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Combining Service Learning and Research

Partnering With Schools

Ann Laughlin, PhD, RN • Meghan Pothoff, MSN, APRN • Misty Schwartz, PhD, RN
Barbara Synowiecki, MSN, APRN • Amy Yager, MSN, APRN

Providing service and research experiences for nursing students is a challenge. The authors discuss a partnership with local parochial schools in which nursing students presented health information and collected data. Through this partnership, families and school personnel gained knowledge of health promotion behaviors, and nursing students were involved in a service-learning and research project.

Service-learning methods have been used in nursing schools and higher education settings for many years. Service learning is defined as an act that allows for student learning as well as providing a service to a community.[1,2] These types of learning experiences enhance students' perspectives regarding the importance of service to individuals and populations. They also create an avenue to stimulate understanding and interest related to other newly acquired academic proficiencies such as research.[1,3] Clinical practicums that incorporate service learning differ from other practicums in that they combine community service with specific learning objectives. Often, such projects present to elementary schools when a gap is seen in the needs of local communities. Nursing education provides the perfect avenue for incorporating service learning into curricula through clinical experiences.

National and state budget cuts have led to the elimination of many school nurse positions creating a gap in health promotion and prevention services being provided to a young, vulnerable population. State recommendations for Nebraska indicate that all students be provided screening processes including but not limited to hearing, vision, dental, weight, height, and blood pressure.[4] Our state has not been exempt from state and national budget cuts, resulting in decreased funding for school nurses and the elimination of many of these positions. In response to this shortage and crisis, the Creighton University School of Nursing (CUSON) recognized an opportunity for a service-learning experience that would address both the needs of selected primary and secondary education settings in our community. This allowed schools to remain compliant with state screening recommendations as well as provide our students an ideal environment to deliver health promotion and prevention services to underserved populations.

School and university partnerships are an important catalyst for innovation and offer unique possibilities for enriching both local and state efforts to improve students' health.[5,6] A partnership was developed between CUSON and 32 parochial schools. Faculty worked with elementary and high-school principals to develop a clinical rotation to provide community-based, pediatric health promotion experiences, with the goal of serving the local community. The partnership provided a needed service for the schools, an opportunity for CUSON to meet its mission of promoting service-learning experiences, and improved access to health promotion and prevention services for primary and secondary school populations. A majority of the 32 schools are located in areas where households have reported incomes equal to or less than state and national poverty levels. Thus, the partnership was even more compelling.

As a component of health promotion and prevention services, nursing students calculated body mass index (BMI) on all children screened in addition to other assessment data. The collection of this information revealed an alarming trend of BMI percentages at or above the 95th percentile. Referral letters were sent to parents of children whose BMI percentiles were categorized as obese. This trend is consistent with the literature pertaining to childhood obesity, which demonstrates increases in overweight among preschool, school-aged, and adolescent-aged children. In children 6 to 11 years old, the prevalence of overweight increased from 4.0% to 17.0% from 1971 to 2006.[7,8] These disturbing observations combined with knowledge of the obesity literature led the faculty to develop a 2-year Healthy Living Project for nursing students to implement in the school setting.

Project Description

The Healthy Living Project was developed within the context of a larger clinical course during the first semester clinical practicum for accelerated nursing students. Exposure to a

Authors' Affiliation: Associate Professor (Dr Laughlin), Assistant Professor (Ms Pothoff), Assistant Clinical Professor (Dr Schwartz), Assistant Professor (Ms Synowiecki), Assistant Professor (Ms Yager), School of Nursing, Creighton University, Omaha, Nebraska.
Corresponding Author: Dr Laughlin, Creighton University, School of Nursing, 2500 California Plaza, Omaha, NE 68178 (alaugh@creighton.edu).

Table 1. Sample Teaching Topics and Objectives

Topic	Objectives
Good nutrition and physical activity—how it makes you healthier (standard 1)	Describe the benefits good nutrition has on your health Describe the benefits regular physical activity has on your health
Positive ways of coping with stress (standard 1)	Identify healthy ways to cope with stress Identify unhealthy ways to cope with stress Identify the bad effects stress can have on your body Identify stressors that may lead to overeating
Your diet—portion distortion (standards 1, 3, 5)	Identify proper serving sizes Know how to read food labels Know how to incorporate fast foods into your diet
I like myself (standard 8)	Know that children can have different body shapes and sizes Identify things that you like about yourself

wide variety of experiences within this practicum enables the application of concepts and principles of community involvement, health promotion, and health maintenance. The project was congruent with course objectives within this setting, which are based on health promotion and outcomes improvement. The most pertinent practicum objective to the project was to "identify needed resources when planning, implementing, and evaluating therapeutic interventions to achieve optimal health outcomes for diverse clients." Other practicum objectives that spoke to the importance of the project focused on concepts of client dignity, therapeutic communication, and nursing student self-awareness.

Specific student competencies for the Healthy Living Project that evolved from the practicum objectives focused on implementation of preventative health strategies directed toward children and families. Additionally, selected school screening competencies addressed techniques of physical and developmental assessment, age-appropriate nutrition and physical activity teaching, and the development of written resources for the schools, children, and parents.

Project Implementation

The Healthy Living Project was initiated in fall 2007 in response to the overwhelming number of BMI referrals that had been sent out in the previous years. Participants in this project were third- and fourth-grade students in 4 parochial, low-income schools. The purposes of this project were to (1) develop an educational curriculum to address nutritional preferences and motivators for low-income families, (2) analyze physical activity and dietary recall measures, and (3) engage nursing students in implementing a service-learning/research project.

Prior to participating in the project, groups of approximately 7 to 8 nursing students attended an orientation session specifically for the Healthy Living Project. The goals of this session were to (1) explain the CUSON school health program, (2) train the students to collect physical activity and dietary recall information, and (3) discuss the health curriculum for the project. The curriculum design was consistent with national health education standards.[9]

AQ1

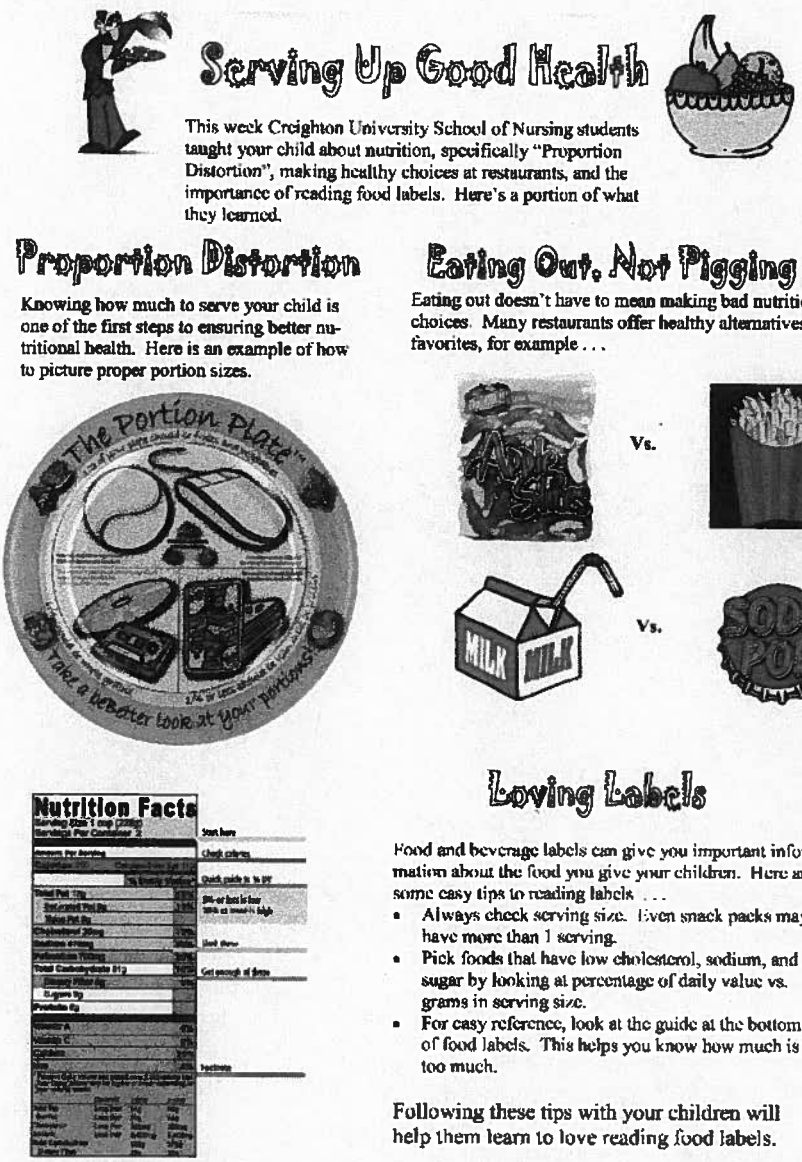
Health classes were taught once a month during the initial academic year. Table 1 provides some examples and objectives of the classes that were taught. The nursing students were assigned a health education topic 3 to 4 weeks prior to presenting. This allowed adequate time for students to prepare the class and research age-appropriate teaching strategies. Students were given a template to prepare their teaching outline (Figure 1). In addition, faculty reviewed the students' teaching content prior to its implementation to ensure that the objectives were addressed. The nursing students were provided with specific objectives for each class, but were given the freedom to present the information in a manner that facilitated active participation of the school-aged students. A 10-minute physical activity exercise was also implemented at the end of each class. Typical activities included relays, calisthenics, and heart rate responses. Upon completion of the health education class, faculty evaluated the nursing students' teaching content and delivery.

As a supplement to the health education classes, nursing students developed parent newsletters that reflected the content and skills of the Healthy Living Project curriculum (Figure 2). Examples included a list of low-calorie, nutritious snacks and fun activity ideas that parents and children could do together to increase physical activity. The parent newsletters were sent home the same week the children received the health teaching. Nursing students also created posters that were displayed in the school environment, reinforcing the benefits of nutrition, physical activity, and other positive health behaviors. A sample poster is included in Figure 3. In the second year of the project, nursing students taught health classes that reinforced the information presented the previous year. They also conducted one-on-one interviews, collecting physical activity and dietary recall data from the students. These measures

Health Teaching Outline Template

Student names (list names of all presenters)
Target group (who is being taught)
Topic
Teaching goal
Health teaching objectives (identify 3-4 age appropriate objectives)
Materials/resources being used

Figure 1. Sample teaching topics and objectives.



AQ2 Figure 2.

were collected at baseline, at the end of academic year 1 (May 2008), and again at the end of academic year 2 (May 2009).

A final requirement of this clinical experience was a reflective journal exercise completed at the end of the teaching session. The intent of this was to emphasize the service-learning component. Reflective journaling fosters introspection by students, encouraging them to evaluate a clinical experience relative to their personal growth. Bringle and Hatcher[9] state that reflective activities are critical elements of service learning as reflection connects service and course content. There are a number of methods by which a reflective activity can be completed. These methods include journals, readings, electronic dialogs, and ethical case studies.[9]

The significance of combining service learning and research is demonstrated by the following nursing student statements: "I thought the teaching was the best part. It definitely made doing the research more interesting when we were able to actually apply the information to the population we were targeting. I think the kids enjoyed it too." Another student wrote: "this [project] addresses one of the most dire issues facing our country today [childhood obesity], and my involvement has helped me to realize, to an even greater extent, the impact that nurses can have... any encouragement toward a higher level of well-being at this age ultimately contributes to a better overall society."

Outcomes

There are many benefits to incorporating service-learning concepts into nursing curricula. Students demonstrate improved satisfaction with course work when service learning is used to reinforce classroom content.[10] The following student outcomes were deemed essential: understanding the essential concepts of health and illness, providing age-appropriate health information, demonstrating the ability to professionally interact with the school-age population, participating in implementing evidence-based interventions to

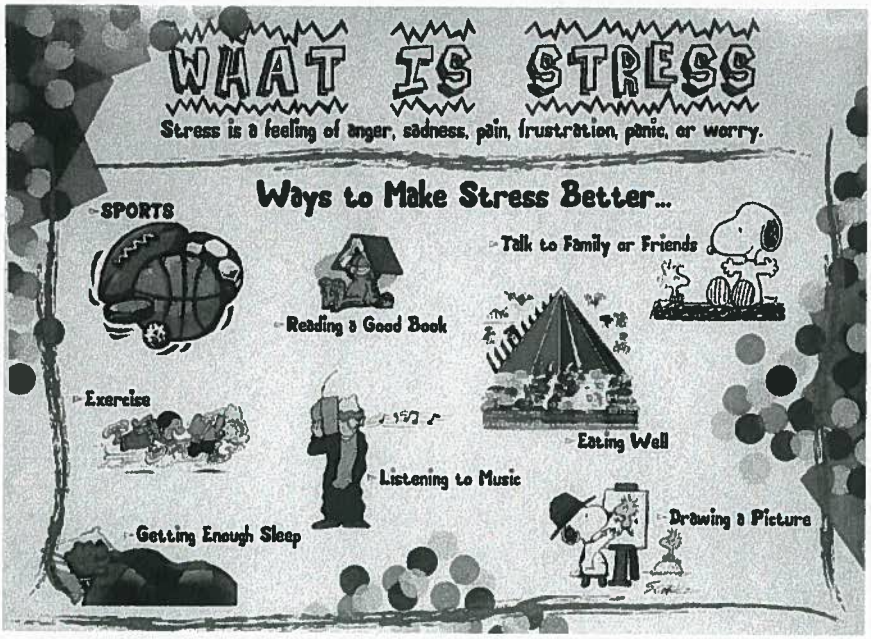


Figure 3. Sample student poster.

address a community health problem, and being actively involved in the research process.

Concluding Thoughts

This Healthy Living Project provided a needed service for the schools and an opportunity for CUSON to meet its mission of promoting service-learning experiences. This resulted in improved access to crucial community health promotion and prevention services. The program has continued to grow in relation to both the number of schools participating as well as the variety of experiences. Using schools as a clinical site for students has produced positive outcomes for nursing students, school personnel, school populations, families, and community.

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