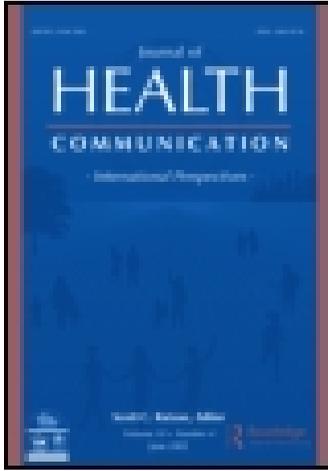


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# Health Information Seeking and the World Wide Web: An Uncertainty Management Perspective

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*Uncertainty management theory was applied in the present study to offer one theoretical explanation for how individuals use the World Wide Web to acquire health information and to help better understand the implications of the Web for information seeking. The diversity of information sources available on the Web and potential to exert some control over the depth and breadth of one's information-acquisition effort is argued to facilitate uncertainty management. A total of 538 respondents completed a questionnaire about their uncertainty related to cancer prevention and information-seeking behavior. Consistent with study predictions, use of the Web for information seeking interacted with respondents' desired level of uncertainty to predict their actual level of uncertainty about cancer prevention. The results offer evidence that respondents who used the Web to search for cancer information were better able than were respondents who did not seek information to achieve a level of uncertainty commensurate with the level of uncertainty they desired.*

The World Wide Web is a tool that is widely used for acquiring health information. Data collected by the Pew Internet and American Life Project during 2010 indicate that 59% of all American adults have used the Web specifically to search for health information (Fox, 2011). Researchers have begun to explore demographic differences among users and the possible outcomes of using the Web for health information seeking. Evidence suggests that women and individuals with greater education are more likely to seek health information using the Web (Atkinson, Saperstein, & Pleis, 2009; Rice, 2006). In addition, Web use by the lay public is associated with factors such as health self-efficacy (Bass et al., 2006; Masi, Suarez-Balcazar, Cassey, Kinney, & Piotrowski, 2003), preference for active participation in decision making (Lee, Gray, & Lewis, 2010), and perceived ability to manage one's health (Rice, 2006).

Given widespread use of the Web and the important outcomes associated with Web use, it is important to better understand how individuals navigate and use the Web as they search for health information. Uncertainty management theory (UMT; Brashers, 2001; Brashers et al., 2000) is one theoretical framework that has the potential to offer significant insights into how the Web is used to acquire health information. UMT is applied in this study in the context of seeking cancer information. Web use for seeking information about cancer is conceptualized as a process of uncertainty management, and the implications of the Web for managing uncertainty are considered. By offering information seekers the potential to exert some control over the depth and breadth of the information-acquisition process and access to a range of different types

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of information sources, Web use is argued to facilitate uncertainty management. In the following paragraphs, research on cancer information seeking and UMT will be presented to provide a foundation for the hypothesis tested in this project.

## Literature Review

### *Cancer Information Seeking Using the Web as Uncertainty Management*

Although the Web is a widely used resource for health information in general, it is a particularly important source for cancer information (Eysenbach, 2003). Data from the Health Information National Trends Survey (HINTS; National Cancer Institute, 2005) indicate that almost 40% of adults in the United States have used the Web to search for information specifically about cancer. Moreover, several noteworthy outcomes are associated with acquiring information about cancer using the Web. Individuals seeking cancer information online are more likely than nonseekers are to feel a sense of self-efficacy in regard to coping with cancer (Bass et al., 2006), have increased perceptions of social support (Fogel, Albert, Schnabel, Ditkoff, & Neugut, 2002), and be more knowledgeable about cancer survival rates (Fagerlin et al., 2006; Kaphingst, Lachance, & Condit, 2009). Cancer-related Web use has also been associated with cancer patients' perceptions of their decision-making ability (Seckin, 2010) and detection behaviors such as being more likely to have an up-to-date colorectal cancer screening (Ling, Klein, & Dang, 2006). The notable outcomes associated with Web use makes it important to consider theoretical explanations for how individuals use the Web to acquire information about cancer and health more generally.

UMT (Brashers, 2001; Brashers et al., 2000) offers a framework to better understand how individuals use the Web to search for health information. UMT is rooted in the notion that uncertainty plays a central role in health and is a key factor that may motivate information-seeking behavior (Brashers et al., 2002; Hogan & Brashers, 2009; Mishel, 1988). Uncertainty "exists when details of situations are ambiguous, complex, unpredictable or probabilistic; when information is unavailable or inconsistent; and when people feel insecure in their own state of knowledge or the state of knowledge in general" (Brashers, 2001, p. 478). Uncertainty may be appraised as an opportunity or a danger, and such appraisals motivate individuals to engage in strategic attempts to manage their uncertainty. Although uncertainty may be managed through a number of avenues (e.g., avoidance; Barbour, Rintamaki, Ramsey, & Brahsers, 2012), this study focuses on purposive information seeking in which one intentionally and deliberately attempts to acquire information to manage medical forms of uncertainty (Hogan & Brashers, 2009). Information may be sought in an effort to reduce or increase uncertainty (Brashers, 2001; Brashers et al., 2002; Mischel, 1988). Brashers and colleagues (2000, p. 77) explained that "information seeking is important if an individual's management goal is reduction of uncertainty... Managing uncertainty also may require information seeking to locate contrary or disconfirming evidence when a person wants to escalate uncertainty."

UMT provides one theoretical framework to help understand how individuals use the Web to acquire health information. From the perspective of UMT, purposive health information seeking using the Web can be conceptualized as a response to uncertainty that has been appraised as a danger or an opportunity. Information is sought with the objective of increasing or decreasing one's level of uncertainty about a specific question or general topic and, thus, attempting to manage one's uncertainty. As one source among many that may be used to acquire health information (e.g., health care provider, family, magazines), two characteristics of the Web make it a unique resource for managing uncertainty.

First, the Web combines many sources and forms of information. Two principles of UMT are that, along with various sources and forms of uncertainty, many sources and forms of information exist (Hogan & Brashers, 2009). The Web offers access to a range of different types of sources. Rutten, Arora, Bakos, Aziz, and Rowland (2005) conducted an analysis of research reports examining information sources used by cancer patients and identified five major categories of sources: health care professionals, printed materials, media, interpersonal sources, and organizational and scientific sources. Although the Internet was categorized as a media source, it is noteworthy that the contemporary Web makes it possible for many people to realistically access all five of the categories that Rutten and colleagues (2005) identified. The Web can be used to acquire health information from interpersonal sources such as online support group members (Wright, Johnson, Averbeck, & Bernard, 2011), organizational and scientific sources such as the National Library of Medicine and Centers for Disease Control (Junghans, Sevin, Ionin, & Seifried, 2004), media sources such as television (Tanner & Friedman, 2011), printed materials such as newspapers (McDonnell, Lee, Kim, Kazinets, & Moskowitz, 2008) and brochures (King, Winton, & Adkins, 2003), and even health care professionals (Coombes, 2007). Beyond the five categories that Rutten and colleagues (2005) identified, the growth of social media has also made it possible to acquire health information from individuals who have the same health condition or similar health concerns. Examples include social network websites (Greene, Choudhry, Kilabuk, & Shrank, 2011) and blogs (Rains & Keating, 2011; Simunaniemi, Sandberg, Andersson, & Nydahl, 2011). Access to such a range of different types of sources may make the Web a particularly useful tool for uncertainty management. At a basic level, information seekers have the opportunity to identify the specific type of information source that may be best suited to provide information useful for increasing or decreasing uncertainty.<sup>1</sup>

Second, relative to other sources (e.g., television, health care provider), the Web offers information seekers at least some control or potential to manage the breadth and depth of the information-acquisition process. Information seekers have the opportunity to choose search terms, websites and pages viewed, and when a search begins and concludes. Other sources are much more restrictive regarding an information seeker's potential to manage the breadth and depth of information to which he or she is exposed. Research examining shared decision making and the management of uncertainty in clinical decision making, for example, underscores the variety of ways in which an interaction with one's health care provider may be limited. Factors such as a health care provider's cognitive capacity (Politi & Street, 2011) as well as the provider's emotional tone and willingness to share his or her opinion (Thorne, Oliffe, & Stajduhar, 2013) may serve to limit an information seeker's potential to acquire information. The depth and breadth of search behavior in the context of the Web is largely determined by the information seeker.

Together, the diversity of information sources with which one might interact and the potential to exert some control over the depth and breadth of one's information-acquisition effort may make the Web a particularly valuable resource for uncertainty management. By making it possible to find answers to idiosyncratic questions or

<sup>1</sup>Although concerns have been raised about the quality of health information on the Web (Brashers et al., 2002), in the context of this study, the accuracy or objectiveness of information are secondary to an individual's ability to use the information to manage uncertainty. The Web is noteworthy in that it makes it possible to gain access to disreputable sources such as websites posting fraudulent claims or otherwise misleading information (Kata, 2010). Despite the inaccuracy, such information may be useful in increasing uncertainty and, if only for a short amount of time, offering hope. As Brashers (2001, p. 483) notes, "Information does not need to be 'correct' to reduce uncertainty...but at some level it needs to create perceptions of coherence."

evidence that might be used to confirm or disconfirm a particular belief, Web use might assist the process of managing uncertainty.<sup>2</sup> The following section outlines a test designed to evaluate the potential of the Web to facilitate uncertainty management among cancer information seekers.

### *Examining the Implications of the Web for Uncertainty Management*

Widespread use of the Web by the lay public for seeking health information and the important outcomes associated with Web use demonstrated in prior research make it critical to better understand how the Web is used to acquire health information. The preceding discussion of UMT and health information seeking suggests that Web use creates unique opportunities for individuals to manage their health-related uncertainty. This idea can be formally tested by first distinguishing between one's desired and actual levels of uncertainty. A distinction is made in UMT (Brashers, 2001; Brashers et al., 2000; see also Afifi & Weiner, 2006) between the amount of uncertainty an individual feels (i.e., actual uncertainty) and the amount of uncertainty she or he would like to feel (i.e., desired uncertainty). A central tenet of UMT is that individuals may seek information in an effort to increase or decrease their (actual) level of uncertainty (Brashers, 2001; Brashers et al., 2000). Information seeking is one important strategy that individuals may use to attempt to reconcile discrepancies between the amount of uncertainty they feel and the amount that they would like to feel.

If Web use facilitates uncertainty management, then an interaction should exist between Web use and desired uncertainty for perceptions of actual uncertainty about preventing cancer. Web users should be able to achieve a level of actual uncertainty that more closely approximates their desired level of uncertainty, compared with individuals who do not seek information about cancer. Individuals who desire a high level of uncertainty about preventing cancer and use the Web to acquire cancer information should be more likely to achieve a high level of uncertainty; individuals who desire a low level of uncertainty and use the Web should be better able to achieve a low level of uncertainty about preventing cancer. The potential to exert some control over the depth and breadth of the information-acquisition process and access to a range of different types of sources offered by the Web should allow users to more effectively reach their desired level of uncertainty. Accordingly, the association between desired and actual uncertainty about preventing cancer should be stronger among individuals who use the Web to seek cancer information than among those who do not seek information about cancer.

Yet, demonstrating a difference between individuals who use the Web to seek information and those who do not seek information does not necessarily provide definitive evidence that Web use facilitates uncertainty management. The act of seeking information (and not necessarily using the Web) could be responsible for such a difference. To rule out this possibility, a third group—in addition to individuals who do not seek cancer information and information seekers who use only the Web—was examined in this study: information seekers who use the Web plus at least one additional source. If the act of information seeking is responsible for

<sup>2</sup>Although the argument made in this project assumes that one's use of the Web and commensurate exposure to information is under one's control, it is possible that one may encounter information that affects uncertainty in a direction that is undesirable or causes an unwanted reappraisal. Yet, in the context of an information search using the Web, one should be able to respond to such instances by continuing to search until one's level of uncertainty is desirable or sufficient. Granted the types of information sources available and the potential to control the breadth and depth of one's search, information seekers should be able to find information to reconcile information that creates a discrepancy between the amount of uncertainty one feels and the amount one would like to feel.

the difference between individuals who do not seek cancer information and those who use the Web, then an information seeker's ability to achieve a level of uncertainty commensurate with the level he or she desires should be increased by using sources beyond the Web. As such, the relation between desired and actual uncertainty should be stronger among individuals who use the Web plus at least one additional source than among individuals who use only the Web. In contrast, no significant difference between individuals who use only the Web and those who use the Web plus at least one additional source would demonstrate that there is something novel about the Web and rule out the notion that the results are simply an artifact of seeking information.

To summarize, the relationship between desired and actual uncertainty is expected to be stronger among people who use the Web to seek information than among people who do not seek information, but no difference is expected between Web users and among individuals who use the Web plus at least one additional source to acquire information. Such findings would provide evidence that use of the Web in particular for information seeking facilitates uncertainty management. Several control variables were included to account for demographic and contextual factors that have been shown to influence Web use for health information seeking (e.g., Cotten & Gupta, 2004; Hesse et al., 2005), including age, sex, education, general health status, family member who has or had cancer, personal cancer history, experience using the Web to acquire health information, and information-seeking efficacy. Controlling for these variables makes it possible to ensure that the relations examined in this study are not influenced by or an artifact of these factors.

Hypothesis: After accounting for the control variables, cancer information seeking and desired level of uncertainty about cancer prevention interact to predict actual level of cancer-prevention uncertainty.

## Method

### *Respondents*

Undergraduate students were awarded course credit for referring adults who were not students or employees of the university at which the study was conducted to complete a Web-based questionnaire about uncertainty and cancer information seeking. A total of 538 respondents sufficiently completed the questionnaire. Respondent were more likely to be female ( $n = 316$ ) and ranged in age from 18 to 90 years ( $M = 39.30$ ,  $SD = 16.60$ ). A majority of respondents (64%) reported having earned a college degree or completed more advanced education. Approximately 8% of respondents reported having been diagnosed with cancer in the past, and 38% reported that a family member had been diagnosed with cancer.

### *Measures*

Cancer information seeking was assessed by asking respondents whether they had intentionally tried to find information about cancer in the preceding year. Respondents who reported not seeking information ( $n = 349$ ) were retained as a group (i.e., *no seek*). Respondents who had sought information were presented with nine different sources and asked to identify which sources they used the last time they sought cancer information: friends, family members, doctor, nurse or other health care provider, magazine, newspaper, television, brochure/pamphlet, Internet/World Wide Web, or other. Respondents who reported using only the Web ( $n = 76$ ) were retained as a unique group (i.e., *seek Web only*). A third group (i.e., *seek Web plus*

other sources) was created including respondents who used the Web along with at least one additional source ( $n = 113$ ).<sup>3</sup>

Actual uncertainty and desired uncertainty about cancer prevention were evaluated using four-item measures created for this study that were rated on 7-point scales ranging from 1 (*very certain*) to 7 (*very uncertain*). The items used to assess actual uncertainty asked participants to rate how uncertain they currently feel about their lifetime risk of developing cancer, the symptoms of cancer, the types of self-exams that can be performed to detect cancer, and things they can do to prevent cancer ( $M = 4.18$ ,  $SD = 1.25$ ,  $\alpha = .78$ ). The four desired uncertainty items addressed the exact same issues, but asked participant to report how uncertain they would like to feel ( $M = 1.92$ ,  $SD = 1.17$ ,  $\alpha = .86$ ). Larger values indicate a greater amount of actual or desired uncertainty. The desired and actual uncertainty items are consistent with Brashers' (2001) definition of uncertainty as occurring when situations are probabilistic and people feel insecure in their state of knowledge.

### **Control Variables**

Eight control variables were included in the analyses. Respondents' age ( $M = 39.30$ ,  $SD = 16.60$ ) and sex ( $n = 316$  women) were previously reported. Participants reported their education on a 6-point scale ranging from 1 (*less than high school*) to 6 (*graduate school degree*) ( $M = 3.92$ ,  $SD = 1.13$ ). Participants responded to a single item asking them to report the quality of their general health currently, using a 7-point scale ranging from 1 (*very poor*) to 7 (*very good*) ( $M = 5.75$ ,  $SD = 1.04$ ). Respondents also reported whether members of their family had ever been diagnosed with cancer; those who had a parent, sibling, child, or spouse diagnosed with cancer were assigned a value of 1 ( $n = 205$ ), and those who had not were assigned a value of 0. Respondents self-reported whether or not they had been diagnosed with cancer by a medical doctor. Respondents who had been diagnosed with cancer ( $n = 43$ ) were assigned a value of 1, and respondents who had not were assigned a value of 0. Respondents' experience using the Web to acquire health information was included to account for systematic differences in health-related Web use. Respondents rated the amount they use the Web to seek health information on a 9-point scale ranging from 1 (*never*) to 9 (*multiple times each day*) ( $M = 4.32$ ,  $SD = 1.87$ ). Information-seeking self-efficacy was assessed using four items rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Participants rated their agreement with statements indicating that they are certain they could find cancer information to answer their questions, are confident in their ability to find useful cancer information, have no doubt in their ability to find useful information, and think that they would have trouble finding useful information ( $M = 5.42$ ,  $SD = 1.23$ ,  $\alpha = .80$ ). The last item was reverse-scored.

### **Results**

The single hypothesis tested in this study predicted an interaction between cancer information-seeking behavior and desired uncertainty about cancer prevention for actual cancer-prevention uncertainty. Because information seeking is a nominal variable with three levels (i.e., no seek, seek Web only, seek Web plus), two dummy-coded variables were created to evaluate cancer information seeking. The reference group for both variables consisted of participants who reported using only the Web to search for cancer information; thus, a negative relation between the

<sup>3</sup>Thirty-six respondents reported searching for health information without using the Web.

dummy-coded variables and other variables indicates that scores were greater in the group that sought information using only the Web (i.e., seek Web only group). A regression model was constructed as follows: The eight control variables (i.e., age, sex, education, current health, cancer in family, have cancer, use of the Web for health information, and information-seeking efficacy) were included in the first block of the model. The second block of the model consisted of the two dummy-coded variables representing cancer information seeking as well as desired uncertainty. The interactions between desired uncertainty and the two dummy-coded variables were included in the third block. Desired uncertainty was mean-centered prior to constructing the interaction terms (Aiken & West, 1991).

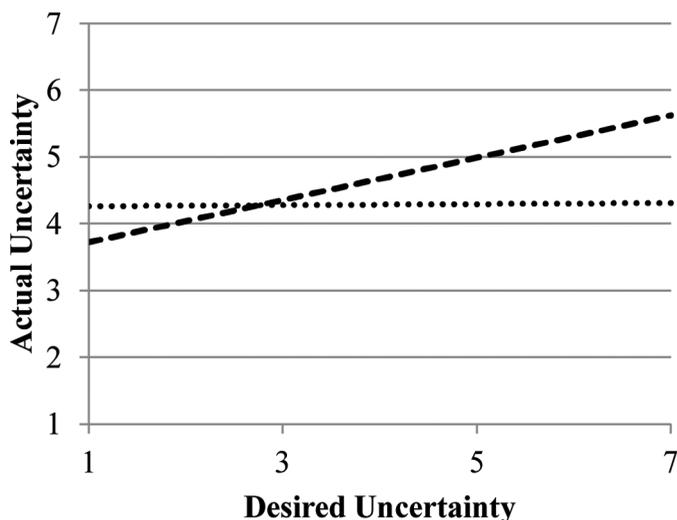
The results support the hypothesis. There was a significant interaction between information seeking and desired uncertainty for actual uncertainty about cancer prevention. Adding the third block, which contained the interaction terms associated with the two dummy-coded variables, to the regression model resulted in a significant increase in variance explained,  $\Delta F(2, 497) = 3.42, p = .03$ . In addition, the two beta coefficients in block three were consistent with expectations. The interaction between desired uncertainty and the dummy-coded variable comparing respondents who used only the Web with those who did not seek information was significant. Also as expected, the interaction between desired uncertainty and the dummy-coded variable comparing respondents who used only the Web with respondents who sought information using the Web plus at least one other source was not significant; this finding indicates that respondents who used the Web plus one other source were not more effective at achieving the level of uncertainty they desired than respondents who only used the Web.

The macro for SPSS developed by Hayes and Matthes (2009) was used to decompose the significant interaction between desired uncertainty and the dummy-coded variable comparing respondents who used only the Web with those who did not seek information. The association between desired and actual uncertainty was computed among respondents who reported using only the Web to acquire cancer information and respondents who did not seek information. As illustrated in Figure 1, the results show a significant, positive relationship between desired and actual uncertainty among individuals who reported using only the Web to acquire cancer information. Among respondents who did not seek cancer information, however, the relationship between desired and actual cancer uncertainty was not significant.

## Discussion

Given the widespread use and important outcomes associated with seeking health information on the Web, it is important to better understand how the Web is used by information seekers. The aim of this study was to consider one theoretical explanation for how the Web is used to acquire information about cancer. Information seeking using the Web use was conceptualized as a process of uncertainty management, and the implications of the Web for uncertainty management were considered. In the following paragraphs, I discuss the findings from this study and their implications for research on health information seeking.

The diversity of information sources available on the Web and potential to exert some control over the depth and breadth of one's information-acquisition effort was argued to facilitate uncertainty management. The results of this study provide some evidence consistent with this notion. There was a significant interaction between Web use and desired uncertainty for respondents' actual level of uncertainty. The association between desired and actual uncertainty was significant for Web users, but not significant among respondents who did not seek cancer information. It appears that Web users were better able than were respondents who did not seek



**Figure 1.** Web use moderates the relationship between desired and actual uncertainty about cancer prevention: •••••, did not search for information ( $b = .01$ ,  $t = 0.16$ ,  $p = .88$ ); — — —, searched Web for information ( $b = .32$ ,  $t = 2.24$ ,  $p = .03$ ).

cancer information to achieve the level of uncertainty that they desired. It is noteworthy that several control variables that have been linked to information seeking and Web use were controlled for in the analyses. Moreover, there was no difference in the association between desired and actual uncertainty among respondents who sought information using only the Web and those who used the Web plus at least one additional source. This finding is important because it suggests that information seeking alone is not responsible for the difference between Web users and respondents who did not seek cancer information. The pattern of findings offers evidence that there is something novel about the Web as a resource for information seeking and uncertainty management. It appears that use of the Web was key in respondents' ability to achieve a level uncertainty about cancer prevention commensurate with the level of uncertainty they desired.

Several implications of the findings from this study warrant consideration. The results suggest one theoretical explanation for how the Web is used to acquire health information. Consistent with UMT, information seeking using the Web can be interpreted as a means of managing uncertainty. As such, Web use can be considered an evolving process directed at increasing or decreasing uncertainty, rather than a single, isolated attempt to acquire a specific fact or statistic. As opposed to conceptualizing each webpage visited as one page closer to the conclusion of a search, information from a webpage may affect the seeker's uncertainty in such a way that he or she is actually one webpage further from concluding a particular search or the search process.

It also seems possible that some of the positive outcomes associated with Web use reported in prior research may be explained by the potential offered by the Web for uncertainty management. Use of the Web for seeking health information is associated with perceived ability to make decisions (Seckin, 2010) and manage one's health (Rice, 2006). Through allowing information seekers some control over the depth and breadth of information acquired and access to a range of sources, the Web might facilitate uncertainty management and, consequently, foster positive health outcomes. Effectively managing uncertainty might make information seekers feel more competent in their ability to positively influence their health.

In considering the results of this study, it is important to address and rule out an alternate possible interpretation of the relationship between uncertainty and Web use. Although Web use was examined as a predictor of effective uncertainty management, it might be argued that actual and desired levels of uncertainty interact to predict Web use for information seeking. People who experience discrepancies between their actual uncertainty and the level of uncertainty they desire (e.g., low actual uncertainty, but high desired uncertainty) might be inclined to use the Web to search for health information. To evaluate this possibility, a logistic regression model was tested with a dummy-coded variable comparing those who used only the Web and those who did not seek cancer information serving as the outcome variable. The eight control variables used in the previous analysis and identified in Table 1 were included in the first block of the model. Desired and actual cancer-prevention uncertainty were mean-centered and included in the second block, and the interaction between these two variables was included in the third block of the model. The test of the interaction was not significant,  $b = .04$ ,  $z = 0.35$ ,  $p = .72$ . Desired and actual uncertainty do not interact to predict Web use for information seeking. The notion that Web use is driven by a discrepancy between one's desired and actual levels of uncertainty is not supported by the data.

Finally, the limitations of this study warrant consideration. First, the data from this study are not sufficient to infer causation in the relationship between Web use and uncertainty management. Despite attempts to rule out alternate explanations, it is not possible to isolate a definitive causal connection between Web use and uncertainty management. Second, the sample is not fully representative of the broader population of adult Web users in the United States. In particular, individuals with relatively lower levels of education (i.e., less than a college degree) were underrepresented in the study sample.

**Table 1.** Cancer information seeking and desired uncertainty as predictors of actual uncertainty

	$\beta$	$t$	$\Delta R^2$	$R^2$
Control variables			.20*	.20
Age	-.15*	-3.24		
Sex (female = 0, male = 1)	.07	1.80		
Education	-.03	-0.81		
General health	-.10*	-2.42		
Cancer in family (no = 0, yes = 1)	.01	0.21		
Respondent has/had cancer (no = 0, yes = 1)	-.20*	-4.69		
Use of the Web for health information	-.19*	-4.67		
Information seeking self-efficacy	-.21*	-5.01		
Information seeking and uncertainty			.01*	.21
No seek (dummy variable)	.11	1.81		
Seek Web plus other sources (dummy variable)	-.01	-0.13		
Desired uncertainty	.07	1.59		
Interaction effects			.01*	.22
No Seek (Dummy Variable) $\times$ Desired Uncertainty	-.25*	-2.08		
Seek Web Plus Other Sources (Dummy Variable) $\times$ Desired Uncertainty	-.03	-0.50		

*Note.* Outcome variable = actual uncertainty about cancer prevention. The variables *no seek* and *seek Web plus other sources* were dummy-coded so that the reference group consisted of respondents who used only the Web; a negative beta coefficient for either of these variables indicates that actual cancer uncertainty was greater among respondents who used only the Web. The results for each block are reported when that block was added to the model. Model summary:  $F(13, 498) = 11.06$ ,  $p < .01$ ,  $R^2 = .22$ .

\* $p < .05$ .

### Conclusion

Given its widespread use, it is critical to develop a better understanding of the implications of the Web for seeking health information. This study builds from UMT and examines Web use in the broader process of uncertainty management. The diversity of information sources available on the Web and potential to exert some control over the depth and breadth of one's information-acquisition effort is argued to facilitate uncertainty management. Although the results of this study provide some evidence consistent with this uncertainty management explanation, future research is necessary to further explore other theoretical mechanisms that might explain and predict the use and outcomes of the Web for information seeking and, more broadly, health communication.

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