Evidence Based Library and Information Practice

Evidence Summary

Frequent Internet Users May Prefer More Health Care Information and Participation in Decision-Making

A Review of:
Xie, B., Wang, M., Feldman, R., & Zhou, L. (2013). Internet use frequency and patient-centered care: Measuring patient preferences for participation using the Health Information Wants Questionnaire. *Journal of Medical Internet Research*, *15*(7), e132. doi:10.2196/jmir.2615

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Abstract

Objective – To determine whether there is a significant relationship between patients' frequency of Internet use and their health care information and decision-making preferences.

Design – Cross-sectional questionnaire survey.

Settings – Undergraduate classes at a large state university and senior-oriented computer classes at public libraries and senior centers.

Subjects – 438 respondents, including 226 undergraduates (mean age 20) and 212 community-dwelling older adults (mean age 72).

Methods – Respondents were administered the Health Information Wants Questionnaire (HIWQ), a 21-item instrument designed to measure preferences for 7 types of health information and decision-making, in group settings.

Main Results – The younger age group spent significantly more time online compared to the older age group. Frequent Internet users in both populations expressed an overall preference for more information regarding diagnosis, but less information for psychosocial and health care provider concerns. Internet use was positively correlated to the overall preference rating, leading the researchers to suggest that, as a whole, regular Internet users prefer more

information and independence in decision-making.

Conclusions – The study concludes that Internet use frequency is associated with an overall preference for obtaining health information and participating in decision making. Internet use as related to different types of preferences is inconsistent. Age was not found to be associated with the overall preference rating, and time spent online is proposed to be a stronger indicator of respondents' health information preferences. The authors suggest that future studies utilizing the HIWQ take a longitudinal approach in order to better track how patient preferences for information may evolve over time.

Commentary

The Internet has revolutionized the ways in which patients seek and obtain health information. Due to the decentralization of information that traditionally required the consult of a medical specialist, patients have the ability to select their level of participation in personal health care decisions. The Internet introduced two primary challenges to the medical profession, as noted by Blumenthal (2002): those that are cognitive (creating unmediated access to medical information), and those that are collegial (allowing users to make decisions regarding the health care professional they choose). This democratization of access has led to a conceivable shift in patient preferences and involvement regarding one's health care. While a considerable body of research addresses the health information seeking behavior of various populations, the authors of this study attempt to compare the Internet use of two age groups and their preferences for health information. By finding a marginal correlation between online activity and patient participation, this paper's contribution to the literature is that it provides some degree of support for the significance of Internet use as it relates to the provision of patient-centered health care.

The study's strengths lie in its description of both methodology and process for data collection, which with the exception of the survey instrument's omission, are presented adequately. The discussion of the results is grounded in the literature on changes brought to the medical profession by online information. Statistical significance of the results was tested and verified, and appropriate tables and graphs visualizing the data accompany the text. While these factors contribute favorably to the strength of the evidence presented, shortcomings in the sampling technique, data collection, and data analysis significantly reduce the validity of the findings.

Limitations of the study include two that are common to research relying upon survey data: the use of a convenience sample and biases inherent in self-reported responses. The convenience sample, which the authors acknowledge as an issue for external validity, can lead to unrepresentative results and the inability to generalize findings. Because one population selected was older adults in computer workshops, this group is likely to have a greater interest in improving their computer skills and may not reflect the attitudes of adults their age not in computer workshops. Additionally, the study notes that a survey respondent's stated preference may not reflect actual practice, given that the survey can measure only how subjects state they would act in a hypothetical situation. More intrinsically problematic for the study at hand is the authors' selection of independent variables, as the sampling is based on the single demographic variable of age. Selecting two age groups at each extreme of Internet use not only ignores other age groups that use the Internet, but fails to account for a host of other factors that have been shown to be more robust predictors of online health information seeking, including socioeconomic status, gender, and Internet use experience.

The slightly unusual method for data collection presents additional issues. Surveys are frequently conducted online, or if in print, distributed through postal mail, yet the authors opted to collect survey responses in

group settings. This potentially introduces issues of respondent anonymity and confidentiality, as well as researcher conflict or bias if involved in the survey distribution and collection process. The data analysis would be strengthened by the use of regression analysis instead of analysis of variance, as the former allows for the proper investigation of the relationships between the myriad variables that should be accounted for. The researchers' conclusions and recommendations do not account for several factors, including the omission of suitable predictors; the assumption that individuals rely solely on the Internet when seeking health information; the fact that the Internet represents a variety of information sources in itself, each of varying quality and type; and the fact that information source characteristics, such as reliability, have a considerable impact on its use.

The significance of this research lies less in its findings than in the usefulness of the survey instrument for further research. In terms of recommendations for health care professionals, the researchers suggest that Internet use can be an advantageous way to consider the dimensions of patient interest in participating in their own care process. To the benefit of researchers, this study contributes to the further validation of HIWQ, a survey that expands upon previous instruments used for measuring patient preferences and that would be of use in future work conducted on the topic. At its best, the Internet's impact on how the general public accesses health information is one of democratization and empowerment, as the authors of this study propose. While the evidence is modest due to the limitations of the survey methodology, sampling technique, and data analysis reported, it represents a step towards considering patient involvement with and confidence in the medical decision-making process.

References

Blumenthal, D. (2002). Doctors in a wired world: Can professionalism survive connectivity? *Milbank Quarterly*, *80*(3), 525-546. doi:10.1111/1468-0009.00021