

Interdisciplinary partnerships for rural older adults' transitions of care

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Abstract:

Purpose: Integrated transitions of care for rural older persons are key issues in policy and practice. Interdisciplinary partnerships are suggested as ways to improve rural-care transitions by blending complementary skills of disciplines to increase care's holistic nature. Yet, only multidisciplinary efforts are frequently used in practice and often lack synergy and collaboration. The purpose of this paper is to present a case of a partnership model using nursing, gerontology and public health integration to support rural-residing elders as a part of building an Adult-Gerontology Acute Care Nurse Practitioner program. **Design/methodology/approach:** This paper uses the Centre for Ageing Research and Development in Ireland/O'Sullivan framework to examine the creation of an interdisciplinary team. Two examples of interdisciplinary work are discussed. They are the creation of an interdisciplinary public health course and its team-based on-campus live simulations with a panel and site visit. **Findings:** With team-building successes and challenges, outcomes show the need for knowledge exchange among practitioners to enhance population-centered and person-centered care to improve health care services to older persons in rural areas. **Practical implications:** There is a need to educate providers about the importance of developing interdisciplinary partnerships. Educational programming illustrates ways to move team building through the interdisciplinary continuum. Dependent upon the needs of the community, other similarly integrated partnership models can be developed. **Originality/value:** Transitions of care work for older people tends to be multi- or cross-disciplinary. A model for interdisciplinary training of gerontological practitioners in rural and frontier settings broadens the scope of care and improves the health of the rural older persons served.

Keywords: public health | gerontology | interdisciplinary team building | nurse practitioner | rural aging | transitions of care

Article:

Introduction: an increase in older persons living in rural areas

Two trends have brought the issue of rural aging to the forefront in Colorado. First, the population of those 65 years and older is increasing with one in five residents expected to reach this age group by 2040 (Colorado State Demographer, 2011-2015). Second, rural and frontier areas have experienced an increase in growth. Currently, 17 percent of Colorado's population aged 65–84, and 40 percent of the population over 80, live in rural areas. These trends have led researchers to predict the rural population over age 65 will grow to become 21 percent of the total population in 2018 (Colorado Rural Health Center, 2016). State policy makers have framed the discussion of aging in terms of how to best deliver long-term care supports and services and how to implement home and community-based services. They are calling for the development of integrated health care models and teams and for geriatric and gerontological training.

Classifications of rural and frontier are often based on population size and density, adjacency to a metropolitan area and degree of urbanization (Hash *et al.*, 2015). While there is no standard definition for rural in the USA, the US Census defines rural as a cluster of less than 2,500 persons living in a non-urban setting (HRSA, 2017). According to the US Department of Health and Human Services, rural can also refer to a geographic setting with a farming area that sells at least \$1,000 in agricultural products per year. The US Department of Agriculture's Economic Research Service uses a rural-urban continuum and urban influence coding system to define rural areas in relationship to metropolitan areas. These codes are based on population size and density, adjacency to a metropolitan area and degree of urbanization (Hash *et al.*, 2015). Frontier health professional shortages areas have less than six persons per square mile, and "are geographically isolated from population centers and services" (National Rural Health Association (NRHA), 2016, p. 1).

Geographically, the program focuses on rural and frontier regions of Colorado, Wyoming and western Nebraska. Of note, 42 (66 percent) of the 64 counties in Colorado are rural and 44 (47 percent) of the 93 counties in Nebraska are rural. In Wyoming, 74 percent (17 of the 23 counties) are considered frontier, and the remaining are rural with no urban areas (US Census, 2013). This situation "presents a particular challenge for the provision of needed care, and supports the need for a well-trained and sustained clinical and public health workforce prepared to meet the needs of the aging population" (Burman, 2015, p. 1).

Aging in rural Colorado has distinctive issues and presents unique situations in terms of access to health care. While many rural older persons positively identify as rural and see the benefits of living rurally (Weil, 2017), older rural adults have greater rates of physical impairment and frailty and more mobility concerns than non-rural older people (Mattson, 2011; Prasad *et al.*, 2014). Living in rural areas as one ages often means less availability of and access to medical services and a lack of health care providers (Ponzetti, 2003; Milbourne, 2012). Specifically, geriatric specialists are severely lacking in rural and frontier environments. In 2015, the American Geriatric Society (2015) found that the state of Colorado has a geriatrician shortfall; the estimated number of geriatricians needed is 269, but there are only 93 certified geriatricians (American Geriatric Society, 2016). The absence of geriatricians and geriatric care combined with a high patient-to-practitioner ratio reduces access to health and preventative services for rural older adults (Hash *et al.*, 2015; Marshall and VanRaemdonck, 2012).

Many disciplines are calling for interdisciplinary teams as a way to address the complex issues of aging, and this approach is particularly critical to aging in rural places (Young *et al.*, 2011). A CARDI (2009) report defines multidisciplinary research as, “research that involves more than a single discipline in which each discipline makes a separate contribution. Investigators may share facilities and research approaches while working separately on distinct aspects of a problem” (p. 5). According to the CARDI (2009) model, research teams must move through the disciplinary→cross-disciplinary→multidisciplinary→interdisciplinary→transdisciplinary continuum. While a multidisciplinary approach focuses on the dominance of an individual discipline, an interdisciplinary approach focuses on person-centered care and brings the best of each discipline’s practice together.

Purpose and principles that informed the work

Interdisciplinary partnerships can improve rural-care transitions by blending complementary skills of disciplines to increase the provision of all-inclusive care. Interdisciplinary teams can exhibit the “importance of professional ambience, attitude, mutual understanding and respect, and written communication within interdisciplinary community health care” (Lavin *et al.*, 2001, pp. 30-31). These teams build upon addressing issues with the varied disciplinary training of each team member that is “too complex for one discipline, or even many sequential disciplines, to solve” (Peters, 2013, p. 1). Peters, commenting about team efforts at the US Department of Veteran’s Affairs, adds:

At the most basic level, effective teamwork depends on the ability of members to determine the overall mission, establish shared and explicit goals, and work collaboratively to define and treat patient problems. Ideally, teams can also learn to accept and make use of disciplinary differences, differential amounts and types of power, and overlapping roles to clarify and evaluate the team’s development and effectiveness (2013).

Allied health professions often mention the benefits of a truly interdisciplinary approach. For example, the geriatric interdisciplinary team training (GITT) programs were the goal of the John A. Hartford Foundation’s funding (Fulmer *et al.*, 2005). The American Association of Colleges of Nursing (AACN, 2017) called for “an environment that provides such interdisciplinary educational experiences based on mutual understanding and respect and designed to enhance the practice of each discipline.” Public health researchers suggest: “health education specialists play an increasingly important role in promoting health across the lifespan. Learning from our colleagues in other settings and capitalizing on shared competencies and responsibilities is key to public health education and promotion efforts” (Shlafer *et al.*, 2016, p. 166).

Though interdisciplinary team benefits are clear, questions arise about the progress and nature of such teams, which is often slow and underreported (Young *et al.*, 2011). Researchers reviewing outcomes from the Hartford Programs GITT found similar barriers and challenges for geriatric interdisciplinary teams (Fulmer *et al.*, 2005). Other researchers found all team members’ roles were not equal, specifically in health care settings (Deschodt *et al.*, 2016).

Despite some difficulties in implementation, designing interdisciplinary teams using the Centre for Ageing Research and Development in Ireland (CARDI) model offers guidance to improve health for older persons. CARDI suggests that teams consist of at least two disciplines, allowing for various perspectives, methodologies and language. The approach can lead to improved solutions that would be impossible without the use of multiple disciplines (O’Sullivan, 2012, p. 9).

The interdisciplinary collaboration and linkages that are the focus of this case study were formed among nursing, community health and gerontology faculty building upon an inter-professional education (IPE) model and community-engaged framework. The goal of the collaboration was to engage the previously stated disciplines in innovative community-based work on a complex local issue, so that the synergy of the team is better than work done by one discipline alone (Figure 1).

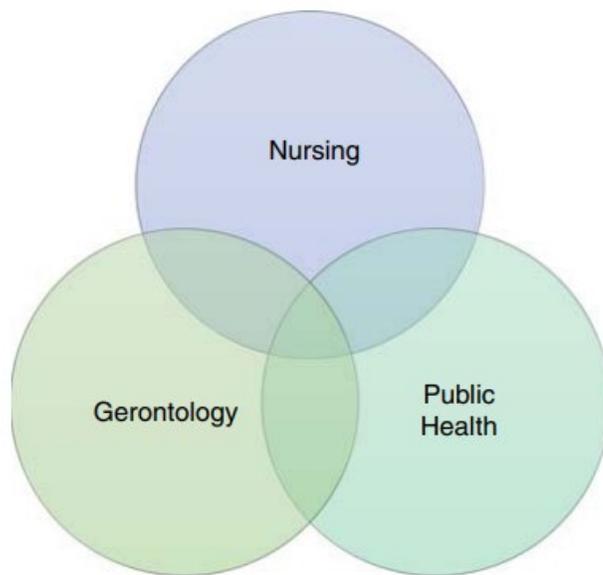


Figure 1. Interdisciplinary partnerships

Design and approach

Development of a partnership approach and interdisciplinary team building: a case study

During the Fall 2014 semester, Nursing and Public Health faculty met and planned to develop a community-based course bringing together best practices in community health, nursing and gerontology. The project was led by a doctorally prepared registered nurse certified as an Acute Care Nurse Practitioner with demonstrated competency in clinical practice, managing and teaching in acute care advanced-practice nursing. She previously directed an Adult-Gerontology Acute Care Nurse Practitioner (AGACNP) program and developed a BSN–DNP program. She has collaborated with rural nurses and developed a network of academic-clinical partnerships. Based on a community needs assessment, the team decided to address the aforementioned health care shortage in rural and frontier areas by developing an AGACNP program. This program would train eligible and interested nurses from the surrounding community and rural environments to be advanced-practice nurses. This program would prepare graduates to deliver

high-quality care across the adult lifespan, with a special focus on the challenges living in rural environments. The program would be delivered online (except for two on-campus one week summer intensive courses), allowing students to stay in their rural environment for both didactic courses and clinical placements.

As the program development progressed, the scope of the project gradually increased. Additional nursing faculty were added to lead online course design and delivery. Public health faculty brought community-health-education knowledge, content and experience with community engagement. These team members brought in the public health discipline's tenets of practice about reducing health disparities and the need to address public health preventative and educational models in the course and curriculum planning. As a way to meet the needs of the rural and frontier older populations, a gerontology faculty member and geriatric nurse practitioner joined the group. This addition was a critical component to addressing transitions of care across the lifespan. These members brought an understanding of both basic and applied research on aging, clinical expertise in geriatric care and the ability to translate research into practice in the community of interest. They ensured that key concepts were included throughout the curriculum, developed gerontological site placements and oversaw geriatric-specific simulation activities. These team members brought knowledge of transitions of care and represented the voices of older persons in rural and frontier areas in the project's planning.

Unique aspects of the actual work

This interdisciplinary AGACNP program was designed with a unique focus on aging populations in rural and frontier environments and improving transitions of care for adults across the adult lifespan. Older persons in rural areas would benefit from geriatric-trained graduates who can address older persons' health across the lifespan, through transitions of care (home, hospital, rehabilitation center, assisted living or nursing home and at end-of-life). The AGACNP program would offer students an understanding of rural culture, resources in the rural environment, and coordination of care transitions and collaboration. For students, the AGACNP program will integrate the rural health setting into clinical course content while increasing content on health care inequalities and cultural competence. At the community level, the innovative academic-practice partnership will expand existing community-based partnerships to engage preceptors who bring their expertise in rural areas and rural culture.

As the scope of the project expanded, there was an obvious need for funding to support new course development, recruit and hire new faculty, expand clinical partnerships, train local clinical preceptors and purchase simulation materials. The group simultaneously pursued both internal and external funding. The university request for proposals supported innovative programs that would expand its capacity to teach new programs, recruit new students and test new pedagogies. At the same time, the Health Resources and Services Administration (HRSA) announced the Advanced Nursing Education Grant call for proposals (HRSA-15-046) in December 2015. The internal proposal, Transitions: Creating an interdisciplinary AGACNP Program, was submitted as a complementary proposal to the HRSA proposal to aid in the program's development. The internal and external submissions were awarded funding in April and June of 2015, respectively. During the grant writing process, the team worked to make

connections with clinical and non-clinical sites throughout the aging network, add preceptors to the team and begin formalizing online course creation.

Interdisciplinary course creation

Two events in the creation of a new university-based AGACNP program are discussed as examples of the interdisciplinary team's work. The first is how the team created an interdisciplinary public health course, and the second is the role of the team in designing and implementing a summer intensive, on-campus live simulation and panel.

The Foundations in Public Health for Advanced Practice Nurses course was designed to examine the historical and conceptual basis of public health, with a specific focus on health disparities in elderly and rural populations on both an individual and population levels. This course intended to provide AGACNP students with the knowledge, skills and tools available for the protection and enhancement of the public's health. As part of course planning, the team met in person on several occasions to discuss the course content and coverage of topics. The course was enhanced from an existing course in public health sciences, and content expanded consistently with the baseline public health and clinical knowledge of a registered nurse. The faculty worked collectively to build a comprehensive course content that addressed rural public health and aging and clinical learning. During the process of course creation, a new perspective emerged in how to deliver the content in a deeper, fuller way, than if simply delivered through one disciplinary lens. Public health faculty enriched the discussions with knowledge of unique health disparities for the target population. Gerontology faculty guided the coursework by providing course content, materials and direction – such as peer-reviewed articles about transitions of care – for integration into the coursework. A nursing faculty member dually trained in nursing and public health sciences, with expertise in the unique health needs of rural populations was ultimately responsible for the design and delivery of the course.

Through team meetings and e-mail correspondence, a syllabus was developed that combined public health core competencies, clinical standards needed for Nursing Accreditation and tenets of the Association for Gerontology in Higher Education for gerontology-based curricula. The interdisciplinary nature was reflected in the course project, where students completed an assignment that investigated a public health issue in a community of their choice. Students were asked to develop a targeted public health intervention to address these issues and each project had to be targeted to older adult or rural populations. Students researched highly relevant topics, such as addressing substance abuse and poor nutrition in the older adults, combating the opioid crisis through improving naloxone access in rural areas and partnering with paramedics in a community fall prevention program for high-risk older adults.

Summer intensive

In 2016, the interdisciplinary team worked to design an in-person summer training curriculum for the first cohort of students. The goal of the course was to create a clinical experience focusing on the management of patients through transitions of care with an emphasis on underserved, rural and older adult populations.

In preparation for the on-campus, summer course, faculty met and designed integrated activities for students around challenges often faced by older adults. These activities focused on older adults both as patients in care and as persons being transferred to community settings to illustrate care transitions. Case studies were developed that reflected all of the disciplines through both face-to-face meetings and e-mail exchanges. The case of Emma Manygoats is an example of the result. The case began as a narrative case study that was then transformed into a scenario to be acted out live with students and faculty as simulated patients. In terms of the case itself, Emma is described as a 76-year-old Navajo woman with diabetes, limited vision and cardiovascular disease. She is a native Navajo speaker and prefers a medical translator to be present at her medical appointments. She lives on a Navajo reservation near the Colorado border, and her son and daughter-in-law live just over the state border in Arizona. Emma uses the DHHS-based Indian Health Services, a federal health care provider, for her basic health needs. She, like many Navajos, incorporates both traditional and western medicine practices as forms of treatment and/or healing.

After group discussion, the team felt it was necessary to expand the case by adding in more clinical simulation and age-based components, and adjusted the case accordingly. Emma's son and daughter-in-law had left the reservation many years earlier and grew more aligned with western medical beliefs. In the case, Emma recently fell in her home on the reservation. Her adult children arrive to find her on the floor with a bumped and bruised forehead, and slightly confused. As this is Emma's third fall in the last two months, her children now want Emma evaluated and treated so she can continue to live on her own on the reservation. Her children respect Navajo tradition and take some time to consider taking Emma to the Navajo practitioner, but decide to drive the 45 miles back to Cortez to see a "real" doctor in the emergency room.

The goals of this case were to educate students about the importance of shared decision making and patient rights. Students were asked to consider: who has the right to determine the plan of care when the patient presents in this confused state? Students were then asked to explore and plan with Emma and her family in a way that respects and honors Emma's cultural traditions and beliefs, while also addressing her family's concern for the presenting issue. It should be noted that Emma's case is parallel in some ways to that of many refugee or recent immigrant elders.

To coincide with the case study of Emma Manygoats, the team designed a half-day site visit with presentations and resident interviewing at a continuum-of-care facility that is a community partner of one of the faculty. Though the facility was in non-rural area, many of the residents had moved to the facility in town from rural settings and self-define as "rural" or maintain their rural identities (Weil, 2017). The nursing home administrator greeted the students, and the activity director provided a tour. Together, the team matched students with residents, and students worked in small groups to gain confidence working with an older population and performing a biopsychosocial assessment, i.e., an interview with many domains. A memory care specialist led a training session for all students about working with people with dementia and other cognitive impairments in both clinical and community-based settings. A debriefing and journaling exercise for the panel and facility visit was created. Time spent interviewing residents was included toward the course requirement total of 90 hours in transitional-care settings.

In addition to the previously described activities, a panel of experts was organized to meet and speak with the students. Presenters were from settings across the aging network. The panel included people with experience in several disciplines and across the continuum of care. This experts' panel provided students with first-hand experience of working with older adults in rural settings as well as policies and resource options available to them. Experts included those working with community-residing older persons: an executive director of a local Area Agency on Aging, a director of a federally and state-funded Program of All-inclusive Care for the Elderly, and a certified Aging Life Care Professional (for privately funded care management in the community setting). Those with care facility expertise included: an executive director of an assisted living facility, a nursing home administrator (also known as a guide) at the Green Houses (an alternative skilled care facility), an executive director of the only long-term skilled care facility in a rural county in Colorado and a social worker and support services manager for a hospice center, offering both inpatient and outpatient services.

Findings

Challenges and opportunities of partnerships: interdisciplinary team reflections

In terms of practical barriers, the tight timeframe of about one year for the project and program creation necessitated rapid team building. Since the disciplines in this study have not traditionally collaborated in the past at this particular university, blending discipline philosophies, jargon and techniques' focus took time. Mixing the clinical and non-clinical aspects of the program, learning about roles and how to fully partner as a team sometimes led to parallel, multi or cross, rather than interdisciplinary collaboration.

There is a need to work on preceptor development and recruitment in the rural and frontier areas. The need to develop relationships and work with new preceptors as partners highlights the dynamic relationship between team members. Changing staff at community and clinical partner sites and locating possible/potential preceptors is an ongoing process. The AGACNP program's goal is to educate nurse practitioners in this role; however, few AGACNPs exist to serve as preceptors, and those in rural and frontier areas have fewer technology resources available to them for online preceptor training. The existing interdisciplinary team created a survey to assess preceptors' needs in collaboration with a local physician and health education organization practicing in the rural community.

Success factors

The team met five objectives and evaluation markers related to long-term outcomes of the program accomplished through interdisciplinary course creation and the summer intensive activities. The first objective, to increase the number of AGACNP providers prepared to provide leadership and quality care in rural and frontier areas, is underway and is an ongoing part of the project as only the first cohort of students have graduated. The team's summer 2015 intensive course was a major step in achieving this objective. Faculty were prepared in rural content and offered their backgrounds in rural health, so that all students who completed the summer intensive demonstrated rural health knowledge.

The next two objectives focused on the interdisciplinary course creation and revision. The team integrated rural health concepts throughout the AGACNP curriculum in both clinical and didactic courses. This involved revising specialty courses and clinical courses in the master's and doctoral nursing programs to incorporate rural content, concepts and strategies, as well as requiring the interdisciplinary Foundations in Public Health course for all AGACNP students. Course syllabi were reviewed and altered to reflect rural health content in objectives, content and assessments, as needed. This process was also followed to increase content related to health care inequalities, health disparities and cultural humility. As part of their course of study, all students completed a cultural competency measure before starting and at the end of the program that showed improvement in their cultural competency scores.

The final two objectives were directly related to the summer intensive courses. The first of these objectives was to develop and expand existing partnerships with public and private health agencies to incorporate and promote interprofessional education (IPE) and to address health professional shortages and health disparities in rural and frontier areas. The team expanded academic-clinical partnership sites across transitions of care settings by meeting with leaders in the field and site leaders. Collaborative agreements and plans were in place and students were in clinical sites, as scheduled, during their second semester of study.

The second objective met in the summer intensive was to promote skill proficiency in adult gerontology and rural health practice through the use of distance education, technology and IPE modalities. The team worked to prepare students with advanced clinical and critical-thinking skills to work in resource-limited rural environments. Team members developed rural health and gerontology-specific training scenarios for simulation for students. Grant funds were used to purchase equipment, provide faculty training and develop simulation scenarios. Because of the simulated cases and summer intensive interdisciplinary work, students demonstrated improved skill competencies and demonstrated critical-thinking skills in simulation scenarios. These simulation activities received positive feedback from students.

Conclusion

Lessons learned from this work

Forging new partnerships can be difficult; however, the benefits of using an interdisciplinary approach far outweigh the difficulties. Faculty from several disciplines were able to contribute the best practices of their disciplines, while expanding and learning from other disciplines how to design and address problems as they arose. The synergistic meetings and exchange of ideas emphasized the importance of interdisciplinary thinking and exemplified that the whole is greater than the sum of its parts. The translation of ideas across disciplinary jargon took some time and was sometimes a source of humor – as acronyms can have very different meanings in different contexts.

Since this AGACNP is the first of its kind in the region and grant-awarded timelines were tight, the team needed to rapidly plan and carry out tasks for the first time without a prior point of reference. Simultaneously, both university and community practices and partnerships were built

and nurtured. In retrospect, more time spent developing professional relationships in both settings would be helpful.

How the rural and frontier communities benefit from this work

Enrolled students successfully participated in all aspects of the program, especially during the aforementioned summer intensive. With this new knowledge, students returned to their home communities (both rural and non-rural) and applied what they had learned. Rural and frontier older adults are at risk of adverse health outcomes due to a lack of professionals trained in geriatrics and gerontology and difficulty accessing appropriate health care services. While the three cohorts of students are enrolled in the program, only three students have completed the summer intensive described. The team could see how they have positively affected the lives of those in their care. Students' reflections show the power of interdisciplinary learning and approach to care. For example, one student reflected on her experience when diagnosing her older, rural-dwelling patient with heart failure. Because of the interdisciplinary program, she:

[...] knew simply telling him about all the changes he was going to have to make would be overwhelming. Instead, I spent over 30 minutes asking him what was important to him and finding out what activities, he knew he could be successful in without becoming overwhelmed. He had a sense of relief in his eyes when he left, knowing he did not have to be perfect and make a million changes at once [...]. A lot of times, the geriatric population gets overlooked and they aren't always listened to because of lack of time or because of multiple co-morbidities that can be difficult to treat. Learning about a different way of approaching patients and understanding what their motivations are has helped me time and time again (Cumming Rice, 2016, p. 6).

Although the discussion of program development is specific to one university, area of practice and surrounding communities' needs – the strategies discussed can show how to develop strong interdisciplinary partnerships in order to provide well-rounded educational experiences in differing settings, programs and combinations of disciplines. As students graduate from the program and continue to practice in rural communities, the research of this interdisciplinary approach will widen and fill many gaps to improve the lived condition of older adults in rural settings. Committed interdisciplinary team efforts, from a broad range of disciplines and external partners, are a great benefit to the rural and frontier older adult populations that graduates of the program will serve.

Using examples of course creation, live simulations and a site visit, this case sheds light upon the process of working as part of an interdisciplinary team. Team reflection about lessons learned and ways this project benefits rural and frontier communities can offer guidance to other teams seeking to serve rural older adults. Future research should examine possibilities of other types of interdisciplinary team formation in rural and additional settings where interdisciplinary teamwork could also be useful.

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