A REVIEW ON E-HEATH LITERACY

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ABSTRACT

Health literature is defined as people's ability to use emerging ICTs to improve and enable health and healthcare. The aim of this study was to investigate whether literacy differences in the search for information on the Internet are reduced or increased. The study focused on (1) traditional digital variables, such as sociodemographic characteristics, digital access and digital literacy, (2) processes for the investigation of information, and (3) results for use of the Internet to inform health. This study has documented high and low difference in eHealth literacy between respondents in terms of background attributes, information consumption, and search results. The link between eHealth literacy and background characteristics shows that the Internet strengthens the existing social differences. The more extensive and sophisticated usage of the Internet and the subsequent increase in eHealth literacy creates new inequalities in the field of digital health information. The risky and needy groups need to be educated (e.g. chronically ill) and technology designed to fit more consumers.

Keywords: E-Health, Literacy, Review

INTRODUCTION

"The use of emerging information and communications techniques to improve or facilitate health or health care" is a relatively new concept of eHealth[1][2]. Health literacy, which includes health literacy component [3-5], effectively links healthcare consumers to typical outcomes of use by the Internet — opportunities, potential harm [6], and inequalities (e.g. membership of a minority or the disenfranchised). Education[10-13], Education[13-15], Gender[15-17]). In the 1990s, the main focus of the concern regarding digital divide inequalities was infrastructural access: infrastructure ownership, availability and accessibility[18]. The digital divide debate has expanded to include other questions, focusing on access patterns[19], use[20,21], and online skills, rather than mere technology access[13,20,21]. Literacy on eHealth may constitute a second health divide[21,22].

Norman and Skinner [23] propose that eHealth literacy is "the ability to seek, find, understand and evaluate electronic health information, and apply the skills acquired to tackle or resolve a health problem." They propose eHealth literacy to include 6 types of literacy: traditional literacy, news, media, health, computer and science. Media and computer literatures are of these attributes unique to the Internet context, with media awareness of media bias or perspective, the ability to discern both explicit and implied meaning from media messages and meanings that derive from media messages. The literature

provides other means of measuring perceived capacity or efficacy, but these were not specific to online health information[24-26].

E-Health Technologies

Norman and Skinner [23,27] promote the correspondence of eHealth technologies with their intended users' skills. Such a fit can be achieved by improving users' computational knowledge (or language or skills) at a level which is conducive to the achievement of health objectives as well as the design of systems in mind. Norman and Skinner have developed an eHealth Literacy Scale (eHEALS) to measure eHealth literacy[27] using a sample of Canadian teenagers to further address this divided line. They stressed that eHealth literacy should be viewed as an evolving process with time while the speed of development depends not on a static but on technology and context (personal, social and environmental). Considered as mixable, eHealth literacy can indeed "empower people to participate fully in eHealth resource-based health decisions"[23]. Conversely, the expansion in the form of eHealth literacy of digital resources to the health field could also create new gaps between health consumers [14,28]. In developed economies, the digital divide between the haves and the have-nots seems to close in terms of access to the medium; yet eHealth literacy does not depend on the digital divide but rather the knowledge gap,[30] supporting the hypothesis that information technology creates new social inequality rather than overcomes social disparities[28,31].

Use of Internet

With the use of the Internet, new inequalities can arise. Although most people still prefer to receive health information verbally through face-to-face contact with practitioners[12], more information[28] may be consumed in several ways (whether written or not), particularly when information has been written, by those having better digital and health knowledge. A widespread use of digital resources can also be linked to the ability to apply more search strategies and to clearer awareness of quality and potential information gaps and inaccuracies[32]. Finally, Internet results and benefits for health purposes can extend to traditional health literacy outcomes [33-36] by providing new fields of doctor-patient interaction [37] and selfcare.

This study focuses on eHealth literacy and links it to the information search process and outcome. First of all, we studied the structure of the literacy concept for eHealth in order to determine whether the 1-factor structure of the concept, as described by Norman und Skinner, is also replicated in this study (compared with the adolescent sample of the original Canadian study [27]). Next, we examined the linkages between eHealth literacy and digital divide issues: factors considered include social demographic characteristics, Internet access and digital literacy, information consumption processes and the health information outcomes of internet use.

CONCLUSION

Since the sample used by Norman and Skinner was limited in age, we did not propose whether the structure of the eHealth scale in the Canadian sample would be replicated by our age-extended sample. Following on from the Digital Divide (DIDIX), we hypothesised in an Israeli sample[15] that people with higher eHealth education would be younger and of greater socio-economic status and would have greater access to digital resources than those with lower eHealth literacy.

Following the literature on the digital divide, we assumed the following in the field of information consumption. People with a high level of ehealth literacy would (1) use more information resources (magazines, books, television and radio, and interpersonal resources) compared to people with a low level of education in eHealth; (2) use a variety of seeking strategies in addition to Googles.

Due to shifting results, we did not assume a relationship between eHealth literacy and gender. Losh [16] and Ono and Zavodny [38] have found that gender disparities have diminished, disappeared or become very specific, and context-related; findings indicate, for example, that gender disparities have shifted to other dimensions such as autonomy, experience, skills, and types of application [17,39,40]. Furthermore, results in an Israeli sample show that the gender DIDIX is lower than in any other characteristic studied (for example, education, income and age)[15]. We deliberately didn't make any hypothesis about eHealth literacy and health status because of conflicting literature results.

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