Interprofessional Collaborative Practice Models in Chronic Disease Management

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KEYWORDS

• Chronic disease • Health care reform • Interprofessional relations • Oral health
• Cooperative behavior • Mouth disease • Patient-centered care • Primary health care

KEY POINTS

- Collaborative models of care have been effective in improving health outcomes for those with chronic illness.
- Oral disease can impact development and progression of chronic disease.
- Interdisciplinary teams that include dental providers could further enhance oral and overall health outcomes for patients with chronic disease.

INTRODUCTION

History of Collaborative Practice in Chronic Disease Management

Chronic diseases affect a significant number of individuals nationally and internationally. A global report of the devastation of chronic disease on world health and economies by the World Health Organization entitled "Preventing Chronic Disease a vital investment", presented a goal in 2005 to reduce death rates by 2% over 10 years and anticipated that this would lead to prevention of 36 million chronic disease deaths by 2015.[1] In addition to the mortality associated with chronic disease experience, the aging of the population

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and development of chronic diseases that affect multiple systems have contributed significantly to disability in the population. Projections are that by year 2050 the number of individuals over 60 years of age in the world will double from 12.3% to over 20%.[2] The Centers for Disease Control and Prevention (CDC) suggests that about 117 million people had one or more chronic health conditions in 2012 and one of 4 adults had 2 or more chronic health conditions.[3] Seven of the top causes of death in 2013 were attributed to chronic diseases, such as heart disease and cancer, which together were responsible for nearly 65% of all deaths.[4] In 2001, the Institute of Medicine released a report "Crossing the Quality Chasm: A New Health System for the 21st Century" that described a disconnect between health care knowledge and practice.[5] Bringing together members of the health care team to coordinate care through reorganization of care delivery and utilization of improved systems of communication using clinical information systems, such as the electronic health record, seem to be significant components needed for improvement and management of chronic disease outcomes. Previously in 2000, the US Office of the Surgeon General released a report on the state of oral health and disparities in the nation.[6] As such, numerous studies that have documented oral health disparities across life cycles and the connection between poor oral health and progression of systemic disease have been documented.[7–9] Studies have indicated a relationship between severe periodontal disease or gum disease and worsening/progression in cardiovascular disease (CVD), end-stage renal disease, diabetes, pulmonary infections, human immunodeficiency virus (HIV)/AIDS, and numerous other disorders.[10–14] Oral health is recognized as an important part of overall health and well-being but is often overlooked as an important component of many interprofessional collaborative models of care.

The purpose of this article is to examine established models of interprofessional collaborative practice in the management of chronic diseases. Collaborative models of care specifically as they relate to diabetes, CVD, HIV/AIDS, and mental health are described. There are still significant challenges bringing all of the members of the health care team together leveraging adequate opportunities for communication and decision-making. Going forward, future models of care must require that the oral health care provider take a more prominent position in helping to develop strategies for chronic disease management.

Established Models of Chronic Disease Management in Medicine

Chronic care model

The most well-known and accepted model in chronic disease management is the Chronic Care Model (CCM).[15] The intent of the CCM was to transform the daily care for patients with chronic illnesses from acute and reactive to proactive, planned, and population based. An expanded version of the model has also been proposed that adds 3 additional strategies that includes patient safety, care coordination, and case management (**Boxes 1** and **2**).[16]

The CCM provided the framework for how we could approach morbidity in chronic disease management. Although it helped to improve health outcomes, the changes initially were small with many barriers identified. Specifically, there were definite challenges with organizational transformation of health care due to lack of specificity.[17] Since its inception, the CCM has been used to guide national quality improvement initiatives involving groups of primary care practices, such as the Health Disparities Collaborative (HDC) established by the Health Resources and Services Administration's (HRSA) Bureau of Primary Health Care. In addition to state-based and regional efforts, the CCM has been used in working with a significant number of physician practices in the United States and internationally.[18] The CCM is also an integral part of existing patient-centered medical home models. The model has also been