Welcome to the latest edition of the Jefferson Interprofessional Education and Care Newsletter. In this issue, Dr. Zukowsky and colleagues describe the value of high-fidelity simulation to train interprofessional teams in high-risk high-stakes care. Their successful model has important implications for preparing teams to perform optimally during critical, and often stressful, clinical situations where expertise in both technical and team skills is imperative for best patient outcomes. Dr. Levinson and colleagues describe an exciting interprofessional care planning course which, for the first time at Jefferson, has brought senior Occupational Therapy (OT), Physical Therapy (PT), Nursing, Pharmacy and Medical students together to explore robust, multi-faceted, person-centered care plans for patients with complex disabilities. Dr. Salzman provides an overview of the Patient-Centered Medical Home, an important model for improving primary care and incorporating coordinated interprofessional team care in a re-designed healthcare system. This piece gives an introduction to a new occasional series on Interprofessional Education and Care in the primary care setting.

Don’t miss the summary of Jefferson’s “Interprofessional Care for the 21st Century: Redefining Education and Practice.” This exciting event brought together leaders from across the USA and Canada. Finally, please consider joining us for one or more upcoming faculty and staff development activities or as an interprofessional small group leader for the Health Mentors Program.

Christine Arenson, MD
Molly Rose, RN, PhD
Co-Editors
Interprofessional simulations using scenarios, megacodes, algorithms, and high fidelity equipment provide a closer approximation to what clinicians are likely to face as a team in the actual resuscitation of a newborn infant.

The benefits that are achieved with interprofessional teams using high fidelity resuscitation scenarios in neonatal, pediatric and obstetrical training include enhanced learning experiences, improved professional interaction, application of clinical principles, and interpretation of clinical data. Participants using high fidelity scenarios with complex cardiac arrest events demonstrated increased confidence, knowledge, and treatment decisions rather than low-fidelity.1

A resuscitative event requiring a rapid response from a team of providers may occur at any time in the delivery room (DR), intensive care nursery (ICN), and/or pediatric floor requiring knowledge, skills, and competencies taught in standard resuscitative programs. Programs such as the Neonatal Resuscitation Program (NRP) and Pediatric Advanced Life Support (PALS) are two opportunities that nurses, physicians, respiratory therapist, residents, advanced practice nursing students, and faculty have leveraged to advance interprofessional education using high fidelity simulation at Thomas Jefferson University.

Since 1990, NRP has been taught to obstetrical residents using low fidelity simulation. At Jefferson, since 2004, neonatal, pediatric and obstetrical interprofessional teams have been collaborating in high fidelity simulation scenarios. Using SimBaby™, a high fidelity mannequin, NRP is taught by clinical interprofessional experts who participate in an annual training for incoming obstetrical residents. Currently, pediatric and neonatal experts are teaming to practice pediatric resuscitation codes under PALS guidelines with staff nurses and pediatric residents. The sessions are 90 minutes and include two pediatric resuscitation events such as acute respiratory distress, shock, seizures, and/or cardiac arrhythmias using SimBaby™. These team-based sessions give learners time to process the scenario and practice skills as a way of learning and doing in an environment more friendly to analysis and critical assessment, and less critical to the morbidity and mortality of patients.

SimBaby™ has “built-in” software that allows for automatic debriefing based on the event log synchronized with video pictures, which provides immediate, detailed feedback on performance to learners. The infant simulator mimics the clinical characteristics of the initial steps of an assessment, the “ABC’s,” with a realistic airway, infant breathing patterns, cardiac heart sounds, peripheral pulses, EKG patterns and an IV training arm.2

Interprofessional teams using high fidelity resuscitation scenarios in neonatal, pediatric and obstetrical training have been successfully implemented while utilizing NRP and PALS standards. Participants describe the scenario experiences as “that was great,” “we really need to make sure we know who the team leader of the code is,” “I was hyper extending the SimBaby™ head and that is why I could not get the ET tube in.” Over time participants have noted how valuable the experience is for enhancing their skills.

Learning by doing in real-life situations has become less acceptable, particularly when invasive procedures and high-risk care are required. Interprofessional teams using high fidelity resuscitation scenarios in neonatal, pediatric and obstetrical scenarios allow participants to practice and improve on their clinical skills. While completion of NRP or PALS programs do not ensure a student can successfully resuscitate an infant in an actual clinical setting, when students encounter a real emergency, it will not be the first time.4-5 The interprofessional teams using high fidelity resuscitation scenarios combine knowledge and technical skills that can enhance their effectiveness in infant resuscitation outcomes. During the most critical time for patients, clear delineation of clinical skills, resuscitative efforts, and ability to work with a cohort of health care professionals present in the emergency event makes the difference in neonatal outcomes.

REFERENCES
Clinical Care Plan, Interprofessional Course

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Evidence suggests interprofessional collaborative practice significantly improves patient outcomes, reduces mortality and enhances quality-of-life. Person-focused care demands collaboration among professions in a team approach to address multiple issues including illness, prevention, and health promotion activities. Key elements of successful implementation of interprofessional education are supported in Thomas Jefferson University’s Clinical Care Plan, Interprofessional Course (CCPIC) that includes increasing knowledge of the roles, responsibilities, and competencies of other health professions, collaborating in teams, recognizing the patient as the expert, and communicating effectively.

The primary goal of CCPIC is to prepare students for active roles in interprofessional healthcare by having them formulate a comprehensive plan of care as part of an interprofessional team. Teams of medical, nursing, pharmacy, physical, and occupational therapy students attend three intensive sessions. Learning activities include:

- Discussion of professional roles and relationship to health care
- Online mini-modules (principles of group dynamics, delivery of service models, WHO-ICF classification, terminology, and guide to treatment)
- Formulation of intervention plan for a sample case, executed as a whole class
- Collaboration in interprofessional small groups to formulate intervention for a unique patient (standardized and actual patients on DVD)
- Presentation to a panel of community clinicians
- Reflection paper (philosophy on team approach, life style related to health and prevention, and presenting to clinical team)

The care plan that student teams present to the panel of clinicians starts with patient concerns and builds through analysis of Strengths, Weaknesses, Opportunities, and Threats (SWOT) using their patient’s life story. Additional suggested assessment tools and procedures lead to patient-centered global and functional long term goals. Targeted, discipline-specific objectives round out the treatment. Feedback from the clinical panel and discussion follow the presentation.

This course began in 2008, with 69 physical therapy (PT), 40 nursing, 29 medical, 28 occupational therapy (OT), 10 pharmacy students with 176 total students completing the course. In addition to the comprehensive written plan of care, outcome measures include analysis of pre and post tests of Interdisciplinary Education Perception Scale (IEPS), Readiness for Interprofessional Learning Scale (RIPLS), Perceptions of Health Roles Questionnaire (PRHQ), a group interaction process form, university standard on-line evaluation form, and a reflection paper. The PRHQ was developed by M. Levinson (2007) to assess student’s perceptions of roles. This questionnaire has not been psychometrically tested for validity or reliability, nor has it been published. Students are graded pass/fail for this course, based on completion and acceptability of assignments, achieving a minimum of 80/100 points. The intervention paper/presentation is 40% of the grade.

Students changed many of their perceptions and attitudes based on the pre/post course surveys. The examples of perceptions that changed (PRQ) were that a physician cares about his patient as well as the illness (90% felt this by the end, 50% changed their perception), and PT’s and OT’s each work with patients in their personal and community life functions (59% changed perception). Several individuals changed their perceptions to being more positive regarding “thinking highly of other related professions” and having good relations with people in other professions (IEPS). Ninety-four percent agreed that learning with other students will help them become more effective members of a health care team (RIPLS).

Based on the reflection paper, most of the students enjoyed working together and said they valued the importance of interprofessional collaboration in treating patients. Some medical students, particularly those in the fourth year and beyond, felt that even though functioning on an interprofessional team was important, this course was an exercise that was not necessary to their preparation to enter the work force. Regarding the panel presentation, students rated it as a “unique experience,” “worthwhile,” “personalized feedback,” “broadened my view.” The panel of clinicians felt that the students were very well prepared and believed this interdisciplinary experience “will be very valuable to their education/career.”

Many of the course goals and objectives were achieved. The students were given the opportunity to work on an interprofessional team to practice formulating an intervention plan through collaborative effort. Though they worked towards shared patient goals, some students continued to be challenged in diverting their thinking from single-profession goals and objectives. The students became more familiar with other professionals’ roles, encountered direct collaboration, used communication skills, and reflected on their own competencies.

Some challenges still exist to provide a course to students in different professions, with different experiences, that is meaningful and instructive to each group. The CCPIC team is planning revisions to address content, interest and the challenge to all students. Timing must be addressed as to which level students might best benefit, in particular, second or third year medical students. The content will be refocused on interprofessional treatment to enhance safety and reduce medical error. More problems and conflict will be included in the case scenarios. We will attempt to put more content on-line, using videos and podcasts, and reduce sessions from three to two. Additional faculty from each profession will be included. Our challenge is to improve the course to better prepare students to function on an interprofessional team with the ultimate goal of optimum patient care.
The Patient Centered Medical Home: Federal, State and Local Initiatives to Transform Primary Care

The First of an Occasional Series in Interprofessional Education and Care in the Patient-Centered Medical Home

Brooke Salzman
Jefferson Medical College

The Patient Centered Medical Home (PCMH) is rapidly emerging as one prototype for redesigning health care delivery, restructuring reimbursement, and reestablishing the critical value of primary care. The actual term “medical home” was introduced by the American Academy of Pediatrics (AAP) in 1967, initially referring to a central location for archiving a child’s medical record. In 2002, the AAP expanded the medical home concept to include care characterized as accessible, continuous, comprehensive, patient-centered, coordinated, compassionate, and culturally effective. In 2004, the American Academy of Family Physicians (AAFP) embraced the model in its Future of Family Medicine project report, and in 2006, the American College of Physicians (ACP) similarly issued a report endorsing the primary care medical home. Soon thereafter in 2007, the AAP, the AAFP, the ACP, and the American Osteopathic Association (AOA) wrote a document entitled the Joint Principles of the Patient-Centered Medical Home.1 The Principles of the PCMH include the following:

**Personal clinician**: Each patient has an ongoing relationship with a personal primary clinician trained to provide continuous and comprehensive care.

**Clinician leads a team**: A team of individuals, led by the primary clinician, provides care and collectively takes responsibility for the ongoing care of patients.

**Whole-person orientation**: All needs of the patient are addressed including the provision of acute, chronic, preventive, and end-of-life care. Care is provided in a culturally and linguistically appropriate manner.

**Care is coordinated and integrated**: Care is coordinated across all elements of the complex health care system and the patient’s community, and is facilitated by registries and information technology.

**Quality and safety**: Practices advocate for their patients to support the attainment of optimal, patient-centered outcomes. Evidence-based medicine and clinical decision-support tools guide decision-making. Clinicians accept accountability for

REFERENCES


Course development and implementation was supported in part by the Association for Prevention, Teaching and Research; Jefferson InterProfessional Education Center (JCIPE), Thomas Jefferson University; and Department of General Studies, Jefferson School of Health Professions, Thomas Jefferson University.

In recognition for outstanding contributions to interprofessional education two faculty awards were given by JCIPE to Christine Jerpbak, MD, Department of Family and Community Medicine on May 23, 2010 and E. Adel Herge, OTD, OTR/L, Department of Occupational Therapy on June 1, 2010.

Jefferson Award for Excellence in Interprofessional Education
measurement and improvement projects. **Enhanced access:** Access is facilitated through expanded hours, advanced-access scheduling systems, and new forms of communication. **Payment:** A business model in partnership with payers is developed that provides enhanced payment that appropriately recognizes the added value of the PCMH and supports the development of new systems of care that emphasize the aforementioned principles.

Currently, the concept of the medical home is receiving increased attention as a strategy to improve access to quality health care for more Americans at lower costs.

Emphasis on primary care as the foundation of health care delivery reform emerges from evidence demonstrating that systems of care based on primary care provide better health outcomes, greater cost savings, and greater reductions in health care disparities. While more research is needed to evaluate the individual aspects and collective impact of the PCMH, preliminary data support the ability of medical homes to advance societal health. An essential step in the transformation to a PCMH involves a move from physician-centered care to an interprofessional team approach in which care is shared among several professionals, each bringing their particular expertise to support a person-centered plan of care which promotes health and optimizes prevention.

In 2007, Pennsylvania Governor Edward Rendell created the Office of Health Care Reform (OHCPR) to improve health care for all Pennsylvanians. By executive order, he also established the Pennsylvania Chronic Care Management Reimbursement and Cost Reduction Commission to develop a strategic plan to improve quality and reduce cost in the area of chronic care. In 2008, this Commission initiated a three-year project to transform health care and improve chronic care management by supporting the development of PCMHs throughout the state. Jefferson Family Medicine Associates (JFMA) was one of 32 primary care practices, and one of two academic teaching practices, selected to participate to pilot this initiative in Southeast Pennsylvania.

Through its participation in Pennsylvania’s Chronic Care Initiative and related work, JFMA has developed the major components and characteristics of the PCMH including but not limited to: an advanced open access system; clinician directed interdisciplinary clinical teams involving clinical pharmacists, health educators, nurses, medical assistants, occupational therapists, and patients themselves, as key members of clinical teams; embedded mental health, fitness, pain management, and chronic disease self-management programs; a fully functioning group visit program for patients with diabetes; patient registries; electronic medical records with electronic prescribing; quality and safety programs with a new Quality Improvement Coordinator including public reporting of quality outcomes; case management, using insurance databases to identify and manage high risk and high utilizing patients; a network of community-based resources and partners to support patient education, diet, exercise, and disease management; and payment reform, including participation in multiple pay-for-performance programs. In 2009, JFMA received recognition as a Level 3 (highest level) NQCA PCMH. However, despite such recognition, there is still much more work to be done. Indeed, our experience in the Chronic Care Initiative has shown us that practice transformation is a constant, ongoing process. We look forward to sharing details of the JFMA experience and other medical home models in future installments of this series.

**REFERENCES**


JCIPE hosted its First International Interprofessional Education and Care Conference

One hundred and thirty two (132) individuals from Canada and the US gathered at Thomas Jefferson University, Dorrance H. Hamilton Building on March 12-13, 2010 for JCIPE’s first annual conference. The 2010 conference theme was ‘Interprofessional Care for the 21st Century: Redefining Education and Practice’ and brought a wide range of expertise on interprofessional education, learning and practice.

Keynotes, Joan Weiss, PhD, RN, CRNP from Health Resources and Services Administration (HRSA) Bureau of Health Professions (March 12th) and world-renowned scholar on interprofessional education, Madeline H. Schmitt, PhD, RN, FAAN from University of Rochester (March 13th) both shared the forefront issues, updates and perspectives about the federal policies, gold standard programs and emphasized the importance of strengthening the integration of interprofessional education and care.

Participants were further stimulated by a variety of engaging sessions including interactive workshops, papers and poster presentations. Faculty/clinician experts shared their experiences on a wide range of topics highlighting interprofessional collaborations/integration in both educational and healthcare settings.

To view abstracts and/or presentations from JCIPE’S 2010 conference, visit http://jeffline.tju.edu/jcipe/2010Conference/.

Congratulations to JCIPE’S Spring 2010 Interprofessional Education and Care Practicum recipients:

1. Project: Interprofessional course: “Grand Rounds”, Team: Amy Egras, PharmD and Amber King, PharmD, TJU School of Pharmacy
2. Project: Interprofessional Code Blue Simulation Training, Team: Marina Serper, MD and Bryan Hess, MD, Department of Internal Medicine
3. Project: Diabetes Information and Support for Your Health (DISH), Team: Nancy Brisbon, MD, Kathleen Hilbert, MSN, Janis Bonat, MSN, Patrick McManus, MD, Neva White, MSN, Mona Sarfatty, MD, Department of Family and Community Medicine
4. Project: Urology Education, Team: Demetrius Bagley, MD, Emily Feeney, RN, Bridget Lepchuk, CST Darlene Bewick, MSN, CRNP, Sonia Hurtado, RN and Maryann Sonzogi RN, BSN, Department of Urology
5. Project: Providing Care Beyond the Prescription: Addressing the Patient’s Unique Emotions, Team: Rev. Joseph Leggieri, PhD, and Rev. Marianne Robbins, M. Div, Pastoral Care and Education
6. Project: Professionalism for OB/GYN Physicians and Nurses, Team: Brett Worley, MD, OB/GYN
7. Project: Hand Hygiene Awareness Project, Team: Rosemary Moffitt, RN, TJUH and IHI Open School, Jefferson School of Population Health

To view project summaries, visit http://jeffline.jefferson.edu/jcipe/development/.

Health Mentors Program
We are recruiting for volunteer Health Mentors for the 2010 - 2011 academic year. If you have a patient with one or two health conditions or impairments and think they would be interested in volunteering, please contact Sokha Koeuth at Sokha.Koeuth@jefferson.edu or phone number 215-955-3757.

We are recruiting faculty small group leaders for the Health Mentors IPE small group sessions:

Fall 2010: November 8th and November 15th
Spring 2011: March 14th and April 11th

For more information, please contact Sokha Koeuth at Sokha.Koeuth@jefferson.edu or 215-955-3757.

Schwartz Center Rounds at Jefferson
Schwartz Center Rounds at Jefferson are a multidisciplinary forum for clinical caregivers to come together and discuss the difficult emotional and psychosocial aspects of the work they do. This initiative was spearheaded by the Jefferson interprofessional planning committee established by the Six Sigma MICU team (part of the Balanced Scorecard), the Kimmel Cancer Center, an NCI-designated cancer center, and the Palliative Care Service. Over 37,000 clinicians across the country participate in these interactive discussions and share their experiences, thoughts and feelings on different topics. Next scheduled rounds is on the fourth Wednesday of the month, October 27, November 24, December 22 from 12 to 1pm. For more information visit http://tjuh4.jeffersonhospital.org/schwartzcenterrounds/ or email: Schwartz-Rounds@jeffersonhospital.org.

JCIPE hosted its First International Interprofessional Education and Care Conference
2011 Calendar of Events

Interprofessional Education and Care Practicum
Application Deadline Date: January 7, 2011

This 5-session practicum is a hands-on didactic and interactive experience for faculty and staff who are interested in developing a pilot interprofessional education or care project in either an educational and/or practice setting. Jefferson faculty will mentor you in planning, delivering, and evaluating your interprofessional education or care project. Participants will attend 5 sessions to gain specific skills in IPE development, finding an IPE teaching team, computer-assisted technologies, learning objectives and evaluations.

Added bonus: Jefferson staff/faculty who complete the training and an IPE plan will be eligible to apply for up to $1,000.00 to their departments to assist in funding pilot projects. Unfortunately, we will not be able to offer funding to non-Jefferson participants. However, all participants who complete the training will be eligible for free registration to the next Interprofessional Care for the 21st Century: Redefining Education and Practice conference.

Spring 2011 Schedule
All sessions will take place on Thursdays from 1 - 4pm. Location: TBA
• January 20
• January 27
• February 3
• February 10

To learn more about the Interprofessional Education and Care Practicum and/or to download the application, visit JCIPE’s website at http://jeffline.jefferson.edu/jcipe/ or contact Cassie Mills at Catherine.Mills@jefferson.edu.

Manuscript Writing Workshop
Space is limited. Register by January 14, 2011 to Cassie Mills (catherine.mills@jefferson.edu).
The five-session workshop series is designed for faculty/staff who have participated in an interprofessional project but have not yet written a manuscript for publication. By the end of the workshop sessions, participants will: choose an appropriate journal to submit a manuscript, write a manuscript on an interprofessional education or care project, obtain peer feedback on manuscript and submit a completed manuscript to a selected journal.

Spring 2011 Schedule
All sessions will take place on Tuesdays from 1 - 2 p.m. Location: TBA
• Session I: February 1
• Session II: February 15
• Session III: March 8
• Session IV: March 22
• Session V: April 5

Save the Date: Collaborating Across Borders III
An American-Canadian Dialogue on Interprofessional Health Education and Practice
Dates: November 19-21, 2011
Location: Tucson, Arizona
Sponsors: American Interprofessional Health Collaborative, Canadian Interprofessional Health Collaborative, University of Arizona Health Sciences Center, University of Minnesota Academic Health Center and Arizona Telemedicine Program