Achieving Patient-centered Care through Interprofessional Collaborative Practice

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Conflict of Interest Disclosure Statement

- The authors report no conflicts of interest associated with this course.

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**.

Course Contents

Overview

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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.

ICP – Interprofessional Collaborative Practice.

IHI – Institute for Healthcare Improvement.

IPE – Interprofessional Education.

IPEC – Interprofessional Education Collaboration.

TMD – Temporomandibular Joint Disorder

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.[1] While IPE has been a part of the conversation in healthcare since the 1970's, 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.[2] The panel identified four Core Competencies for Interprofessional Collaborative Practice (CCIPCP). The focus of these competencies is to develop guidelines for preparing health professionals 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 related to the rising cost of healthcare, improving access to care for underserved populations and providing quality care. This concept is in keeping with the Triple Aim framework as an approach described by the 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 is not realized at the individual level, but at the community level. The triple aim creates a metric that allows the healthcare system to partner with providers to improve the health of the population,[3] improve medical management,[4] and transform healthcare reimbursement models.[5] 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.

In 2016, the CCIPCP updated the Core Competencies to focus on a single domain, Interprofessional Collaboration. The core concept of the four competencies is collaboration.[6] According to the CCIPCP, the updated competencies provide more integration of population health and have a greater focus on population health, which is consistent with the Triple Aim. The updated competencies include sub-competencies that further elaborate each of the core competencies' aim to utilize measurable learner objectives that allow different professions to track outcomes.

The updated 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 to promote and advance the health of populations served.
- Interprofessional Communication: Communicate with patients, families, communities, and other health professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention 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, deliver, and evaluate patient/population-centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable.

The updated CCIPCP similarly highlight some foundational characteristics that are necessary for oral healthcare professionals that encompass shared values relevant across other health professions. Concepts represented in the CCIPCP 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

The prevalence of oral diseases such as dental caries and periodontal disease is still a significant concern in the US population and results in a large number of children and adults being 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.[7, 8, 9,10] It has been reported that in 2011-2012, 37% of children (age 0-8) have experienced caries of a primary tooth. In addition, there continue to be significant disparities in Hispanic and Black children, aged 2-8 resulting in a higher caries rate in these groups. A recent report from Kaiser Health News stated, "One in five adults reported that they had unmet dental care needs because they couldn't afford care…"[11] 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.[12-17] 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.[18] For example, a study demonstrated that patients with diabetes mellitus have a greater prevalence of periodontal diseases, and patients with poorly controlled type II diabetes have more advanced periodontal disease suggesting a bidirectional relationship.[19-21] 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.[22,23] 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.[24,25]

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.[26,27] 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.[28-31] 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. Changes continue to evolve and it has become more common for other health professionals to provide traditional services such as application of fluoride varnish and oral examinations.

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. In addition, in the first quarter of the 21st century, this trend has exponentially changed. 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%.[32] In 2019, the American Dental Education Association Snapshot reported that in 2015 11.7% of the graduating students intended to be employed in a corporate-owned group practice, and in 2018 this increased to 16%. One of the take homes from both of these reports is that group practices are on the increase in the US. This trend demonstrates oral health providers are already working as a uniprofessional team setting to provide dental care to patients, and it appears the trend is growing. IPCP is an extension that builds on oral health professionals' proven ability to work as teams of providers that strive to meet the Triple Aim.[33] This could be accomplished by working closer with nurses, physician, pharmacist, social worker, and others as a team of health providers.

As oral health care professionals, we have multiple patient encounters with the same patient 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 dentists collaborating with other health providers to improve overall patient health.

As a consequence of establishing these relationships with other health care providers, oral healthcare providers could 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 clearances 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. One example of this shift, is a collaboration between Harvard School of Dental Medicine and Northeastern University, in which nurse practitioner students and dental students work collaboratively to provide direct care for patients under the supervision of their perspective faculty.[34] 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."[35]

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.[36] 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.[37-39] 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. In a recent interview with David Gesko, Senior Vice President & Dental Director HealthPartners, he described running a study in their clinics that demonstrated that dentists were able to screen for diabetes.[40] He stated that "being able to integrate allows Health Partners to really look at a patients' overall health". Therefore, oral health care 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.[41] 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.[19,42]

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 increases 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.[43] 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 a have a customized care plan that might include fluoride therapy, recommendation for products that help lubricate that teeth and soft tissues.

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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 1st 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.[44] Another example is Dr. Erin Westfall, a Mayo Clinic faculty, in Mankato, Minnesota, who proposed and developed an integrated model to oral healthcare in a medical office. She analyzed the need within her community and believed medical integration can improve patient experience and provide the person-centered care that patients in her community need. The practice focuses on integrating oral health in to primary care and focusing on preventive needs for children, adolescents, pregnant women, and adults with chronic diseases.[45] A clear example that indicates that oral health professionals have an opportunity to help enhance the public's understanding of the importance of oral health in improving overall health.

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."[35] 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, many more examples in which oral healthcare providers contribute to improving the overall health of populations and examples of oral healthcare providers working in team-based collaborative care has increased. It is imperative 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 and the scope of practice boundaries have become somewhat blurred. 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, reduce the cost of care and result in better patient outcomes.

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/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. The Triple Aim
D. Roles and responsibilities for Collaborative Practice
E. Only A, B and D

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 will not necessitate more interprofessional collaboration to provide optimal care.
B. There is a decrease 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. Dentist do not play an important role in collaborative care.

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, B and C

11. Historically, oral healthcare providers have been playing an important role on interprofessional collaborative teams except for _____.

A. cleft lip and palate teams
B. TMD and chronic pain management
C. sleep medicine
D. cardiovascular teams

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

A. True
B. False

13. Recent updates of the four core competencies has placed a greater emphasis on population health and the utilization of measurable objectives to track outcomes.

A. True
B. False

14. With other healthcare professionals becoming more aware of the impact of oral health on overall health, traditional services such as _____ are being provided by non-oral healthcare providers.

A. Sealants and amalgam restorations
B. Amalgam restorations and oral examinations
C. Oral examinations and application of fluoride varnish
D. Dentures and amalgams

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Additional Resources

- No Additional Resources Available.

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