I. Introduction to SAGE

Individuals sixty-five and over represent a rapidly growing portion of our population worldwide but the number of geriatricians falls far short of this need and the gap is continuing to widen. Older patients bring highly complex medical issues and require physicians who are able to help maintain their quality of life with dignity and independence, while also being able to discuss end of life planning and other concerns unique to these patients and their families. (Institute of Medicine, 2008), (The American Geriatrics Society, 2015)

The Donald W. Reynolds Foundation geriatric education grants were developed as a proactive effort to address the national shortage of geriatricians and the medical needs of a growing geriatric population. A program grant was awarded to the University of North Texas Health Science Center (UNTHSC), Texas College of Osteopathic Medicine (TCOM) in 2009 and renewed in 2013 has supported the work herein described. Grant Primary Investigator, Janice Knebl, D.O. and Chief of Geriatrics, believed that most physicians would be treating older adults as a part of their medical practice and that enhanced patient care should be promoted through increased training in geriatrics.

The “Seniors Assisting in Geriatric Education,” program, or SAGE as it is commonly known, was one of the grant innovations helping to expand geriatric education for medical students that began with the first grant and continues today.

The SAGE Program helps to address a growing demographic (aging adults) in the world today, as well as facilitating development of practice skills. It was selected by TCOM campus leadership and the Reynolds Foundation as an innovative way to increase medical student awareness in working with older adults, and later to introduce Interprofessional competencies that will be required in student’s future professional careers. The SAGE course does not follow a traditional classroom model. Students sometimes feel uncomfortable as they learn to navigate how the program works, using the virtual course materials, and navigating the complexities of its unique design. It is a campus and community outreach model with volunteer faculty and senior mentors participating in the process.

II. Program Design

The program design was modeled after mentor programs at the University of South Carolina School of Medicine (Roberts, N., Thornhill, & Eleazer, 2006), and, Thomas Jefferson University Center for Interprofessional Education (Thomas Jefferson University, 2015). As part of the UNTHSC Reynolds Programs, SAGE was implemented as an educational model for preparing medical professions students to better serve older patients. SAGE partners 1st and 2nd year medical professions students (physicians, physician assistants, physical therapy, and pharmacology students) in small groups with a senior citizen volunteer who either receives home delivered meals through the Meals on Wheels Program, or is a volunteer from the local community. Students make home visits as an interdisciplinary medical team where they apply their classroom education in the context and care of an older patient over a two year period.

In the first Reynolds Grant, the SAGE Program contained 24 contact hours with medical students working together in teams to make eight home visits with the senior citizen volunteer using pre-visit preparation and a competency based curriculum. Faculty mentors use an online learning management system to review, grade and provided feedback to the students as they progressed through the 8 home visits. During the visits students practice and demonstrate basic clinical skills, such as taking histories, interviewing clients, conducting physical exams and cognitive assessments, and advising clients on nutrition, home safety, and discussing community resources and advanced care planning. The program sought to ensure that the medical professions students would have a level of familiarity and comfort in treating older patients.
III. SAGE Expansion

In a second grant from the Donald W. Reynolds Foundation for the SAGE program, a mission statement was created and goals were expanded to develop and implement partnerships to improve the ability of medical students to work in teams among various health care disciplines (Table 1). Beside including UNTHSC students from the School of Health Professions Physician Assistant, Physical Therapy and the UNT System College of Pharmacy, the program expanded to include another nearby institution. In a collaborative partnership, Texas Christian University’s Harris College of Nursing and Health Sciences, Departments of Nursing and Social Work, joined the program along with the College of Science and Engineering, Department of Nutritional Sciences. This would bring the number of medical professions participating in SAGE to a total of seven. The course curriculum and student assignments were reviewed and updated by an interprofessional education and practice committee of the medical professions faculty represented in the program (Table 2).

Vial Of Life

Another addition to the SAGE Program was the Vial of Life, a senior safety initiative. The Vial of Life program is nationally recognized as saving countless lives each year by providing early responders with lifesaving medical information during an emergency, should the patient not be able to speak or remember their medical information. During SAGE visits, students record senior mentors’ medical information and place it in a prescription bottle that is placed in the refrigerator with an identifying decal. Another decal is placed on the front door or window of the seniors’ residence that will direct emergency personnel to where the information is kept.

Table 1. SAGE Mission, Vision, Values, & Goals

| Mission: To strengthen health professions students’ medical education in the development of competency in attitude, knowledge and skills in the care of older adults. |
| Vision: The SAGE Program will impact the way future doctors and other health care professionals care of older adults. |
| Values: Communication, Teamwork, and Empathy. |
| Goals: 1) Health professions students will develop competency with older adults; 2) Strengthen health care students clinical applications of medical education through an Interprofessional team experience in the SAGE Program. 3) Learn from each other and appreciate their unique professions. |

IV. Interprofessional Education / Practice

Interprofessional healthcare teams have been identified as a way to improve quality care and patient safety especially for at risk and marginalized populations (WHO, 2010, Fig. 2). Often multiple healthcare providers are caring for the geriatric patients independently or in parallel with inadequate communication or a collaborative team work ethic. Effective healthcare for the geriatric population benefits from strong collaboration among those who are providing direct oversight to aging patients who often present with complex healthcare needs.

The UNTHSC Reynolds IGET-IT Program partnered with the newly formed UNTHSC Office of Interprofessional Education and Practice to provide a SAGE pre-training session for the diverse group of medical professions students. Clinical faculty from the both universities helped to plan and provide instructional support for the Geriatric Skills Lab. The training session created an opportunity for healthcare professions students to learn about, from, and with each other, within the context of the shared roles and responsibilities they would soon be undertaking. The Skills Lab included content and demonstrations that would enhance the students’ knowledge of geriatric syndromes and provide early instruction in preparation for future SAGE home visits. Students rotated through three training stations focusing on quality care and patient safety and other careful oversight of the geriatric population through team collaboration. Prior to participation in the Skills Lab, students had been exposed to an introduction to the Team STEPPS method of communication and a case study activity within teams. The Geriatric Skills Lab replaced the first semester of home visits for the SAGE Program, and reducing the number of visits from eight to six. An overview of the curriculum follows. (American Geriatrics Society, 2015)
Table 2. Individual SAGE Visit Content

<table>
<thead>
<tr>
<th>Visit 1: Health History</th>
<th>Visit 4: Limited Physical &amp; Osteopathic Structural Exam</th>
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</thead>
<tbody>
<tr>
<td>Visit 2: Home Environment/Safety &amp; Functional Assessment</td>
<td>Visit 5: Community Resources &amp; Advance Care Planning</td>
</tr>
<tr>
<td>Visit 3: Medication/Pharmacology &amp; Nutrition Assessment</td>
<td>Visit 6: Ending the Healthcare Professional/Patient Relationship</td>
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</tbody>
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V. Geriatric Skills Lab

Students were placed in interprofessional healthcare teams of 7-10 and rotated through (three) skill training stations. The overarching objectives of the exercise were early exposure to geriatric syndromes and to help students recognize the benefits of working collaboratively in the care of the geriatric patient. It was believed that effective collaboration on SAGE team would require a common mental model along with the understanding of the geriatric population. The students rotated through the following stations:

- **Falls Risk Assessment** station trained students in conducting a falls risk assessment. Instruction focused on recognizing the need for situation monitoring and education on the geriatric patient to assess their risk for falls and to develop strategies to help prevent falls.

- **Medication Review** station sought to raise awareness of the issue of patient safety related to taking multiple medications often from several different providers. Medication review is an important factor in patient safety and an area in which healthcare professionals must collaborate, communicate, and cross monitor to make sure that it is effectively occurring.

- **Cognitive Assessment** station provided training in the use of the Mini Mental Status Exam for cognitive assessment. The goal was to help students recognize that healthcare providers need to work collaboratively to assess the senior’s cognitive status, often across healthcare settings in order to provide care, services, and resources to the individual and family.

The Geriatric Skills Lab IPE learning objectives guiding the program were drawn from the Interprofessional Education Collaborative Expert Panel (2011), with an added emphasis on geriatric care.

- **Values/Ethics Competencies**
  Students will place the interests of patients and populations at the center of interprofessional healthcare delivery through creating a common mental model and understanding of the unique and shared needs of the geriatric population.
  Students will recognize the diverse and individual differences that characterize the geriatric population and the benefits of an interprofessional team in the assessment of physical, sensory, and cognitive function.

- **Roles/Responsibilities Competencies**
  Students will recognize the need to engage diverse healthcare professionals to complement their own professional expertise, as well as the associated resources available to develop strategies to meet the needs of the geriatric population.

- **Interprofessional Communication Competencies**
  Students will recognize a common language or terminology and process to use in discussing and assessing, medication reconciliation, ADLs, Falls Risk, and Cognitive Assessment in working collaboratively with other healthcare professionals with the geriatric population.

- **Team and Teamwork Competencies**
  Students will recognize the need to engage other health professionals appropriate to the specific care situation (geriatric population) in shared patient/person-centered monitoring and cross-monitoring for improved quality of care and patient safety.

References


VI. Partners
Meals on Wheels Inc. of Tarrant County is a not-for-profit program started in 1973 as collaboration between 11 faith-based organizations in downtown Fort Worth to bring food to the elderly in the central city area. Today MOWI provides home-delivered meals, professional case management, as well as, needs based items and services to elderly and disabled homebound residents. As a service to the SAGE Program MOWI social workers have provided referrals of seniors in their program. Over the past 7 years they have referred 600+ seniors that have donated hundreds of hours to medical education (DO, PA, PT and PHARM) at the University of North Texas Health Science, and, more recently in a joint endeavor with Texas Christian University students (Nursing, Social Work, and Dietetics). To help support this continuing community partnership each year since 2013 the Reynolds IGET-IT Program and SAGE have provided an “in-kind” donation from grant and foundation funds dedicated to geriatric education and the SAGE Program (Fig. 1).

VII. Awards & Financial Support
In addition to the generous support of the Donald W. Reynolds Foundation (2009-2017) and UNTHSC TCOM, in 2011 the SAGE Program received a national award from the American Association Colleges of Medicine (AACOM) for best community service program. In 2013, SAGE received a $150,000 foundation grant from the UNTHSC Healthy Aging Council and was also awarded the Mae Cora Peterson Healthy Aging Award by Senior Citizen Services of Greater Tarrant County during their annual Senior Spirit Awards Event. In 2015 a $50,000 gift was received from the Kathleen Connors Trust administered by Plains Capitol Bank Wealth Administration.