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Avoiding cancer risk information

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ABSTRACT

Rationale: Perceived risk for health problems such as cancer is a central construct in many models of health decision making and a target for behavior change interventions. However, some portion of the population actively avoids cancer risk information. The prevalence of, explanations for, and consequences of such avoidance are not well understood.
Objective: We examined the prevalence and demographic and psychosocial correlates of cancer risk information avoidance preference in a nationally representative sample. We also examined whether avoidance of cancer risk information corresponds with avoidance of cancer screening.
Results: Based on our representative sample, 39% of the population indicated that they agreed or strongly agreed that they would "rather not know [their] chance of getting cancer." This preference was stronger among older participants, female participants, and participants with lower levels of education. Preferring to avoid cancer risk information was stronger among participants who agreed with the beliefs that everything causes cancer, that there's not much one can do to prevent cancer, and that there are too many recommendations to follow. Finally, the preference to avoid cancer risk information was associated with lower levels of screening for colon cancer.
Conclusion: These findings suggest that cancer risk information avoidance is a multi-determined phenomenon that is associated with demographic characteristics and psychosocial individual differences and also relates to engagement in cancer screening.

1. Avoiding cancer risk information

Modern health communication efforts (e.g., cigarette warning labels, mass media campaigns, physician advice) assume that health information can influence personal behaviors, and also that people welcome health information. Although the former may be true, the latter is questionable. In fact, empirical evidence suggest that people may actively avoid personal health information (Barbour et al., 2012; Sweeny et al., 2010). In the current paper, we examined the prevalence of a preference to avoid risk information—specifically, the preference to avoid knowing one's personal risk for cancer—in a nationally representative dataset. We also examined demographic, psychosocial, and belief correlates with the preference not to know one's cancer risk. Understanding the prevalence, causes and consequences of information avoidance is necessary for researchers to develop effective interventions to prevent problematic avoidance, such as avoiding information about cancer screening, which may reduce adherence to cancer screening guidelines.

1.1. Prevalence of information avoidance

Several studies document that people sometimes avoid health information. For example, one study found that 21% of college women and 24% of women age 35 and older opted not to learn their breast cancer risk (Melnyk and Shepperd, 2012). Other research has

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documented avoidance of health information in different populations and across different diseases (Howell and Shepperd, 2012, 2013a, 2013b; Van der Meer et al., 2013; van Koningsbruggen and Das, 2009; Weitzman et al., 2001).

However, studies of health information avoidance generally, and cancer information specifically, typically have two limitations. First, they tend to be experimental, with researchers manipulating characteristics of risk information (Dawson et al., 2006; Yaniv et al., 2004). Although useful in understanding mechanisms underlying information avoidance, they can have limited utility for understanding how people respond in an everyday context. Second, they tend to rely on convenience samples (Howell and Shepperd, 2012, 2013a, 2013b) or samples of individuals with specific, sometimes rare, medical conditions (e.g., genetic risk for Huntington's Disease; Van der Steenstraten et al., 1994; Shiloh et al., 1999). As a consequence we do not know the prevalence of information avoidance in the population nor whether avoidance is related to demographic factors (e.g., gender, age, income).

1.2. Predictors of information avoidance

Compared with diseases such as diabetes and cardiovascular disease, cancer may seem particularly threatening because people view it as a death sentence (Moser et al., 2013). The extended parallel processing model (Witte, 1992) proposes that people confronting threating information—such as cancer risk information—can respond in one of two ways. First, they can direct efforts toward reducing the threat by, for example, gathering more information about cancer and cancer risk factors (i.e., engage danger control processes). Second, they can direct efforts toward escaping negative emotions evoked by the threat by, for example, avoiding information related to the threat (i.e., engage fear control processes). Confidence in one's ability to perform a risk-reducing behavior (i.e., self-efficacy) is an essential factor differentiating danger and fear control responses (Witte, 1992). People with high self-efficacy will be more likely to engage in danger control responses such as cancer risk information seeking, but people with low self-efficacy will be more likely to engage in fear control processes like avoiding cancer risk information.

By definition, threats that are uncontrollable do not allow people to take protective action. Thus, self-efficacy for uncontrollable threats is likely to be very low. Consistent with this premise are findings indicating that people display greater information avoidance for uncontrollable than controllable outcomes. For instance, women in one study were more likely to avoid learning their risk for breast cancer after reading about uncontrollable predictors of breast cancer than after reading about controllable predictors (Melnyk and Shepperd, 2012). Other studies demonstrate that people are more likely to avoid learning their risk for an untreatable disease than for a treatable disease (Dawson et al., 2006; Howell and Shepperd, 2012, 2013b; Shani et al., 2008). These findings suggest that people might avoid cancer information if they believe that cancer is uncontrollable or untreatable. They further imply that having fatalistic, pessimistic, or helpless views about cancer will correspond with avoidance of cancer risk information.

The extended parallel processing model also states that individual difference variables, such as anxiety and possibly coping (So, 2013), can contribute to self-efficacy (Witte, 1998). Addressing a threat requires that people possess sufficient coping resources. People who lack coping resources may have low self-efficacy to address health problems and therefore be more inclined to engage in fear control than danger control processes. Evidence suggests that people are more likely to avoid health information to the extent that they lack personal and interpersonal resources to manage bad news (Howell et al., 2014). For example, women in one study were more likely to avoid receiving personal risk feedback for breast cancer when they felt they lacked the coping resources to manage a diagnosis (Melnyk and Shepperd, 2012). These findings suggest that having fewer coping resources should correspond with greater avoidance of cancer information.

Cancer risk information avoidance may represent a broader tendency to avoid health risk information. Thus, it is possible that avoiding personal cancer risk information will correlate with more general measures of health information seeking. However, we argue that avoiding cancer information is distinct from seeking cancer information. Specifically, theorists distinguish avoidance from passively *not seeking* (Sweeny et al., 2010) because people may opt not to seek information because they are uninterested, but still not actively avoid the information. This suggests that avoidance of cancer information would likely be uncorrelated with more general measures of health information seeking.

1.3. Consequences of information avoidance

Information avoidance is problematic for at least two reasons. First, avoiding risk information can lead to a biased perception of one's actual risk (Jemmott et al., 1986; Liberman and Chaiken, 1992), for diseases that are largely asymptomatic (e.g., ovarian cancer), or diseases for which a genetic screening test can determine risk prior to the onset of disease (e.g., breast cancer). In addition, information avoidance may undermine preventive health behaviors. Second, it can pose a problem for health conditions that have a relatively narrow window in which screening is effective and in which people can take action to reduce harm or improve treatment outcomes. This second possibility is particularly intriguing and leads to the questions of whether individual differences in the preference to avoid cancer information might correspond with lower screening uptake. Other studies find that a strong motivation to avoid health information corresponds with lower intentions to undergo screening for oral cancer (Shepperd et al., 2014) and with lower intentions to undergo genetic screening (Taber et al., 2015). Although these studies examined intentions, not behavior, the findings suggest that people who report a strong preference to avoid learning their cancer risk might be less likely to follow recommended guidelines for cancer screening.

1.4. Current study

We examine cancer information avoidance using data from the fourth Health Information National Trends Survey (HINTS 4). In the 2012 iteration (i.e., Cycle 2) of the survey, participants reported the degree to which they would rather not know their chances of getting cancer. Because the HINTS sample was population-based and nationally representative, responses to the item permit estimation of the prevalence of a preference not to know one's (cancer) risk in the US adult population and to examine the demographic and psychosocial correlates of a preference not to know one's cancer risk (Nelson et al., 2004).

The present research addresses four primary questions. First, what is the prevalence of avoidance of cancer risk information? We examined the percent of US adults that would rather not know their risk for cancer. Second, who prefers to avoid cancer risk information? We explored whether avoidance of cancer risk information differs by factors such as gender, race, age and education. Third, what psychosocial factors predict cancer risk information avoidance in the population? Fourth, does cancer risk information avoidance relate to engagement in cancer screening? We predicted that people who report that they prefer to avoid cancer risk