings and treatments of health problems as well as support for spiritual growth. As part of a Christian worldview, mission organization volunteers work closely with local pastors and community church members, offer prayer, and share their faith with clinic participants. However, professions of faith by recipients are never required to receive care. This organization targets international underserved populations and does not discriminate based on race, background, or religion.

Healthcare providers, lay workers, and translators consist of both volunteers from US-based churches as well as from the community.

The selected mission organization has worked in Tanzania for many years and has long-standing relationships with local churches, community members, and government. They have history collaborating and providing care with each of the two sites and visits these sites yearly to offer education and medical care. Typically, residents of these communities do not have year-round access to a local physician and must travel long distances by public transport to reach a clinical facility without the certainty of being seen.

Students assist based on their skills and experience; for example, university students are involved as general helpers, medical students and nursing students can serve as health educators, and students with language fluency can serve as translators. Students provide services under the direct oversight of a licensed clinician or appropriate supervisor. Students are actively involved at the community level participating in activities to improve healthcare for individuals and the community. Activities includes health assessment, eye clinics, dental clinics, pharmacy, health education, spiritual care, and recreation for the children. The needs of the community are assessed and addressed. There is a true symbiotic relationship where both the community and the student benefits.

During this SL mission experience, students participated in four days of clinic caring for people of Tanzania living in rural areas. Each day, students traveled to villages and set up medical clinics at various community sites such as schools or other community buildings. Tables were set up in different stations with medical supplies. Individuals would line up outside the buildings in hope of being seen by a medical provider. Student triaged patients, obtained basic demographic information, patient complaints and vital signs. Patients would be escorted to a physical exam

area or an eye exam area based on their most important complaint. After their examination, patients would visit a pharmacy station to receive vitamins and any other medications that could potentially help any current ailments. Once they received medical attention, patients could sit and speak to a nurse and/or spiritual counselor. Students rotated through the various areas and could practice holistic care.

The 10-day onsite experience took place during the summer semester in the rural area of Mbeya, Tanzania. Travel to and from villages where services were delivered was provided by local churches. Students participated in a SL experience each day and changed locations as well to experience different areas of the community. In collaboration with other team members, local Tanzanian doctors and local community leaders, medical clinics were organized at each location. Services provided included physical assessment, health teaching, vision screening, dental screening, pharmacy, and even spiritual care. The local churches or community centers provided lunch for those providing services.

Purpose/Objective

The purpose of this qualitative study was to (1) describe an international SL project conducted through a short-term medical mission to the United Republic of Tanzania for Baccalaureate nursing students; and (2) explore student observations and perceptions regarding culture and health in an international rural community. Overall, we hoped to gain information about the impact of student experiences regarding international SL and cultural perspectives and awareness within a rural population.

Methods

This research used a qualitative approach to capture data about personal perspectives of student participants on a short-term medical mission to Tanzania. Participants were required to

keep a journal of the international medical trip. This method allows thematic analysis of daily reflective journals for the emergence of thematic content. Analysis of student reflective journals allowed for exploration of student participants observation and perspectives. The journals were photocopied without names or identifiers with originals returned to students. Each participant consented for the journal to be used for the study. Journals were read and coded to identify emerging themes among the students related to cultural awareness.

Journaling is often used in both nursing and SL to stimulate critical thinking and allow students to reflect and deepen understanding. Educators can use journal writing to encourage reflective learning. Reflective journaling is a heuristic teaching strategy that highlights students' thoughts and perspectives and thereby foster critical thinking. The development of reflective practices can increase student interest and encourage deeper thinking and investigation.

Most important, reflective journaling plays a major role in transformational learning. Thoughtful and deliberative learning allows students to reflect on their beliefs and to change their orientation of redefine their beliefs. Students can connect beliefs, feelings, and actions to improve understanding and lead to self-discovery. Reflective journaling is based on reflection of actions, beliefs, and feelings and cannot be a simple summary of course content.

Setting

This study used student reflective journal data from a short-term medical mission to the United Republic of Tanzania. Tanzania has a population of approximately 53,470,000 people. Total annual per capita health spending in 2014 was \$137, compared to \$9403 in the US (World Health Organization, 2017). The leading causes of death among Tanzanians are HIV/AIDS (18.2%), lower respiratory infections (8.7%), diarrheal diseases (5.2%), and malaria (5.2%). In 2012, the greatest burden of disease was caused by the combined HIV, TB, malaria followed by

maternal, neonatal and nutritional diseases. Maternal mortality is high, with 410 deaths per 100,000 live births in 2012, compared to 28 per 100,000 live births in the US (World Health Organization, 2017). Across the country of Tanzania significant health disparities exist between urban areas and rural or poorer areas.

Study Participants

Eleven nursing students, ten females and one male, consented to the use of their reflective journals from the international medical mission trip for the study. All participants were Caucasian and between the ages of 20 and 22 years old. The study protocol was reviewed and approved as exempt by the University of Alabama Institutional Review Board (#5584). Written consent was obtained from all student participants. A total of 11 journals were submitted and reviewed.

Data Collection and Analysis

Throughout the experience, students were required to document their thoughts through reflective journaling. Students were asked specific questions about culture and cultural aspects of healthcare in this rural population to help process the experience through reflection. Questions provided to guide student reflection included:

- What are your general thoughts about culture after initial contact with this population?
- How have your preconceptions of this population's cultural practices and beliefs changed since arriving?
- Discuss your perceptions of this culture's value and role of older adults.

Student journals were thematically analyzed by two nursing faculty (one participated in the Tanzania trip and one did not) (Sandelowski, 2000). Faculty researchers interacted to compare themes.

Results

The following are comments from student reflective journals based on specific questions regarding cultural awareness:

What are your general thoughts about culture after initial contact with this population?

- The number of adults with health issues in Africa was extremely increased due to America. The adults in Africa simply needed patient education teaching about health, hydration, and sleep hours. The preconceptions I had have changed drastically.
- The risk factors I observed were high blood pressure due to the foods they ate, obesity due to the increased amount of carbohydrates, and intense labor leading to overworking of the heart. These factors added together lead to the increased number of individuals in Tanzania with heart problems.
- The individuals are not extremely healthy but at the same time they have never been taught simple patient teaching of hygiene, hydration, nutrition, etc. If they had the same knowledge we did in the states I believe this population would be healthy and much better off.
- I was a little scared at first of the large population of African Americans that spoke another language. I was so wrong to be frightened! The people of Tanzania were amazing and were extremely caring and loving. They outstretched their hands to us and loved on us in a way even Americans do not do.
- I was amazed by the countries respect for people that were offering them help. This lady did not have a lot to offer however she was so thankful for us coming to Tanzania to help her people, that she wanted to give me whatever she had.
- I think the health care of these people are not completely in their hands. And there are a few reasons why I think that. Number one, they don't openly have access to health care. Reason

number two, they don't have a lot of patient teaching. Reason number three, is that there is not a whole lot of financial means available.

- Dehydration, poor nutrient from electrolyte imbalance can play a part in the cardiovascular risk factors. Most every patient that came through had high blood pressure. They also are at lack of patient teaching. They don't understand that certain actions that you take can drastically lower their blood pressure.
- I knew it was not going to be the best going into it. I was a little shocked at the lack of patient teaching though. I feel as though this culture is a community health gold mine. I feel like even with minimum amounts of teaching a lot could be prevented such as high blood pressure, UTI, and bacterial infections.

How have your preconceptions of this population's cultural practices and beliefs changed since arriving?

- I will forever use this experience as a great one to help me in my career when cultural differences arise. You can always smile and make a warm connection. I have learned to be patient through translation and be appreciative of each other's culture.
- I will learn to be more patient and continue to learn about different cultures. Culturally competent care is very important in giving total holistic nursing care in the future.
- I believe that this trip has enhanced my belief on what it means to offer culturally competent care. Respecting certain practices and life style habits is critical when educating a population on healthier habits in order for them to respond well and take the education to heart.
- I think this has definitely changed my level of compassion. I have learned to look at situations and say, I have no idea what this person is experiencing or feeling. There are numerous things that could be going on in a person's life that I wouldn't know about unless I asked.

- I did not realize the knowledge deficient of their health care but I think that I adjusted well to how they view preventable diseases.
- Coming to this area and seeing this culture first hand has opened my eyes to a multitude of things that we take for granted in the United States. For example, having a variety of food, hot water, clean water, and nice accommodations.
- Africa changed the way I view healthcare because I understand that everyone does not have good accommodations to maintain good healthcare. In the United States, we are blessed to have resources readily available to care for ourselves in our own homes. In Africa, people cut themselves and don't have simple analgesics like Neosporin or Ibuprofen. They do not have things like rubbing alcohol or disinfectants to clean basic scrapes and often end up with serious infections due to lack of resources or poor knowledge. Our most beneficial work was probably teaching people simple community health like how to properly wash their hands with clean water, how to brush their teeth, and bathe with running water not stagnant water like they often do.
- How this will change how I provide care: I just realized that, in America, we do not realize how fortunate we are to have the medical care that we do. Even though our healthcare system is going down the drain, we are still extremely blessed.
- How it changed view on culturally competent care: This experience made me realize that with each and every patient that I need to take knowledge base into consideration. I can't assume that any patient or family member knows anything certain thing. I know I shouldn't treat them like they are stupid, but I should provide ALL information know matter how "common sense" it may seem to me.

- Culturally, I feel more confident and understanding of the different cultures I may come into contact with in the states. Though, I enjoyed the Tanzanian culture.
- Knowing what is acceptable culturally and what someone will be willing to share or do based on their culture is amazingly important for cross culture care. I thought I knew that before this trip, but I learned at a deeper level just how important it is. It goes beyond different languages, if you can properly convey the desire to help in a respectful way and listen to what they convey in their body language, you can connect with the patient in a way they will trust you with their health information and care, no matter your age or credentials.

Discuss your perceptions of this culture's value and role of older adults.

- This culture values their older adults very much. When they would bring the elders to the clinic it did not matter if they were having to be rolled in by wheelchair or carried in the elder was going to have medical treatment and be seen first.
- I think that this country really values its older population. They treat them with respect. At one point in the clinic, there was an older gentleman that could not walk. So the community put him in a plastic chair to carry him from station to station so that he could receive the same care that they did. I think that as an older adult there, they still have a mission to provide for themselves and their family. In America, older adults get an option to retire, however in this culture it's a 'work until you can't move anymore' culture. They work very hard to make a living for themselves.

Discussion

This study showed themes consistent with current research literature in relation to the benefits of SL such as increase awareness of community needs, increased in working with culturally diverse populations, respect for diversity and decreased stereotyping, personal and

professional growth for cultural competency (Dalmida, et al., 2016). Students involved in SL within an international medical mission trip indicated they gained better understanding of health issues of a rural population in Tanzania. Student reflective comments indicated a change of perceptions of culture and beliefs and an increase in confidence when providing care to diverse cultures and populations.

Increased awareness of community needs

Participants were given the opportunity to communicate with local citizens in their rural environment through translators. This gave unique insight into more specific needs of the rural community. In addition, it allowed students the ability to gain communication skills to gather valuable information about the community and their needs. Overall, students learned the importance of addressing barriers to communicate and gaining the trust of the local citizens to better care for these individuals.

Having close contact with the citizens and even having the opportunity to visit the local homes provided a more intimate look at the needs of the individuals and the community. Similar to rural areas in the US, many homes lacked clean water sources, adequate cleaning supplies, and adequate protection from weather. In addition, many other safety issues were discovered such as sanitation, plumbing, and resources for storing food. These issues, among others, helped participants gain understanding because these resources are often taken for granted in the urban communities where they live. Participants were creative and discovered a number of ways to provide patient education with limited resources.

Increased confidence in working with culturally diverse populations

Consistent with SL literature many participants agreed that the experience increased their confidence in all areas: personally, spiritually, mentally, and physically. Furthermore, the

participants anticipated this new confidence would impact their future nursing careers. Most participants stated they would be able to care for patients better because of increased confidence and understanding culturally diverse populations. Many of the participants voiced concerns of not having the opportunity in past clinical experiences to provide care to individuals from diverse backgrounds and this experience provided that opportunity and in turn allowed for growth in confidence and knowledge.

Respect for Different Backgrounds

Participant's comments reflect changes in student understanding of a different culture through the experience in the international medical mission trip and that this experience will help them relate better with people from different backgrounds. This was identified through the question regarding culture perceptions of a specific population relative to value of older adults.

The theme of increased respect for individuals from different backgrounds was evident in participant responses. Many of the participants stated that they went on the international medical trip with certain preconceived notions about the population. Student comments indicate that participation in the trip has changed many of their preconceived notions. Participants related that they gained respect and appreciate that not everyone is the same. Because people and cultures vary in many ways, it is important to respect both individual and cultural differences. In a sense, most of the students understood this, but respecting these differences in patient education is especially crucial for teaching to be effective. Many of the participants agreed that this quality would help them throughout their careers when dealing with other cultures and religions and providing holistic care.

Increased Maturity Level

The final theme that emerged from the reflective journals was the increased maturity level from participating in this international medical trip. Eight of the 11 participants mentioned how much they have grown or matured because of their participation in the trip. Many of the participants voiced how much they had learned about themselves and how differently they viewed things now. One student stated, “The experience will change my views and the way I provide care my knowing that I personally have been very fortunate in the life I have had so far.” Another student related, “I was personally surprised at how much I personally grew. I was going to help other people, but I learned so much in the process.” Most participants were surprised at how much personal growth they experienced during their participation in the trip. For many of them, the personal growth was felt immediately. However, several of the participants voiced that after their return and approximately two weeks of reflection, they realized how much the experience meant to them and how much they had learned throughout the opportunity.

Implications

Nursing education should continue to take advantage of SL strategies to benefit both students and rural communities. Although SL is not new in nursing or education, evidence shows it continues to be an effective teaching strategy. When used in a thoughtful and meaning way, SL can reinforce course content and provide a powerful learning experience while increasing student learning in addition to providing a service to an underserved community. Educators should continue to take advantage of this powerful tool for learning opportunities.

Unmet healthcare needs continue to exist in rural communities around the world. Healthcare workers are needed to meet these needs. Instilling the desire and passion in nursing students for service to both international and rural communities can a difficult task in relation to today’s competition of intensive care units or emergency departments. Students that participate in

international SL experiences can develop into nurses with an increased awareness of global and rural health concerns and disparities. In addition, they will be better prepared to provide more holistic and culturally sensitive care. SL initiatives within international short-term medical mission experiences can provide valuable opportunities to foster greater interest in nurses to become involved in rural areas on local, national, and international levels.

Interprofessional collaborative practice is key to quality, safe, patient-centered care. Service and interprofessional education are inherent in many medical mission trips but was not evaluated in this study. Vast opportunities exist to work with rural, international populations when multiple levels of health professional and students serve together. Future research for us will address selected interprofessional education collaboratives (IPEC) as well as deeper perspectives of students' perceptions of rural populations. SL through medical mission trips can help health professional students develop interprofessional competencies and enter the workforce prepared to provide cultural competent care.

Conclusions

Raising awareness of global rural health issues as well as providing culturally appropriate healthcare through service are important components of nursing education. Furthermore, research has revealed that academic SL can help bridge the existing gap between rural populations and access to basic healthcare around the world. This SL project has effectively allowed for the evaluation of the benefits of a short-term mission trip and has assisted the generation of important questions for future research. Study results indicated our students benefited by increased awareness of community needs, decreased stereotyping, increased confidence in working with culturally diverse populations, and increased personal and professional growth for cultural competence.

References

- Amerson, R. (2010). The impact of service-learning on cultural competence. *Nursing Education Perspectives, 31*(1). 18-22.
- Crosby, R.A., Wendel, M.L., Vanderpool, R.C. & Casey, B.R. (2012). *Rural populations and health: Determinants, disparities, and solutions*. San Francisco, CA: Jossey-Bass
- Dalmida, S.G., Amerson, R., Foster, J., McWhinney-Dehaney, L., Magowe, M., Nicholas, P.K...
Leffers, J. (2016). Volunteer service and service learning: Opportunities, partnerships, and United Nations millennium development goals. *Journal of Nursing Scholarship, 48*(5); 517-526. <https://doi.org/10.1111/jnu.12226>
- Gehrke, P.M. (2008). Civil engagement and nursing education. *Advances in Nursing Science, 31*(1), 52-66. <https://doi.org/10.1097/01.ANS.0000311529.73564.ca>
- Green, S., Comer, L., Elliott, L., & Neubrandner, J. (2011). Exploring the value of an international Service learning experience in Honduras. *Nursing Education Perspectives, 32*(5), 302-307. <https://doi.org/10.5480/1536-5026-32.5.302>
- Groh, C.J., Stallwood, L.G., & Daniels, J.J. (2011). Service-learning in nursing education: Its impact on leadership and social justice. *Nursing Education Perspectives, 32*(6), 400-405. <https://doi.org/10.5480/1536-5026-32.6.400>
- Kohlbray, P. & Daugherty, J. (2013). Nursing faculty roles in international service-learning projects. *Journal of Professional Nursing, 29*(30), 163-167. <https://doi.org/10.1016/j.profnurs.2012.04.018>
- McKinnon, T.H. & Fealy, G. (2011). Core concepts for developing global service learning programs in nursing. In T. McKinnon, & J. Fitzpatrick (Eds.), *Global service-learning in nursing* (pp. 15-29). NY: National League for Nursing.

- Nokes, K., Nickitas, D., Keida, R., & Neville, S. (2005). Does service learning increase cultural competence, critical thinking, and civic engagement? *Journal of Nursing Education*, 44(2), 65-70.
- Polit, D., & Beck, C. (2012). *Nursing research: Generating and assessing evidence for nursing practice* (9th ed.). Philadelphia, PA: Wolters, Kluwer Health/Lippincott, Williams & Wilkins.
- Purdue Center of Instructional Excellence. (n.d.). *Service-learning workbook*. Retrieved from <https://www.purdue.edu/cie/learning/servicelearning/index.html>
- Riner, M.E. (2011). Globally engaged nursing education: An academic program framework. *Nursing Outlook*, 59(6), 308-317. <https://doi.org/10.1016/j.outlook.2011.04.005>
- The World Bank Group (2016). Rural population (% of total population). <http://data.worldbank.org/indicator/SP.RUR.TOTL.ZS>
- Simpson, J. (1998). Extension is not just service, but service-learning is important extension. *Journal of Extension*, 36(5). Retrieved from <http://www.joe.org/joe/1998october/comm1.html>
- Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing and Health*, 23(4), 334-340. [https://doi.org/10.1002/1098-240X\(200008\)23:4<334::AID-NUR9>3.0.CO;2-G](https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G)
- Stallwood, L.G. & Groh, C.J. (2011). Service-Learning in the nursing curriculum: Are we at the level of evidence-based practice? *Nursing Education Perspectives*, 32(5), 297-301. <http://dx.doi.org/10.5480/1536-5026-32.5.297>
- United Nations, Department of Economic and Social Affairs. (2014). *World urbanization prospects: 2014 revision* [PDF document]: Retrieved from <https://esa.un.org/unpd/wup/Publications/Files/WUP2014-Report.pdf>

United Nations, Department of Economic and Social Affairs. (2017). Population density and urbanization. Retrieved from

<https://unstats.un.org/unsd/demographic/sconcerns/densurb/densurbmethods.htm>

World Health Organization. (2017). *Global health observatory data repository*. Retrieved from

<http://www.who.int/countries/tza/en/>