

Chapter 2

Application to Public Health

Abstract This chapter will discuss how integrative health services and holistic approaches to health can improve overall patient health and health systems outcomes. This will include discussions of improvements in preventative care, chronic disease management, increasing health care costs, and improving system efficiency. The chapter will conclude with a discussion of end of life care and the recent trend of Physician Orders for Life-Sustaining Treatment.

Keywords Chronic disease • Integrative medicine • Integrative health • Complementary and Alternative Medicine (CAM) • Chronic care model • Chronic illness • Preventive care • Health spending • End of life • Physician Orders for Life-Sustaining Treatment POLST

2.1 Student Learning Objectives

After reading this chapter, you should be able to:

- Summarize the challenges chronic disease present in the current health system
- Identify three areas in which preventive care can save health care dollars.
- Identify the time of life in which most patients incur the most medical costs
- Explain the key components of the Chronic Care Model
- Describe when, how, and for which patients POLST orders may be a valuable tool

This chapter will discuss how integrative health services and holistic approaches to health can improve overall patient health and health systems outcomes. This will include discussions of improvements in preventative care, chronic disease management, increasing health care costs, and improving system efficiency. The chapter will conclude with a discussion of end of life care and the recent trend of Physician Orders for Life-Sustaining Treatment.

2.2 Chronic Disease Management

Today, nearly half of all Americans are living with a chronic condition (Partnership for Solutions, 2004). Chronic conditions may be defined as a condition that requires ongoing interaction with the health care system. Health interactions for chronic conditions are focused on managing the disease or symptoms rather than curing the condition. If the condition lasts more than 3 months, it meets the U.S. National Center for Health Statistics definition of a chronic disease. Common examples of chronic diseases include arthritis, diabetes, cardiovascular disease, and obesity. The chronic care model promotes interventions that encourage increased self-management of health ailments and symptoms (Wagner et al., 2001). The model indicates productive interactions taking place between informed and engaged patients and prepared and proactive health teams (Wagner et al., 2001). Further, it shows these actions as evolving and flowing from a community which supports self-management of disease symptoms and from a health system that offers decision support and useful clinical information systems.

2.3 Preventive Care

The benefits of preventive care are numerous given the prevalence of preventable chronic disease in the health system. It is estimated that 70 % of the health care costs burden is related to preventable illness and disease (Fries et al., 1993). When placing the nine most common causes of death under reclassification according to their underlying actual causes, eight of the nine leading categories were preventable causes (Fries et al., 1993). Furthermore, lifetime medical costs are also clearly linked to higher and lower risk health behaviors (Fries et al., 1993). Evidence also shows that education about health decisions lowers the costs of long term care even in chronic disease patients (Fries et al., 1993). Literature also supports that well designed workplace health promotion programs are able to reduce the illness burden both in terms of direct healthcare costs and in terms of the number of sick days workers require (Fries et al., 1993).

The inability of the U.S. healthcare system to meet demands of chronic conditions is at least in substantial part due to a poorly organized delivery system (Wagner et al., 2001). Improvements in care must come from changing the systems of care, since the system is ill equipped to handle the type of long term health conditions that plague our system (Institute of Medicine, 2001). The Affordable Care Act (ACA) signed into law in 2010 offers some improvements to the medical system by requiring insurance companies to provide several health screenings and preventive services without copays or coinsurance to increase the likelihood consumers seek these services (U.S. Department of Health & Human Services, 2015). The ACA also provides employer incentives to provide more robust workplace wellness programs.

2.4 Costs of Care

It is thought by many integrative experts that integrative health care can lower costs by increasing efficiency and effectiveness and minimizing duplication and waste (Kodner & Spreeuwenberg, 2002). This is due to the combining of the inputs, delivery and management of services in the integrative model (Kodner & Spreeuwenberg, 2002). According to Guarneri, Horrigan, and Pechura (2010), cost savings could quickly be established by providing integrative lifestyle change programs for chronic disease patients along with other preventive strategies to promote wellness in other populations (p. 308).

In addition to systemic cost savings, integrative approaches also save money by decreasing utilization of expensive high tech medical interventions and replacing them with lower cost but similarly effective treatments (Guarneri et al., 2010). One example supported by research is the use of acupuncture treatments as an alternative for knee surgery, which has been shown to save \$9000 on average (Christensen et al., 1992). Acupuncture has also been shown to produce an average savings of \$26,000 by reducing time spent in hospitals or nursing homes after a stroke (Johansson, Lindgren, Widner, Wiklund, & Johansson, 1993).

The complementary and integrative approach to treatment tends to lower costs by providing many mind-body therapeutic options in a small group setting and lowering patient reliance on medications (Guarneri et al., 2010). Group settings not only reduce costs, but have been shown to also improve health outcomes and increase patient satisfaction (Maizes, Rakel, & Niemiec, 2009). These group visits could involve health education, exercise, mindfulness/meditation instruction, or a variety of other options for patients (Maizes et al., 2009). Typically these group classes are arranged by patient population (Maizes et al., 2009).

Finally, integrative medicine can lower health care costs by investing in preventative health. It is less expensive to prevent disease than to have to treat it (Guarneri et al., 2010), particularly considering that most modern diseases are chronic conditions that continue over long periods of time. Serxner, Gold, Meraz, and Gray (2009) reviewed 120 studies of employee wellness programs that resulted in the employers saving 26 % in health care costs. This resulted in an average return on investment of \$5.81 for every \$1 spent on workplace wellness (Serxner et al., 2009).

2.5 End-of-Life Care

End of life care presents an unusual burden on the health care system in terms of economic costs. It is estimated that 18 % of lifetime costs for medical care are incurred during the last year of life (Fries et al., 1993). Even more surprising perhaps is that 29.4 % of Medicare and Medicaid payments for those over 65 years of age are incurred during the last year of life (Fries et al., 1993).

With 70 % of people expressing a preference against life-sustaining treatments at end of life, much of the expense not in the self-expressed interests of many patients (Fries et al., 1993). However, given that only 9 % of the population executes a living will or advance directive, these patient preferences are often not followed by physicians providing end of life care (Fries et al., 1993). Providing the aging population affordable and easy access to executing advance directives may improve patient care, increase patient autonomy, afford humane and dignified care for patients who prefer to avoid particular measures, and reduce health costs. Unfortunately, even when patients make the effort to execute advance directives, they are frequently not available when needed, not transferred with the patient, are not specific enough to be honored, or are otherwise not executed properly (Dunn, Tolle, Moss, & Black, 2007, p. 33).

In order to address these traditional concerns, many states are now providing standardized forms that some state legislatures have named Physician Orders for Life-Sustaining Treatment (POLST). The POLST forms originated in Oregon in 1991, but are now available in some form throughout most of the country (currently it is not available in Alaska, Alabama, Arkansas, Nebraska, or South Dakota) (POLST, 2012–2015, Programs in your state). Physicians complete these forms with seriously ill patients¹ about their end of life care preferences (Dunn et al., 2007). Proponents of these programs argue that they reduce medical errors, better clarify and identify patient wishes, and ensure meaningful discussion and shared decision-making between patients and their physicians. (The National Physician Orders for Life-sustaining Treatment Paradigm, 2015, What is POLST?). The decisions are to be made with a physician examining the patient, and in accordance with the patient's preferences, values, personal beliefs, and taking into account their current state of health. Putting this information at the front of the patient's medical record, and sending a copy home with patients (if appropriate) helps to ensure the information is available and recognizable as a valid physician order to any health care workers treating the patient (Dunn et al., 2007).

2.6 Questions for Discussion

1. Do you think POLST will make end of life care decisions easier for patients and their families? Why or why not?
2. What wellness programs or opportunities does your university or workplace offer? Have you participated in any? What was your experience like?

¹As a rule of thumb, it is recommended that providers ask themselves “Would I be surprised if this person died in the next year?” If the answer is No, they would not be surprised, then a discussion of POLST with the patient is recommended (Dunn et al., 2007, p. 37).

2.6.1 Case Study #1

Joe is a 66 year old male in generally good condition. He was diagnosed with diabetes 10 years ago and has had high blood pressure for most of his life. Joe is now at the local hospital to receive treatment for a broken arm after falling from a ladder while performing repairs on his home. Is Joe a good candidate for POLST? Why or why not?

2.6.2 Case Study #2

Gina is a 65 year old female who was diagnosed 1 year ago with Stage IV ovarian cancer. She was informed her condition is terminal, and is undergoing chemotherapy to try to prolong her life. Her oncologist expects her life expectancy to be in the 6–18 month time frame, although survival time is difficult to predict. She is now in the hospital and it appears she suffered a minor stroke. Is Gina a good candidate for POLST? Why or why not?

2.7 Definitions

Preventive Care

health services that focus on avoiding illness, disease, and related problems through services such as health screenings, testing, education, check-ups and patient counseling.

Chronic Care Model

Framework for improving care for the chronically ill at the individual and population level by identifying six fundamental areas that support the proper management of chronic illnesses.

Physician Orders for Life-Sustaining Treatment

advance care planning facilitated between health providers and patients to determine what if any life-sustaining treatments are desired by seriously ill patients in accordance with their preferences, values, personal beliefs, and current state of

health. Sometimes referred to by other names depending on the jurisdiction, such as Medical Orders for Life-Sustaining Treatment (MOLST); or Physician's Orders on Scope of Treatment (POST).

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