Achieving Patient-centered Care through Interprofessional Collaborative Practice

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Disclaimer: Participants must always be aware of the hazards of using limited knowledge in integrating new techniques or procedures into their practice. Only sound evidence-based dentistry should be used in patient therapy.

Introduction
The purpose of this continuing education course is to present an overview of the role of the oral health care provider in interprofessional education and collaborative practice. The course will discuss the importance of oral health on overall health and the necessity of working on an interprofessional team to provide patient-centered care and to improve population health. In addition, the course will provide an overview of the core competencies for collaborative practice.

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Overview

The purpose of this continuing education course is to present an overview of the role of the oral health care provider in interprofessional education and collaborative practice. The course will discuss the importance of oral health on overall health and the necessity of working on an interprofessional team to provide patient-centered care and to improve population health. In addition, the course will provide an overview of the core competencies for collaborative practice.

Learning Objectives

Upon completion of this course, the dental professional should be able to:

- Describe the core competencies for interprofessional collaborative practice.
- Discuss the importance of oral health on overall health.
- Discuss the benefits of developing an interprofessional team focused on improving patient health.
- Discuss the role of the oral healthcare provider on a collaborative health care team.

Glossary

- CCIPCP – Core Competencies for Interprofessional Collaborative Practice.
- CODA – Commission on Dental Accreditation.

Introduction

Interprofessional education (IPE) and interprofessional collaborative practice (ICP) are part of the changing paradigm in which healthcare professionals and social care professionals work together as a collaborative team. According to the World Health Organization, IPE occurs when learners from two or more health professions engage in learning about, from, and with each other to enable effective collaboration and improve health outcomes, and ICP occurs when multiple health workers from different professional backgrounds work together with patients and families, careers and communities to deliver the highest quality of care. While IPE has been a part of the conversation about the changing paradigm in healthcare since the 1970s, it has gained momentum and financial support for broader implementation and research by the federal government, academic institutions, affordable care organizations, and non-profit organizations. In dental education, IPE is a part of the Commission on Dental Accreditation (CODA) standards, and it is common practice for dental, dental hygiene and dental therapy students to work with other healthcare and social care professionals in the classroom, simulated patient care, and clinical settings. On a broader level, universities across the country are developing stronger relationships between different disciplines, such as, law, medicine, dentistry, nursing, public health, and others to build interprofessional curricular experiences for students. In order to facilitate this learning process, the Interprofessional Education Collaboration (IPEC) has developed a set of core competencies.

Core Competencies for Interprofessional Collaborative Practice

In May of 2011, the Interprofessional Education Collaborative, a panel of experts representing the
American Association of Colleges of Nursing, American Association of Colleges of Osteopathic Medicine, American Association of Colleges of Pharmacy, American Dental Education Association, Association of American Medical Colleges and the Association of Schools of Public Health convened to develop a set of competencies for ICP. The panel identified four Core Competencies for Interprofessional Collaborative Practice (CCIPCP). The focus of these competencies are to develop guidelines for preparing health professionals to focus focus of these competencies is to provide quality patient-centered care and population health in evolving health care systems in which team-based care is necessary. The competencies could act as one potential strategy for addressing issues in healthcare relating to the rising cost of healthcare, improvement of access to care for underserved populations and providing quality care. This concept is in keeping with the Triple Aim framework an approach described by Institute for Healthcare Improvement (IHI) to optimize the delivery of healthcare, by improving the patients experience, improving population health and reducing the per capita cost of requiring a collaborative approach to the complex health conditions that are increasingly more common in the populations we serve. The Triple Aim framework is designed to improve health, which requires the engagement of stakeholders with a community to speak to broad determinants of health and not one single dimension. In this regard true health not realized at the individual level, but at the community level. The triple aim creates metric that allows the health care system to partners with providers to improve the health of the population, improving medical management, and transform the healthcare reimbursement models. IPEC identified four core competences, which could be implemented as common core concepts in health profession educational programs that would be broad enough to encompass multiple professions, but be flexible enough to account for the uniqueness that exists between professions. The CCIPCP are framed in such a way that collaborative teams can be evaluated on the effectiveness of team-based care for those complex patients that require care from multiple providers.

The CCIPCP are as follows:

- **Values/Ethics for Interprofessional Practice:** Work with individuals of other professions to maintain a climate of mutual respect and shared values.
- **Roles/Responsibilities for Collaborative Practice:** Use the knowledge of one's own role and the roles of other professions to appropriately assess and address the health care needs of the patients and populations served.
- **Interprofessional Communication:** Communicate with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to maintaining health and treatment of disease.
- **Interprofessional Teamwork and Team-based Care:** Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient/population-centered care that is safe, timely, efficient, effective, and equitable.

The CCIPCP highlight some foundational characteristics that are necessary for oral healthcare professionals that encompass shared values relevant across other health professions. Concepts represented in the CCIPC are typified in some statements that appear in the ADA Principles of Ethics and Professionalism as well as the Code of Ethics for Dental Hygienists and are part of the day-to-day practice of an oral healthcare provider. For example, the Dental Hygiene code states “develop collaborative professional relationships and exchange knowledge to enhance our own lifelong professional development,” while the ADA code says “… the dentist's primary obligations include keeping knowledge and skills current, knowing one's own limitations and when to refer to a specialist or other professional...” As new practice models are evolving, oral healthcare providers are practicing in rural settings, urban settings, in community health centers, etc., and they will need to acquire the skills needed to work with an interprofessional collaborative team to help promote oral health and treat the growing number of patients with complex medical and mental conditions.
The Oral Cavity: The Gateway to the Body

A large number of children and adults are diagnosed with some form of oral disease. Dental caries is recognized as the leading chronic childhood disease in the United States (US), and according to the Centers for Disease Control findings from the NHANES III 47% of adults in the US have some form of periodontal disease. An Institute of Medicine report and the U.S. Surgeon General's report have focused the spotlight on this gap in knowledge, and new oral health initiatives have been funded that focus on providing other healthcare providers with the skills to identify oral disease. Formation of these types of interprofessional partnerships create an opportunity for oral health care professionals and other health and social care professionals to work together to improve both oral health and overall health for the patients under their care.

The Growing Benefits of Establishing Teams to Provide Care

Throughout the 20th century, it was commonplace for dental school graduates to purchase or establish a private practice clinical model to deliver oral care to patients in need. However, in the latter third of the century there was an increased presence in the establishment of group and corporate-owned practices. A brief from the American Dental Association Health Policy Institute, stated that according to 2012 data there was a reduction in the proportion of dentists who were in solo practice from 67% to 57.5%. One of the take homes from this research brief is group practices are on the increase in the US, which demonstrates oral health providers are already working as a uniprofessional team to provide dental care to patients. An ICP would be an extension of our proven ability to work as teams of providers that strive to meet the Triple Aim. This could be accomplished by working closer with nurses, physician, pharmacist, social worker, and others as a team of health providers.

As our colleagues in medicine, nursing, pharmacy, physician assistants, etc. are becoming more aware of the importance of the relationship between oral health and overall health, oral healthcare provider skills will be more in demand. While oral healthcare providers are trained to take a medical and medication history, most non-dental healthcare professionals have a gap in knowledge of how to assess and refer problems related to the oral cavity, due to the fact that, for the vast majority, it is often lacking in their training. As the need for oral healthcare continues to grow, oral healthcare providers will be looking for new and innovative dental delivery systems to meet the growing need in our population, while simultaneously addressing the Triple Aim. In addition, poor oral health is linked to poor systemic health, with several chronic diseases, such as diabetes, cardiovascular disease etc. Meanwhile, new life-preserving medical treatments for serious medical conditions and disabilities are discovered and the US population is living longer creating the need for increased collaborative practice. There have been several reports that highlight the oral-systemic links to chronic disease, and demonstrate the dentist's role in identifying, diagnosing, and screening for disease processes that have both oral manifestations and impact general health. The most commonly known example of the oral systemic link is with periodontal diseases and diabetes mellitus. Studies have demonstrated that patients with diabetes mellitus type I or II have a greater prevalence of periodontal diseases, and patients with poorly controlled type II diabetes have more advanced periodontal disease suggesting a bidirectional relationship. As a consequence, dental practitioners are providing comprehensive oral care for more complex medically compromised patients that create the necessity for interprofessional collaboration to provide optimal patient care.

As oral health care professionals, we have multiple patient encounters throughout the course of a year, and therefore, have an opportunity to have a significant impact on improving the oral and overall health of our patients. The dental clinic setting provides an opportunity for diagnosis and treatment of disease processes in the oral cavity, both acute and comprehensive oral issues. In addition, there is a unique opportunity to screen, assess, and monitor patients who are at risk and/or have been diagnosed with chronic systemic medical
conditions. Evaluating the patient's medical status, discussing disease prevention, monitoring vital signs and reviewing the patient's medication list are already part of a routine dental visit. Therefore, integrating a comprehensive medical and medication therapy management program in collaboration with other healthcare providers would be a natural extension with minimal impact on the dental visit that would facilitate dentist collaborating with other health providers to improve overall patient health.

As a consequence of these relationships with health care providers, oral healthcare providers would work together to educate patients, discuss a comprehensive care plan and make the appropriate referrals to manage the medical, mental health and oral health components of the disease. As other healthcare professionals become more aware and recognize the importance of oral health on overall health, this knowledge should result in earlier referral, diagnosis and treatment for patients with oral disease to an oral healthcare provider, recognition of the importance of dental cleanings prior to medical surgical procedures, better oral management of patients with systemic diseases that impact oral health and better management of patients taking medications that have negative side effects on the oral cavity to mention a few. The shifting landscape in healthcare is an opportunity for oral healthcare providers to be proactive in establishing its role as a key member of collaborative care teams. This is supported by a quote from the ADA Health Policy Resource Center, “This is a critical moment in dentistry and not a time for complacency. Understanding the key forces at work will assist the profession in defining its own destiny. Ignoring what is happening in the health and consumer environments will mean ceding the future of the profession to others.”

The Role of Oral Healthcare Providers in Interprofessional Collaborative Practice

For decades, oral healthcare providers have been playing an important role on Interprofessional collaborative teams. One of the salient examples, is in the area of cleft lip and cleft palate where a team of oral health, health, and social care providers and others have been working together to coordinate care for this group of patients with complex needs that could only be addressed by an interprofessional team. More recently, oral healthcare providers have been valuable members of interprofessional teams in the treatment of chronic pain patients because of our work in temporomandibular joint disorder (TMD) and sleep medicine.

Our role as a team member with other professionals continues to be in demand as more medical conditions are linked to oral health. The CDC has predicted the number of patients who will be diagnosed with diabetes will double or triple by 2050. This will necessitate more oral healthcare providers be prepared to manage these patients because of the impact on oral health. Several studies have demonstrated diabetes is a risk factor for the development of periodontal disease and patients in certain populations have more severe periodontal disease. These patients could be better managed when we collaborate as an interprofessional team viewing the disease process from a dental, medical, pharmacotherapeutic and mental health management standpoint. Therefore, oral healthcare providers would become an important source for screening these patients and helping to provide a reciprocal referral base between oral healthcare and other health professionals.

As the number of individuals being diagnosed with chronic renal failure increases, there is an increased probability oral health professionals will care for these patients. In addition, one of the most common causes for chronic renal failure is chronic hypertension, which can be easily monitored by oral health professionals. One advantage dentists have is patients routinely have visits, and this affords the provider with an opportunity to monitor patients' blood pressure over an extended period of time. As oral health professionals observe patients having higher than normal blood pressure, or higher blood pressure readings in spite of medication, it would then be appropriate to counsel the patient and communicate with other members of the patient's team. Therefore, oral healthcare providers can play a significant role in screening patients for certain primary care metrics.
and it was found that dentist were willing to incorporate screening in their practices.\textsuperscript{14,39}

In addition, oral healthcare providers treat a large population of patients that have mental health conditions and chronic pain patients who are taking medications that can cause xerostomia, which increases gingival inflammation and increase caries rates. Newly diagnosed patients with mental health conditions and some chronic pain patients would benefit from referral to an oral healthcare provider as many of the common medications prescribed for management of these disease processes have xerostomia as a side effect.\textsuperscript{40} A dialogue with other healthcare colleagues about the impact of medications on the management of oral health and a referral would allow for these patients to be evaluated and have a customized care plan that might include fluoride therapy, recommendation for products that help lubricate that teeth and soft tissues.

Other examples of collaboration have occurred to advocate for early childhood dental visits. This initiative has also contributed to a partnership between obstetrics and gynecology and oral healthcare providers. At Rice Memorial Dental clinic in Willmar, Minnesota, mothers who have recently given birth receive dental education, along with obstetrics and gynecological services while still in the OB ward at Rice Memorial Hospital (Renee Johnson, personal communication, May 18, 2016). Dental hygienists or other dental clinic staff establish a relationship with the new mothers, provide infant oral health education, answer questions and have them complete an information card, and then mail the family a 1\textsuperscript{st} birthday card as a reminder for them to schedule the early childhood dental visit by age 1. This highlights the opportunity to not only discuss good oral healthcare practice after pregnancy to minimize periodontal diseases, but to also help prevent caries the most common chronic childhood disease.\textsuperscript{41}

**Conclusion**

It is fitting to end this course by repeating a quote from an ADA publication, “This is a critical moment in dentistry and not a time for complacency. Understanding the key forces at work will assist the profession in defining its own destiny. Ignoring what is happening in the health and consumer environments will mean ceding the future of the profession to others.”\textsuperscript{26} ADA, IPE and ICP are shifting healthcare and social care paradigm by driving care to be delivered in collaborative teams. These teams will value working together in a climate of mutual respect, use its professions’ knowledge to assess and address the needs of patients and populations, communicate broadly in a responsive and responsible manner, and apply relationship-building and team dynamics to address the Triple Aim.

While we have only highlighted a few salient examples of the significant value of oral healthcare providers being an integral part of ICP, there are many more examples in which oral healthcare providers contribute to improving the overall health of populations. It is imperative that oral healthcare providers appreciate the growing number of colleagues in medicine, nursing, pharmacy, physician assistants that are becoming more aware of the importance of the relationship between oral health in overall health. A patient’s visit to a dental practice is an opportune time to screen, assess, and monitor patients who are at risk and/or have been diagnosed with chronic systemic medical conditions. Oral healthcare providers should strive to inform other health professionals about oral disease and the need for early referral and build these relationships that will contribute to better health for all populations.
Course Test Preview
To receive Continuing Education credit for this course, you must complete the online test. Please go to: www.dentalcare.com/en-us/professional-education/ce-courses/ce471/start-test

1. **Interprofessional collaborative practice is defined as ___________.**
   a. multiple health workers from different professional backgrounds working together with patients and families, careers and communities to deliver the highest quality of care
   b. health professionals engaging in learning about, from, and with each other to enable effective collaboration and improve health outcomes
   c. working to improve the health of patients and populations to decrease the per capita cost of healthcare
   d. working with individuals from other professions to maintain a climate of mutual respect and shared values

2. **All of the following are components of the Triple Aim EXCEPT?**
   a. Improving population health
   b. Improving the patient experience
   c. Reducing the per capita cost of care
   d. Improving provider wellness

3. **There are four Core Competencies for Interprofessional Collaborative Practice that can be utilized to evaluate collaborative readiness. Which of the following is/are a Core Competency/ies?**
   a. Interprofessional communication
   b. Interprofessional teamwork and team-based care
   c. Values/ethics for interprofessional practice
   d. Roles and responsibilities
   e. All of the above.

4. **The most common preventable chronic childhood disease is ___________.**
   a. type 1 diabetes mellitus
   b. caries
   c. cerebral palsy
   d. asthma

5. **Poor oral health has been linked to several systemic inflammatory diseases; however, most non-oral healthcare providers have minimal training on recognizing oral disease.**
   a. True
   b. False

6. **Which of the following group of patients are more likely to be taking medications that can cause xerostomia?**
   a. Chronic pain patients
   b. Patients diagnosed with depression
   c. Patients diagnosed with high cholesterol
   d. Only A and B
   e. Only B and C
7. The CDC has predicted that the number of patients diagnosed with diabetes will __________ or triple by __________. This increase could impact oral healthcare providers since these patients tend to have more advanced periodontal disease.
   a. double, 2050
   b. quadruple, 2050
   c. double, 2030
   d. quadruple, 2030

8. In a study conducted by Greenberg et al 2010, they found dentists agreed that screening for medical conditions was important and they were willing to incorporate screening in their practices.
   a. True
   b. False

9. Which of the following is correct regarding dental practitioners providing comprehensive oral care for more complex medically compromised patients?
   a. Treating patients with complex medical conditions necessitates more interprofessional collaboration to provide optimal care.
   b. There is an increase in oral-systemic links to chronic diseases.
   c. The dentist can play a role in screening for disease processes that have oral manifestations and impact general health.
   d. All of the above.

10. The extension of dentist's ability to function in uniprofessional teams into interprofessional collaborative practice teams to address the Triple Aim is supported by __________.
    a. dentists having multiple patient encounters within a short period of time
    b. the dentist unique opportunity to screen patients at risk for chronic diseases
    c. integrating a comprehensive medication management program in collaboration with other healthcare providers
    d. Only A and B
    e. All of the above.

11. Historically oral healthcare providers have been playing an important role on interprofessional collaborative teams that have included __________.
    a. cleft lip and palate teams
    b. TMD and chronic pain management
    c. sleep medicine
    d. All of the above.

12. One advantage dentists have is patients routinely have multiple visits, and this affords the provider with an opportunity to monitor patient's blood pressure over an extended period of time.
    a. True
    b. False
References

34. Centers for Disease Control. Number of Americans with Diabetes Projected to Double or Triple by 2050. Older, more diverse population and longer lifespans contribute to increase. Accessed October 24, 2016.
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