

# Chapter 10

## Online Health Communities and Health Literacy: Applying a Framework for Understanding Domains of Health Literacy

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### **ABSTRACT**

*The purpose of the chapter is to define health literacy and e-health literacy in the context of online health communities (OHCs). The chapter has three sections. The first section defines and discusses features of OHCs. The second section defines health literacy and e-health literacy, including domains of health literacy, which, as the authors argue, is necessary for a greater understanding of health literacy and OHCs. The third section applies the health literacy domains using The Biggest Loser League weight-loss OHC as a case study. A content analysis of posts was conducted between September 1, 2009 and December 31, 2009. Domains of health literacy were coded. Results show that functional literacy and interactive literacy were present in the OHC discussions to a greater degree than any of the other health literacy domains examined. Results are discussed in light of health literacy and e-health literacy, and practical implications of OHCs are explored.*

### **INTRODUCTION**

The Internet has become a valued part of managing consumers' health. For physicians and health care professionals, the Internet offers cost-effective communication for patients, including the poten-

tial for health education (Cline & Hayes, 2001; Stout, Ball, & Villegas, 2004). For consumers, the Internet offers virtually limitless information on health, multiple health perspectives, and the ability to communicate with others regarding health issues. Online health communities, or OHCs, are a popular source of health information online. Consumers join OHCs in search of specialized

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health information, social support, and psychosocial benefits (Cline & Hayes, 2001; Rodgers & Chen, 2005; Wright, 2000). It has been estimated that one in four consumers actively participates in an OHC (Raines, 2005). Initial studies suggest that basic health literacy skills and knowledge are needed to effectively communicate about a health problem and technology places greater demands on consumers' health literacy as well ability to effectively use technology, suggesting the need to examine e-health literacy in conjunction with health literacy in OHCs. However, compared with the growing popularity of OHCs among everyday health consumers, research has lagged regarding the examination of health and e-health literacy in OHCs. Additionally, while OHCs remain an untapped resource in which to examine health literacy, it is unclear as to the extent to which consumers use health literacy – the development of which can improve health behaviors - in online communication. Recent health literacy research shows a need to streamline the definition of health literacy and e-health literacy; multiple definitions of health literacy abound, necessitating consideration of both the context (setting) in which health literacy demands are made and the skills that people bring to the setting (Rudd, Moeykens, & Colton, 1999). The purpose of this chapter is to explore consumers' health literacy in OHCs using domains of health literacy, defined below. To develop a more robust view of health literacy and e-health literacy, it is important to look at the domains of health literacy in the capacity of OHCs; in addition to active exchange of information (Korp, 2006; White & Dorman, 2001) consumers provide emotional and psychological support to each other in OHCs (Rodgers & Chen, 2005; Wright, 2000; 2002). With consumer benefits such as psychological support, personal connection, and anonymity, health information provided in online discussions can influence consumers' health-related attitudes, decisions, and behaviors - more so than health information found on general health-related Websites (Wang,

Walther, Pingree, et al., 2008). It is, therefore, crucial to examine domains of health literacy within an e-health literacy context to better understand the types of domains of health literacy being used, as well as extent of health literacy use, in OHCs. To orient the reader, the remainder of this chapter is outlined as follows. First, features of OHCs are discussed; second, health literacy and e-health literacy are defined. Multiple domains of health literacy are adopted in order to provide a multi-dimensional perspective of health literacy within OHCs. Last, the results of a case study are presented to demonstrate the use of domains of health literacy in OHCs, followed by a discussion to further explore the implication of OHCs in relation to health literacy and e-health literacy.

## **BACKGROUND**

### **Online Health Communities**

The Internet has become a widely used source for health information. According to the Centers for Disease Control and Prevention (CDC, 2010b), consumers search for information about specific diseases and treatments, doctors and hospitals, experimental treatments, health insurance, medicines, fitness, and nutrition online. Among many applications provided by the Internet, online communities have become increasingly popular and carry a unique capacity to facilitate interpersonal communication through online discussion (Raines, 2005).

Online communities have been defined as “groups of people with similar concerns who communicate via information technology” (du Pre', 2000, p. 182). Initial research on online health communities found that participation may lead to positive health outcomes (Finn, 1999; Wright, 1999; 2002). Online health communities (OHCs) provide referrals to other Websites through links containing information about the issue or information based on the experiences of other members

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