Interprofessional Introduction to Prevention

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ABSTRACT:

Faculty from four Duke University health professions programs developed a vision for interprofessional education. Catalyzed by an APTR program, they designed and implemented an interprofessional course focused on prevention and population health. The topic of health promotion and disease prevention is ideal for interprofessional collaboration, as it is core material for all of the participating programs (Doctor of Medicine, Physician Assistant, Doctor of Physical Therapy, and Accelerated Bachelor of Science in Nursing). The resulting one-credit course provides an introduction to fundamental concepts of prevention for entering students within the first month of their respective programs. By establishing early-on a culture of collaboration, in which population health and community context are essential aspects of the care of patients, this course attempts to assist in the culture shift from treating illness in one patient at a time to improving health on a community level.

The Interprofessional Introduction to Prevention course meets one afternoon per week (4 hours) for four consecutive weeks. Students are organized into interprofessional teams, in which they complete team-based learning exercises and a brief project. Before and after, students complete the Readiness for Interprofessional Learning Scale (RIPLS). Web-based modules in Community Health, Clinical Prevention, Health Promotion, and Health Literacy are also utilized.

EDUCATIONAL METHODS OR APPROACHES USED:

This interprofessional course uses a team-based learning approach to develop student appreciation of the unique contributions of various health care providers in providing best practice prevention care to populations. Interprofessional student teams work in small groups for organized activities and a community-oriented final project. Web-based modules supplement in-class presentations, providing content necessary in preparation for team-based learning exercises.

The final team project is a 12-slide “electronic poster.” Each student team is assigned a specific member of a fictional family. The team analyzes a specific health issue for this family member (e.g., obesity, diabetes, risky behaviors, low self-esteem, delinquent immunizations), considering the local, regional, and national context. Teams develop prevention and health promotion plans on both the individual and population levels, with attention to the social determinants of health. A poster session on the final day enables students to learn from each others’ work.

PROJECT DESCRIPTION:

Prevention and health promotion are gaining emphasis in the U.S. health care system, as preventable diseases such as obesity and diabetes become increasingly prevalent. In addition, as team practice is growing, opportunities are being sought to train health professionals to function effectively in interprofessional teams. The medical school previously lacked a cohesive introduction to principles of prevention and strategies for improving health on a population scale. This course was created to meet the needs of four educational programs (MD, PA, DPT, and ABSN), building upon elements existing in several of these programs. Using team-based learning and project activities, students develop important communication and teamwork skills while they learn fundamentals of prevention.
The MD curriculum at the Duke School of Medicine is unique. Basic sciences are covered in an intensive first year, along with the Practice course – a longitudinal course covering interview, physical exam, and interpersonal skills. Year two includes the required clinical clerkships and a continuation of the Practice course. Year three is devoted to scholarly investigation in basic science, clinical research, or other degree programs. Year four is comprised of clinical electives and a Capstone course, which brings the graduating class together in March to prepare for the transition to house staff roles. Prevention is part of the content addressed in clerkships (especially Family Medicine, Pediatrics, and OB/GYN), but there was no structured content on public health or population-based care.

The Physician Assistant (PA) curriculum is 24 months in length, with a 12 month preclinical phase and a 12 month clinical phase. A compact curriculum including basic medical and clinical sciences as well as evidence-based medicine, data gathering and recording skills comprises the first year (preclinical phase); during the clinical phase, students complete required rotations in behavioral medicine, internal medicine, primary care, emergency medicine, pediatrics, obstetrics/gynecology, and surgery, plus two electives and the second phase of the evidence-based medicine course.

The Doctor of Physical Therapy (DPT) curriculum is a 33 month, full-time program, providing a comprehensive foundation in the art and science of physical therapy, preparing graduates to serve as primary clinical care practitioners for patients with neuromusculoskeletal dysfunction, throughout the continuum of care. The first 2 years are comprised of didactic, laboratory and clinical learning experiences using many team-based learning principles. The entire third year is spent in full time clinical internships throughout the United States, preparing students to function as independent practitioners.

The Accelerated Bachelor of science in Nursing (ABSN) is designed for adult learners who have completed an undergraduate degree in another field. This full-time, 16 month program incorporates all of the components of a traditional Bachelor of Science in Nursing (BSN) program with an additional focus on 21st century health care needs and environment.

The one-credit Interprofessional Introduction to Prevention course meets weekly for a total of four Wednesday afternoon sessions at the start of the opening semester. Timing was negotiated to best fit into the participating programs. Costs and teaching efforts are split among the programs. Central coordination is provided by the Department of Community & Family Medicine.

The primary collaborating partners operating the program are three units within Duke University: (1) the Department of Community and Family Medicine (Family Medicine, Occupational and Environmental Medicine, Community Health, Physician Assistant, and Doctor of Physical Therapy Divisions), (2) the School of Nursing, and (3) the School of Medicine’s Office of Curriculum. Additional collaborators, in the form of speakers and contributors to team projects, have included: the Durham County Health Department, Partnership for a Healthy Durham, WIC (Women, Infants, and Children public health program), the Robert Woods Johnson Foundation’s Healthy Living by Design program, and Durham Health Innovations.

**HEALTHY PEOPLE OBJECTIVE ADDRESSED:**

This project directly addresses ECBP-12-16, to "Increase the inclusion of core clinical prevention and population health content in health professions education." This course is the only structured content on population health in the MD and DPT programs, and an expansion of the core prevention content for all involved programs.
PROGRAM OR COURSE GOALS:

Number of students enrolled/participating in 2010-2011 school year: 238
  100 MD students, 76 Physician Assistant students, 62 Doctor of Physical Therapy students

COURSE GOALS: (see companion documents for full list of learning objectives)

1. Demonstrate understanding and apply basic principles of prevention for individuals, groups, and populations across the lifespan.

2. Analyze health promotion and disease prevention service needs for a population or community.

3. Demonstrate skills and attitudes for interprofessional teamwork

Did you conduct a needs assessment as part of your planning process? ☑ Yes ☐ No

A structured comparison of the health promotion and disease prevention objectives for the MD, PA, DPT, and ABSN programs identified areas of overlap. Comparison with literature identified gaps in individual program curricula. Faculty from the four programs then collaborated to design a joint course addressing the core objectives for all.

PROFESSIONS INVOLVED:

- Doctor of Medicine faculty and first-year students
- Physician Assistant faculty and first-year students
- Doctor of Physical Therapy faculty and first-year students
- Nursing faculty. While the course is designed to incorporate nursing students as well, it has not yet been incorporated into the ABSN student schedule.

LESSONS LEARNED/EVALUATION RESULTS:

The creation of this course has been our greatest success to date in incorporating these topics into health professions education.

The greatest challenge in the MD program has been lack of curricular time. In creating this course, faculty commitment to the content was essential. After the other programs agreed to collaborate, a course director of an existing MD course voluntarily relinquished the necessary time to enable this program to be established.

In an interprofessional course, keeping large numbers of students engaged is a challenge. In this course the Team-based learning teaching methodology and multiple sections (3 classrooms of ~ 80 students in each) are used to prevent the monotony of large class lectures.

Students in 2009-2010 expressed some confusion about the multiple goals of the course (e.g., “is it about prevention, or about interprofessional teamwork?”). The goals and objectives have been simplified/darified, and were communicated much more explicitly in 2011-2012.

The key success factor has been the collaborative team of lead faculty. A core group has worked together on several smaller interprofessional projects; for this course, content experts in prevention were added. The team meets regularly throughout the school year, shares responsibilities and teaching presence, and makes consensus decisions on most aspects of the course.
Another crucial factor was the willingness of instructors in the various programs to give up dedicated course hours from existing courses to devote 16 curricular hours to this course. Without these concessions, battles over curricular time would have delayed implementation, perhaps indefinitely.

**CONCLUSION:**

**RECOMMENDATIONS**

1. Create a guiding coalition of dedicated faculty. Regular meetings are important to developing a shared mental model, even before a concrete task is at hand.
2. Create a simple, clear course structure. Create transparency about how each activity is tied to specified learning objectives.
3. Leave the students wanting more. In our zeal to have students understand everything, it is tempting to try to cover too much. Keep the program fast-paced and streamlined. It is far better to have them ask for more than to drag things out and let them lose interest.
4. Incorporate student input into planning whenever possible. Initially, students with interest in the topic area can provide guidance as to how students in general might respond to different possible structures or activities. Once the program has been implemented, focus groups of students who have completed the course can be particularly helpful.

**COMPANION MATERIALS:**

1. Course syllabus/week one materials (includes links to web modules)
2. Week one presentation slides
3. Schedule and materials for week two TBL: Prevention for Individuals
4. Schedule and materials for week three TBL: Prevention for Populations
5. Schedule and materials for week four project presentations: instructions, PowerPoint template for electronic posters, rubric for grading
6. List of additional resources, including web modules

**PUBLICATIONS:**

**PRESENTATIONS** (as of 9-14-11)


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