

Insights on the Development of a Service-Learning Course: The People of Appalachia and what nurse practitioner students and faculty learned along the journey

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Introduction

The entry into a service-learning activity (SLA) for nurse practitioner (NP) students in rural Appalachia began innocently as two faculty members from a Midwestern university—attended a presentation at a national conference in Tennessee. There, we learned about the Health Wagon, (Health Wagon) an NP staffed and administered mobile health unit serving Appalachian people in parts of Virginia and Tennessee. The Health Wagon was part of an event conducted by the Remote Area Medical organization (RAM), a major non-profit provider of free-pop-up clinics. As part of their mission to prevent pain and alleviate suffering by providing free, quality healthcare to those in need, RAM holds many events in Appalachia, (RAM) This conference presentation inspired us to provide this type of opportunity to our students through a service-learning course.

A well-explored concept in the literature, service learning as a pedagogy is identified as a teaching method that uses learning opportunities that intentionally complement and build upon traditional learning methods and employs reflection as a significant component of the learning process (AACN, 2015). Service learning has long been touted as a mechanism for offering learning opportunities to students in communities and with populations they would not otherwise have access to in traditional online or in-seat courses (Sheikh, 2014; Sandberg, 2018). In addition, with the continually challenging task of securing preceptors, SLA are increasingly being lauded as an opportunity for students to accumulate highly coveted clinical hours, as such hours are becoming more elusive (Hawkins, 2019).

Abstract

Background: Service-learning has long been identified as a mechanism to augment traditional classroom pedagogies. With the recent increase of preceptor shortages and decreased access to clinical hours for nurse practitioner students, service-learning activities are an innovative way for NP students to gain knowledge and exposure to clinical situations including interdisciplinary learning.

Purpose: The development of a service-learning course and the journey the NP students and faculty experienced is explored in this article including the course outcomes and the student and faculty perspectives as well as the student preparation for the event.

Methods: This was a descriptive study with the student and faculty experiences described as such.

Results: Students and faculty were able to experience life changing interactions with patients who had significant health disparities. In the 28 hours they were at the event, their lives were forever changed and their journey is chronicled here.

Working with disadvantaged individuals during SLAs allows nursing students to develop more compassion towards poor and disadvantaged patients (Hawkins, 2019). Moreover, students who participate in SLAs are more culturally competent than those who do not (Smit & Tremethick, 2013). There also are significant learning advantages for students who participate in multidisciplinary education and SLA opportunities (Claiborne et al, 2020). Given its many well-known advantages, we were determined to offer SLAs to our students. Despite some of the students and faculty members having prior exposure to underserved populations, we were not completely prepared for the adventure ahead of us.

Course Design and Preparation

As a first-time offering, the course was designed as a one-credit independent study. Because the faculty had not participated in this event before, we decided to limit the first trip to graduate NP students. For the initial trip, we took five NP students, two course faculty of record, and two additional nursing faculty. The course experiences and assignments were designed to meet program objectives related to clinical and cultural competence and healthcare policy. Following are the seven service-learning course objectives used for this course.

1. Demonstrate an understanding of the influences of culture and diversity, various healing modalities, diverse beliefs regarding health and illness, and diverse ways of caring in providing culturally appropriate care.
2. Investigate the concepts of health risks, gender, and socio-cultural-economic factors as they apply to the assessment of adult Appalachian clients from diverse cultures.
3. Consider current healthcare economics, political issues, and legal/ethical issues within the context of community and clinical settings in Appalachia while formulating a plan of care.
4. Select and apply the culturally appropriate management strategies for problems including diagnostic studies, pharmacotherapeutics, teaching, counseling, and alternative/generic/folk approaches.
5. Demonstrate culturally competent skills in verbal and written communications with interdisciplinary healthcare team members within the context of clinical and community settings.
6. Evaluate the best primary care practices based on available choices.
7. Demonstrate written documentation in the SOAPE (subjective, objective, assessment, plan, and evaluation) format.

Graduate NP students met these objectives at the SLA by individualizing care; promoting respect and understanding to a large socially and culturally varied population; providing culturally congruent and sensitive care; and respectfully influencing healing for economically stressed diverse populations struggling with rural location, poverty, and lack of healthcare access.

In addition, graduate NP students learned to provide care in the unique and challenging patient care environment of a Health Wagon (a converted camper truck used for a clinic). Before and during this RAM event, graduate NP students researched Appalachian culture and health disparities; planned for connection with the community;

assessed and referred Appalachian patients to social workers, specialists, and community resources; and helped provide specialty services. The clinic offered healthcare services that this population would be unlikely to receive otherwise. The services included primary care, urgent/emergency services, dental care and dentures, women's healthcare (mammography), laboratory diagnostic services, vision care (glasses made on-site), radiology/ultrasound services, health promotion education, as well as access to ear-nose-throat specialists, cardiologists, neurologists, dermatologists, plastic surgeons, and orthopedic specialists.

At the event, graduate NP students gained experience assessing patients, performing initial histories and physical exams, delegating care, referring patients to specialists, charting documentation, integrating and collaborating with interdisciplinary colleagues, and recommending appropriate medical treatment including formulary medications. Moreover, students worked alongside a preceptor in the primary healthcare tent, women's wagon, surgery tent, orthopedic wagon, and cardiology tent.

Housing was secured through a partnership with a local university. Workers were housed in university dormitories at nominal costs. The students were responsible for their travel costs to the RAM site—a fairgrounds in Wise, Virginia—which is a 10–11 hour drive from the university. All of the students carpooled to the location. The university provided each student with some travel funds. Additionally, by selling t-shirts, the students raised over a thousand dollars to offset their travel from the Midwest to southeastern Appalachia, with enough left over to donate \$500 to support the Health Wagon's mission providing compassionate, quality medical care to medically underserved individuals in the mountains of Appalachia (Health Wagon, 2021). Following the preparatory collaboration sessions and fundraising, the students and faculty were eager to begin their journey into Appalachia.

Appalachia and Its People

The population of the Appalachian region is 83% Caucasian compared to 63% for the U.S. (City-Data). This culture is unique in that it has a history of being isolated from mainstream lifestyles based on its remote location in the Appalachian Mountains. The region includes a blend of a variety of cultures, including those of Native Americans as well as from Irish, English, Scottish, and third-generation German and Polish immigrants. The people of Appalachia struggle with high rates of poverty and unemployment (8.1%), with 71.3% owning homes. The median Appalachian salary is \$43,785, compared to \$53,046 nationwide. Healthcare is deficient in the region, with 12% of the population going without any health insurance (Pollar & Jacobsen, 2015). Furthermore, Appalachia lacks many resources needed in today's world of technology (Pollar & Jacobsen, 2019). RAM staff predicted that this event would provide \$13,282,000 worth of medical care at a cost of \$658,000 (\$28 dollars per person serviced) (RAM). This data was pertinent and current at the time of the SLA.

Student Preparation

Prior to arriving at the SLA destination in southwest Virginia, students and faculty met three times at virtual seminars where students were introduced to the RAM concept

and SLA goals. In order to gain the most benefit from a rich and meaningful learning experience, students learned about the community they would serve so they could understand the environment where they would be working (Bentley & Ellison, 2005). The students were given assignments to present in the virtual sessions, including developing a presentation outlining the region's history as well as the following population characteristics: demographics (income, literacy level, health insurance access, and age), health needs, education level, and known health beliefs. The students also were required to prepare educational materials to share with the patients during the RAM event. These educational materials were focused on the top five areas of morbidity and mortality for the Appalachian residents: cardiovascular disease, obesity, poor nutrition, tobacco use, and lack of access to dental care. We also held an on-site debriefing each evening as well as a post-trip virtual summary session. Finally, students completed graded assignments, including a running journal and a post-activity reflection report.

Faculty and students arrived at various times at the campus dormitories. The accommodations were pleasant, updated, and within a mile of the town. We found RAM's organization efforts to be commendable. Faculty and staff were met by a guide who helped us find our rooms and to unload our belongings. The group then proceeded to the nearby fairgrounds for an orientation that consisted of conversations with past participants, live music and a welcome dinner. All workers were told to be at the fairgrounds at 5am the next morning. That first evening, the faculty and students went to bed not knowing what to expect and thinking the orientation should have been more comprehensive.

Impact on Students and Faculty

Dawn came quickly, and the faculty and students arrived at the venue in matching university nursing t-shirts, where they were checked in and directed to various tents. Our first impression of the event setting with all the tents was that it was reminiscent of the television series *M*A*S*H*, depicting a mobile army surgical hospital during the Korean war. Patients signed in at a general triage tent where their needs were determined. There were medical tents/campers for primary care, plastic surgery and dermatology, cardiology, orthopedic surgery, women's health, dental care, osteopathic spinal manipulation, x-ray, podiatry, pharmacy, and mammography. The students and faculty rotated through the various tents during two 12-hour days and one four-hour day—an experience none of the faculty and students will ever forget.

The patients said they came from different states—as far away as California—to receive comprehensive medical care. Many patients had camped near the fairgrounds for a few days and some even slept in their cars to be in line to receive care. Thanks to many sponsors and dedicated volunteers, more than 1,100 patients were seen and over \$200,000 worth of medical care was provided for an average cost of \$28.00 per patient (RAM). Follow-up care was arranged with the Health Wagon for ongoing medical problems requiring additional care.

Student and Faculty Reflections

During each evening's debriefing session, the graduate students remarked that this SLA offered them exposure to medical care and specialty physicians (e.g., orthopedic surgeons and cardiologists) that they would never have gotten otherwise. Students observed surgical procedures in the plastic surgery tent and immediate echocardiogram interpretations provided during cardiology consultations in the cardiac tent. In contrast, it would take many days or weeks to even have the potential to observe such experiences in normal outpatient or inpatient settings. The students also reported that the experience was remarkably fulfilling, as they felt they had an immediate impact on patients' lives. All participants agreed that, despite the challenging conditions—caring for hundreds of patients with scant supplies and limited room in oppressive heat and humidity—they were grateful for the experience and wanted to participate again in the near future.

Not only was this experience an SLA, it also served as an interprofessional learning activity, as dental, specialty medical, radiology, pharmacy, and social service providers were present, as well. Research has shown that a collaborative interprofessional service-learning experiences have a positive effect on NP students' understanding of interprofessional collaboration (Adegbola, 2013). It would be challenging to find another opportunity that could provide students with this type of rich, interprofessional experience over such a short period of time.

Each student was required to complete a reflective journal before, during, and after the SLA. One final course meeting occurred one month after the SLA to allow faculty and students to discuss their reflections on experience. Within the nursing profession, it has been found that students who participated in SLAs believed that the experience contributed to their caring ability, program satisfaction, and realization of unmet healthcare needs in the community. Faculty also reported finding evidence of critical thinking, professional perspectives, humility, and concern for others in the students' reflective journals (Sandberg, 2018; Worrell-Carlisle, 2005).

The opportunity to participate in such a large, well-organized volunteer event was a honor for all participants, both as nurses and as human beings. However, we plan to do things differently in the future. First, we will consider staying at affordable hotel rooms to give participants access to an individual bathroom versus our experience of more than 50 people using one dormitory bathroom. We also will schedule participants to work four to six hours shifts, as working 12 hours straight in the July heat of southwestern Virginia was extremely challenging.

Implications for Education and Practice

The amount of healthcare needed by the people in this community was far greater than we ever expected. As students and faculty, it was very rewarding to be able to provide a portion of this care. Students reported learning an immense amount of clinical information and feeling more prepared to care for patients than they had prior to the SLA. Until meeting these patients face-to-face, the students did not realize the reality of the disadvantages they faced from not having access to healthcare services. One student reported that this was the most incredible experience of her nursing

education. Several students reported feeling humbled to be able to help so many patients access needed services. Finally, students were grateful to have accessed enriching clinical experiences in a 28-hour period, which they could not have gotten in a traditional, 224-hour clinical course.

Regardless of the setting, healthcare providers need to understand the social determinants of health, as well as how poverty affects health and healthcare access, or the lack thereof. Community clinical settings, such as the RAM clinic, provide an ideal environment for students to see firsthand how poverty affects health (Jarrell et al, 2014). Smit et al. suggested that SLAs are a valuable strategy that helps prepare future healthcare providers to offer effective care across varied population groups (Smit & Tremethick, 2013). Based on their feedback, it was clear these students accessed experiences and learning not offered by traditional courses.

Discussion

There is a minimal research on nursing faculty perceptions of SLAs in general or how they affect student learning (Sandberg 2018). Furthermore, the perspective of students—particularly NP students—regarding how SLAs affect learning remains largely unknown (Sheikh, 2014). The results of the current study provide a first step in filling this knowledge gap.

With clinical preceptors, sites, and experiences becoming more scarce and costly, nursing schools and faculty must find alternate ways for students to gain needed clinical exposures (Hawkins, 2019). In fact, securing preceptors for clinical practicums is one of the most significant challenges facing NP education (AACN, 2015). SLAs provide an ideal opportunity for students to gain exposure to a variety of clinical settings while accumulating valuable clinical hours (Hawkins, 2019). Moreover, many graduate nursing program administrators and faculty are finding that service learning is a valuable way to augment their curriculum and student learning opportunities (Sheikh, 2014).

SLAs also offer an excellent opportunity for NP students and faculty to learn about the needs of individuals from different cultures who have immense healthcare needs (Smit & Tremethick, 2013). In fact, the study university has since participated in another RAM event in a different state, and routinely plans to incorporate this SLA course into both graduate and undergraduate nursing program curriculum. This is a beneficial decision, as research has shown that incorporating SLAs into nursing courses could help future healthcare providers develop a richer understanding of the challenges faced by marginalized population groups and, in doing so, become more engaged and civic-minded providers (Adegbola, 2013).

At this event, students from all types of programs came to provide much-needed care for individuals who likely could not get it otherwise. Indeed, this valuable experience could have far-reaching benefits for all participants. At our university, the plan is to offer this course every one to two years, expand it to two credits, and include all levels of nursing students, from pre-licensure to doctoral students. The School of Nursing also will open this course to interested students from other university colleges and programs.

While the Appalachian people have vast healthcare needs and scant resources, the Health Wagon and RAM organizations are working to address these needs head-on. The faculty and students from the study university felt honored to be a small part of this enormous outreach program for the people of Appalachia and were forever changed by what they encountered and learned.

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