

Healthy Ager Service Learning Project: Emergent Themes on Interprofessional Healthcare Team Experience

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Abstract— The Healthy Ager Program provides an interprofessional learning experience for health professions students at Arkansas State University in Jonesboro, Arkansas. Using the Seamless Care Model of Interprofessional Education, faculty paired student teams with community dwelling older adults in order to teach collaboration skills as they provided patient-centered care. Qualitative analysis of student reflection journals revealed that the program met the four core competencies for interprofessional collaborative practice as reported by an Interprofessional Education Collaborative Expert Panel in 2011 and supports the 2003 Institute of Medicine recommendations for health professions education.

Keywords—interprofessional teams, patient-centered care, Seamless Care Model, community dwelling older adults, general inductive approach

I. INTRODUCTION

Evidence supports using interprofessional teams for the delivery of patient-centered care that provides comprehensive, high quality, seamless care in a variety of settings [1]. According to the Institute of Medicine [2], health professional educational programs need to include five central competencies: provide patient-centered care, apply quality improvement, employ evidence-based practice, utilize informatics and work in interprofessional teams. Students cannot value the importance of an interprofessional team when these teams are not used in health care and/or educational settings. The College of Nursing and Health Professions at Arkansas State University and Center on Aging-Northeast (COA-NE) united in 2004 to promote interprofessional educational opportunities for health professions students' in the care for older adults through the Healthy Ager Program. This community partnership enhances student learning and community outreach opportunities for the university [3]. In turn, the community of older adults benefit from the interprofessional team that provides patient-centered care. Degree programs currently involved in the Healthy Ager Program include the accelerated second degree Bachelor of Science in Nursing (BSN) program, Doctor of Physical Therapy (DPT), Bachelor of Social Work (BSW) and Master of Social Work (MSW). Faculty members from the Communication Disorders (CD) program provide hearing

screens and referrals for the older adult. In 2012, students enrolled in Clinical Lab Science courses participated in the Healthy Ager Program and in 2013, students enrolled in Registered Dietician courses joined the interprofessional team.

The Healthy Ager Program complements the Seamless Care Model of Interprofessional Education, which originated from Dalhousie University in Canada. D'Amour and Oandasan [4] developed the "Seamless Care" model as part of the Health Canada initiative called the Interprofessional Education for Collaborative, Patient-Centered Practice. The Seamless Care model combines three learning approaches: social cognitive theory (SCT), situated learning communities of practice/cultural learning and constructivist learning theory [5]. According to Bandura [6], the SCT focuses on learning through observation or vicarious learning. The Healthy Ager Program uses this approach by requiring students to work directly with the older adult and to build self-efficacy through practice. Faculty members provide a mentoring atmosphere to guide students in this learning environment. The situated learning approach includes learning through active engagement in the practices of the entire community of professionals [7]. The Healthy Ager Program allows student learners to collaborate with one another while providing patient-centered care for the older adult. Students must learn communication skills and begin to value other professions. Finally, constructivism views the student learner as "constructing" his or her own personal knowledge and representation of the world, through building on previous experience and knowledge to incorporate new learning. According to Vygotsky [8], learning includes collaborative construction of knowledge and understanding through social negotiation and interaction. The Healthy Ager Program allows students to work in a collaborative model in which students must learn negotiation and interaction skills with other disciplines as well as the patient. The purpose of the Healthy Ager service learning project was to facilitate an interprofessional educational opportunity for health professions students' working with community dwelling older adults. Student reflections were analyzed to determine student perceptions on working with an interprofessional team.

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II. METHODS

This study was approved by the Institutional Review Board of Arkansas State University (ASU). Fifty students (24 BSN students, 24 DPT students, 1 BSW student and 1 MSW student) completed the Healthy Ager Program in 2010-2011. Student participants were selected by convenience sampling and all students were enrolled in a specific course related to his/her degree program for Healthy Agers. Interprofessional teams comprised of a BSN student, DPT student and BSW student. Each Healthy Ager also participated in hearing screens performed by a faculty member in CD. If a referral was necessary after hearing screens, the team consulted the CD faculty member for treatment planning.

The COA-NE recruits older adults for the Healthy Ager Program by newspaper advertisements and flyers. Twenty-nine older adults volunteered to participate in the Healthy Ager Program in 2011 (February-April) which was held on the ASU campus. Each year, the program recruits at least 10% more volunteers than interprofessional teams (24 interprofessional teams) due to possible attrition. Twenty-five older adults (19 females, 6 males, mean age= 73 years) completed the Healthy Ager Program.

Each older adult completed a one-time, assessment which included a physical examination, Beers criteria for medication, 3-day nutrition log and home assessment. Pre and post assessments included Personal Wellness Profile (Wellsource, Inc.), Berg balance test, Dynamic Gait Index, 6-min walk test, Geriatric Depression Scale, Caregiver Strain (if appropriate), incontinence screen, Mini-Cog and Pittsburgh Sleep Quality Index. During the initial assessment, the interprofessional team also conversed about patient goals. Pre-assessments were scheduled prior to the initiation of the exercise program. At the first exercise sessions, each older adult met with their assigned interprofessional team for a team meeting to review results and goals. Each older adult received a different treatment plan based upon patient goals. For instance, if an older adult scored low on balance testing, the treatment plan would include activities to address balance.

Treatment sessions lasted approximately 90-min and occurred twice a week for 10-weeks. A typical treatment session included 60-min of exercise with the DPT student and 30-min with either the BSN or BSW student. The BSN student provided patient education once per week and alternated days with the BSW student. Social work students provided social activities, games (Wii, board and card games, etc.) and consultation once per week. Older adults who missed more than two treatment sessions during the 10-week program were dismissed from the program.

Each week, the interprofessional team reviewed short-term and long-term goals with the patient. Changes were made for the next week's treatment session based upon the patient's input. At the completion of 10-weeks, the post assessment data was completed and a final team meeting followed.

As a final course assignment for the BSN and DPT students, students completed a reflection paper about their experience of working in interprofessional teams. Students

were asked to write an open response to the question, "What did you learn about working in an interprofessional team?"

A general inductive approach was used by the researchers for qualitative analysis. The primary goal of an inductive approach is to allow research findings to emerge from frequent, dominant or significant themes that are characteristic in the raw data [9]. Initially, two researchers reviewed student reflections individually. Atlas.ti software (Version 6.2.27) was used to perform open coding to categorize student responses in relation to the objective of the study [10]. After independent review and coding, the researchers compared codes and determined emerging themes. The instructors repeated the review of raw data simultaneously and refined the emerging themes and re-coded the data. According to Creswell [11], three to eight of the most important emerging themes or categories should be selected for creating a model.

III. RESULTS

Eight categories emerged after the researchers individually applied open coding. Researchers retained the top six most important emerging categories. Table 1 presents the 8 categories and number of responses corresponding to a particular category. These categories were subsequently merged into three major categories with similar allied themes. The three major categories are presented in the Healthy Ager Interprofessional Model in Figure 1.

TABLE I. CATEGORIES OF EMERGENT THEMES FROM STUDENT REFLECTIONS

<i>Emerging Themes</i>	<i># of responses</i>
Value of interprofessional team	45
Learnng experience	42
Collaboration	36
Communication	28
Improved health care services	27
Imrpoved wellness for the Healthy Ager	20
Relationships formed	11
Enjoyed working with the other profession	9

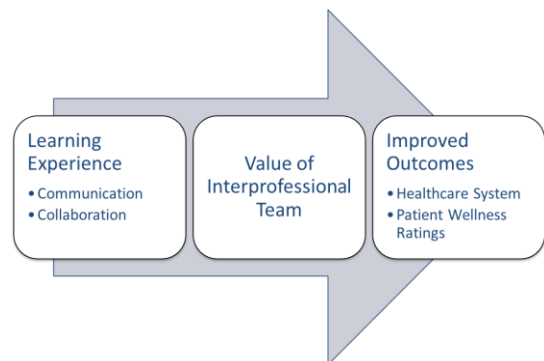


Figure 1. Healthy Ager interprofessional model.

Researchers determined that communication and collaboration were integral parts of the learning experience. Interprofessional teams require students to improve communication skills and ultimately collaborate together. As students experience improved communication skills and collaborative environments, students began to see the value of an interprofessional team. Once students valued the interprofessional team, they recognized that outcomes improved for both the patient as well as the healthcare system.

A. Learning Experience

1) *Communication*: Students noted that communication positively impacts patient-centered care while working with an interprofessional team. Students described how communication impacted patient-centered care as follows:

"Because we worked as a team and communicated with each other, we were able to give our Healthy Ager better care."-DPT student

"A team approach and thorough communication can ensure that all the patient's needs are met and there is nothing overlooked." -DPT student

"From the Healthy Ager program I learned how utilizing an interdisciplinary team can improve the quality of care received by patients simply by drawing from the expertise of multiple health care providers. I also learned that you can never take for granted that all member of the team will do as they say they will. Because of this, I quickly learned the importance of the team leader's role in helping the team remain focused and working toward the same goals." -BSN student

"The physical therapy student and I kept each other informed on the care that we were providing, what we expected from the patient and any concerns that the patient may have in any aspects of care. Our team had great communication and handled problems as they arose amongst us."-BSN Student

"We worked together very well and communication was open and honest. I look forward to participating in more intra-professional teams throughout my career."-BSN Student

In addition, one DPT student reported difficulty with team communication, especially at the beginning of the Healthy Ager Program as:

"The thing I learned about working with an intra-professional team is that it requires being proactive in dealing with the other team members. If you don't talk to the other members then little communication takes place. I know that seems rather rudimentary, but it's also very crucial to the success of that team. I sort of expected that nursing or social work would let me know if there was something important they were working on with the patient. What I learned is that they are more than happy to talk about what they are doing if you ask, but if you don't then you'll miss something. Honestly, it's sort of the same story if you reverse the roles as well. I didn't always tell my other team mates every move I was making, but I don't feel that it is necessary to do so. What is necessary is an open line of communication by which one can gain pertinent

information from other professionals. Information gained is not only about the patient, but about one's own performance, which is an important point to remember as well." -DPT Student

2) *Collaboration*: Collaboration is an integral part of working with an interprofessional team. Students described the benefits of collaboration as:

"Working with the nurse and social worker, I now realize the importance of having a positive interaction in the work force. My nurse and I were on the same page with the goals for the patients, which made patient education as well as the interventions much easier and less time consuming. As the nurse was able to reinforce the changes I was trying to make, we were able to accomplish the goals of improving our patient's health status. It is critical and crucial that there is a positive intra-professional relationship when working with other professionals, in the health care field, to ensure that the patient receives the maximum benefits from the treatment sessions."-DPT Student

"I really felt like all members of my team developed a great rapport with one another and with the patient; placing the patient's care above all other issues."-DPT Student

"I think it takes all the disciplines working together to meet the holistic needs of a person. Just as one person can't fulfill all my needs as a person, neither can one doctor or nurse meet all the needs of a patient/client. I believe the old adage, "It takes a village to raise a child," and I think loosely adapted it also applies to the healthcare setting and to Healthy Ager."-BSN Student

"It was fun to see that differing disciplines can definitely work together towards a goal. One usually reads about negative relationships between disciplines; who went to school longer, who is 'smarter,' what means more in patient care. Many avenues lead to ideal health and this program positively demonstrated it possible." -BSN Student

B. Value

Interestingly, as students improved communication skills and began to collaborate, students started to value the other professions. Many students did not know the roles of other professions. Students reported:

"I didn't realize how much nursing does in the setting we all were in, I was purely amazed and happy she was there. I know this will probably sound cliché, but I will always be friends with my healthy ager and nursing student, it was a process that will forever change me and has bettered me in many ways."-DPT Student

"I learned that each profession brings a different view point to the case. The social worker helped the daughter of my patient to relieve some worries about taking care of her mother. The nurse that worked with me was very professional, caring, and knowledgeable about the patient's worries and medications."-DPT Student

"This program also gave me a better understanding of what aspects of patient care that nursing and social workers deal

with because sometimes it is easy for me to get tunnel vision in my own profession. I also realized how important it is for different professions to analyze patient care and work together to create a treatment approach that will benefit the patient the most."-DPT Student

"I have thoroughly enjoyed working with the intra-professional team. I believe this had given me much insight on how other professions work and how our work can interrelate with each other to provide care. I have learned many things from the working together and how I can focus my care in such a way that we can work towards the same goal."-BSN Student

"I enjoyed the interdisciplinary style of this program. I think we will more easily recognize and appreciate each other's work and how the client will benefit from everyone working together."-BSN Student

"I loved learning about each discipline's strengths and how we could work together for the same patient."-BSN Student

"Through teaching my patients in the program, I, myself, learned a great deal about nutrition and exercise. It allows the student to teach herself (with a teacher readily available to explain difficult concepts or provide additional insight), which allows for better understanding of the material than sitting in a classroom furiously scribbling notes. I learned a great deal from this program."-BSN Student

C. Improved Outcomes

Finally, students recognized the importance of an interprofessional team for improved outcomes, either in the healthcare system or by improving overall patient wellness.

1) *Healthcare system:* Students commented that interprofessional teams provided a higher quality of care for the patient.

"Working with an intra-professional team was a great learning experience. Because we worked as a team and communicated with each other we were able to give our healthy ager better care. It is an important lesson to learn to utilize other professions in order to provide our patients with the best care possible, because we each bring something special to the table."-DPT Student

"I also learned that by working with an intra-professional team and knowing the strengths of each team member the patient can receive better care than is possible with only receiving care from one profession."-DPT Student

"Because we worked as a team and communicated with each other we were able to give our Healthy Ager better care."-DPT Student

"I learned that when professionals in different fields collaborate, the end result is much more effective care than would be possible with just one discipline."-BSN Student

"Teamwork provides multiple ideas and perspectives on each problem, at it allows for a holistic approach to problem solving."-BSN Student

2) *Overall Patient Wellness:* Students believe that overall patient wellness can be improved using an interprofessional approach.

"In addition as the team relationship grew he became more open and honest about his health. In working with a nursing student during the Healthy Ager Program I learned that a team approach can be very beneficial for the patient."-DPT Student

"It takes a team to make a difference. I loved combining nursing, physical therapy, and communication disorders, and I know our patient really benefited from it."-BSN Student

"I am just a student, but I saw awesome changes in my patient. At the end of the program, her blood pressure was lower, she lost weight, she was more motivated to have a healthy lifestyle, etc."-BSN Student

"At the end of the day it is a great feeling to know that I have helped, along with other healthcare professionals, make a difference in the care of my patient."-BSN Student

I now view the older adult population as having the potential to be much healthier and active. My parents are almost 65 and I have already started to apply this model to them and am now helping to 'manage' their care and help them stay active."-BSN Student

IV. DISCUSSION

Interprofessional education requires a mechanism for training facilitators and faculty, curricular mechanisms, institutional support, working culture (common goals and patient management plans), a supportive environment, health-services delivery and patient safety [12]. The Healthy Ager Program relies heavily on communication between faculty and community partners to ensure curricular planning for student participation. Institutional support provides a supportive environment for students to become proficient in the delivery of health-services and patient safety while working in teams with the older adult. This model aligns with the World Health Organization (WHO) support of innovative strategies such as interprofessional collaboration, especially at a time when the world faces a shortage of health care workers. The Institute of Medicine summit on Health Professions Education in 2003 [13] identified five interprofessional competencies (patient centered care, quality improvement, evidence-based practice, informatics, and interdisciplinary teams). These competencies were echoed by the expert panel convened in May 2011 by the Interprofessional Education Collaborative. This panel [1] recommends four interprofessional collaborative practice domains for successful implementation of interprofessional education programs: 1) values/ethics for interprofessional practice, 2) roles/responsibilities, 3) interprofessional communication, and 4) teams and team work. This model leads to improved health outcomes which aligns with one of the benefits of interprofessional teams identified by student participants in the Healthy Ager Program [12].

The report by the Interprofessional Education Collaborative was released after the completion of the 2011 Healthy Ager Program. When students were asked what they learned about working in an interprofessional team, qualitative analysis of the

students reflection journal revealed that the Healthy Ager Program met these four core competencies. For example, the goal for the values and ethics domain is for students to “work with individuals of other profession and maintain a climate of mutual respect and shared values [1]” in a patient-centered population focused orientation. The Healthy Ager Program provides students an opportunity to use teamwork skills while promoting overall health and wellness, preventing illness and providing a comprehensive care for chronic disease. Students reported that valuing the interprofessional team (n=45 responses) was an important aspect of the Healthy Ager Program.

In a second domain, roles and responsibility competencies include “the knowledge of one’s own role and those of other professions to appropriately assess and address the healthcare needs of the patients and population served”[1]. Students practiced knowledge, skills and abilities in a controlled environment at the University. Faculty members were available for consultation while student teams worked with the older adult. Students reported gaining knowledge of the other professions and that the Healthy Ager Program was a “great learning experience”.

Interprofessional communication, the third competency domain, requires students to “communicate with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease [1]”. Students reported that communication was a key component of the learning experience in the Healthy Ager Program. Students learned how to listen actively, encourage ideas from other team members, and be respectful.

The final domain, teams and teamwork, requires collaborative practice. The general competency requires students to “apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient-centered care that is safe, timely, efficient, effective and equitable [1]”. Students recognized how essential collaboration between the disciplines must take place in order to provide the best patient care.

V. CONCLUSIONS

The Healthy Ager Program provides an interprofessional learning experience for health professions students at ASU. Qualitative analysis of student reflection journals revealed that the Healthy Ager Program met the four core competencies for interprofessional collaborative practice as reported by the Interprofessional Education Collaborative Expert Panel in 2011.

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