Reynolds Interprofessional Geriatric Education & Training in Texas Programs (IGET-IT)
Reynolds /GET-IT

Reynolds Interprofessional Geriatric Education and Training-In Texas (/GET-IT)

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Reynolds /GET-IT Funding

The UNTHSC Reynolds Interprofessional Geriatric Education and Training in Texas Program has been funded by the generous support of the Donald W. Reynolds Foundation

Currently the SAGE Program is in the 6th year of operation and second grant round of funding.
Reynolds IGET-IT Program

- DW Reynolds Mission for geriatric education: “Improving the quality of life of America’s growing elderly population through better training of physicians in geriatrics.”
- Seniors Assisting in Geriatric Education (SAGE) Program addressed the lack of geriatric skills training through the implementation of a senior mentor program for (medical) health professions students.

University of South Carolina School of Medicine/Palmetto Health Senior Mentor Program, led by Paul Eleazar, MD (2000)

Special thanks to the Jefferson Center for Interprofessional Education
Original Reynolds Grant 2009-2013

Original Grant Objectives

- Integrated geriatrics curriculum in all four years of undergraduate medical education.
- Provided access to an integrated geriatrics curriculum during Osteopathic Residency Training.
- Established a Geriatric Faculty Development Program
- Implemented Geriatric Continuing Medical Education Program for Practicing Physicians
Original Reynolds Grant 2009-2013

Original Grant Highlights / Achievements

• 68 hours of geriatric integration in Year 1
• 65 hours of geriatric integration in year 2
• 24 hours of experiential exposure thru SAGE*
• 4 week clerkship – 144 hours geriatric integration
  ➢ geri medical home, palliative care & end of life exposure
Reynolds Next Steps Grant 2013-2017
Reynolds IGET-IT Program

3 Innovations
1 Focus
Interprofessional Education

**Innovation 1:** Expanding the Interprofessional Seniors Assisting in Geriatrics Education (SAGE) Program for all health professionals year one and two students.

**Innovation 2:** Create Interprofessional Web-based Team Capstone (ITC) Geriatrics Experience for all senior year health professions students.

**Innovation 3:** Develop Interprofessional E-Learning Professional Development Modules for residents in training and practicing physicians.
Seniors Assisting in Geriatric Education (SAGE)

- IGET-IT Program has expanded its Seniors Assisting in Geriatrics Education (SAGE) Program for first and second year undergraduates to a broader range of medical professions students.

- Learners have an expanded experience from one of procedural knowledge demonstrating integrated clinical skills to one that integrates team performance within small groups of medical students, physician assistants, physical therapists and pharmacy students.
Geriatric Interprofessional Experience

- A unique senior mentoring program designed to prepare health care professions students to better serve their older patients and work collaboratively.

Seniors Assisting in Geriatric Education

UNT Health Science Center

Donald W. Reynolds Foundation
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, Empathy and Communication.

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.
SAGE Goals

Through the SAGE experience with their senior mentor, health professions students will develop competency with older adults:

- Develop an understanding from the patient’s perspective of what it is like to live with chronic conditions

Strengthen health care student’s clinical applications of medical education through an interprofessional team experience:

- Learn, as a team, what patients need and how to work together for and with them
- Learn from each other about the point of view and expertise of a variety of professional colleagues
SAGE Program Description

Senior volunteers 60 years and older are mentors in the program. Students meet with the senior mentors in their homes for a series of home visits which include conducting environmental home safety and nutritional assessments; medical history, physiology of aging, biopsychosocial interviews; medication reconciliation, review of community resources, and end of life issues
SAGE Logistics:

- Students coordinate visits with an interprofessional team and the senior mentor

Each team visits with their SAGE mentor:

- 2x each semester over a 2 year period
- Follows a structured curriculum
- Submits assignments for grading by faculty
- Online course system – Blackboard / Canvas
SAGE Curriculum

Eight (8) Visit Curriculum
- Life Reminiscence
- Home Environment/Safety Assessment
- Medication/Pharmacology
- Medical History & Physiology of Aging
- Limited Physical & Structural Examination
- Community Resources & Functional Assessment
- Advance Care Planning
- Nutrition Assessment & Ending the Relationship
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Ratings</th>
<th>Pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Document the date and time you learned about your senior mentor's</td>
<td>High Pass: Provides documentation with explanation and other details</td>
<td>20 pts</td>
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<tr>
<td>education; the senior's medical history; and name of your SAGE team</td>
<td>pertaining to the visit.</td>
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<td>members for this visit.</td>
<td>20 pts</td>
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<tr>
<td></td>
<td>Pass: Provides documentation with no explanation.</td>
<td>15 pts</td>
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<tr>
<td></td>
<td>Fail: Lack of documentation.</td>
<td>5 pts</td>
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<td></td>
<td></td>
<td>20 pts</td>
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<tr>
<td>2. A complete adult medical history as outlined in the course.</td>
<td>High Pass: Completes 75-100% of the Bales' medical history.</td>
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<td>Pass: Completes 50-75% of the Bales' medical history.</td>
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<td></td>
<td>Fail: Completes less than 50% of the Bales' medical history.</td>
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<td></td>
<td></td>
<td>20 pts</td>
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<tr>
<td>3. A summary of your senior mentor's responses to the 'Physiology of</td>
<td>High Pass: Provides a detailed summary and elaborates on senior mentor's</td>
<td>20 pts</td>
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<tr>
<td>Aging' questions noting the impact these have had on their</td>
<td>independence and ability to participate in social/leisure activities.</td>
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<tr>
<td>independence and/or ability to participate in social/leisure</td>
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<td>activities.</td>
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<td></td>
<td>Pass: Adequately summarizes and provides a brief explanation</td>
<td>15 pts</td>
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<td></td>
<td>of senior mentor's independence and ability to participate.</td>
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<td></td>
<td>Fail: Fails to summarize and give explanation.</td>
<td>5 pts</td>
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<td></td>
<td></td>
<td>20 pts</td>
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<tr>
<td>4. What did your team members contribute to the medical history &amp;</td>
<td>High Pass: Elaborates on the role of each team member and their</td>
<td></td>
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<tr>
<td>physiology of aging? If during this visit, what did you learn from</td>
<td>contributions and describes in detail what they learned from team</td>
<td>20 pts</td>
</tr>
<tr>
<td>your team members?</td>
<td>members.</td>
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<tr>
<td></td>
<td>Pass: Adequately describes the role of each team member and their</td>
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<td></td>
<td>contributions; briefly describes what they learned from team members.</td>
<td>15 pts</td>
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<td></td>
<td>Fail: Fails to describe the roles of the team members and fails to</td>
<td>5 pts</td>
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<tr>
<td></td>
<td>describe what they learned from team members.</td>
<td></td>
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<td></td>
<td></td>
<td>20 pts</td>
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<td>5. How might this exercise help you as a healthcare professional?</td>
<td>High Pass: Provides detailed reflection of their experience and</td>
<td></td>
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<tr>
<td>Other comments?</td>
<td>relates it to their future practice as a healthcare professional.</td>
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<td></td>
<td>Pass: Adequate reflection of how the exercise increased their skill</td>
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<td>as a healthcare professional.</td>
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<tr>
<td></td>
<td>Fail: Lack of reflection regarding the exercise contributing to their</td>
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<tr>
<td></td>
<td>skill level as a healthcare professional.</td>
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</tbody>
</table>

Total Points: 100
Visit 3: Medications/Pharmacology

1. Document the date and time your team visited your senior mentor; the senior’s blood pressure, pulse, ethnicity, age and DOB, and names of your SAGE team members for this visit.

   I visited our senior mentor the 24th of January 2014 from approximately 3:00PM to 5:00PM. Senior is an 82-year-old Caucasian woman who seemed alert and oriented throughout entire visit. She was born on October 3, 1931 and her recorded blood pressure was 132/68 mmHg with a pulse of 80 BPM.

2. List all of your senior mentor’s prescription and non-prescription medications including vitamins/minerals, etc. If using a brand name, also include the generic name. Document for each medication: a) Trade/Genric Name; b) strength, labeled instructions (dose & frequency); c) reasons for taking; d) date started & last taken; e) side-effects (mentor & student identified), either positive or negative, of drug therapy on co-morbid diseases (e.g. metoprolol is controlling their blood pressure, with no side-effects of lightheadedness; hydrocodone is controlling their chronic pain, but causes constipation); f) cost to mentor; g) name of prescribing physician.

   Please see attached pictures.

3. List 3 potential drug-drug interactions, either pharmacokinetic or pharmacodynamic.

   a) Hydrocodone/acetaminophen + Tylenol Extra Strength
      1. Ingredient duplication has occurred. Combo may increase risk of acetaminophen toxicity. Metabolized by conjugation with glutathione. Massive overdose → phase II enzymes are saturated and glutathione is depleted. Acetaminophen is metabolized by p450 enzymes to a toxic quinone. Glutathione (GSH) inactivates this quinone. If GSH is depleted, the quinone interacts with tissues (liver, kidneys) and causes toxicity.

   b) Hydrocodone/acetaminophen = Warfarin
      1. Concurrent use of acetaminophen and warfarin may result in an increased risk of bleeding. Inhibition of warfarin metabolism or interference with clotting factor formation. Moderate level of severity.

   c) Tylenol Extra Strength + warfarin
      1. Combo may increase INR, risk of bleeding (hepatic metabolism inhibited). Inhibition of warfarin metabolism or interference with clotting factor formation. Moderate level of severity.

4. Document why you think there is a discrepancy between what the instructions on the bottle say and what the senior is taking, i.e., doing schedule problems.
Year 1: 2009-2010 (Med)
Year 2: 2010-2011 (Med & PA)
Year 3: 2011-2012 (Med & PA)
Year 4: 2012-2013 (Med, PA, PT)
SAGE Program Integration-
Second Reynolds Grant

Year 1
• 2013-2014 Pharmacy School

Year 2
• 2014-2015 TCU Nursing

Year 3
• 2015-2016 TCU Social Work & Dietetics
# SAGE Program Growth

## Total Students Growth Over Years

<table>
<thead>
<tr>
<th>Year</th>
<th>DO</th>
<th>PA</th>
<th>PT</th>
<th>Pharm</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>185</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>185</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>185</td>
<td>0</td>
<td>69</td>
<td>0</td>
</tr>
<tr>
<td>2012</td>
<td>185</td>
<td>143</td>
<td>42</td>
<td>75</td>
</tr>
<tr>
<td>2013</td>
<td>185</td>
<td>149</td>
<td>84</td>
<td>75</td>
</tr>
</tbody>
</table>

### Graphical Representation

![SAGE Program Growth Graph](image-url)

- **Total Students**: 185, 390, 523, 657, 785
- **DO**: 185, 390, 454, 472, 477
- **PA**: 0, 0, 69, 143, 149
- **PT**: 0, 0, 0, 42, 84
- **Pharm**: 0, 0, 0, 0, 75
Senior Mentors Benefits

- Blood pressure checks
- Limited physical exam
- Nutritional Assessment
- Home Safety Assessment
- Cognitive Assessment
- Medication Review
- Companionship
- Vial of Life
SAGE Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>189</td>
</tr>
<tr>
<td>2010</td>
<td>390</td>
</tr>
<tr>
<td>2011</td>
<td>523</td>
</tr>
<tr>
<td>2012</td>
<td>657</td>
</tr>
<tr>
<td>2013</td>
<td>785</td>
</tr>
<tr>
<td>2014</td>
<td>1034</td>
</tr>
</tbody>
</table>
Methodology

• Survey was developed in the first grant
• Quantitative survey using a five-point Likert Scale
• Qualitative comment area included
• Administered each semester during SAGE Involvement
• Each of the programs administers the survey
• Administration time varies depending on individual courses (Med Sch., PA, PT, Pharma)
• Administered through a Qualtrics survey system
### Methodology

#### Sample Questions

<table>
<thead>
<tr>
<th>PA Yr 2</th>
<th>Question (visits 7 &amp; 8)</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My senior mentor in the SAGE program provided real world experience with a geriatric patient.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>My attitude towards geriatric patients was positive prior to participating in the SAGE program.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>The SAGE program has improved my attitude towards geriatric patients.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4</td>
<td>The faculty mentor for the SAGE program provided me with helpful feedback.</td>
<td></td>
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<tr>
<td>5</td>
<td>SAGE Visit seven (Nutrition) increased my confidence in educating an older adult on nutritional balance and diet modification related to specific health condition.</td>
<td></td>
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<tr>
<td>6</td>
<td>SAGE visit seven (Nutrition) provided me with an opportunity to practice using nutritional health screening tools to assess nutrition risk in older adults.</td>
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<tr>
<td>7</td>
<td>SAGE Visit eight (Advance Care Planning) helped me feel more confident in discussing end of life care with an older adult.</td>
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<tr>
<td>8</td>
<td>I was able to practice using nutritional health screening tools and advance care planning documents.</td>
<td></td>
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<tr>
<td>9</td>
<td>My confidence in my competency in medical knowledge, clinical interviewing, physical assessment and exam skills with older adults has increased through my SAGE experience.</td>
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<tr>
<td>10</td>
<td>Overall my SAGE experience has been a positive one.</td>
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</tbody>
</table>
Quantitative Results

Findings revealed modest levels in the following:

Modest levels
- Student confidence and attitudes toward geriatric patients (3.6)
- Comfort in performing physical examinations (3.5)

Somewhat Higher levels:
- Recognizing unique medical and psycho-social issues (3.8)
- Competency in interviewing (3.8)
- Competency in physical assessment (3.8)
- Competency in examination skills (3.8)
- Practice using ADLS/ IADLS (3.8)
Quantitative Results

Highest levels:
- Environmental home safety and falls risk (3.9)
- Use of Mini-Mental Status Exam (3.9)
- Real world experience (4.0)
Qualitative Results

Limitations

• Time intensive / limited resources
• Only responses from med-students Y1 and Y2
• Erroneous comments not included in results
  • Gossip
  • Hearsay

Difficult to analyze and evaluate

• Protocol for survey category comment
• Confusion related to general course & SAGE
Qualitative Results / Use of results

Reviewed and sorted into related thematic groups
- Variation between Y1 & Y2 results
Summary of results prepared for Y1 & Y2
Posted to the e-learning system
Responses included in presentations
- focus groups
- new student orientations
Qualitative Results

Number of Comments

- Program Comments: 28%
- Senior Issues: 22%
- Communication/Organization: 20%
- Grading/Faculty response: 16%
- Interprofessional Experience: 9%
- Recommendations: 5%
Qualitative Results

Number of Comments

- Program Comments: 30%
- Grading / Faculty Feedback: 22%
- Senior Mentor Issues: 20%
- Recommendations: 17%
- Communication/Organization: 7%
- Interprofessional Experience: 3%
Conclusions

Education in geriatrics combined with experiential interprofessional team learning can provide improved confidence for health professions students in patient interaction.
Exposure to the embedded geriatric curriculum and SAGE curriculum within an experiential interprofessional learning program showed a positive impact on student’s awareness and understanding of older adults.
The SAGE Program received the Mae Cora Peterson Healthy Aging Award, which recognizes innovative programs or approaches that improve the health and independence of older adults in Tarrant County in 2013.

The SAGE Program received 2nd Place for Best Community Service Program Serving Fewer than 1,000 people from the American Association of Colleges of Osteopathic Medicine in 2011.
Contact Information

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