

Interacting with Health information for Self-care: A Pilot Study Exploring Undergraduates' Health Information Literacy

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Abstract

This poster presents findings from a dissertation pilot study of how undergraduate students apply their knowledge and skills to find, evaluate, and use health information for self-care. The study employed Dervin's sense-making theory and examined to what extent undergraduate students demonstrate health information literacy (HIL) knowledge and skills within the context of seeking and using health information for self-care. It utilized a three-phase design: (a) a survey, (b) an interview, and (c) a follow-up observational study. Based on purposive sampling, 34 undergraduates at Florida State University participated in the survey, and eight of them were selected as participants for the interview and the observational study. The study results showed major barriers students encountered and strategies they used in various situations when seeking and evaluating information for self-care. This study has implications for designing more effective college health promotion programs and developing objective HIL assessment instruments in the context of health information seeking and use.

Keywords: consumer health information seeking behaviors, health information literacy, self-care, Dervin's sense-making theory

Introduction

College life is a transitional time for undergraduate students for taking charge of their own health and maintaining a healthy lifestyle, which is essential to their academic achievement and their overall adult health outcomes. Existing studies show that college students, especially undergraduate students, may not have sufficient health literacy skills (Ickes & Cottrell, 2010; Ivanitskaya, O'Boyle, Casey, 2006). This exploratory study employed Dervin's sense-making theory (1983, 1992) to explore how undergraduate students apply their HIL knowledge and skills to find, evaluate, and use health information for self-care. It also implemented a three-phase study design for data collection: (a) a survey, (b) an interview, and (c) a follow-up observational study. The study results are expected to contribute both theoretical and practical knowledge to the current limited body of research on undergraduate students' health information-seeking behavior and health information literacy.

Background

Health information literacy refers to the ability to recognize health information needs and to apply the knowledge and skills required to find, evaluate, and use information to make health-related decisions (MLA, 2003). Health information literacy knowledge and skills range from basic comprehension of evidence-based medicine, to knowledge of credible information sources, to core information skills supporting informed decision-making. Such knowledge and skills are crucial for health consumers to efficiently seek and use health information for self-care.

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Previous studies have stressed the importance of health information literacy and the role of information professionals in promoting HIL (Banas, 2008; Ivanitskaya, O' Boyle, Casey, 2006; Putnam, Kitts, Pulcher, 2010; Schardt, 2011; Shipman, Kurtz-Rossi, & Funk, 2009). However, a lack of HIL assessment instruments is problematic to existing HIL studies. Even though HIL is recognized as a key component of information users' engagement with health information for health purposes (Yates et al., 2012), little research has explored to what extent those users demonstrate their HIL knowledge and skills in identifying their information needs and in seeking and using health information for self-care. There is also limited understanding about how HIL knowledge and skills affect the ways in which individual users seek and use health information in specific situations.

Methods

This study asks one overarching research question with four sub-questions: To what extent do undergraduate students demonstrate HIL knowledge and skills in their health information seeking and use for self-care? (a) What are the situations that cause students to seek health information for self-care? (b) What gaps do students encounter in seeking health information for self-care? (c) How do undergraduate students bridge the gaps in seeking health information for self-care? (d) How do undergraduate students use health information that they have obtained for self-care?

To answer the research questions, this study employed a three-phase design: (a) a group-administrated survey, (b) a semi-structured interview, and (c) an observational study of online health information searching using the think-aloud protocol method.

The target population was undergraduate students enrolled at Florida State University who are actively seeking and using health information for self-care. The group-administered survey recruited 34 participants from two undergraduate courses. The survey collected data about (a) demographic information, (b) basic health status, and (c) health information seeking behaviors. Eight participants for the interview and observational study were selected from the survey participants, based on their willingness to participate and their interest in seeking and using health information for self-care. The interview questions were informed by Dervin's sense-making theory to explore individual information users' experiences in their health information-seeking and use for self-care. The follow-up observational study was designed to complement the interview data by examining students' online health information search skills for answer six self-care scenario questions. The questions covered a variety of undergraduate students' self-care questions including (a) major recommended vaccines for freshmen, (b) on-campus sources for treating eating disorders, (c) available helpful information for stress and sleeping disorders, (d) coping strategies for dealing with side effects of antidepressants, (e) potential harm associated with binge drinking, and (f) local HIV/AIDS testing services (Questions c & d were adapted from Buhi et al., 2009). The questions were pretested by several health professionals in the student health center at Florida State University. A think-aloud protocol was used to examine how participants seek and use online health information for self-care. Camtasia Studio 7.0 was used to capture participants' thoughts and search processes while answering the six questions. After the data collection, NVivo qualitative data analysis software was used to analyze data from both the interview and the observational study.

Findings

To prevent disease or control minor health problems, the participants largely relied on seeking health information for self-care (e.g., symptoms, side effects of medicine). Three major sources were mentioned by the participants: Internet (e.g., commercial, organizational, educational, and government websites), people (e.g., parents, friends, and health professionals), and print materials (e.g., pamphlets and magazines). Google was commonly used as a starting point for online health information seeking, even for searching their university health services. They rarely understood the limitations associated with their frequently used Google search strategies—basic keyword search and question inquiry—even though most participants stated they did not have problems in searching for online health information. Exchanging information with friends and consulting friends (especially those in health-related majors) about nutrition, diet, health problems, or medications were preferred strategies of seeking health

information. Before seeking help from health professionals, they tended to consult their parents. Source accessibility and affordability were two major barriers concerns for source selection and use.

Many criteria (e.g., relevance, reliability, accuracy, trustworthiness, credibility) for evaluating health information were identified from the data despite students' different understanding of these criteria. They frequently selected the first Google search result or the top five results as satisfactory answers without any further scrutinizing. Additional ways of judging information were common sense, familiarity, personal experience, multiple sources, and consumer reviews.

The participants articulated what barriers to health information seeking and use they encountered and how they bridged these barriers. Two major barriers were their insufficient health literacy skills including terminology and background knowledge, and weak information searching skills, which included difficulties with search term selection and poor skills in searching databases, electronic journals, and other online health information resources. Some participants also found it difficult to determine source authority, accuracy, and reliability due to information overload and source disagreement. They tended to use different ways of bridging these barriers, such as verifying information through personal experience, multiple sources, common sense, or consumer reviews. Consulting people (e.g., parents, friends, health professionals) and the Internet were mentioned as complementary strategies. They may also give up on their efforts to judge information because of frustration and lack of time.

The participants tended to use health information to make health-related decisions, such as changing behaviors, undertaking self-diagnosis, engaging in self-treatment, or seeking professional help. They also applied the information they obtained to prevent diseases by practicing good nutrition and diet management and to control health problems by monitoring existing symptoms or side effects of medications. When using health information for self-care, both positive and negative outcomes were reported in terms of controlling health problems, improving health conditions, making health decisions and clarifying questions.

The data of the observational study showed that most participants confused (a) consumer health information and professional health information, (b) reliable health information and information with uncertain quality, and (c) digital fluency and health information literacy.

Conclusion

Many of the findings verified the results of prior research about undergraduate students' insufficient health information literacy knowledge and skills within the context of seeking and using health information for self-care. However, this study provided more evidence about major barriers that prevented students from seeking and using reliable information for self-care, strategies they used in specific self-care situations, and outcomes of their information use. It is valuable to integrate such understanding in designing more effective college health promotion programs and developing objective HIL assessment instruments in the context of health information seeking and use.

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