



Oral and Systemic Comorbidities: A Community-based, Interdisciplinary Team Response

Lyubov D. Slashcheva¹, Lynn M. VanderWielen, MPH²

¹School of Dentistry, Virginia Commonwealth University

²School of Allied Health Professions, Department of Health Administration, Virginia Commonwealth University



Abstract

Over a decade ago the US Surgeon General publicly challenged the nation to realize the importance of oral health and its relationship to general health and well-being, yet these concepts still exist dichotomously in clinical practice. Research has demonstrated that periodontal disease is associated with chronic conditions, such as diabetes and heart disease. Oral and general healthcare providers often do not perceive the need to refer patients with such comorbidities to colleagues outside of their own discipline. Patients would experience the benefits of interdisciplinary referrals since discipline-specific expertise would comprehensively manage these chronic conditions. Interdisciplinary education and collaboration has the potential to strengthen these referral networks, subsequently broadening providers' knowledge and expanding patient healthcare access.

Members of the Inter Health Professionals Alliance at Virginia Commonwealth University have realized the benefits of interdisciplinary practice. This student-led organization, involving the Schools of Dentistry, Medicine, Pharmacy, Nursing, Allied Health Professions and Social Work, engages with local partners to improve community health. A monthly health outreach event in an underserved Richmond community allows students to experience care provision in an interdisciplinary environment. While patients receive comprehensive services related to oral and systemic health needs and are referred to community resources, students recognize the value of the interdisciplinary team and broaden their knowledge base. Interdisciplinary education and training sessions, conducted prior to each event, emphasize the skills required for team-based outreach services. Through acquired knowledge and skills health professional students are prepared to enter the workforce competent to respond to oral and systemic comorbidities.



Left - Two pharmacy students and a dental student working with a customer at the monthly outreach event at Kroger Grocery Store.
Right - Pictured is Dr. Sheldon Retchin, Senior Vice President for Health Sciences and CEO of the VCU Health System, following the first Educate then Advocate (ETA) session of the 2013/2014 school year where he presented a lecture about the benefits of interprofessional education and collaboration. He is accompanied by four IHPA board members from the Schools of Pharmacy, Dentistry and Allied Health Professions.

Background

The Inter Health Professional Alliance, at Virginia Commonwealth University has over 300 members from the Schools of Pharmacy, Dentistry, Allied Health Professions, Medicine, Social Work, Nursing and Dietetic internship program hosted by the VCU Health System. Founded in 2010, the organization has partnered with a community pharmacist at a Kroger grocery store to improve public health in the Richmond Community through interdisciplinary education and collaboration. The student-led organization experienced three ongoing, yet distinct phases since inception: planning, implementation and evaluation.

PLANNING

IMPLEMENTATION

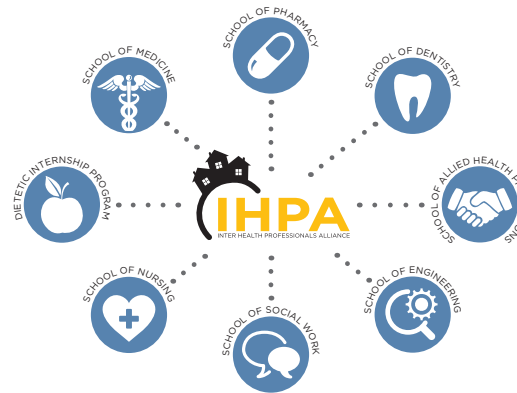
EVALUATION

Planning Phase

The first component of the planning stage required a formal community needs assessment at the health outreach venue, led by a student with public health training. This assessment collected data from 48 Kroger customers and identified diabetes, high blood pressure and obesity as the top community health concerns. These results inform the monthly health topics that are the focus of all monthly IHPA activities.

Student leaders were soon identified to draft the organization's constitution and fill the required positions for formal recognition. The first executive board was composed of students from the Schools of Medicine, Pharmacy and Allied Health Professions. Organization bylaws require that executive leadership positions are held by students from various professional schools, and the position of president cannot be held two consecutive years by members from the same school.

Institutional support was ongoingly identified as faculty and staff embraced the organization's mission. At first, IHPA was housed in the School of Medicine, but due to a number of barriers the organization soon moved to the Office of Health Sciences Diversity.



Implementation Phase

The health outreach events were met with great success and community support. Interprofessional students work side-by-side to conduct blood pressure screenings, oral health education, and general health education, revolving around the monthly health topic. Blood pressure and other information is recorded on small blood pressure logs that customers can use to record reading and bring to their healthcare provider. Dietetic interns provide grocery store tours to interested customers, and dental and dental hygiene students demonstrated proper oral health care. Public health and health administration students discuss community resources and provide contact information for the largely uninsured population that frequents the IHPA health outreach table. Each month the group publishes a newsletter, written by interdisciplinary members at a 6th grade reading level. When available, the health outreach events include a raffle for a donation, such as an electric toothbrush donated by the School of Dentistry. This incentive encourages customer participation and draws them to speak with IHPA volunteers.

The Educate then Advocate (ETA) session was developed in response to evaluation efforts outlined below. Some volunteers expressed uncertainty regarding the monthly health topic, and felt underprepared during health outreach events. The ETA session includes a presentation by a local health expert and an interdisciplinary case study. This format allows volunteers and other interested students to learn in an interdisciplinary environment to improve student knowledge and skills.

Evaluation Phase

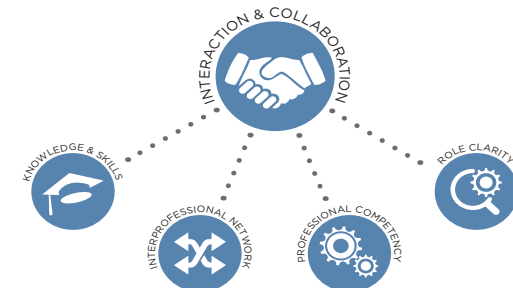
The evaluation phase includes data collection and analysis aimed to improve the various organization initiatives. Follow-up surveys have been completed by health outreach clients and volunteers to improve quality and effectiveness. This feedback has resulted in the ETA sessions, consistent health outreach scheduling, and advanced organization of IHPA events. The group intends to complete an overall evaluation in the future to optimize student time and resources.

Benefits of Interprofessional Involvement

The eight original board members completed a participatory action research (PAR) study aimed to understand the benefits of interprofessional involvement. The systematic data collection and analysis demonstrated four core benefits including improved knowledge and skills, interprofessional networks, professional competence and role clarity. Professional competence includes the appreciation and perceived value of other professional training programs and increased understanding of the benefits of communication, collaboration and teamwork (Hallin, Kiessling, Waldner, & Henriksson, 2009; Interprofessional Education Collaborative, 2011). Role clarity refers to the understanding of one's role and responsibility in relation to that of others on the interprofessional team.

Although dentists are usually physically outside of the typical inpatient interprofessional team, they are often in the position to be one of the first healthcare professionals to recognize both oral and systemic pathologies; likewise, medical healthcare professionals also have the opportunity to detect oral disease in its early stages. With cross-referral, such collaboration leads to a more economical preventative model of healthcare, especially in populations with chronic conditions and/or those who experience difficulty accessing oral and general healthcare services (Wildner et al., 2009).

In defining interprofessional education (IPE), the President of the American Dental Education Association emphasizes hands-on patient evaluation and treatment in a team-based setting (Models of Interprofessional Curriculum in Dental Education). Community service learning may be the most effective tool for incorporating the dental voice on the interprofessional team as it exposes health professional students to the culture of all team members, encompassing differing perspectives on the body, health, illness, as well as varying problem-solving and communication styles (MacEntee, 2011). With the ability to collaborate interprofessionally, practitioners have the opportunity to impart the values of such patient-centered care on their clients, enhancing empowerment towards prevention-seeking health management. We believe that the IHPA introduces health professional students to these skills and supports collaborative practice during community outreach events. During these events dental students provide oral hygiene consultations alongside other health professions students and exchange skills and knowledge with their colleagues. These interprofessional conversations continue following the health outreach events, reinforcing the student participants' interprofessional networks.



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