Faith-Based Initiatives and Service-Learning: A Match Made in Heaven

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Service-learning opportunities can provide students with excellent multicultural, applied experiences, while providing much-needed services to underserved populations. In an age of shrinking budgets, partnering faith-based organizations and educational institutions creates an avenue for positively impacting access to care for these populations. A dental hygiene faculty member and six dental hygiene students incorporated preventive dental services into a construction mission trip to Tamaulipas, Mexico. Dental services included periodontal debridement, routine prophylaxes, dental sealants, and fluoride varnish applications. Services were provided with portable dental equipment for both adults and children in a church in Palmillos, and under a canopy in the village of La Mula. Informed consent for treatment was obtained. Twenty-three adults and 38 children were served in the two villages. The dental hygiene students received internship hours for a rural health and geriatrics course, as part of a baccalaureate-degree dental hygiene curriculum. Further, students participated in a sealant grant program and mouthguard project. Area church leaders offered a facility in which to provide services from both programs to children within the predominately African American community near the university. Consent forms were obtained from churches, allowing children to receive services during a church-sponsored summer lunch program and vacation Bible school. Dentists, dental hygiene and dental technology faculty, and dental hygiene students participated in both the sealant and mouthguard programs. A total of 45 children received care; all received exams, and 80 sealants were placed. Thirteen children received sport mouthguards and three received bruxism appliances. Reflective writing about all of the service-learning experiences is used for program evaluation. All students deemed these service-learning experiences as a very beneficial component of their educational experience.
Project to Research Alternatives for Dental Health Education Programs

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The program purpose was to expand access to dental health education in central New York, where there is a need to find alternative ways to raise oral health awareness among children and their families. The Oneida-Madison County Dental Coalition fulfills the objectives of a preventive dentistry grant for high-risk children. One objective is to educate children and families about the importance of good oral health habits. The coalition partnered with the Mohawk Valley Dental Hygienists' Association (MVDHA) and with the Mid-York Library System to develop "Dental Health Story Boxes." Each story box includes books about teeth and dental visits, a puppet and toothbrush, and a resource book with activity sheets. The library system sends out periodic broadcasts with information about the Dental Health Story Box to its 44 public libraries. The libraries request the boxes for interested individuals. Anyone can feel confident of a successful program using the outline and contents of the Dental Health Story Box. Evaluation is done by the individuals at the 44 libraries using this educational tool, and they are reviewed regularly. The evaluation form asks for numbers of users and their ages, and comments on books, resource materials, and puppets. There has been positive response from those using the story boxes (an evaluation sheet is included) each time the boxes go out. This year they have gone out over 120 times. Dental hygienists have favorably reviewed the Dental Health Story Box at the local and state level. Many have requested information on how to duplicate it in their areas. There is dental health education sustainability in having a Dental Health Story Box available for the public library. MVDHA has oversight on the project and plans to continue and evaluate the project on a yearly basis.
A Collaborative Education Program in Dental Assisting, Dental Hygiene, and Postgraduate General Dentistry

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Traditionally, the education of dental assistants, dental hygienists, and general dentistry residents takes place in separate clinic areas and in separate curriculums with limited or no interaction among the disciplines. In contrast, dental assistants, dental hygienists, and dentists are expected to practice in a cohesive and efficient manner upon graduation. Recognizing this as a problem, a facility was designed and built to integrate the dental assisting and dental hygiene programs with the general dentistry residency program for didactic and clinical education. The students are educated in the team concept of providing patient care. The clinic facility is modeled on a private practice office with a common reception area; the dental hygiene treatment area is immediately adjacent to the dental resident operatories. Dental assisting students assist in the dental hygiene and resident operatories. Each dental hygiene student, dental assisting student, and dental resident is grouped into a treatment team. Patient treatment is planned and coordinated by the team with faculty supervision. Responsibilities of dental hygiene students include the patient's initial periodontal therapy, oral hygiene instruction, post-surgical management, and post-care maintenance. Dental assisting students provide chairside assisting for dental hygiene students and residents, schedule appointments, and monitor patients' progress through treatment. Dental residents are team leaders and are responsible for providing patient treatment and monitoring the dental hygiene and dental assisting students. Meetings provide the members and the supervising faculty the opportunity to review each patient's progress. All team members participate in case presentation seminars. This collaborative program is a work in progress to determine the educational value of having dental hygiene, dental assisting, and general dentistry residents train together in preparation for the team concept of providing care. Evaluation of the program will be done through conventional assessment processes to include review of national and clinical board exam scores to compare student scores to those of other dental hygiene and dental assisting schools, and the review of graduate student and employer surveys to determine if students are judged better prepared to enter the workforce.
Estimating the Cost Savings of a Targeted Sealant Program in Colorado

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Dental sealants have been shown to be effective in preventing caries in permanent molars. Targeting schools for sealants based on free and reduced-cost lunch participation has been shown to be cost-effective. Estimating the cost, including personnel, portable units, and disposable supplies, to meet the Healthy People 2010 objective for sealants in Colorado was undertaken. This information would be used to provide state policy makers with information to set priorities for oral health prevention strategies. Utilizing data from the Colorado Chopper Topper school-based sealant program, which serves the five-county Metro Denver Area, the average program costs were determined. The Chopper Topper program is estimated to serve 32% of eligible schools and 1,500 children in the target area yearly. In 2002, the prevalence of dental sealants in first permanent molars among third graders in Colorado was determined using a convenience sample of 19 counties and estimating the prevalence of sealants statewide. Twenty-nine percent of third graders were found to have at least one sealant, significantly less than the desired Healthy People 2010 objective and Maternal Child Health National Oral Health performance measure. By analyzing these data, the overall dental utilization rates and restoration sequelae over a lifetime obtained from Delta Dental Plan of Colorado, and the societal costs of lost productivity, the cost savings of averted caries through the expansion of the Chopper Topper Sealant Program, by initiating similar programs throughout the state, was projected. The results indicate that the state could easily be divided into target regions served by teams of dental hygienists who would, in most cases, share portable dental units and serve second-grade children in all 276 eligible elementary schools. If all targeted schools agreed to participate and 85% of children received sealants, the percentage of Colorado third graders with at least one sealant would exceed the Healthy People 2010 objective of 50%.
Value of a National Board Dental Hygiene Review Course: A National Survey

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Funding for this project was provided by Dental Hygiene Seminars, Inc.

A variety of National Board Dental Hygiene (NBDH) review courses are available to dental hygiene students. These courses are highly publicized and costly. Dental hygiene educators are called on to recommend the appropriateness of review courses. The purpose of this study was to evaluate the value of a nationally based NBDH review course offered by Dental Hygiene Seminars, Inc., in various locations across the United States. After institutional review board approval by Texas Woman's University, a questionnaire was mailed to 1,648 individuals who had attended the course in 2002. The mailing labels were procured from the course directors. Questions on the questionnaire related to students' year of graduation, type of dental hygiene program, grade-point average (GPA), English as a Second Language (ESL) status, number of attempts required to pass the NBDH, passing score on NBDH, the materials they used to study for the examination, factors that influenced their decision to attend this course, relevance of the course to the NBDH, value of the course, factors that made the course beneficial, and willingness to recommend the course. Of the 1,648 questionnaires mailed, 156 were returned as undeliverable. Of the remaining 1,492 questionnaires, 439 were returned for a 29% response rate without a follow-up mailing. All data were self-reported. The data will be analyzed with Statistical Package for Social Scientists software (Chicago, IL) to figure counts and percentages. Also, correlations and multiple regression will be run to analyze the relationship of performance on the NBDH and perceived value of the course with various factors, including year of graduation, type of program attended, GPA, ESL status, number of attempts required to pass the NBDH, and materials used to study for the examination.
Oral Health Care Practices and Perceptions Among Nursing Home Residents: A Case Study

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Purpose. Currently, little knowledge exists about the extent to which: 1) nursing home residents perceive their oral health care as being adequate, 2) nursing home residents' perceptions and actual oral health status are congruent, and 3) oral health care outcomes and residents' perceptions of their own oral health care are influenced by levels of physical functioning. The purpose of this study was to evaluate the oral health practices and perceptions of oral health care among cognitively intact nursing home residents.

Methods and Materials. Institutional review board approval was obtained, and a modified, one-shot case study design,* a 20-question resident interview, and a 10-category oral health care evaluation were utilized in three encounters with the accepting sample of 10 West Virginia nursing home residents. The interview identified each participant's current and past oral health care practices, perceptions about their current oral practices, and levels of need and functioning in the nursing home. The evaluation assessed the current oral health status of the participants. A licensed West Virginia dentist was present during the evaluations.

Results. All participants (N = 10) completed the assessments. Data analyses, including percentages, frequencies, and measures of dispersion, were conducted using the JMP program, version 3.

Conclusions. Conclusions that may be drawn from this study include: 1) study participants who are dependent on the nursing home staff for oral health care needs are most likely to receive oral health care, 2) the quality of oral health care performed by the nursing home staff or resident is lower than the current oral health care standards and recommendations, and 3) study participants' barriers for oral health care were commonly influenced by their physical functioning.

*A modified, one-shot case study is a descriptive analysis of a particular group of individuals within one setting that reflects moderation, apparent in this study by three discrete visits to the participating nursing home.
Herbal Alternative Medicine Use in an Urban Dental Hygiene Clinic

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Purpose. The purpose of this study was to identify common herbal medicines used and determine the prevalence of usage among adults attending an urban dental hygiene clinic. There has been a rapid increase in the nationwide use of non-regulated, readily available, herbal alternative medicines. Patients do consider these remedies therapeutic, but not in the same class as prescription medications. Some herbal medicines show an unfavorable risk-benefit profile, such as bleeding and immunosuppression. Previous studies have shown that patients do not consult their physician prior to or during herbal medicine consumption.

Materials and Methods. Exempt review was sought and obtained from the institutional review board at the University of New England. A records review was conducted for one academic year to determine usage and prevalence of herbal or alternative medicines. Selection criteria included a consecutive sample of all adults 18 years of age and older (N = 1,694) from an urban dental hygiene clinic. The sample was taken for two uninterrupted semesters.

Results. Descriptive statistics were used to analyze results for frequency. Of the patients interviewed for prescription, over-the-counter, and herbal or alternative medications, a subset (n = 134) of 8% reported use of herbal or alternative medicines. This compared to studies reporting national surveys at 9.6%. Results from literature reports range between 4.8% and 13.0%. Sixteen herbal alternative medicines were identified as commonly consumed by individual included in this study. Echinacea, glucosamine, garlic, gingko, ginseng, and brewers yeast were identified as the top six used. Conclusion. People do use herbal medications, some of which can have oral health implications. This study shows usage to be consistently prevalent when correlated with other studies. Dental hygienists should understand and inquire about usage of herbal medicines. Dental hygienists need to be vigilant when interviewing for herbal or alternative medication use for safe practice.
Cross-Cultural Adaptability of Dental Hygiene Students and Faculty

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Purpose. Health care educational programs are being urged to produce culturally competent health care providers to meet the needs of an increasingly diverse U.S. population. The purpose of this study was to first compare the cross-cultural adaptability of first- and second-year dental hygiene students to their faculty; and, secondly, to evaluate the influence of five demographic variables (age, race, marital/family status, place of residence, and growing up in an ethnically diverse community) on cross-cultural adaptability.

Methods and Materials. The Cross-Cultural Adaptability Inventory (CCAI) measures emotional resilience, flexibility/openness, perceptual acuity, and personal autonomy. A demographic survey and the CCAI was administered to dental hygiene students (N=62) and their faculty (N=16) at a baccalaureate-degree program located in the southeast United States. One-way analysis of variance (ANOVA) was used to analyze the data using the Statistical Package for Social Sciences (SPSS, Chicago, IL). Both the CCAI composite score and the four individual research dimension scores were used as dependent variables.

Results. No statistically significant differences were found in the CCAI composite scores between dental hygiene students (juniors or seniors) and faculty. However, an analysis of the four research dimension scores found that the groups (junior dental hygiene students, senior dental hygiene students, and faculty) differed in two areas. For "flexibility and openness," junior students scored 64.94, seniors scored 65.93, and faculty scored 70.75. Faculty scored significantly higher than dental hygiene juniors in this area, P = .036. A significant difference was also found in the area of "personal autonomy" (juniors: 35.36, seniors: 32.76, and faculty: 34.06). Dental hygiene juniors scored significantly higher than senior dental hygiene students, P = .015. Analysis of the demographic factors found a significant difference in the CCAI composite scores of marital/family status (P < .002). Individuals partnered without children (M = 245) scored higher in this sample than those single without children (M = 231) and those partnered with children (M = 218).

Conclusion. In this sample, differences were found in the CCAI scores between students and faculty; and marital/family status appeared to be the most significant demographic factor.