

Frameworks for chronic care management

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LEARNING OBJECTIVES

After studying this chapter, you should be able to:

- understand the impact of chronic disease burden on communities both in Australia and New Zealand
- describe what a model of care is and how this applies to chronic care management
- outline the Chronic Care Model developed by Wagner et al.
- describe the Innovative Care for Chronic Conditions Framework
- explain the value of evidence-based practice to patient outcomes and the nursing profession in relation to chronic conditions.

Introduction

Chronic conditions are prolonged and unable to be cured. They frequently have multiple causes, take a long time to develop and can lead to complications (AIHW, 2012). In 2012, chronic conditions accounted for 68 per cent of death in the world (WHO, 2014a). The burden of **chronic conditions** is estimated to account for approximately 80 per cent of **disability adjusted life years** (DALYs) and continues to increase, according to the Australian National Chronic Disease Strategy (National Health Priority Action Council, 2006). In Australia and New Zealand in 2014, chronic conditions accounted for 91 per cent and 89 per cent of deaths respectively (WHO, 2014b).

These figures indicate the substantial impact that chronic conditions have on life worldwide, and this will also impact on health systems (Nuño, Coleman, Bengoa & Sauto, 2012). Nurses, who are the majority of workers within those systems, are able to have a significant impact on dealing with the issues that are arising from the increase in chronic conditions. Health systems will need to reorganise from a focus on acute health care to a focus on addressing and preventing chronic conditions. A focus on prevention, self-management, organisational change and political change is required to create better client outcomes, and this will require specialised skills from nurses if they are to be an effective part of the workforce to make these changes (Nuño et al., 2012). As indicated by the International Council of Nurses (2010), there is a growing global need for nurses to engage with communities and other sectors to intervene at the earliest stages to prevent chronic conditions. In order for nurses to do this effectively, they need to implement evidence-based practices that have demonstrated positive outcomes. Not only does this apply to the practices related to direct patient/client care, but also to the models of care that organisations use to guide care for people with chronic conditions (Nuño et al., 2012).

This chapter will provide an overview of the Chronic Care Model (CCM) and how it was developed. The evidence base behind the model and how it has been implemented will be covered. The necessity for the evolution of the CCM into the Innovative Care for Chronic Conditions Framework (ICCCF) to address issues at an international level will be described together with an overview of the ICCCF. The importance of evidence-based practice will also be described.

Competency

Table 1.1 identifies the national competency standards for the registered nurse from the Nursing and Midwifery Board of Australia (NMBA) and the Nursing Council of New Zealand (NCNZ) that are addressed in this chapter.

Models of care

What is a model of care?

A model of care is a framework that articulates how health care services are delivered to meet the needs of clients (NSW Department of Health, 2010). Broadly speaking, a model of care describes concepts or aspects of health care and how they interrelate with each other. Models of care can vary to identify different levels of relationships, such

Table 1.1 Registered nurse standards and competencies for practice

Australia – registered nurse standards for practice	New Zealand – competencies for registered nurses
Standard 1: Thinks critically and analyses nursing practice	Competency 1.4: Promotes an environment that enables health consumer safety, independence, quality of life, and health
Standard 2: Engages in therapeutic and professional relationships	Competency 2.6: Evaluates health consumer's progress toward expected outcomes in partnership with health consumers
Standard 6: Provides safe, appropriate and responsive quality nursing practice	Competency 4.1: Collaborates and participates with colleagues and members of the health care team to facilitate and coordinate care
Standard 7: Evaluates outcomes to inform nursing practice	Competency 4.3: Participates in quality improvement activities to monitor and improve standards of nursing

Sources: Nursing and Midwifery Board of Australia, 2016; Nursing Council of New Zealand, 2007.

as the ICCCF, which describes three levels of care (the micro, meso and macro levels) (Frognier, Waters & Anderson, 2011). Models of care indicate to staff what their roles are, who they may interact with and what pressures they may face as they undertake their tasks. A good model of care will identify aspects of health care that may otherwise be overlooked. For this reason, a model of care is especially useful for new practitioners to assist them in providing appropriate care for people (NSW Agency for Clinical Innovation, 2013).

At higher levels, identifying how patients/clients move through a model of care can assist in identifying gaps in the care being provided or a duplication of services that could be altered. This level of a model of care is useful for managers and organisations (NSW Agency for Clinical Innovation, 2013). Models of care should also cover situations that are unusual or unlikely, and be adaptable to change in order to maintain their currency.

Research into successful models of providing chronic care has been undertaken over many years. Due to the overarching nature of many proposed models of care for people with chronic conditions, sometimes parts of the models, rather than the entire model, are evaluated or researched (Nuño et al., 2012). Although some specific models to implement chronic care exist in Australia, such as those developed for Indigenous peoples, this text will focus on a model developed for the international market as it is important for nurses to be aware of what is happening globally and to have a framework that can be implemented in any environment. The ICCCF, which has evolved from the earlier work of the CCM, guides this text and will be described in greater detail.

The Chronic Care Model

Effective management of chronic conditions requires a coordinated, system-wide approach. Wagner, Davis, Schaefer, Von Korff and Austin (1999) developed the Chronic Care Model (CCM; see Figure 1.1) in order to provide a systematic approach to chronic

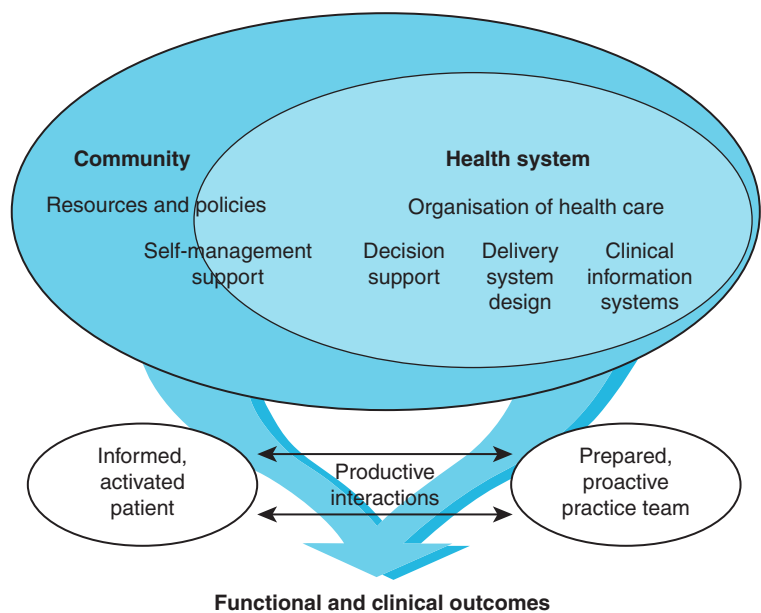


Figure 1.1 The Chronic Care Model (Wagner et al. 1999)

care management that bridges the gap between knowledge and practice, and supports patients (Kadu & Stolee, 2015). The CCM has been identified as being effective in a wide variety of settings and environments (Coleman, Austin, Brach & Wagner, 2009; Nuño et al., 2012) and of particular significance in the Australian environment for Indigenous peoples (Si et al., 2008). The CCM focuses on involving the individual with a chronic condition in their care, as well as on the responsibility of organisations to provide a system-wide approach to managing chronic disease burden (Wagner et al., 1999; Wagner et al., 2001).

The CCM incorporates six components: health system (organisation of health care); self-management support; decision support; delivery system design; clinical information systems; and community resources and policies (Stellefson, Dipnarine & Stopka, 2013). The CCM outlines a multidimensional solution to the provision of chronic care (Bodenheimer, Wagner & Grumbach, 2002), acknowledging that effective chronic care management requires an organised approach where health systems support both the **activated patient** alongside a prepared and adequately resourced health provider team (Wagner et al., 1999). Self-management is valued within the CCM as being of significant benefit to the patient/client.

Health system (organisation of health care)

The CCM recognises that, without system change in the way services are coordinated and delivered, the management of chronic conditions will have a limited effect. Pivotal to this system change occurring are health service leaders who are instrumental in obtaining resources to support programs. Conversely, these health service leaders are also crucial in removing barriers that may potentially inhibit the implementation of system-wide change. Reducing duplication through realigning and integrating services is required to achieve efficiencies. Ensuring that organisations include chronic care improvement targets and goals as part of their strategic and business plans encourages senior leaders to take responsibility for and support chronic care programs (Wagner et al., 2001).

Activated patient – a person who is informed and engages in the decision-making process related to their own health care needs.

Another strategy to support system-wide change is in the provision of financial and non-financial incentives that may be offered to encourage providers to take on case management roles to coordinate care. In Australia, general practitioners (GPs) are encouraged to claim levies through Medicare for case management roles. Where health services have met targets or key performance indicators, additional funding also provides an incentive for leaders to support changes to the way care is organised (Bodenheimer et al., 2002).

Self-management support

Reducing the symptoms and complications that result from many chronic conditions often requires a change in lifestyle. Models of care where health providers set goals for the patient, with minimal involvement from the patient, have been shown to be less effective than self care management strategies. Enabling patients (and their family/carers) to care better for themselves and make decisions about their own care is a fundamental principle in self care management (Epping-Jordan, Pruitt, Bengoa & Wagner, 2004). A collaborative approach between patients and health providers, which includes defining the issues or problems, setting realistic goals and creating mutually agreed treatment plans that can be modified if problems arise, is a key feature of successful management programs. Evidence demonstrates that when patients are provided with information about their chronic condition, and have the support and encouragement to make their own decisions about their care, including control over their own lives, outcomes are significantly improved (Wagner et al., 2001). The focus in health care has therefore moved towards individual and group interventions that promote empowerment and the gaining of skills that assist in the management of chronic conditions.

Decision support

In order to provide quality care for the person with a chronic condition, health providers need access to professionals with clinical expertise and experience that supports the delivery of that care. Evidence-based guidelines or protocols should be available to health providers where decisions about ongoing treatment and management of chronic conditions are required. Access to reminders and standing orders that support decisions in the delivery of care to the person with a chronic condition should be available. Health teams, including doctors, nurses and allied health professionals, require access to ongoing professional development and education in order to support adherence to best practice and to adapt to changing models of care. Through education, the ability to make informed decisions is enhanced (Wagner et al., 2001).

Delivery system design

Historically, health care systems have been developed to manage acute care conditions. People with chronic conditions do not fit in to this model easily. Single transactions of care, which focus on assessment, treatment and discharge, generally do not recognise the complexity of chronic conditions and the need for ongoing care. Wagner et al. (2001) emphasise that **productive interactions** between the patient and practice team are more likely to occur with planning for future interactions and visits. People with complex conditions need access to a wide range of health providers. Multidisciplinary health care teams and outreach services can provide follow up to ensure adherence to the ongoing management of chronic conditions. Therefore, in order for improved management of people with chronic conditions, the ways in which health systems are designed must change (Wagner et al., 2001).

Productive interactions – individualised care where health care teams optimise patient outcomes through a series of exchanges.

Clinical information systems

Coordinated care is reliant on timely access to data and information. Chronic care patients may engage multiple health providers over long periods of time. This presents challenges in the care and treatment of people with chronic conditions. Clinical information systems, such as databases and registries that have the ability to flag follow ups and client recalls, are tools that can be used in the coordination of care (Wagner et al., 2001). Computerised information systems should have the ability to share information across various platforms so that information is readily accessible to a variety of health providers. This is not without its own set of issues, and is one of the many challenges in supporting coordinated and integrated care for people with chronic conditions.

Community resources and policies

People with chronic conditions are multiple users of a variety of health services. Not all services can provide everything that a person with a chronic condition may need. For this reason, it is important that access to a wide range of services, expertise and resources is promoted. Increasing access to community programs where multiple health agencies have agreed to share resources can lead to improved cost efficiencies in the delivery of health care. For this to occur, health policy that is supported by senior leaders who are in a position to modify or change policy is required (Wagner et al., 2001).

REFLECTIVE QUESTION 1.1

Commonly, models of care are modified to improve health care for patients. What model of care is used in your area of practice? Is this model effective in addressing the needs of chronic care patients/clients?

Evolution of the Innovative Care for Chronic Conditions Framework

The ICCCF extends the CCM by adding micro, meso and macro levels to it (see Figure 1.2). This framework incorporates six guiding principles: evidence-based decision making; population health approach; focus on prevention; quality focus; integration; and flexibility and adaptability (WHO, 2002). These levels extend the involvement of community and describe policies and financing as the drivers for implementation of the framework at the macro level (Bengoa, Epping-Jordan, Pruitt & Wagner, 2004). The CCM, although useful, was found to be based on the United States health care system, and thereby on evidence from high-income countries. The ICCCF, however, is more suitable for low- to middle-income countries as it emphasises policy development, the role of the community and integration between services (Nuño et al., 2012).

The three levels (macro, meso and micro) of the ICCCF will be the focus of further chapters where they will be discussed in greater detail. At this stage, the six guiding principles will be discussed to provide an overview of the ICCCF and how it should be implemented within health care services. Nursing staff, who make up the majority of the

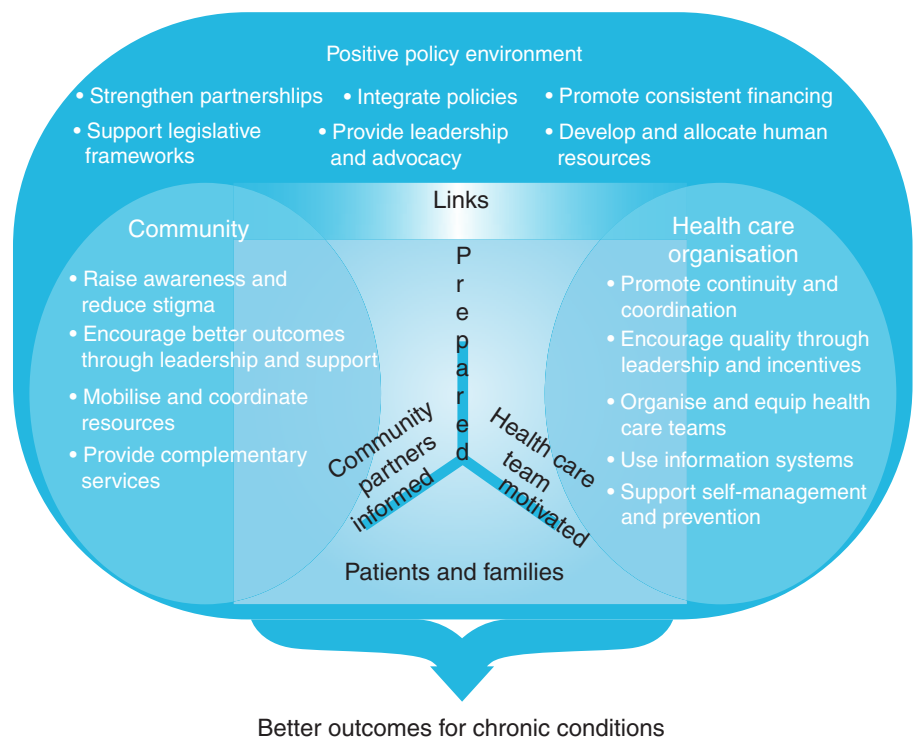


Figure 1.2 The WHO Innovative Care for Chronic Conditions Framework (ICCCF)

health workforce, should be educated in the use of the ICCCF (Anderson & Malone, 2015). All of the six guiding principles complement each other and are designed to be followed at all levels of the ICCCF.

Evidence-based decision making

Evidence (in the form of research) should be the basis for all decision making in health care (Wagner et al., 2005). For nurses, this involves finding the latest research that is available and using it to inform clients, so that their decisions can be based on evidence. This is especially the case in the management of chronic conditions if nurses are to reduce their impact on clients. Evidence should inform not only clinical care, but also policy making and service delivery decisions (WHO, 2002). Evidence-based practice will be discussed in greater detail later in this chapter.

Population health approach

A focus on the entire population is the most efficient way to utilise health service resources. It allows the development of long-term, proactive strategies to organise often limited resources to provide good-quality services to many people (WHO, 2002). Entire populations are at risk of contracting chronic conditions. Patterns of behaviour regarding nutrition and physical activity are often found within communities, and individuals can find it difficult to change these behaviours when acting alone. Promoting healthy lifestyles among groups can provide the support that individuals need to make effective lifestyle changes. Such support to populations benefits individuals (Nuño et al., 2012); for example, the current Australian National Heart Foundation campaign ‘Move More, Sit Less’ targets the whole population through national and state media campaigns that

impact on individuals who are exposed to repeated messages about increasing exercise as a preventative strategy to reduce cardiovascular disease, which is a national health priority (AIHW, 2015; Heart Foundation, 2015).

Focus on prevention

The ICCCF is based on a recognition that preventing chronic conditions is more effective than treating them and attempts to reorient health services to focus on prevention (Gardner et al., 2011). Prevention should focus on both the population and the individual levels in order to be most effective. There is sufficient evidence regarding risk factors to allow intervention to take place before chronic conditions and their complications become apparent, to delay their onset and to limit their progression once they have begun (Nuño et al., 2012). It is also known that risk factors often exist in combination. People who smoke, for example, are more likely to drink than those who don't smoke (AIHW, 2012). Increasing the incidence of risk-reducing behaviours, which is the current focus of prevention activities (AIHW, 2014), can dramatically reduce the incidence of chronic conditions in the future, but requires commitment at all levels of the ICCCF (WHO, 2002).

Emphasis on quality of care and systematic quality

It has been demonstrated that continuous quality improvement can lead to positive changes in health service systems, safety, delivery and outcomes for clients (Hickey & Brosnan, 2012). Although there are some variations, most quality improvement programs follow a cyclical process of 'plan, do, study, act', which leads to incremental improvement that is contextualised to address the needs of individual services (Gardner et al., 2011). Quality can increase accountability for the health provider and is most effective when applied at all levels of the ICCCF (WHO, 2002).

Integration

The need to build an integrated health system is one of the reasons that the ICCCF comprises micro, meso and macro levels. It is recognised that all of these levels need to work together to inform a single health system and to be integrated in order to produce the best possible outcomes for clients (Nuño et al., 2012). A good integration of levels would see the blurring of these levels to provide seamless, effective and efficient client care, including primary health care, inpatient care and chronic care (Humphries & Wenzel, 2015). Current literature indicates that the majority of research in this area has focused on the meso level and the need to integrate and communicate effectively across health services. However, the need for an integrated service at the micro level is also obvious as this is where actual contact with the clients occurs. The overarching aspect of the macro level and how it impacts on service provision and funding for clients is also essential if outcomes are to be maximised (Nuño et al., 2012).

Flexibility and adaptability

Flexibility and adaptability are required if the ICCCF is to meet the diverse needs of the populations it is designed to service. As an international model, the ICCCF needs to be adaptable to an extensive variety of settings. If it is to be applicable over time, then it needs to be able to adapt to changes in government and economic conditions. Adaptability and quality improvement are designed to lead to a framework that can change to meet the needs of the clients it is serving (WHO, 2002). In Australia and New Zealand, the complexities

of the geographic environment (among other issues) have led to the development of ‘fly in, fly out’ models of care (Gardner et al., 2011). These are particularly designed to address rural and remote settings where services and expertise are often lacking. The flexibility and adaptability aspects of the ICCCF encourage this type of adaptation to meet the needs of communities that are unable to be addressed otherwise.

REFLECTIVE QUESTION 1.2

What type of health prevention and promotion programs are available in your community? Are they driven by the needs of people with chronic conditions or by health service needs?

Evidence-based practice

Evidence-based practice (EBP) refers to the use of current best evidence to inform clinical decision making and the delivery of health services (Gillespie et al., 2012; Nagy, Mills, Waters & Birks, 2010). Prior to the EBP epoch, health professionals relied on tradition, guesswork or logic when determining clinical actions (Nagy et al., 2010). This approach was criticised as it resulted in wide variations in care and unpredictable health outcomes (Stevens, 2013). Evidence generated from systematic approaches to inquiry that are subjected to critique and extensive evaluation, and subsequently incorporated into clinical practice guidelines, have realised the standardisation of health care in Australia and New Zealand and greatly improved health outcomes (Stevens, 2013). An example of standardisation of health care that has improved the quality of life of individuals and health outcomes nationally is Australia’s National Guidelines for Asthma Management (National Asthma Council Australia, 2015). Asthma is a debilitating airways disease affecting over two million Australians and approximately 334 million people globally (Global Asthma Network, 2014). EBP is the mechanism for quality care improvement at the global, national and local levels and therefore is the means by which preventable morbidity and mortality are addressed (Stevens, 2013).

Hoffman, Bennett and Del Mar (2010) assert that EBP promotes attitudes of inquiry among health professionals that support clinician accountability, enhance the transparency of the decision-making process, and promote fiscal efficiencies and the achievement of positive health outcomes. Health professionals’ engagement with people who have a chronic condition is a fundamental aspect of the CCM and the ICCCF. Open, ongoing communication that accommodates the centrality of the patient/client is encouraged and accepted as necessary to support the individual’s self-management of their chronic condition (Wagner et al., 2005). As the body of evidence is ever evolving, health professionals must constantly update their knowledge and practice to keep abreast of new research and the implications for their practice.

The Joanna Briggs Institute, for example, has designed a model of evidence-based health care that provides a detailed overview of the methods by which health care providers make clinical decisions. The model suggests that discourse, talking with others, experience and research are techniques by which information is garnered, processed and utilised to inform practice (Pearson, Weichula, Court & Lockwood, 2005). The model highlights the process by which research is generated, understood, verified and incorporated into

the body of evidence, and ultimately shared and translated into practice by health care providers globally (see Figure 1.3).

The evidence base for the CCM (and the ICCCF that is derived from it) is strong. Several authors have published reviews of the literature supporting this (see, for example, Coleman et al., 2009; Nuño et al., 2012). However, as the CCM and ICCCF are complex and would require implementation by many agencies and organisations in order to be researched effectively, much of the existing research has been limited to specific aspects that are more easily implemented. Self care management, for example, has been demonstrated to have significant health benefits for people with chronic conditions (Hibbard, 2012; Wagner et al., 2001).

Evidence-based practice and professional accountability

Regulated health professionals, such as nurses, are required as part of their registration to maintain currency in their knowledge and practice by participating in professional development activities and incorporating contemporary scientific evidence into their practice, thus ensuring public safety (Hoffman et al., 2010; Nursing and Midwifery Board of Australia, 2016). Employing scientific evidence to underpin practice is referred to as **evidence utilisation** (Pearson et al., 2005) or **knowledge transfer** (Bannigan, 2009) (see Figure 1.4). Evidence alone, however, is not the only factor that health professionals utilise