

Environmental Health Training for Nursing Students

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N/A

BACKGROUND

The September 2004 publication of Environmental Health Perspectives recognized the lack of environmental health education in nursing and medical schools across the United States. Lead poisoning, asthma, injury, poisonings, and other preventable environmental health issues continue to threaten the health of the youngest, most susceptible individuals. Improving health care providers' ability to recognize, treat, and prevent environmental health issues through in-home interventions is critical to improving the health of young children and their families.

Nurses (especially home visiting nurses) are in key positions to prevent, recognize, and manage environmental, exposure-related disease and injury. Although nurses have the potential to promote the health of the public by incorporating environmental health into their practice, nursing education programs often lack meaningful theoretical and clinical activities pertaining to environmental health. In response to national recommendations, the Rhode Island Department of Health developed an active clinical learning experience that is designed to enhance the abilities of undergraduate public/community health nursing students to understand the scope and significance of home environmental assessments.

The environmental health training model is a low-cost method that reaches future home visiting and community health nurses in the state. As these students start their work in Rhode Island (RI), they are equipped with the ability to recognize environmental health hazards and to provide families with referrals to necessary programs. This program has also led to strong partnerships with many key community partners around environmental health issues.

PROGRAM OBJECTIVES

After participating in the environmental health training, nursing students will be able to:

- Recognize the link between environmental exposure, and illness and injury
- Identify common environmental hazards that may be present in the home environment
- Conduct a visual assessment of the home environment
- Identify community resources for environmental remediation

TARGET POPULATION SERVED

This program is targeted to nursing students at RI colleges; particularly those who will be conducting home visits.

PROGRAM ACTIVITIES

The environmental health training consists of two parts: 4 hours of lecture and a 2-hour demonstration of environmental tests, how to interpret those results and what families can do. The lecture component includes comprehensive training on environmental health issues including, but not limited to:

- Housing and Health: the impact of the environment in the health of the population
- Lead Poisoning and lead hazards
- Asthma and asthma triggers
- Mold and moisture
- Weatherization
- Injury
- Radon/Carbon Dioxide
- Food Safety
- Hazards in the workplace

In the hands-on component field experts demonstrate how some of the environmental tests are conducted, such as testing the radon in a home, testing lead presence in windows and doors, and testing the quality of indoor air. Students then try the testing and are also instructed about the meaning of results and what families can do to get more information and resources. This practical experience allows students a more direct understanding of environmental risks.

PROGRAM OUTCOMES/EVALUATION DATA

Starting in 2005, about 150 nursing students from one local university attended a total of 5 trainings each year. Beginning in 2008, the training was expanded to all local universities in the state and training is now offered 7 times a year and is reaching over 400 nursing students each year. These students are entering the workforce in Rhode Island with skills to identify hazards in the home environment of the families they will be serving. Feedback from the student evaluations has been overwhelmingly positive. After the training, students completed a tool evaluating their learning experience.

- Students agreed that they gained a strong background in lead, indoor air quality, safety hazards/injury, mold and moisture, and electrical/fire hazards as a result of the training.
- Students felt prepared to identify housing hazards and developed a greater awareness of the resources to help families with housing hazards. Students agreed that the training was helpful to them, both personally and professionally.

Qualitative comments validated that students found the experience worthwhile. One student wrote, “I realize how many parents are unaware of ways to keep their children’s environment safe and this is why raising awareness is key. I now know what to look for if I go into a home and what to teach the family about safety while respecting their home at the same time.”

PROGRAM COST

Program costs include staff time taken from the RI Department of Health to coordinate and organize the trainings. During the first few years the program used a historic property for the hands-on component for the price of \$150 per session. Currently the full training is taking place at the Department of Health’s facility, avoiding the location cost. Trainers are for the most part management and field staff from the Department of Health. Speakers from Hasbro Children’s Hospital, the University of Rhode Island, and the Energy Office (Weatherization) provide their services as an in-kind donation of their time. Training materials (folders, handouts, etc.) are provided through the RI Department of Health. This activity is conducted by the Healthy Homes and

Environment Team within the Department of Health, with funding from the Centers for Disease Control and Prevention for Childhood Lead Poisoning Prevention.

ASSETS & CHALLENGES

Assets

- There was a great amount of interest on the part of the local schools of nursing, which led to ongoing in-kind participation from the experts (school faculty) that provide the lectures.
- Student feedback continues to be overwhelmingly positive; evaluations are gathered and summarized for each of the sessions.

Challenges

- The historical property that was utilized for the hands on component of the training for a few years is no longer available and identifying a vacant, available unit for this purpose has been difficult. As a result, the demonstration portion of the training is now conducted in the Department of Health’s building, in settings arranged for that purpose.
- Long-term sustainability of this training program continues to rely on the time and energy of our partner organizations as well as in the existence of the Lead Poisoning Prevention Program and its funding.

LESSONS LEARNED

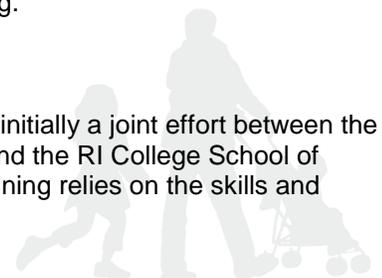
- Hands on learning experiences are well-received by nursing students.
- Traditional nursing school curriculum does not adequately address the impact of the environment on the health of families, therefore, expanding nursing and medical school curricula across the United States may be one method to help providers identify, treat, and prevent environmental causes of asthma, injury, respiratory infections, and other common health issues.

FUTURE STEPS

A total of about seven training sessions will be conducted for all Community Health Nursing Students from RI College, University of Rhode Island and Salve Regina University in the spring, summer, and fall semesters of each year. Additional topics to include in the sessions are likely to be diabetes and healthy eating.

COLLABORATIONS

This training program was initially a joint effort between the RI Department of Health and the RI College School of Nursing. Currently, this training relies on the skills and



support of Hasbro Children's Hospital's Injury Prevention Center, and the Energy Office-Weatherization. From the Department of Health, staff from Healthy Homes and Environment coordinates the effort and counts with the support of the Office of Food Protection, the Occupational Safety and Health, Asthma and Radon programs. Faculty from the University of Rhode Island School of Nursing and the Salve Regina University School of Nursing are continuously supportive of this effort by bringing their students to the sessions.

PEER REVIEW & REPLICATION

While a number of presentations have been made at a variety of national conferences, this program has not been officially peer reviewed.

There is interest at the national level in this model, however, it is unknown if this program has been replicated elsewhere.

RESOURCES PROVIDED

For more information about the program, contact:

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Key words: Workforce Development, Environmental Health, Housing and Health, Nursing, Community Health.

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