Project Name

Initiating Conversations About the End of Life: The Advanced Illness Decision Simulation Environment

Principal Investigator Deborah Waldrop

Campus Buffalo, University at

Year of Project 2012

Tier Tier Three

Project Team

- Mary Ann Meeker, UB School of Nursing
- David Milling, UB School of Medicine
- Steve Sturman, UB School of Social Work
- Karen Zinnerstrom, UB School of Medicine Clinical Competency Center
- Tony Guzman, UB School of Social Work

Overview Summary

The Advanced Illness Decision Support Environment (AIDSE) and utilize simulation technology to create an environment to engage students in active, real-time learning about how to initiate and facilitate decision-making conversations with patients about their goals for care and desired outcomes.

Outcomes Summary

Website provides freely available modules for learning more about end-of-life decision making.

Project Abstract

Decision-making about end-of-life care has evolved with technological advances that can prolong life. Discourse about the benefits and burdens of life-sustaining treatment has underscored the importance of identifying patients' goals and preferences but discrepancies exist between expressed wishes and actual

experiences at the end of life. Experts have argued that the need for increased advance care planning is an urgent public health concern. The specific aim of this project is to improve end-of-life planning by providing students in social work, nursing and medicine with better, more realistic training for work with individuals and families who face these decisions.

Communication about advance planning for desired care at life's end is essential to understand and uphold patients' wishes. Optimally, advance care planning should be initiated by health care professionals well in advance of the late stages of illness. Advance care planning is ideally a process of discussion between clinicians, patients and families within a framework that emphasizes response to emotions and a focus more on goals of care than on specific treatments. Yet, shortcomings in healthcare communication persist, often resulting in fragmented communication between people who are in the advanced stages of a serious illness, their families and providers. Improved preparation of the healthcare workforce is essential to address these critical issues particularly in light of the growing number of people who are living longer with more than one chronic illness.

This proposal seeks to develop, apply and assess innovative instructional technology with an online education module and simulated healthcare scenario to improve student engagement and learning about advance care planning; to implement the Power of SUNY Innovative Instruction strategic framework -A Healthier New York- by promoting enhanced communication between patients and healthcare providers; to create student assessment metrics based on the Patient-Centered Communication and Interpersonal Skills (CIS) scale; and to establish partnerships with community healthcare professionals to develop a realistic scenario.

Innovative Instructional Technology
We will develop an online advance care planning educational module and an Advanced Illness Decision Support Environment (AIDSE) that uses simulation technology to create a virtual environment in which it is safe for students to practice and integrate skills. Using the AIDSE students will interact with computer generated avatars with advanced illnesses in real-time and facilitate conversations with patients about their desired goals of care. The AIDSE will mirror factors that influence decision-making, the range of possible responses and their outcomes. The simulation will operate at its core as a branching-tree decision tool that continuously refines the scenario based on the choices made. The simulation will be housed in a persistent-world environment so that real-time continues for the non-playable characters or patients and family members when the players or students as healthcare professionals are not in world.

A Healthier New York
One of the primary disconnects between health care students and successful endof- life planning is the ability to practice interviewing skills with populations facing these decisions. Students acquire the knowledge to conduct planning sessions, but rarely have the opportunity to practice the skills necessary to use their knowledge in end-of-life situations. The virtual environment will allow students from different professions to interact with the same patients. Students will respond to patient-related changes according to actions taken by others working with the patient.

Metrics
We will develop student assessment metrics to evaluate the effectiveness of the AIDSE. The metrics will be based on the 10 domains of the CIS which are: Friendly communication, Respectful treatment, Listening, Honest communication, Interest in patient as a person, Discussion of options, Encourage questions, Provide clear explanation, Physical exam in medicine and nursing and Appropriate vocabulary.

Partnerships
The project development team is a partnership between co-investigators from social work, nursing and medicine with expertise in end-of-life care, competency-based professional education and simulation as a core educational tool. The investigators will work with Steven Sturman (Instructional Designer), Anthony Guzman (Director, Online Education) and Karen Zinnerstrom (Clinical Competency Center) and develop a Project Advisory Council comprised of community healthcare professionals to develop patient scenarios, responses

and outcomes.

Methods
The development process will be iterative and phased. Phase I-develop an online, interactive educational module to teach students the critical competencies of advance care planning; Phase II-write a patient-family scenario with multiple possible responses by the patient, family members and clinicians and associated outcomes; Phase III-train hired actors from the Clinical Competency Center for interaction as standardized patients with an interdisciplinary pilot group of students to further develop all the possible responses and outcomes (debriefing will be audiotaped and transcribed to gather students' and actors' feedback to further enhance the scenario); Phase IV-create a virtual clinical environment; Phase V-expand to a persistent world environment for interaction between the avatars and students across disciplines.

We request full Tier III finding to accomplish all phases of this project. If Tier III funding is not available we request Tier II funding to complete Phases I-III and begin proof of concept for Phases IV and V. We will then use this progress to leverage additional funding including possible NSF Grants for Innovative Technology Experiences for Students and Teachers and the Buffalo Center for Social Research Les Brun Pilot Study Program.

Reports and Resources

- Project website
- Project presentation

Instructional Design

- Gamification (Design)
- Online Education
- Student Learning Support