

2008 APTR Institute for Interprofessional Prevention Education Final Team Project Report

Oral Health: Dental, Medical, & Nursing Contributions to Improving Oral Health Among Vulnerable Populations was our project which involved dental faculty (Sheila Stille, DMD) and hygienists, physician faculty (Hugh Silk MD), nursing faculty (Robin Toft Klar DNSc), dental residents, medical students (1st and 3rd year), and pre-licensure and graduate nursing students. There was an informal physician and dentist faculty team in place before involvement with APTR. This project supported the formalization and expansion of the interprofessional faculty team to include nursing.

The primary goal of this project was to educate medical and nursing students on the importance of oral health as an indicator of overall general health. Educating these health professions students together provided an opportunity for both medical and nursing students to learn more about the other's role and how oral health prevention could be integrated into their practice.

Students participated in all three levels of prevention intervention. Students were taught proper tooth brushing techniques, the influence of nutrition (food and beverages) on oral health, and they then taught these primary prevention techniques to several vulnerable population groups.

Students learned the technique of fluoride varnish (earning a certificate upon successful completion of this educational component). They also learned how to conduct a dental and oral cavity exam, to identify normal and abnormal findings in both healthy and medically complex client populations.

Students also shadowed dental residents in clinic settings to gain an understanding of the tertiary level of prevention for oral health. Students were also educated to the policy, politics, financing, and research aspects of oral health.

Oral Health Prevention Curricular Venues	Time line/Activities	Student Population/Credit	Outcomes	Evaluation
Community Health Clerkship	Intensive 2 ½ week experience that introduced oral health prevention techniques at all three levels (dental clinic visits, public school screening, dental assistant program shadowing,	Eight 1 st year medical students Four 1 st year graduate nursing students Medical students received a % of their grade in Patient, Physician and Society	Interprofessional education on oral health and impact on overall health, poster session presentation, new advocates for oral health, and one student who used this experience to create the proposal	Pre/Post tests results revealed a + change in attitudes re: working as interprofessional team and how oral health can be integrated into practice

	advocacy group, policy, & research meetings, visit to water treatment facilities w & w/o fluoride, state house visit	course. Nursing students received 2 credits in clinical course for Community/Population Health course	for his successful (March 2010-March 2011) Schweitzer Fellowship	
Oral Health Community Service Learning Project	Students worked with inner city health center for one academic semester. Students developed client education materials, implemented the oral health education intervention, and evaluated it's effectiveness	Three 1 st year graduate nursing students. Students received 2 credits for this clinical course entitled: Societal Forces	Child population receiving health care at inner city community health center. Also this educational program was implemented at a private school serving primary grades as a comparison	Graduate Nursing Students presented their activities and findings to classmates. An Executive Summary was developed and delivered to the physician and dentist faculty involved with this APTR project
Oral Health Interclerkship	A four hour intensive interprofessional academic program. Students were taught basic dental pathophysiology and dental emergencies, how to apply fluoride varnish, conduct an oral health exam, and learn about oral health community resources.	~ 225 3 rd year medical students and 60 1 st year graduate nursing students	Students participated in interprofessional educational program taught by interprofessional faculty team. Students gained a deeper understanding regarding the influence of oral health to overall health.	Pre/post test using audience response system (clicker) technology Small group activities
Oral Health Student Interest Group	This is a student initiated interest group that has developed as a result of the funding for this oral health project. The group meets 3-4 times per academic year and activities have	Various medical and graduate nursing students elect to attend interest group events	Raising awareness of future physicians and nurse practitioners about the issues surrounding maintaining optimum oral health; Ultimately creating clinicians who are	Attendance at events sponsored by this group continues to grow, with both the student and faculty/clinician populations.

	<p>included panel discussions, assisting for two years now with an oral health booth at the annual Teddy Bear Clinic (a free community event for children and their families)</p>		<p>advocates for oral health</p>	
--	---	--	----------------------------------	--

We have completed 1 ½ years of this project. Curriculum integration continues to expand across the medical and graduate nursing educational programs. Every effort is made to make the programs interprofessional, from both a student and faculty perspective. Approximately 350 students, in various phases of their educational progression have participated in programs sponsored and supported by our APTR grant.

Modifications have occurred to expand the interprofessional teaching and exposure to oral health education and opportunities. Concepts have expanded to the nursing pre-licensure year in the graduate nursing program. We have placed a greater focus on the oral assessment conducted by the RN, including the use of oral health practice guidelines developed in Canada for RNs. We were also able to support interprofessional education by respiratory therapists. The advanced respirator assessment content covered the oral health component of the clinical guidelines to address ventilator associated pneumonia. All of the above are positive modifications and outcomes of our project.

All three members of this faculty team received the first ever, Interprofessional and Team Medical School Educational Achievement Award in the Spring, 2009.

The medical school curriculum is undergoing changes which will not allow the Oral Health Community Health Clerkship to have both medical and nursing students involved in the Fall, 2010. We will offer the clerkship to the graduate nursing student group and all three faculty members will be involved.

Our submitted IMEG proposal, "Integration of an Oral Health Curriculum into the UMMS Curriculum" received conditional approval for partial funding in the amount of \$2,600 through the AY 09-10 IMEG grant program. Due to the very small amount of monies awarded and the extent of the revisions that would be necessary to receive the money, we made the decision to decline the funding.

The most effective instructional strategies have been hands on experiences and integrated oral health curricular content throughout the programs of study for both medical and graduate nursing students. Although we received some excellent

critique of the pre/post test used in the Community Health Clerkship we chose to use the same instrument for the second year, since our sample size was small (total n = 12). We hope to take some time to evaluate the pre/post test in more depth to improve its measurement capabilities.

Our team initially worked on developing a Robert Wood Johnson grant to conduct clinical research in a clinical practice setting implementing a team approach to oral health assessment and referral. After a mock review, it was decided the team needed to gain some maturity to strengthen a future application. It is hoped that a successful clinical research grant will be awarded within the next two years.

Lessons learned have focused on communication. It takes a team to keep the interprofessional focus. There have been near misses regarding equity amongst medical and graduate nursing student participation in oral health educational programs. We are getting better at considering the various unique components of each educational program and how we can maintain equity before the event occurs.

The granting of APTR funding and support for this project has created an environment for greater breadth and depth for interprofessional teaching and education. It has also allowed us to expand prevention concepts and activities into the curriculum. The greatest demonstration of this is the recent awarding of a Schweitzer Fellowship to a first year medical student who participated in the Oral Health Community Health Clerkship this past fall. The announcement reads as follows:

Timothy Gleeson, *University of Massachusetts Medical School*

Gleeson aims to reduce preventable oral diseases in underserved areas of Worcester by establishing a program that explores population-specific oral health beliefs and needs, and delivers culturally-appropriate education and skill-building sessions. In addition to promoting oral health awareness and self-efficacy, the program will provide oral health service-learning opportunities for medical and nursing students. *Community Site:* [UMass Family Medicine and Community Health](#)

Hugh Silk MD is serving as this fellow's primary care physician faculty mentor. Robin Toft Klar DNSc is serving as this fellow's faculty mentor working with the underserved populations in Worcester, especially the faith community.

Trip to Dominican Republic this year with 40 students, faculty including GSN and medical students and interprofessional health faculty this year had a focus on oral health for the first time in 5 years where we gave out 1000 tooth brushes and toothpaste containers and education of Haitian children on the sugar cane farms.

Hugh Silk, MD was honored as an Oral Health Hero at the Fifth Annual Oral Health Heroes Event at the Massachusetts State House. The award is sponsored by the Legislative Oral Health Caucus and the DentaQuest Foundation and recognizes those

demonstrating significant leadership in oral health. This was a partial reflection of the work created through the APTR project.

Future Direction

Hugh Silk has a two year grant for 20% of his time to see that every course in the medical school has oral health within it to reflect the goals of the AAMC. Robin Klar is working on a similar effort in GSN program which should lead to new innovative interprofessional curricula especially picking up on service learning opportunities after Tim's project this summer identifying churches, community centers and free clinics that will be looking for nursing students and medical students to teach and advice.

Respectfully submitted,

Robin Toft Klar