Preparing IP Teams to Use Technology to Care for Older Adults Requiring Palliative Care

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Objectives

- Discuss the *Aging in the 21st Century Course*
- Review the interprofessional students involved
- Discuss innovative teaching strategies
- Review programmatic outcomes
  - Deliverable projects
  - Students’ subjective comments
  - Faculties lessons learned

Foundations for the Course

- **Crossing the Quality Chasm (2001)**
  - Rapidly increasing changes in healthcare (chronicity, aging population)
  - Call to redesign of healthcare system
- **The Interprofessional Education Collaborative Expert Panel (2011)**
  - 5 Competencies
IOM Report on Telehealth

- The Role of Telehealth in an Evolving Health Care Environment (2012)
- Telehealth will:
  - Play a central role in healthcare redesign and transformation
  - Overcome disparities by redistributing knowledge and expertise
  - Have a place in home and community based care related to chronic disease management
  - Improve health across geographic barriers
  - Improve team based interprofessional care

Global Aging Demographics

- Globally 524 million >65 in 2010 will rise to 1.5 billion by 2050
- 43 million in the U.S over the age of 65
- Projected to be 79 million by 2040
- Those 65 today have, on average, 19 more years
- 50% of the 50+ age group have 2-4 chronic illnesses
- Increased need for palliative care
Global Aging

Young Children and Older People as a Percentage of Global Population: 1950-2050


Goals of the Course for IP Students

Course designed to help students learn to meet the needs of older adults – especially those with complex health and social needs.

1) Address the **palliative care needs** of older adults
2) Prepare interprofessional student teams to **practice collaboratively** and efficiently
3) Utilize **emerging technologies** to enhance care and overcome barriers to IPC
4) Optimize **care regardless of geographic barriers** between both patients and providers
Aging in the 21st Century Course

- Students from several backgrounds:
  - Nursing (CNS, FNP, WHNP, Nurse Manager)
  - Clinical Counseling
  - Dental Hygiene
  - Athletic Training

Student Demographics

- Classes sizes range from 78 – 81
- Generally 2 levels of learners
  - Masters-Doctoral
    - 2013: n=69
    - 2014: n=9
  - Bachelors-Masters
    - 2013: n=4
    - 2014: n=72
- Students living locally or distantly
  - Local
    - 2013: n=47
    - 2014: n=58
  - Distant
    - 2013: n=31
    - 2014: n=18
Innovative Teaching Strategies

- Standardized patient (SP) scenarios
- Students functioned as interprofessional palliative care teams
- Consult visit with SPs
  - face to face
  - via telehealth

Use of Emerging Technologies

- Online discussions among professionals
- *Grand Rounds* using online discussion boards
- All communication was limited to:
  - Skype
  - Blogging
  - Google Hangout
  - WebEx
**Discussion Boards “Grand Rounds”**

- **Assignment**
  - **Grouping**
    - 10 from differing disciplines in each group
    - Posted initial post and then two responses to others’ posts
    - *All* students participated in *all* the discussion boards

- **Case Example:**
  - Older gentleman in rehab has arm injury
  - Student is performing clinical/internship in facility
  - Needs to set up family meeting and decide on priorities
  - Consultations? What technology can help?
  - How can they use the IPEC competencies to develop a plan that works?

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**Standardized Patient Experience**

- **Patient Scenario**
  - Newly diagnosed liver cancer
  - History of Lewy Body dementia
  - Elderly spouse caring for patient at home
  - Dyad located distantly from healthcare providers

- **Traditional Face-to-Face Visit**
  - Interprofessional palliative care *team*
  - Team develops plan of care using technology to communicate and visit remotely

- **Follow-up Telehealth Visit**
  - Real-time follow-up via simulated Telehealth
  - Bluetooth technology transports patient data
  - A-Frame home-based technologies are used
Standardized Patient Experience

https://www.youtube.com/watch?v=2sAbvnSi0xo

Standardized Patient Project

– Built on student’s knowledge
– Introduced interprofessional practice skills
– A comprehensive plan of care was developed to address the unique needs of the standardized patient
– The team developed the plan of care distantly
– Technology used to address patient needs
– Team challenged to utilize IPEC competencies

– Example of the Telehealth Experience
Emerging Technologies

- Following the Standardized Patient experience ALL communication was restricted to an electronic format
  - Skype
  - Google Hangout
  - Blogging
- Grand rounds format was done with online discussion boards
- Throughout the course students were challenged to communicate, plan, and develop deliverable projects distantly

Deliverables

- Utilizing the information gained from the SP cases and comprehensive plan developed for the patients the IPE groups utilized technology for continued care
- Development of:
  - Smartphone Applications
  - Websites
Technology Assignments

– Interprofessional groups of 4-5
– Develop a joint plan of care from a distance that incorporates technology

– Website development
  – Geared to health promotion topics
  – Patients/or providers

– Mobile Applications
  – Palliative care applications
  – Patients and family support

Example of a Student Website Project

http://womenshealth55andolder.weebly.com/colon-health.html
Example of a Student Mobile Application Project

Student Outcomes
Readiness for Interprofessional Learning Scale (RIPLS)

- IPE will make me a better health care professional
  - 98% Agree/Strongly Agree
- Patients will benefit if professionals work together
  - 98% Agree/Strongly Agree
  - 7% Strongly Disagree
- Communication skills should be learned with other professionals
  - 92% Agree/Strongly Agree
  - 8% Undecided
- It is not necessary for under/graduate health and social care students to learn together
  - 83% Strongly Disagree/Disagree
  - 13% Undecided

Comfort with Technology: Smart Phones
Standardized Patient Experience

Student Comments

“This experience was unlike any experience I have ever encountered...I enjoyed the experience and learned how the interdisciplinary team can work together to provide care.”
- Dental Hygiene student

“It was fascinating to work on an interprofessional treatment team to meet the needs of the standardized patient. I learned a lot from the other students/disciplines.”
- CNS student

Discussion Board Comments

“A lack of respect regarding another discipline's contributions will not promote collaborative care”

“Understanding how we can complement one another is essential for collaborative practice. Communication may also be a barrier.”

“Professionals must have an efficient means of communication with other disciplines so everyone can see what is occurring with the patient’s care.”
Course Evaluation Comments

- “The major strength of the course is the day we spent with the standardized patients at EVMS. This was probably the most worthwhile assignment of my graduate program to date.”

- “Standardized Patient Experience was the highlight of the course. I enjoyed working with my group on this project as well as development of the application.”

- “One strength of the course was assigning interprofessional group work for some assignments which teaches the aspects of working as a team.”

- “The instructors are very knowledgeable in their specific areas of expertise. I really liked that about this course. I also thought it was very good that we got many different views and opinions from our different instructors.”

Lessons Learned

- **Textbooks** may not fit all disciplines well – move to on-line and journal resources or unique texts.

- Students all participate but **not at same level**.

- Students already report **new understanding** of what other professions do.

- **Faculty have learned** a great deal!

- More than the role of professions must be addressed for collaboration to occur.
Lessons Learned

• Lectures – video/live
• SP experience – year 2 better explanation
• Projects – grading, peer evaluation, all group projects vs. one individual project in year 1
• Keep in same groups vs. different groups
• Same faculty grading vs. different faculty
• Students still don’t embrace group projects but they are here to stay.

Conclusion

• Enhanced student knowledge and attitudes related to:
  – Geriatric and palliative care
  – Technology skills
  – Telehealth
  – Interpersonal skills
  – Interprofessionalism
  – Leadership
  – Collaboration outside of geographic silos
Thank You