In 2014, an estimated 46 million Americans (15%) lived in rural counties (Garcia et al., 2017; Kusmin, 2015; Moy et al., 2017). Rural dwellers are more likely to have poorer health than their urban counterparts, and live with more health risk factors and chronic conditions than urban dwellers (Bolin, Bellamy, Ferdinand, Kash, & Helduser, 2015; Moy et al., 2017). Rural residents are more likely to report less access to care and lower quality of care than those living in metropolitan areas (AHRQ, 2015).

South Dakota (SD) is one of the most rural and frontier areas of the United States, with 42% of the 861,000 people residing in rural areas (United States Census Bureau, 2016). The state’s racial/ethnic distribution is 85% White, 8.5% American Indian and 6.4% other races. SD is home to nine federally recognized Indian tribes. Due to the sparse population of SD, many areas do not have the capacity to support sufficient healthcare services, which has been attributed, in part, to higher death rates in nonmetropolitan areas compared to those in urban areas (Garcia et al., 2017; Moy et al., 2017). Of South Dakota’s 66 counties, 44 (66.7%) are designated Health Professional Shortage Areas (HPSAs) as well as portions of 11 counties (South Dakota Department of Health, 2016a). Vast areas of the state are Medically Underserved Areas (MUAs); 59 counties (89%) are designated entirely as underserved or include underserved communities or populations (South Dakota Department of Health, 2016b).

The overwhelming majority of medically underserved areas demonstrates the need for increasing the number of primary care providers in rural SD. As of 2016, there were 696 licensed Advanced Practice Registered Nurses (APRNs) practicing in SD; 74% were Family Nurse Practitioners (FNPs). Over half of the FNP’s practiced in urban locations (South Dakota Board of Nursing, 2016). Strategies designed to increase the number of primary care nurse practitioners who will practice in rural/underserved areas are sorely needed, and will begin to address the Institute for Healthcare Improvement Triple Aim Initiative and improve the patient healthcare experience, improve the health of the rural/underserved population, and reduce healthcare costs (Institute for Healthcare Improvement, 2016).

According to the National Rural Health Association (2012), healthcare facilities in rural/frontier areas have difficulty recruiting and retaining primary care providers. Economics, education, rural practice characteristics, rural demographics, and health status are often cited reasons for healthcare provider shortages in rural/underserved regions. In addition, training in an urban setting does not necessarily prepare one for practice in rural/underserved settings, making transitions from urban to rural/underserved settings difficult for practitioners.

Practice in rural/underserved areas is very challenging. In most rural/underserved areas, APRN’s typically practice in primary care clinics and have expanded their role to include acute care settings such as the emergency department, long-term care and assisted living, telehealth, and off-hours on-call schedules. These additional practice settings exceed most standard family nurse practitioner educational programs, and present a gap in education-to-rural practice transitions. This project has addressed a pervasive and persistent need for primary care in rural/underserved settings (Garcia et al., 2017; Moy et al., 2017).
**Purpose:** The College of Nursing at South Dakota State University prepares both masters and doctoral family nurse practitioner students to fill primary care provider needs in SD and the surrounding region. The **purpose** of this two-year Advanced Nursing Education Workforce (ANEW) project was to enhance an existing academic/practice partnership to prepare primary care APRN nursing students for practice in rural/underserved settings. This project has provided graduate nursing students specializing as primary care family nurse practitioners (FNPs) with longitudinal primary care clinical training experiences in rural settings and/or underserved populations, as an integral part of rural/underserved populations advanced practice nursing traineeships. The APRN Traineeship Immersion project will also provide an innovative, comprehensive preceptor development collaborative with the practice partner to facilitate job placement in rural/underserved community primary care sites after graduation.

**Methods:** This project was comprised of collaborative strategies in three phases, designed to prepare primary care APRN’s for practice in rural/underserved settings through immersion with dedicated preceptors who build competence and confidence for independent rural practice.

**Phase 1.** Phase 1 of the project was completed December 2017. This phase involved the establishment of the academic/practice team and the process and development of trainee identification, selection, and evaluation of the first cohort. Trainees were placed in a clinical immersion experience with dedicated preceptors in rural areas and completed 240 clinical hours. Two advanced procedures and skill concept workshops were developed, conducted, and evaluated, in collaboration with the practice partner. Trainees conducted a community assessment in their assigned community, developed a community-specific intervention, and presented it to their rural community. The student evaluation of the clinical experience was qualitative and quantitative and focused on the knowledge impact in the areas of rural/underserved environment, health risks/issues, access, practice, and culture.

**Phase 2.** Phase 2 is in process and will encompass the identification, selection, and placement of the second cohort of trainees. A major component of this phase will be the collaboration with the practice partner to create an innovative, comprehensive preceptor recruitment, orientation, and education process for preceptor development. Phase 2 will be completed by the conference session.

**Phase 3.** This phase will comprise the evaluation of the second trainee cohort and the coordination of job placement efforts for trainees post-graduation. In addition, a summative project evaluation will occur and findings will be disseminated.

**Results:**

**Phase 1.** In the fall of 2017, the first cohort of trainees was selected to participate in the project and was placed in rural communities. Two advanced procedures and skill concept workshops were conducted. The first workshop, *Introduction to Rural Clinical Community Culture*, was a live online webinar. 100% of participants rated the workshop as Excellent or Good overall and they agreed that the information was applicable to their practice. The second workshop, *Advanced Procedures in the Rural Community*, included hands-on exercises in suturing, laceration repair, foreign body removal, splinting, eye and ENT emergency management, and 12 lead EKG interpretation. Trainees provided qualitative feedback such as “…the opportunities for kinesthetic learning and the high quality speakers were much appreciated” and “I loved the hands on experiences of this workshop.” 100% of participants rated the workshop overall as Excellent (78.57%) or Good (21.43%).

Trainees evaluated their clinical immersion experience quantitatively and qualitatively. They identified the strengths of the experience as “…the experience is priceless. You get to see first-hand a whole other side of the potential factors that may impact rural care and practice.” “Throughout my experience, I was constantly reminded of the importance of establishing rapport and respect within the community. For example, my preceptor was called at the last minute to come visit a patient in the nearby community nursing home during a shift. She adapted her schedule and as able to see hospice patient in the nursing home and navigate conflicting healthcare decisions with the family”. Trainees identified that the
experience greatly impacted (scale 4 out of 5) their knowledge of the challenges of rural living and practice in the areas of underinsurance/lack of insurance; delays in seeking care; lack of anonymity, and distance to care. Trainees knowledge was greatly impacted (4) or extremely impacted (5) related to the rural/underserved culture characteristics of strong work ethic, determination, frugality, self-reliance, and strong social support networks.

**Conclusion:** This project has strengthened the quality of advanced practice nursing education by intentionally focusing on rural/underserved population settings. This project will ultimately improve access to care and patient outcomes in rural/underserved areas, which can be applied to similar settings regionally, nationally, and globally.

---

**Title:**
Advanced Practice Registered Nursing (APRN) Student Traineeship: Collaborative Strategies for Increasing Rural/Underserved Primary Care

**Keywords:**
Clinical Immersion Experience, Collaborative Strategies and Rural/Underserved Primary Care

**References:**


Abstract Summary:
This presentation will review the components and results of an innovative longitudinal clinical immersion experience for advanced practice registered nursing students that is designed to address a pervasive and persistent need for primary care in rural/underserved settings.

Content Outline:
Introduction:
1. Review of background influences
2. Discuss characteristics of rural/underserved settings

Body with main points:
1. Project overview
2. Project development and components
3. Longitudinal immersive clinical experience
4. Phase I results and evaluation
5. Project next steps

Conclusion:
1. Improvement in competence and confidence of APRNs who will practice in rural/underserved areas
2. Improved healthcare access and quality in rural/underserved areas

First Primary Presenting Author

Primary Presenting Author
Victoria L. S. Britson, PhD, APRN, CNP, FNP-BC, CNE
South Dakota State University
College of Nursing, Graduate Nursing
Assistant Professor
Sioux Falls SD
USA

Professional Experience: I have been a nurse for over 30 years, in the areas of practice, administration, leadership, and nursing education. I have worked in graduate nursing education for the last 15 years. The majority of my nursing career has been spent in rural and underserved settings. In addition to my full-time faculty role, I currently practice as a family nurse practitioner in telehealth, serving
long-term care residents in rural and underserved areas in five states.

Author Summary: Dr. Britson serves as an Assistant Professor within the College of Nursing, South Dakota State University. She also practices as a family nurse practitioner in telehealth, serving long-term care residents in rural and underserved areas in five states. In addition, Dr. Britson is the Principle Investigator for a 2 year $1.34 M Advanced Nursing Education Workforce grant focused on the preparation of primary care advanced practice registered nursing students in rural and underserved settings.

Second Secondary Presenting Author

**Corresponding Secondary Presenting Author**

Sheryl Marckstadt, PhD, RN, CNP, NP-C, FNP-BC
South Dakota State University
College of Nursing, Graduate Nursing
Assistant Professor
Sioux Falls SD
USA

**Professional Experience:** Assistant Professor South Dakota State University 09/2012 - present Family Nurse Practitioner 09/2000 - present My five years as an assistant professor at South Dakota State University speak to my ability to guide family nurse practitioners.

Author Summary: Dr. Sheryl Marckstadt is a family nurse practitioner and teaches full-time at South Dakota State University, USA. She has over 17 years experience as a family nurse practitioner and over five years experience teaching family nurse practitioner students.

Third Secondary Presenting Author

**Corresponding Secondary Presenting Author**

Linda Kay Burdette, PhD, RN
South Dakota State University
Assistant Dean and Associate Professor
Aberdeen SD
USA

**Professional Experience:** My research program is policy evaluation, tobacco control, rural nursing, and self-care in rural women. I serve as Evaluation Director for a 3-year CDC 1416 grant. I have conducted evaluation research related to tobacco-free policies in multi-unit housing, schools and health care facilities. As family nurse practitioner, I provided care to rural/underserved women, occupational health and primary care.

Author Summary: Dr. Burdette serves as an Associate Professor, College of Nursing and Assistant Dean for the SDSU Aberdeen Accelerated Nursing program. She teaches in the undergraduate and graduate nursing programs.

Fourth Author

Shana M. Harming, BS
South Dakota State University
College of Nursing, Graduate Nursing
Research Coordinator
Brookings SD
USA
**Professional Experience:** As a research coordinator, I assist in project planning, and ensure that pre-established work scope, study protocol, and regulatory requirements are followed. I recruit and coordinate research subjects, oversees and coordinate the provision of administrative and staff services to director the investigators. I develop surveys and develop and maintain recordkeeping systems and procedures. I have developed educational materials, including print, videos and online training modules.

**Author Summary:** Shana Harming has been a Research Coordinator for the College of Nursing at South Dakota State University for the past five years. Ms. Harming holds a Bachelor of Science degree in Psychology, Secondary Education and Special Education. As a research coordinator, she has developed educational materials in several of her projects including print materials, videos and online training modules.