

Executive Summary

Interprofessional Education and Practice: Central to Patient Safety

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Third Annual Interprofessional Education Conference Executive Summary

Introduction

Interprofessional Education and Practice is central to Patient Safety. Ten years have passed since the Institute of Medicine Report, *To Error is Human* (1999) identified critical elements in health care that were pivotal for health care improvement. In 1991, prior to the IOM reports, visionary leaders founded the Institute for Healthcare Improvement (IHI) and led the patient safety movement. The IHI mission was based on the premise of a systems approach for health care improvement, which had been used successfully in the aviation, aerospace and nuclear power industries for decades. The goal of this conference was to explore safety, communication, and interprofessional teamwork as interdependent elements of a patient safety approach. The conference objectives were guided by these questions:

1. What is the current evidence base contributing to patient safety and health care errors?
2. How could the integration of patient safety content be infused into an interprofessional education curriculum?
3. How does interprofessional (team) practice contribute to patient safety?
4. What are the innovations in interprofessional education and practice in the context of safety?

Speakers

Tom Peterson MD, Executive Director of Quality, Safety and Community Health at Helen DeVos Children's Hospital dissects the basic structure required for a patient safety culture transformation using a system approach for high reliability units. This structure includes four pieces- prevention, detection, correction and sustainment. Prevention is the error piece that promotes and supports "learned" patient safety behaviors individually and as teams. The environment requires a low authority gradient to be successful. Essential detection components include effective reporting with standardized metrics for trending. Correction involves application of the science of human and system failure methodologies, root cause analysis of events, and integration with risk management development for transparency. The keys to sustaining a safety culture are embed safety and interprofessional teamwork in health professions curriculums and staff orientation, prioritized safety leadership in multiple roles for all disciplines, and maintenance of safety as a priority.

Patient Safety and Quality Educators Susan Teman RN and Amy Alters RN, also from the Children's Hospital, teach and monitor safety culture and patient safety behaviors hospital-wide. An integral component of the safety program has been the development of staff education with knowledge and tools that empower creating a safety culture. Conference attendees were able to experience this interactive didactic training firsthand by the presentation training. In addition Ms. Teman's and Ms. Alters' expertise has been instrumental in the creation of recorded simulations illustrating communication techniques for interprofessional student education trainings. These training videos were presented at the conference as examples of effective

communication behaviors. A longer video demonstrated critical points in a patient's care when communication failure can result in adverse outcomes. These critical points are breakdown in communication, delay in care, and transition in care. Studies show that one out of every seven hospitalized Medicare patients suffers an adverse event; 15,000 patients die per month due to medical mistakes, and 44% of all events are preventable (Fox, 2010; Blesh, 2010; Grady, 2010).

Safety Panel

Members of a physician panel presented how their unique high reliability unit functions. Matthew Denenberg (Pediatric Emergency Department) reported that computer patient order entry has enhanced effective communication among team members; Richard Hackbarth (Pediatric Intensivist) reported on a unit's safety survey culture change results and the "Communication Top 10 rules" for conduct; Stephen Rechner (Medical Director of Women's Health Services and former Air Force pilot) described how the use of checklists, simulations, drills, teamwork, and communication techniques learned in the military, were transferred into obstetrical emergency procedure checklists; Carlos Rodriguez (Director of Perioperative Services) introduced the three phase preoperative checklist developed from best practices of benchmark institutions and the World Health Organization.

Day 2

Speakers

Founder and Chairman Emeritus of the Clinical Practice Model Resource Center, Bonnie Wesorick , uses three accountabilities for leadership and change. The first accountability is to know reality, the second is to have a clear vision, and third is to know the nature of the work to achieve the vision. Required during this time of exponential growth in information are "new ways of thinking, new ways of creating relationships, and new ways of practice". Bonnie's presentation is aptly titled, *The Call for Interdisciplinary Integration at the Point of Care*.

Chief Patient Safety Officer at Duke University Health System, Karen Frush, described the framework for achieving safe and reliable care at Duke. The framework components include leadership attributes, teamwork behaviors, and unit quality improvement. A sustainability component involves consistent messaging of "The way we work here". With a passion for team dynamics, Dr. Frush was a co-investigator on a study investigating the best way to teach teamwork components to medical and nursing students. This study focused on four modalities of learning. The four modalities were using high-fidelity human patient simulation, low –fidelity simulation role play, audience-response didactic, and didactic lecture only. Although the teaching styles were different for the learners, results indicated that participants' attitudes toward teamwork improved and knowledge increased, but no difference in teamwork skills between groups were noted (Hobgood, Frush, et al. 2010).

Lorelei Lingard, Director of the Centre for Education Research & Innovation at the Schulich School of Medicine & Denistry at University of Western Ontario, is a leading researcher in the study of communication and collaboration within healthcare teams. She proposes that

communication is more than the descriptive aspect of what is spoken but is also the constructive aspect of what communication does. It is more than a socializing vehicle. Typically the focus has been on learners acquiring individual skills for communication but efforts should also include “what happens with communication during complex social situations”. The interpretation of words and silence, in a conversation, all have meaning. Team communication is relational.

Community Panel

The community panel members David Blair (Advantage Health/St. Mary’s Medical Group), Ingrid Cheslek (Metro Health), David Brown (Blue Cross Blue Shield of Michigan), Paul Isely (Seidman College of Business), and Jay LaBine (Priority Health) described the steps needed to lower health care costs and the impact of quality of care and patient safety on health care costs. David Blair discussed how the triple aim: better care, better health, at lower cost, is driving a new design in healthcare. Accountable Care Organizations (ACO) and Patient Centered Medical Home are examples of improving health and reducing the cost of care by a team approach with a focus on outcomes. Ingrid Cheslek referenced the West Michigan Interprofessional Education Initiative Model and reminded the audience that “the patient is in the middle of the model”. Health teams must be interprofessional teams, and the language is in the healthcare reform bill. All professionals need to learn together as the number one cause of sentinel events is communication failure. David Brown gave specific examples of how his organization has awarded grants in Michigan for investigators to study quality of care and safety initiatives. An outcome of one funded study using new imaging guidelines criteria created a savings of \$10 million by choosing lower technology imaging. Paul Isely focused on economic mechanisms for lowering costs specifically on better utilization of resources and decreasing medical errors. Isely gave the example of how the average error adds \$13,000 to the cost of treatment which is more than the average cost of a typical inpatient stay in West Michigan (Johns Hopkins University Office of Continuing Education Blog. Retrieved February 23, 2011, from <http://www.hopkinscme.edu/blog/index.php/2010/08/16/certified-cme-can-make-health-care-reform-work/>). Jay LaBine stated quality improvement, care transitions and discharge planning are all a team sport. He gave the example of “Dutch” the Labordoodle’s hospitalization and contrasted the coordination of care for veterinary medicine model to our medical model.

Paper and Poster Presentations

This was the first year the Conference solicited abstracts for poster and paper presentations. Presenters were from Michigan, Missouri, and Ontario. Each project brought a unique perspective for impacting patient outcomes. Topics included a patient safety curriculum for nursing, physician assistant, medical students and residents; an interprofessional pandemic influenza simulation exercise; a method for providing high volume interprofessional simulation encounters for physical therapy and occupational therapy; a patient safety curriculum in problem based learning; an interprofessional diabetes clinic using theatre to communicate the patient experience; an organizational culture improvement for implementing and sustaining patient safety initiatives; an interprofessional approach using a virtual patient case; an interprofessional approach to polypharmacy; and an interactive learning model for understanding professional roles and patient centered care.

Simulation Event

The Simulation presentation by Tom Peterson, Amy Alters, Shannon MacKeigan, and Ron Perkins introduced a series of video clips depicting safety behaviors as covered in the *Create a Safe Day Patient Safety Behaviors* presentation. Three of the videos illustrate situations that are often considered as the root cause of undesirable outcomes, specifically delay in care, breakdown in communication, and transitions in care. In debriefing, conference participants were challenged to identify the safety behaviors and the communication failures. Scripting, editing, and recording were done collaboratively with Grand Valley State University Simulation Center and Helen DeVos Children's Hospital Quality and Safety Department.

West Michigan Interprofessional Education Initiative workgroups

The West Michigan Interprofessional Education Initiative has six champion workgroups. These are clinical setting, cross-professional competency, curriculum, scholarship, service and simulation. Each champion workgroup has short and long term goals. Over the past year, the champion workgroups co-leaders and members met to continue work on goals and redirect the vision. Updates on workgroups are presented below.

Clinical Setting

The Clinical Setting Champion Group co-leaders Cynthia McCurren (GVSU-KCON) and Peter Coggan (GRMEP) and members representing nursing, physical therapy, palliative care, medical education, hospital agencies and the educational business community comprise this Champion group. A patient safety curriculum has been developed with funding support by Blue Care Network and Blue Cross Foundation as a pilot unit in the Helen DeVos Children's Hospital 7 Children's. The study begins January 2011 and is to be completed by January 2012. The educational intervention is an interprofessional experience with undergraduate nursing students, physician assistant students, medical students, residents and staff. Another proposed clinical site for interprofessional teams is a family residency medicine clinic in cooperation with Spectrum Health and Grand Rapids Medical Education Partners (GRMEP). This clinic will be founded on the fundamentals of interprofessional education practice and will include a 4-5 physician and resident family practice office with students from nurse practitioner, physician assistant, social work, pharmacy, and medicine programs. It is also anticipated that biostatistics students will be involved in data collection and analysis for the evaluation and outcome measures to support this model practice. Currently an interprofessional education and practice preceptor orientation manual is in the development stages as an addendum to each educational discipline's preceptor manual.

Objectives for the next year will be:

1. Completion of the interprofessional preceptor manual
2. Continue the collaboration with Spectrum Health and GRMEP for development of interprofessional education and practice in the Family Practice Residency Clinic

The long term goals are to: 1) develop model units for teaching interprofessional patient care with the Institute of Medicine (IOM) competencies as a framework; and 2) institutionalize interprofessional education and practice across partner clinical environments.

Cross-Professional Competency

Cross Professional co-leaders Gayla Jewell (GRMEP), Linda Goossen (GVSU-CHP/CLS), Norine Cunningham (GVSU-KCON) and members representing nursing, radiology/imaging, physical therapy, physician assistant, social work, a cross-cultural communication consultant, medical education, and hospital agencies comprise this Champion group. The group's key assumptions are:

- Each health profession is a culture.
- Belonging to a health profession culture influences interaction with other health professionals.

Both assumptions influence the objectives and long term goal that have been set. Professional identity, scope of practice, respect, hierarchy, communication and interpretation are all considered components of an effective Interprofessional culture. Progress of the workgroup is the development of an IPE faculty in-service presented in February 2011 with the objective of discussing interprofessionalism, role appreciation in the context of viewing videoclips and using the Interprofessional Scale Tool for self-evaluation and reflection

Objectives for the next year are:

1. Continue to provide two cross-professional competency inservices to at least three faculty disciplines and representatives of the staffs of three practice partners.
2. Complete the introductory student interprofessional education competency learning on-line module that includes the concept, purpose, and structure for the IPE initiative.

The group's long term goal is the establishment of a culture of cross-professional competencies and the integration of cross-cultural competencies into the curricula and educational programming involving all students, faculty, and practice partners.

Curriculum

The Curriculum Champion group co-leaders Margaret Thompson (MSU-CHM) and Maureen Ryan (GVSU-KCON) and members representing nursing, physical therapy, library science, pharmacy, optometry, medicine, physician assistant, hospital administration, and the educational business community comprise this Champion group. Progress of the workgroup includes mapping the existing learning experiences across all health professions curriculum; a matrix identifying current student IP opportunities; and the beginning coordination of reserved time blocks for IP faculty development in 2012.

Objectives for the next year are:

1. Pilot and edit the Preceptor manual

2. Develop learning objectives for the family practice medical clinic setting
3. Utilize the simulation and cross-professional workgroups for their expertise in curriculum driven projects as they unfold.

The long term goal is the operationalization of IPE across the participating curriculums.

Scholarship

The Scholarship champion group co-leaders Cynthia Coviak (GVSU-CHM) , Alan Davis (GRMEP), and members representing nursing, physician assistant, radiology/imaging, hospital research departments, university college research scholars, and a research institute, comprise the membership of this Champion group. This past year's work includes: 1) the IP Summer internship project with an increase in the number of student internships from three to five; 2) development of a research process flowmap for community partners; and 3) the development of a web-based portal for scholarship opportunities in West Michigan featuring a library cataloguing research articles and interprofessional scholarworks.

Objectives for the next year are:

1. Community-wide IRB agreement for practice partners.
2. Scholarworks Portal to become synonomous with research resources in the West Michigan community.

The long term goal is the implementation of interprofessional scholarship across disciplines and institutions

Service

The Service champion group co-leaders Cynthia Grapczynski (GVSU-CHP/OT) and Marilyn Vander Werf (GVSU-KCON) and members representing nursing, physician assistant, hospital agencies, community bereavement support agency, and a health disparity institute compose this Champion group. The Service Workgroup has identified internet safety as a topic that is a national issue as well as one of local concern. The identified neighborhood for service learning projects is Southwest Area Neighborhood (SWAN). The Service workgroup co-leaders and members have met with key stakeholders in the development of service learning experiences to support interprofessional academic-community partnerships.

Objectives for the next year are:

1. Implement an interprofessional pilot service project by September, 2011.
2. Develop a manuscript regarding the service project by September, 2012.

The long term goal is the development of the infrastructure and implementation of community based interprofessional team placement in service learning activities across each discipline's curriculum

Simulation

The Simulation champion group co-leaders Andrew Booth (GVSU-CHP/PAS), Michael Shoemaker (GVSU-CHP/PT) , Dianne Wagner (MSU-CHM) and members representing nursing, physical therapy, occupational therapy, medical education, medicine, university development, and hospital agencies comprise the membership of this Champion group. Progress to date has been the development of the Virtual Patient Care Case. This is a project launched in the fall of 2010 for an interprofessional experience for PT, OT, and PA students through the web-based DxR Clinician and Virtual PT Clinician websites both of which are licensed to GVSU. It is anticipated that this problem-based learning project may be a method to promote teamwork and collaborative learning among disciplines through student reflection and the development of a comprehensive patient management plan.

Objectives for the next year are;

1. Create a library of simulations for interprofessional practice and faculty development, available to community via web based ScholarWorks
2. Support the IPE Curriculum workgroup with the development of interprofessional learning technology projects.

The long term goal is the continuous development of interprofessional simulations to serve the educational programs and health care agencies in West Michigan

Conclusion

Four years have passed since the IPE Steering Committee created the vision for interprofessional education and practice in West Michigan. In preparing the next generation of health care providers, safety has been demonstrated to be a central factor and health care outcome for high reliability organizations and practice settings. The third annual IPE conference speakers and community panelists all convey the same message. Safety is a personal and system responsibility for health care quality. A culture of safety is best attained through a clear vision, leadership, collaboration and communication in interprofessional teams at the point of care. The West Michigan Interprofessional Education Initiative looks forward to your continued support and participation in the Champion Workgroups and achievement of a common goal of *Interprofessional Education and Practice: Central to Patient Safety!*

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