Active and passive acquisition of health-related information on the Web by college students

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ABSTRACT

Using the Internet as a source of health information is increasing among the college population (Escoffery et al., 2005; Ogan et al., 2008). A number of studies investigated how frequently they actively seek health-related information on the Internet, popular topics, used online sources (Baxter et al., 2008; Buhi et al., 2009; Escoffery et al., 2005; Hogan & Sweeney, 2012; Zuckerman, 2009). However, none of the studies compared if there is any difference between their active and passive health information acquisition. This poster presents the preliminary findings of a study on how college students obtain online health information, health-related topic and web-based sources they use to obtain health information in both passive and active manner, as well as if there is any difference in information acquisition style based on the information source. 2193 survey responses were collected using Qualtrics software. The findings of this study suggest that college students tend to actively seek health information more often than accidentally stumble upon it. The most common topic students look for in both passive and active manner are diet/nutrition and fitness/exercise. Health information is actively sought using search engines and Wikipedia and passively encountered using social networking sites and search engines. Keywords Online health information, information seeking information encountering, the Internet, college students

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INTRODUCTION

Between 66.1 and 84.8% of college students use the Internet to acquire health-related information on a regular basis (Escoffery et al, 2005; Buhi et al., 2009; Zuckerman, 2009; Percheski & Hargaittai, 2011; Hogan & Sweeney, 2012). They often look for information related to the following topics: sexual health, diet, nutrition and vitamins, exercise and fitness, and mental health (Pew, 2013; Smith et al., 2000; Buhi, 2009; Dickinson et al, 2004; Horgan & Sweeney, 2012; Baxter et al., 2008; Buhi et al, 2009; Escoffery et al., 2005). Many young people perceive the Internet as an easily accessible, cheap, and convenient resource for health information in the face of concerns about confidentiality (Gray et al., 2005). Therefore, college students use the Internet as an outlet for learning about health topics that they feel embarrassed to discuss with parents, educators and health-care providers (Buhi et al., 2009).

The most popular health information sources among college students are search engines such as Google, Bing, or Yahoo! (Buhi et al. 2009; Escoffery et al., 2005; Fox & Duggan, 2013) followed by health-specialized websites (e.g. WebMD.com) and social media tools (e.g. Facebook, Twitter) (Pew, 2013).

People acquire information through intentional information acquisition and opportunistic acquisition of information. Intentional information acquisition is a conscious effort to acquire information in response to a need or a gap in our mind (Case, 2002). In addition to intentional seeking for health-related information, people acquire information without actively looking for it (Askola et al., 2010; Baxter, 2008; Zhang, 2012). This opportunistic acquisition of information is a situation when people unexpectedly come across interesting or useful information (Williamson, 1998; Erdelez, 1997). A small number of studies that focused on both intentional and opportunistic acquisition behaviors describe opportunistic health information acquisition as a common acquisition style that complements intentional seeking (Baxter et al., 2008; Zhang, 2013), and is more common than intentional seeking (Askola et al., 2010). Certain types of information environments facilitate opportunistic acquisition of information, such as social networking sites commonly used among the college population (Zhang, 2012).

The literature on health information behavior has typically focused on intentional information seeking behavior, such as information seeking. Although these studies provided important insights for understanding health information behavior, they neglected opportunistic or unintentional acquisition, which is an important aspect of health information behavior and may positively impact individuals’ health behaviors (Shim, Kelly & Hornik, 2006). Only studying these two behaviors together and in the context in which they take place may provide a full picture of a real situation and knowledge how college students acquire health information in their daily life.
Knowing how college students actively and passively acquire health information on the Internet may eventually have significant implications for the design and efficacy of public health communications that are geared towards the college population and young adults. Understanding how health information is obtained without being sought is particularly important for health promotion strategies, which rely on people encountering health information by chance instead of actively searching for it (Palsdottir, 2010). Furthermore, receiving timely and appropriate health information plays a vital role in promoting health among the college population, by educating them about the consequences of certain risky behaviors, expanding their knowledge about a certain health concern, and informing their health care decision-making. In addition, this information will provide valuable information for librarians to improve e-health literacy instruction. To fill that gap, this study will focus on exploring how college students obtain online health information, health-related topic and web-based sources they use to obtain health information in both passive and active manner, as well as if there is any difference in information acquisition style based on the source of information.

**Health-related topic.** If information is to be sought, or even simply noticed, it needs to be directed at people’s interest (Mettlin & Cummings, 1982). Reagan (1996) investigated participant’s levels of interest in different health-related topics and found that the information about health that does not relate to issues or concern is not likely to be sought out, and even when gathered accidentally, it is not likely to be noticed. Studies on college students’ information behavior on the Internet have found that students are more engaged in everyday life research than they are in the case with course-related research. This is particularly the case with activities meant to solve information problems with higher-stakes or real-life consequences, such as looking for health-related information (Head & Eisenberg, 2008; 2011). Over the last decade, a number of studies investigated the health-related topics college population explores on the Internet. Health topics popular among the college population include sexual health, diet, nutrition and vitamins, medications, exercise and fitness, and mental health (Baxter et al., 2008; Buhi et al., Hanaver & Sweeney, 2004; Zuckerman, 2009).

**Online source of information.** The information sources preferred by an information user may vary among topics (Reagan, 1996). In order to obtain information related to various health topics, the college population frequently uses various Internet tools, such as search engines, general websites, health-specialized websites, government, non-profit and university websites, and social media tools (Percheski & Hargittai, 2011). Previous empirical research shows that the college population usually starts their search for information related to health topics using a web search engine (Buhi, et al., 2009; Escoffery et al., 2005). Head and Eisenberg (2011) found that a majority of participants in their study frequently use search engines for information pertaining to everyday life. They argued that convenience is a trigger for prioritizing a certain information source. Similarly, Buhi and his colleagues found that 94.1% of college students who participated in their study (n=34) use a search engine describing it as “the most comprehensive search engine” that “searches everything in the world” (p. 107). However, before they start their search, students tend to utilize browsing strategies to access information that will help gain preliminary understanding of a health-related question they need to address (Zhang et al., 2012). The second popular source, after search engines, was Wikipedia, which was used by one third of the participants in Buhi’s study (2009). Efthimiadis (2009) examined how college students search for consumer health information on the Web using questionnaires, think-aloud protocol and transaction logs, and with 32 participants, and has discovered that in addition to a search engine, about 80% of the students who participated in the study started their search from a website created by the University, non-profit organizations, or government.

As they are gaining popularity among college population, the frequency of social networking sites used for health information is also increasing. People often use social networking sites to follow up with friends’ personal health experiences or updates; get health information; post comments, queries, or information about health or medical matters, or start or join a health related group (Fox, 2013). College students are particularly heavy users of social networking sites that provide access to a large amount of user-generated content, which can be a major source of information and care when a person becomes ill (Smith & Christakis, 2008). However, college students do not perceive social networking sites as a platform for intentional heath information seeking. Zhang (2012) interviewed college students (n=38) to explore their use of social networking sites for health and wellness information and their perception of social networking sites as sources of health information. He found that although college students do not perceive social networking sites as a platform appropriate for health information seeking, they do use them to check health updates from other people, find lifestyle information, and ask about treatments for mild conditions. College students participating in Zhang’s study reported that they question the quality of health information available through participant-generated content, and doubt the level of medical knowledge of their friends and peers (Zhang, 2012).

**METHODS**

One web-based survey questionnaire was administered using Qualtrics to determine how often college students obtain health related information from the Internet by active seeking and passive encountering. The survey was administered among college population at one Midwestern University using their weekly announcement service. The questions asked in the survey requested
participants to report their behaviors related to frequency of passive and active acquisition of health information on the Internet, health-related topics they obtain information on by passive information encountering and active seeking, and web-based sources they use to search for health information and sources where they obtain health information by chance. 2193 college students answered the survey. The data was analyzed using SPSS software package utilizing descriptive statistics.

**FINDINGS**

The preliminary findings of this study show that college students obtain health information by both active searching and passive encountering. The results further suggest that this population still actively searches for health information more frequently than they accidentally stumble upon it, disagreeing with some previous studies (Askola et al., 2010; Baxter, 2009). 74% of participants reported that they actively search for health information more than once a month, whereas 64% reported passively acquiring health information on the web more than once a month. The preliminary findings show that there is a difference in which topics college students more frequently acquire by active searching and by passive encountering. Students participating in the study reported obtaining information related to exercise/fitness and diet/nutrition by both passive encountering and active searching. However, information on sore throat, flu and cold, doctor/hospital information, and alternative medications is more frequently acquired by active searching. On the other hand, information related to individuals mental health and alcohol use is more frequently obtained as a result of the passive acquisition of information. The results show that the type of information source is associated with the type of health information acquisition behavior. The participants in this study reported the difference in obtaining health information in passive and active manner using different web-based sources of information. Besides search engines, commonly used for active searching and passive encountering, students reported accidentally stumbling upon health information more frequently while using social media sites (e.g. Facebook, Pinterest, Twitter).

**DISCUSSION**

The preliminary findings of this study suggest a few important lessons for the health information literacy for college population. College students obtain health information in both active and passive manner. Knowing how college students acquire health information in both passive and active way, and the difference in terms of how they acquire health-related information based on topic and web-based information environment can give us insights on how to improve health-information services targeted at this population. Knowing what health information college students need, where do they look for that information and, more importantly, how they acquire that information can benefit design of health promotion strategies well as e-health literacy education. Medical librarians can use this knowledge to design e-health literacy education modules that would enable young health information consumers to successfully obtain and utilize relevant and applicable health information using electronic resources.

**REFERENCES**


