ABSTRACT:
Nearly half of all pregnancies in the U.S. are unintended, giving the U.S. one of the highest unintended pregnancy rates in the industrialized world (1). Between 2000 and 2010 there was no substantial progress in meeting the Healthy People 2010 target of increasing the proportion of pregnancies that are intended from the rate of 51% to 70%. (2). The 2020 objective has a more modest target of increasing the proportion of pregnancies that are intended from 51% to 56% (3). To address this unmet objective, a teaching learning strategy is presented to increase the skills of health professional students in the prevention of unintended pregnancy.

Application of a public health framework to prevent unintended pregnancy provides an opportunity for health care providers to identify their role in health promotion and disease prevention, by using primary, secondary and tertiary prevention strategies (4, 5). Primary prevention strategies such as preconception counseling, contraception counseling and care, as well as emergency contraception need to be integrated into primary care in order to meet the Healthy People 2020 objective to reduce unintended pregnancy.

Secondary prevention strategies for unintended pregnancy prevention are implemented once a pregnancy is detected. Such strategies include: pregnancy testing and ultrasound, screening for ectopic pregnancy and early pregnancy loss; pregnancy options counseling to support a woman’s decision whether to continue a pregnancy, choose adoption, or choose an abortion; referral and support for their decision; and pregnancy termination with either medication or aspiration abortion. Tertiary prevention includes psychosocial care and support for women who chose to continue their pregnancy; adoption counseling, referral and support; and second trimester abortion.

To provide appropriate primary, secondary and tertiary care, health care provider students need to develop knowledge, skills and attitudes about prevention strategies. An interactive teaching/learning tool provides an opportunity for the development of such skills. In the clinical scenario, the patient presents with a complaint of a cough. As is often the case in primary care, patients have more than one health concern even if the visit is booked for a single complaint. As the nurse elicits a history, he/she asks the woman about her last menstrual period, her method of contraception and about possibility of pregnancy. The patient shares that she has difficulty taking her oral contraceptive pills on a daily schedule and has missed two pills this cycle. The nurse performs an office-based urine pregnancy test which is positive. The health care visit now shifts from a focus on a cough to an additional focus on unintended pregnancy. Both complaints are time sensitive and require attention at the visit. The clinical scenario provides a teachable moment to discuss missed opportunities for primary prevention of unintended pregnancy.

EDUCATIONAL METHODS OR APPROACHES USED:
In academic and clinical settings, many health care students’ experiences typically focus on hospital-based care, which means that many students will not have exposure to health care issues more commonly seen in primary care. A survey of advanced practice registered nurse and physician assistant programs found that although graduate students had comprehensive didactic exposure to selected reproductive issues, they had insufficient opportunity to develop clinical skills (6). Didactic education of
Healthy People 2020 and Education For Health
Successful Practices for Clinical Health Professions

family planning/contraception occurred in 96% of surveyed programs; pregnancy options counseling was covered in 74% of programs. Clinical opportunities for family planning occurred in 89% of programs while clinical opportunities for pregnancy options counseling dropped to 63%. Didactic coverage of specific pregnancy termination procedures ranged from 33-48%. A commonly cited barrier to including comprehensive content on unintended pregnancy was the lack of appropriate didactic materials for faculty use (6, 7).

Many faculty are increasingly using interactive and experiential classroom approaches to supplement clinical experiences. These strategies can provide a mechanism for teaching content, simulate clinical experiences, translate theory into practice skills, and offer an opportunity for self-reflection and values clarification. Students benefit from the opportunity to explore their attitudes, values, and beliefs regarding socially charged issues in the supportive milieu of the classroom. With personal awareness, a self-reflective disposition and the practice of counseling skills, students are better prepared to provide efficacious client-centered patient care.

Problem-based learning, a popular interactive educational approach, involves students working through simulations of real-life problems. Students actively participate in their own acquisition of knowledge. The clinical scenario, developed with a problem-based learning format, may be presented as a paper case, a videotaped case of a simulated patient, film clip or a live standardized patient. Standardized patients, usually professional actors or students recruited from other university classes or theater departments, are ideal as they foster immediacy to the need for skill acquisition. This teaching/learning strategy was used successfully as a paper-based simulation experience for an interdisciplinary project. This case has been used in a clinical course for family nurse practitioner students with a standardized patient. In this situation, a young woman unknown to the class, usually from an undergraduate nursing course or a staff member from a local women’s health clinic is identified. The faculty provides the scenario, reviews the process with the standardized patient and emphasizes the need to stay in role until the case is completed. If the students are prompted to identify learning issues, which direct their reading for the next class session, the faculty and students re-visit the scenario in the next class session. In other circumstances, the scenario and discussion are completed in one session. Problem-based learning is ideally suited for use with small groups. However, there is a body of research to support the use of problem-based learning with large groups of students (8, 9, and 10).

In addition to the above, the teaching/learning strategy has been used to prepare students for interdisciplinary clinical experiences in primary care. Each health care profession has unique values, attitudes, beliefs and professional behaviors. The SEARCH project (described below) asked Hall’s question, “Do you see what I see?” (11). Using this approach the experience paralleled that of Hall’s study of students’ experiences participating in interdisciplinary education. The study found that students perceived practice-based learning experiences as the most effective way to develop an understanding of interdisciplinary collaboration and that valuable learning about interdisciplinary practice came from experiences in student teams (12).

**PROJECT DESCRIPTION:**

The use of clinical scenarios or case based learning strategies can be incorporated into a classroom setting in a primary health care or public health course. The strategy has also been used with an interdisciplinary health care student group of SEARCH-NH scholars. The SEARCH-NH (Student Experience and Rotations in Community Health in New Hampshire) project prepares health professional students from baccalaureate nursing, nurse practitioner, physician assistant and medical student programs, to work together effectively in community health centers in underserved settings. The SEARCH project is promoted by the National Health Service Corps to reflect a growing trend in multidisciplinary/interprofessional education, including training in cultural sensitivity. Groups of 16 students from four
universities in the state participate in the project each semester, working in interdisciplinary teams of four students each.

During the process of planning, facilitating and evaluating the SEARCH project, the university expanded interdisciplinary collaboration among faculty from various educational institutions. The energy and excitement created by the interdisciplinary nature of the project and the use of interactive teaching/learning strategies, such as the clinical scenario described above, have sustained ongoing faculty interest. Faculty interest and commitment are essential to success of the strategy.

**HEALTHY PEOPLE OBJECTIVE ADDRESSED:**
- ECBP–12 Clinical prevention and population health training - M.D.-granting medical schools
- ECBP–13 Clinical prevention and population health training - D.O.-granting medical schools
- ECBP–14 Clinical prevention and population health training - undergraduate nursing
- ECBP–15 Clinical prevention and population health training - nurse practitioner
- ECBP–16 Clinical prevention and population health training - physician assistant

FP-1. Increase the proportion of pregnancies that are intended.

FP-2-15. Reduce the proportion of females experiencing pregnancy despite use of a reversible contraceptive method.

Application of a public health framework to prevention of unintended pregnancy provides an opportunity for health care provider students to identify their role in health promotion and disease prevention using systematic primary, secondary and tertiary prevention strategies. As is the case with all public health measures, emphasizing primary prevention reduces the need for secondary and tertiary interventions.

**PROGRAM OR COURSE GOALS:**

**Number of students enrolled/participating in 2010-2011 school year:** 32

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

**PROFESSIONS INVOLVED:**
The case study or clinical scenario has been used with baccalaureate nursing students, advanced practice nursing students, physician assistant students and medical students. In addition, social work, family studies and counseling students will find a role in this case.

**LESSONS LEARNED/EVALUATION RESULTS:**
Faculty commitment is vital to integrate the public health model of prevention of unintended pregnancy into health care student preparation. While no issues were identified in using this case at the University of New Hampshire or with the SEARCH-NH program, it is possible that a lack of experience with interactive teaching strategies could pose a barrier for some faculty. In addition, Foster's research on didactic inclusion of sexual and reproductive health issues in nurse practitioner, nurse midwifery and physician assistant programs suggest that time constraints, personal beliefs of the faculty, policies of the university and the belief that the subject is covered elsewhere in the curriculum were barriers to addressing unintended pregnancy and other sexual and reproductive health issues (5, 6). Given these findings and the lack of progress in meeting the Healthy People goal of increasing the number of
intended pregnancies, teaching/learning strategies based on a public health framework can strengthen the educational curriculum of health care professional students.

**CONCLUSION:**

Successes at the University of New Hampshire include facilitating a culture of prevention among students. Through values clarification and self-reflection exercises, the faculty have seen attitude changes regarding the provision of client-centered care in sexual and reproductive health issues, including unintended pregnancy. The subject matter of the clinical scenario has facilitated thoughtful discussions and understanding of the intersection of professional ethics and personal beliefs.

**COMPANION MATERIALS: (Course syllabi, resource lists, tests, website, etc.)**

The scenario:

Nikki, a 24 year old female, schedules an appointment at the community health center with cold symptoms and a cough that has persisted for week. During the intake, the nurse elicits that Nikki has difficulty taking her oral contraceptive pills on a daily basis and has missed two pills. The nurse performs a pregnancy test which is positive. Nikki is shocked about the test result and is unsure how she feels about the pregnancy. She has a 14 month old son. (See Attachment A for the full clinical scenario).

Resource List: Additional educational resources are found in Attachment B.

**PUBLICATIONS:**

References:


5. Healthy People 2020


7. Choice & Abortion Content Among Massachusetts Nursing Schools: A collaborative effort of the Department of OB/GYN of the University of Massachusetts Medical Center and the Abortion Access Project of Massachusetts (1998). www.abortionaccess.org. click on Resource Hub, click on Nursing

Healthy People 2020 and Education For Health
Successful Practices for Clinical Health Professions


SECONDARY AUTHOR(S):
None.

CONTACT:
Joyce Cappiello PhD, FNP
University of New Hampshire Nursing Department
4 Library Way, Durham, NH 03825
joyce.cappiello@unh.edu

&

Director of the ROE Consortium
AAP
PO Box 410164
Cambridge, MA 02141