

Interprofessional Education: A Reform Plan for Collaborative

Background

Health-care professionals come across several situations on a routine basis, wherein the lack of collaboration between different health professions is apparent. The focus of this paper is on revealing the effect of lack of interprofessional collaboration on the quality of patient care and safety of the patient. One example of the situation where interdisciplinary role can be beneficial is the association of severe advanced periodontitis and the occurrence of cardiovascular diseases. It is a possibility that poor oral hygiene and oral health neglect if altered during early stages of disease may lead to arrest of problems associated with cardiovascular problems.

Another example of a situation where awareness of interdisciplinary interaction may result in holistic patient care is the prescription of bisphosphonates. This group of medication is prescribed to patients undergoing therapy for cancer and osteoporosis. The patients are still surprised on many occasions when they are informed by the dentist that their dental treatment has to be noninvasive due to the risk of osteomyelitis. Any invasive dental surgical treatment under coverage of bisphosphonates can result in osteomyelitis, and the same should be known to the dentist, the medical team treating the patient and of course the patient. Thus, it is imperative not only for the patients to share their medical history and medications with any other health-care provider they are interacting with, but also it is important for the medical and dental fraternity to understand the role of integrated patient care.

It is to be noted that patient safety and quality of care are not only a concern in a larger hospital setting but also in isolated dental offices and dental practices. Patients receive routine dental care in many different types of dental settings, and they are equally at risk if proper measures are not in place. According to the World Health Organization (2012), India has about 93,333 dentists. This means about one dentist per 10,000 patients. Going by the enormity of the population that these dentists have to treat it's easy to understand how important safety and quality must be when caring for patients.

There is a lot of discussion about the quality of health care in medicine and dentistry as the errors that happen are very expensive both in terms of burden to the economy plus the effect it has on human life. As discussed in great lengths in literature (1999: Institute of Medicine [IOM]), the concerns regarding quality and safety of healthcare, need for cost containment, health-care worker shortages, and the need to connect interprofessional competencies are tremendous. According to the data that exist, the number of deaths in a hospital (linked to adverse events) is almost

at par or higher than the number of deaths associated with cancer and automobile accidents. “*An adverse event is an injury caused by medical management rather than the underlying condition of the patient.*” An adverse event attributable to error is a “*preventable adverse event*” as described by Reason, James T. (pg. 12).^[1] Among the many factors linked to these adverse events, lack on interprofessional education has been identified as one of the important pitfalls.

As mentioned by the IOM, “The biggest challenge to moving forward toward a safer health system is changing the culture from one of blaming an individual to one in which errors are treated not as personal failures, but as opportunities to improve the system and prevent harm” as noted in *Crossing the Quality Chasm: A New Health System for the 21st century* published by the IOM in 2001.^[2] Hence, emphasis on interprofessional practice in the early formative years of the professionals has been emphasized (especially in the recent years), and interprofessional education has now been receiving spotlight among many other issues of interest in dentistry.

Interprofessional education as defined^[3] in health care is the “joint learning by practitioners or students of more than one profession to enhance collaborative practice.” There has been a strong association established between interprofessional education and quality of care and patient safety. The training for different professionals is happening in isolation, and therefore the understanding and ability to work in a collaborative manner with other health-care professionals does not exist. The current educational systems train health-care providers (doctors, nurses, dentists, pharmacists, etc.) in isolation from one another. This leads to poor preparation for collaboration among health-care providers. The system is operating in “silos.” The report by the IOM.^[2] Discusses in detail the poor quality of care and high rate of preventable medical errors that occur when health-care professionals operate in silos.

A Historical Background

From 1995 to 2005 while the medicine counterparts were waking up to the call of interprofessional education, little was done in the world of dentistry to fix this issue. In 2003, according to IOM, interprofessional education was adopted by the health-care institutions as a part of the curriculum.

In 2006, Rafter *et al.*^[4] conducted a survey to understand the role of interprofessional education in dentistry which was conducted on seven academic health centers. Based on this survey, recommendation was made to include interprofessional education as a part of the curricula.

This was followed by Wilders “call to arms” article in 2008, and most importantly, the 2011 American Dental Education Association (ADEA) Annual Session study group chaired by Dr. Allan Formicola. In this study group with IPEC, the core competencies were laid down, and this was truly the tipping point in interprofessional education in dentistry. Thereafter, in 2013 and 2014 have seen many other articles/symposiums/and workshops and we can now see a steady momentum.

Based on a report by Palatta *et al.* in 2015,^[5] interprofessional education is not appearing to be an essential part of the education in dental schools, and an emphasis toward incorporating interprofessional education in the curriculum was recommended.

Solution

Our system is set up such that all professions work in “silos.” When we work in isolation, we are in some way or form compromising patient care and on occasion’s safety. To improve the quality of health care, all possible health-care professions should collaborate. There has been work that has already been done in creating collaborations between medicine and nursing, pharmacists, and medicine. There have been some task forces in place for creating a collaboration with dentists and other health-care professions mostly to enhance oral health along with general health. One such initiative was The Lancet Commission on Education of Health Professionals. In this report, it has been described how The Lancet Commission has a vision for the oral health in the 21st century. The strategies proposed by this commission are focusing on improving quality by enhancing standards and levels of training.

The important part of this report is that it addresses the untreated oral disease in the world, especially in the poor or underdeveloped parts and how it is difficult for the oral care to be delivered by skilled oral health professionals; therefore, in such parts of the world if other members of the health-care teams are trained to prevent and educate the population, it may result in reducing the oral disease burden. This collaboration will play an important role in providing basic oral care, educating patients, promoting oral health, and therefore preventing oral facial diseases, example cancer. The group recognized the major gap in education of health professionals and this research was done along with the Global Oral Health Interest Group of the Consortium of Universities for Global Health; the effort was initiated to create a consensus on global oral health competencies. An endeavor like this would only be possible if the training of health professionals was collaborative. Based on this research, it is probably hard to deny the significance that this teamwork and collaboration has on patient health and safety.

An important part of interprofessional care is “learning about each other.” Another important study to consider here

is a research that was conducted; wherein, it was identified that physician assistants were not dedicating adequate time with patient discussing oral health and not educating patients’ enough on oral health. In this research conducted by Berkowitz *et al.*,^[6] there was a curriculum created for physician assistant students and this curriculum was taught by dental school faculty, in which there was emphasis on preventive care and primary care. The students had a 95% successful outcome on the posttesting and physical examination skills. It is very important to create this level of competency at the physician assistant level since there is a much higher number of population that sees the primary care doctor than a dentist. Hence, if they are trained to recognize signs of oral disease, the patient has a higher probability of seeking the care and therefore having a better overall health. Based on this example, it is quite clear to see the value of the professionals learning about each other’s roles and about each other’s profession, as this can help improve the quality of care and enhance patient safety.

Another important issue to bring to attention is “learning with each other.” Professionals when learning with each other not only learn about each other but also can develop a new perspective on their existing knowledge. There has been a lot of work that has been done between the Department of Pediatric Dentistry at New York University College of Dentistry and the Advanced Practice: Pediatrics and the Pediatric Nurse Practitioner program at New York University College of Nursing. There have been efforts made to improve oral health for the infants and children. This initiative as reported by Hallas *et al.*^[7] is in existence for 7 years and it is headed by the faculty from both school of dentistry as well as school of nursing. The goal of this initiative is to enhance oral health for infants and young children who are from the underserved population and are at high risk for dental disease. In a study of early childhood, caries is the most unmet need among children under 70 months of age, the fact that dental diseases can lead to many other complications, and the risk of children and infants getting fatally sick is very real (Newacheck *et al.*, 2000).^[8] Therefore, the care provided to these children in primary health-care settings in a team-based approach through this interprofessional teams has a high potential for improving oral as well as systemic health of this vulnerable population. This type of collaborative learning opens more avenues for the providers and hence helps enhance both safety and well-being of the patients.

Dentists may sometimes see patients who have not seen a physician on a regular basis. On inquiring about their health history, they mark everything normal since they have never been to a physician in years. The thought provoking idea here is, what if this patient had a serious condition and due to the lack of information given/taken a procedure was performed which lead to complications

for this patient? With this thought in mind, the next important point to bring forth is the significance of all levels of the health-care team being involved in enhancing quality and safety of patient care. As noted in a pilot project with dental hygienists by Bossart *et al.*, (2016).^[9] It was reported that fifty patients were identified with periodontitis. These patients were never diagnosed with diabetes and were reporting >1 diabetes risk factor based on a questionnaire. The hygienist then administered a hemoglobin A1c (HbA1c) test. Based on the results of this study, 32% patients' HbA1c value indicated prediabetes and 34% indicated type II diabetes. This pilot project is another example of the significance of interprofessional care. This method of screening was effective, cost effective for the health-care system, and also provided information and education for the patient to act upon his condition and possibly help patient seek medical attention with regard to his condition. As initiative like this helps reduce the burden on the health-care system and helps improve the quality of care for the patient.

A solution that is very important and easy to introduce would be early socialization. This is based on some of the studies that have been discussed earlier in the paper, wherein students from different professions interact and study together and are aware of each other's roles. This concept has been addressed by Weidman *et al.*,^[10] the significance of this socialization and the impact on the profession as well as the individual have been adequately addressed. It is important for students to interact with other professions early in their career. The concept of socialization and the significance the faculty and curriculum builders play in this process have also been described by Khalili *et al.*^[11] The significance of this dual identity role is emphasized upon. What they mean by dual identity is a professional identity and also the interprofessional identity has to be developed to work collaboratively in the health-care settings. Therefore, this process needs to be an important part of the curriculum and has to be carefully added to it.

The list below describes the ways, in which the inter professional education (IPE) philosophy can be implemented and followed through:

- Training of trainers (especially considering the recommendations of ADEA-CODA task force and ADEA CCI which place considerable emphasis on professional development of faculty)
- The restructuring of the curriculum. In this, we need to emphasize the emphasis on IPE right from the first year onward throughout the curriculum. We can even highlight extended dental services as we have in New Zealand to allow other professionals to enter into primary health-care distribution (to overcome the issue of understaffed dentists in various regions), and the mandatory rotatory clinical practice in general hospitals, head and neck cancer clinics, nursing homes, etc.

- Organized assessment of students who get trained in interprofessional practice by the various specialties involved in training them
- IPE training models should be formed after consultation with the different lawmakers, administrators, and of course the teachers and practitioners. Basically, the dental school leaders and universities must play a greater role
- Addressing the interdisciplinary rivalry is an important way to eradicate silos. Arrange for a channelized source of funding and attaining a good support from administration
- Outcome studies pertaining to IPE are less. We need to have more literature support to justify the worth of time and effort to widely implement IPE. We need greater participation in webinars/workshops; we need to let them identify a representative/point person who will control the matters related to IPE. Basically, these schools will need to start up and do so in a planned organized manner.

Possible Hurdles for Implementing Such Ideas

The system that health-care functions under has not completely adopted the interprofessional education system. There is a change, but the change is happening slowly. Although the significance is established and many task forces have been set up to work on promoting it, yet the change is sluggish. An important point that still remains unclear is when to introduce interprofessional education to the health-care professional.

The second possible objection can be the implementation process of the interprofessional program, how to incorporate into curriculums and establishing goals, expectations, and values.

Solution to the Possible Hurdles

Based on the significance of interprofessional education and its association with quality and safety of patient care, it is very intuitive to suggest that the earlier interprofessional education is introduced into the curriculum, the more significant the outcomes will be in ensuring quality and safety.

The solution to the second objection point is the collaborations between the deans of different health-care programs and incorporating IPE into the very foundation of its curriculum. A panel of experts from medicine, dentistry, pharmacy, nursing, osteopathic health, and public health collaborated (IPECEP, 2011)^[12] had identified four core competency areas: Values/ethics toward interprofessional practice, interprofessional communication, roles/responsibilities, and teams/teamwork. The proposal was to incorporate these IPE domains into the curriculum of the programs of the study. The article also identifies the need for a certification, licensure, and accreditation for these programs. This process will help establish IPE into the programs.

Conclusion

The significance and association of interprofessional education cannot be emphasized enough. It is a daunting task but has innumerable benefits for our patient outcomes. Professionals need to collaborate, learn about each other and from each other to ensure the care provided in complete and holistic manner. With the number of aging population increasing such endeavors will be essential in the care of these populations. Introducing interprofessional education early in the process is by far the best way to know it has ingrained into the professional setup.

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