

Chronic Disease Management in Primary Care Setting

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Abstract

Review Article

There is a correlation between advancing age and an increased risk of developing chronic diseases. Chronic diseases are those that last for an extended period of time and have an ongoing requirement for care and treatment. The primary purpose of this research project was to conduct a literature evaluation on the topic of the management of chronic diseases in primary care settings. The findings of this analysis revealed that researchers from all around the world have been actively participating in research activities to develop models that assist in the management of chronic diseases. The chronic care model is one of the more well-known models available today. In primary care, applying this strategy to the treatment of chronic diseases can bring about a reduction in both the incidence and severity of those diseases. When viewed as a whole, chronic diseases present a significant obstacle for the field of contemporary medicine and necessitate the collaboration of many different parts of the community in order to be conquered.

Keywords: Chronic diseases, primary care, management, chronic care model, medicine.

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1. INTRODUCTION

The present study reviewed the literature regarding the management of chronic diseases in primary care. In the following sections, the topic will be in -depth discussed.

2. What is a chronic disease?

The World Health Organization (WHO, 2014) defines a chronic disease as one that a person can have for an extended period of time, that generally progresses in a sluggish manner, and that cannot be passed on from one person to another. According to the findings of the Global Burden of Disease study that was carried out in 2013, there was a significant increase of 42.3% in the number of years lived with disability (YLD) between the years 1990 and 2013 (Vos *et al.*, 2015). This was primarily attributable to noncommunicable diseases, as there were no infectious diseases included on the list of the top 20 leading causes of YLDs across the globe in 2013. According to research conducted in Australia, approximately 40% of people aged over 44 years have a chronic disease multi-morbidity. This percentage rises to approximately 50% for those aged 65–74 years, and it reaches 70% for those aged 85 years or older (Australian Institute of Health and Welfare Chronic diseases, 2015). The prevalence of having multiple chronic conditions at the same time is high in developed countries (Dennis *et al.*, 2016), and the prevalence of having multiple chronic

conditions at the same time increases with age (Dennis *et al.*, 2016).

A chronic disease is one that lasts for a long period of time and worsens gradually over time (Braillard *et al.*, 2018). The current challenge for health systems is not only in managing the individual chronic disease, but most notably individuals who have more than one disease (Palladino *et al.*, 2016). This is a significant increase from the previous challenge, which only involved managing the individual chronic disease. Because multimorbidity and chronic diseases are so common, the healthcare system is under increased pressure in terms of both its finances and its ability to effectively deliver care (McKee *et al.*, 2004; Nolte *et al.*, 2008; Picco *et al.*, 2016). Patients who suffer from multiple chronic diseases are at a greater risk of increased healthcare utilization and costs, lower self-reported health status, depression, and decreased functional capacity (Palladino *et al.*, 2016). Patients who suffer from multiple chronic diseases are also at a greater risk of having a lower functional capacity. Additionally, the challenge of polypharmacy and managing multiple conditions, which may include mental health issues, is a challenge for both the individual and the healthcare provider(s) (Wallace *et al.*, 2015). Polypharmacy is the practice of taking more than one medication at a time. The practice of taking more than one medication at the

same time is referred to as polypharmacy. According to the findings of a retrospective cohort study carried out in the United Kingdom, 78% of consultations at primary health care facilities are for patients who suffer from more than one chronic condition (Salisbury *et al.*, 2015). In contrast, the situation in the United States, where chronic diseases are responsible for 84% of the total costs associated with health care (Moses *et al.*, 2013).

3. Treatment of chronic diseases

The treatment of chronic diseases presents a significant challenge for healthcare systems all over the world, the majority of which were designed to deal with acute episodic care rather than to provide organized care for people who have long-term conditions (WHO, 2001). This makes the treatment of chronic diseases a significant obstacle for healthcare systems everywhere. The management of chronic diseases becomes a significant challenge as a result of this. Chronic diseases can be recognized by the fact that patients typically need to be monitored, observed, or cared for over an extended period of time when they are affected by these conditions. Primary care is an environment that is conducive to the management of chronic conditions (Rothman and Wagner, 2003).

4. Primary care

Primary care is characterized by characteristics such as continuity, coordination, and comprehensiveness. The evidence is pointing out, in an increasing number of different ways, how important it is to reorient health policy and healthcare towards chronic care systems (Ham, 2009), including primary care that is proactive rather than reactive. This is one example of how the evidence is highlighting the importance of reorienting health policy and healthcare. Primary care systems that are strong tend to be correlated with lower overall healthcare costs and better health outcomes (Phillips and Starfield, 2003).

5. The Chronic Care Model

The Chronic Care Model, also known as the CCM, is a framework that was developed in the 1990s by Wagner and colleagues in order to improve the quality of care that is provided to patients who have chronic conditions (Wagner *et al.*, 1996). It is an organizational strategy for providing care to patients who suffer from chronic diseases, and it is designed to be utilized in primary care settings in particular. The phrase "chronic disease" refers to an illness that lasts for more than three months. The CCM is made up of six different parts, each of which functions within its own unique context. These contexts include the individual, the community, the organization that provides care, and the entire health care system. The model has the potential to act as a guide for the improvement of the system in order to provide chronic disease management (CDM) of a higher quality (Wagner *et al.*, 2001; Bodenheimer *et al.*, 2002 a, b).

Following the development of the CCM, a number of additional strategies have been developed with the goal of improving the quality and comprehensiveness of primary care. These strategies include methods for the management of chronic diseases (Nutting *et al.*, 2009; Bodenheimer *et al.*, 2014). These kinds of endeavors include, for instance, the Patient-Centered Medical Home and The Ten Building Blocks of High-Performing Primary Care, both of which are examples of the former. Chronic disease management in primary care is an important part of both the prevention and treatment of chronic conditions; however, there is a need to understand which interventions are effective, for whom, and in what context (Rothman and Wagner, 2003). Chronic disease management in primary care plays an important role in both the prevention and treatment of chronic conditions. The body of research on various interventions to improve CDM in primary care is diverse and is continually expanding. This is true regardless of whether or not these interventions are based on the CCM. Within the context of a systematic review, one of the things that we published in 2006 was a narrative synthesis of interventions for common physical health problems that are treated in primary care in developed countries (Zwar *et al.*, 2008; Dennis *et al.*, 2008).

6. Burden of chronic diseases

When it comes to the burden of various chronic diseases in Switzerland (Zellweger *et al.*, 2014), there is an extremely sparse amount of data that is currently available. According to the findings of a study of Bahler *et al.* (2015) that was carried out on people who were at least 65 years old and had insurance from a specific company across the entirety of Switzerland, 76.6% of them suffered from multiple diseases. These patients, on average, had 15.7 consultations as opposed to 4.4, and the costs associated with their care were 5.5 times higher than those associated with the care of patients who did not suffer from multiple chronic conditions. Models for the management of chronic diseases are not as well established in Switzerland as they are in other settings with high incomes (Lauvergeon *et al.*, 2012). There are obstacles that must be overcome in order to successfully implement chronic care, and these obstacles are connected to the structure of the health system, the financing of the health system, and the deficiencies that exist in primary health care. Because of this, it is possible that comprehensive models that have been developed in other parts of the world cannot be implemented in Switzerland in the same manner (Peytremann-Bridevaux *et al.*, 2015).

7. Chronic Care Model (CCM) in primary care programs: benefits and limits

By reorganizing the pre-existing health care systems along a number of different dimensions, the Chronic Care Model (CCM) was developed with the objective of improving the standard of medical attention that is offered to patients (Yeoh *et al.*, 2017).

Around the world, chronic diseases continue to be a major contributor to the morbidity and mortality rates that they cause (Yeoh *et al.*, 2017). Diabetes mellitus (DM), hypertension (HT), cardiovascular disease (CVD), and chronic obstructive pulmonary disease (COPD) are four major chronic disease states that have a high prevalence in populations all over the world. There has been a startling spike in the incidence of each of these four diseases over the course of the most recent several decades (Adeloye *et al.*, 2015; NCD, 2016). Traditional models of clinical care, which were primarily developed for the management of acute illnesses, are proving to be less capable of meeting the complex needs of the ever-increasing burden of chronic care (Baptista *et al.*, 2016). As a result of this, patients may feel dissatisfied as a result of ineffective treatment and suboptimal disease control (Baptista *et al.*, 2016). This is due to the fact that patients may experience ineffective disease control. The ever-increasing demand that is placed on healthcare providers has resulted in a sizeable expansion of the medical burden, which has led to avoidable hospital admissions and unneeded expenditures in healthcare (Freund *et al.*, 2013; Purdey and Huntley, 2013). This expansion of the medical burden has been caused by the ever-increasing demand that is placed on healthcare providers (Yeoh *et al.*, 2018).

CCM is a disease model that was proposed in the 1990s by Wagner and colleagues (Wagner *et al.*, 2001), and it is now considered to be one of the most well-known disease models in the entire world (Grover and Joshi, 2014). It served as a patient-centered, evidence-based, proactive framework with the goal of redesigning ambulatory care systems and achieving health care improvement for patients suffering from chronic disease (Grover and Joshi, 2014). Its goal was to improve health care for patients who were afflicted with chronic disease (Wagner, 1998). CCM is made up of a total of six essential components, which are as follows: a health system or health organization (HSO), clinical information systems (CIS), decision support (DS), delivery system design (DSD), self-management support (SMS), and community-including organizations and resources for patients (CORP) (Bodenheimer *et al.*, 2002). It has been proposed by Wagner (1998) that interactions between patients and healthcare providers ought to include well-developed processes and incentives that permit changes in the care delivery system. This was in response to the fact that he argued that such interactions currently do not exist. These ought to be included in the interactions that take place at the same time. In addition, these CCMs may be able to provide behaviorally complex self-management support to patients. This type of support places an emphasis on increasing patients' levels of self-assurance and competence, with the ultimate goal of empowering patients to act as the primary managers of their own illnesses. In addition, the CCMs have the potential to "reorganize team function and practice systems; develop and implement evidence-based guidelines and support

those guidelines through provider education, reminders, and increased interaction between generalists and specialists; as well as enhance information systems to facilitate the development of disease registries, tracking system, and reminders and to give feedback on performance." This is according to Wagner's definition, which states that the CCMs. To this point, CCM has been recognized and implemented in a wide range of settings within the realm of medical practice (Hariharan *et al.*, 2014). According to the findings of these studies, the implementation of CCM possesses the potential to significantly improve medical outcomes while simultaneously lowering the burden of unnecessary medical work. There is a strong connection between the components of CCM and the strategies that are suggested in articles that are published in the medical literature for the purpose of preventing avoidable hospitalizations. These strategies include training in self-management for patients as well as for the healthcare providers who treat them (Kaptein *et al.*, 2014), the identification of existing community resources (Henderson and Rubin, 2012), electronic systems of medical records for monitoring, as well as sharing and linking among ambulatory services, hospitals and communities, and primary care practices (Kongstad *et al.*, 2016). In addition, professionals in the medical field have shown a high level of adherence to medical practices that were individualized, multifaceted, and contained CCM components (Liddy *et al.*, 2016). On the other hand, there is not a single part of CCM that is capable of accomplishing all of these planned objectives by itself. This indicates that it is necessary to implement multiple components of CCMs in order to improve the quality of health care that is provided by primary care providers (Ku and Kegels, 2015).

8. Primary care

Primary care is the foundation of a person's health care team and serves as the first point of contact with medical professionals. According to the Institute of Medicine's definition, primary care is "the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community." Primary care is defined as "the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs." "The provision of integrated, accessible health care services by doctors who are accountable for meeting a substantial proportion of personal health care requirements, creating a sustained partnership with patients," is how primary care is defined (Donaldson *et al.*, 1994).

According to the American Academy of Family Physicians, primary care is a framework that is centered on patients and coordinated by primary care physicians (family physicians, internists, and pediatricians) in collaboration with specialist physicians and

non-physician health care providers. Primary care physicians also work closely with other health care providers who are not medical doctors. Primary care physicians include of specialists like pediatricians and internists (Savoy *et al.*, 2017).

More specifically, the American Academy of Family Physicians (AAFP) defines primary care as the care that is provided by physicians who are specifically trained for and skilled in comprehensive first contact and continuing care for patients who have any undiagnosed sign, symptom, or health concern (also known as the "undifferentiated" patient), and this care is not limited by problem origin (biological, behavioral, or social), organ system, or diagnosis (Savoy *et al.*, 2017).

Primary care encompasses a wide range of medical practices, including but not limited to the following: health promotion, disease prevention, health maintenance, counseling, patient education, diagnosis and treatment of acute and chronic illnesses in a variety of medical settings (including but not limited to an office, an inpatient facility, critical care, long-term care, home care, day care, etc) (Physicians, 2017).

The idea that primary care practices are only effective for the management of basic ailments like the common cold or ankle sprains is a popular misunderstanding. In truth, primary care offices provide the bulk of complex consultations. Yet, this notion persists (indicated by the number of diagnoses managed during a single visit) (Moore *et al.*, 2016).

9. CONCLUSIONS

Because people tend to develop chronic diseases with the passage of time or as they become older, communities as a whole face a significant obstacle in the form of chronic diseases. Those who suffer from chronic diseases require a wide range of care, not just medically but also socially. This places a strain on the economy because the treatment of chronic diseases is expensive. It is absolutely necessary to manage chronic diseases in primary care settings in order to reduce the severity of such a burden.

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