

# The Role of Physical and Mental Health Conditions in Explaining Health Information Seeking and Avoidance Behaviors: An Application of the Planned Risk Information Seeking Model

Elena Link <sup>a</sup> and Eva Baumann <sup>b</sup>

<sup>a</sup>Department of Communication, Johannes Gutenberg University Mainz; <sup>b</sup>Department of Journalism and Communication Research, Hanover University of Music, Drama and Media

## ABSTRACT

Information seeking and avoidance are important coping strategies for individuals dealing with mental and physical health conditions. To explore the mechanisms behind these behaviors, this study applies the Planned Risk Information Seeking Model (PRISM). An online survey of 1,327 individuals with mental or physical health conditions found more similarities than differences in the predictors of both seeking and avoidance behaviors across these groups, supporting the cross-contextual validity of PRISM. Specifically, attitudes toward information behaviors and subjective norms were identified as overarching predictors. By focusing on mental health conditions, which have been studied less frequently, this research shows that mental health information seeking is influenced by one's attitudes, fears, and hopes, while avoidance is more distinctively shaped by attitudes and subjective norms related to avoidance.

## Introduction


Preventive efforts and the access to and utilization of care for physical and mental health conditions necessitate patient involvement (Pieper et al., 2015). The way individuals acquire information can support them to cope with their condition, to participate in decision-making, and to profit more from healthcare (Akhter & Sopory, 2022; Brashers, 2001; Naslund et al., 2016). Particularly in the context of mental health, information seeking is regarded as an initial step in help-seeking (Scherr & Goering, 2020) but can be challenging due to the high burden of self-stigma and public stigma (Clement et al., 2015; Lannin et al., 2020). Conversely, information avoidance has also been identified as a coping strategy (Barbour et al., 2012; Link, 2023). The avoidance of exposure to information can be emotionally relieving and may serve to reduce demands for self-justification, the scrutinization of one's own beliefs, or behavioral change (Sweeny et al., 2010). However, a lack of exposure to information carries risks, such as knowledge gaps (Link, 2021; Sweeny et al., 2010).

Against this background, the current study aims to examine the behavior-specific predictors of information seeking and avoidance to consider two crucial strategies to cope with health-related uncertainty prevalent across health conditions. Both serve similar functions but were found to be triggered by disparate predictors and affect other outcomes (Link et al., 2024; Liu & Chen, 2024; Yang & Kahlor, 2013). Besides enriching the evidence on information avoidance (Deline & Kahlor, 2019), we extend the state of research by comparing both

behaviors among individuals affected by a physical and mental health condition. The study focuses on individuals' subjective assessment of their health, emphasizing how personal perceptions shape health-related experiences, decisions and the actions taken, rather than relying on objective indicators such as a medical diagnosis. These subjective assessments of severity are considered influential, as they directly reflect how individuals interpret and respond to their current health challenge and how the psycho-motivational predictors of information behaviors are pronounced.

While prior research has examined health information behavior separately in the context of physical (e.g., Mitsutake et al., 2023) and mental illness (e.g., Freytag et al., 2023), as well as comparing information seeking between healthy and ill individuals (Link et al., 2021; Oh & Cho, 2015; Ou & Ho, 2022), little attention has been paid to how physical versus mental health conditions may differentially shape these behaviors. Initial insights into differences between healthy and ill individuals suggest that the nature of one's health status influences key predictors of information behaviors. Building on this, we expect that physical and mental health conditions also diverge in how they interact with these predictors. Such differences are plausible given the distinct social, emotional, and cognitive challenges associated with each type of condition – for instance, mental illness often involves higher stigma, lower perceived controllability, and different support-seeking norms compared to physical illness – which may meaningfully alter individuals' motivations, barriers, and information behaviors (Xia et al., 2017).

**CONTACT** Elena Link  [elena.link@uni-mainz.de](mailto:elena.link@uni-mainz.de)  Department of Communication, Johannes Gutenberg University Mainz, Jakob-Welder-Weg 12, Mainz 55128, Germany

 Supplemental data for this article can be accessed online at <https://doi.org/10.1080/10410236.2025.2521010>.

© 2025 The Author(s). Published with license by Taylor & Francis Group, LLC.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

The outlined examination of how an individual's health condition moderates the influence of predictors of information behaviors is guided by the Planned Risk Information Seeking Model (PRISM) (Kahlor, 2010). PRISM is selected as one of the most comprehensive models of (health) information behaviors already applied to information seeking and avoidance. Although the model has been validated in several contexts (Ou & Ho, 2022), it has yet to be applied in the context of mental health. Thus, by applying PRISM to compare predictors among individuals affected by physical or mental health conditions, we can expand our knowledge of the model's utility across contexts and inform future health communication strategies.

## Theoretical background

### *Health information seeking and avoidance*

Health information behaviors comprise several communicative strategies to seek, scan, tolerate, ignore, or avoid health information (Brashers, 2001). Among these strategies, the two most conscious, and cognitively determined information behaviors are information seeking and avoidance (Atkin, 1973; Link et al., 2024). Information seeking is defined as the active "effort expended to locate information" (Kahlor, 2010, p. 346) in response to triggers such as health challenges (Niederdeppe et al., 2007). To locate information can be understood as a multi-stage process described by information needs, source selection, and the type of information sought (Niederdeppe et al., 2007).

Information avoidance can be understood as a process of actively preventing the acquisition of available, personally relevant but potentially unwanted or threatening information (Deline & Kahlor, 2019; Sweeny et al., 2010). It is an intentional process to avoid paying attention to certain pieces of information or sources (Narayan et al., 2011) because the information might be perceived as emotionally unpleasant, cause mental discomfort, or result in demands for change (Sweeny et al., 2010).

According to the provided definitions, seeking and avoiding health information are two distinct modes of information behaviors. Information seeking covers a continuum from seeking to non-seeking, while information avoidance ranges from avoidance to non-avoidance (Kahlor, Olson, et al., 2020; Link et al., 2024). Although non-seeking and avoidance both manifest in inattention for the information, they differ in their motivational patterns. While a lack of time and interest drive non-seeking, information avoidance can be described by its hedonic function (Link, 2024). According to extant research, seeking and avoidance are not causally related, can be correlated, and were found to less likely co-exist under certain conditions (Link, 2025; Link et al., 2024).

### *A theory-guided modeling of health condition-specific predictors of health information behaviors*

Health information behaviors are complex behaviors affected by affective, socio-normative, and cognitive predictors (Ou & Ho, 2022). Among models that summarize individual-level

predictors, the PRISM is described as the most comprehensive model that integrates the Risk Information Seeking and Processing Model (RISP) (Griffin et al., 1999), the Comprehensive Model of Information Seeking (CMIS) (Johnson & Meischke, 1993), the Theory of Motivated Information Management (TMIM) (Afifi & Weiner, 2004), and the Theory of Planned Behavior (TPB) (Ajzen, 1991). It has been validated in several health issues, including pandemics (Hubner & Hovick, 2020), cancer (Hovick, Kahlor, et al., 2014; Hovick, Liang, et al., 2014), or vaccination (Volkman et al., 2023), and has been used to compare the predictors of information seeking between healthy and ill individuals (Link et al., 2021). These findings highlight the potential of the PRISM as a valuable tool in exploring novel research areas of application, such as predicting information behaviors comparing physical and mental health conditions. Moreover, the PRISM was successfully applied to information avoidance (e.g., Link & Kahlor, 2024; Yang & Kahlor, 2013) and serves as basis for the proposed theoretical model of Planned Risk Information Avoidance (PRIA) (Deline & Kahlor, 2019). As PRIA is a model of reality providing a rich overview of predictors for further model construction, we decided to focus on the predictors stressed by both models to predict information-seeking and avoidance intention.

The original PRISM postulates that attitudes toward seeking, perceived knowledge, perceived knowledge insufficiency, seeking-related subjective norms, perceived seeking control, risk perceptions, and negative affective risk responses increase individuals' seeking intent (Kahlor, 2010). Latest developments replace the dimensional approach to affective responses by considering discrete emotions (Volkman et al., 2023). Moreover, recent studies applied the predictors to avoidance to predict avoidance intentions (Link & Kahlor, 2024) as examined predictors and behaviors should match in specificity (Ajzen, 2020). Thus, predictors referring to seeking are used to predict information-seeking intent, while information-avoidance intention will be predicted by predictors related to avoidance. The resulting model paths and corresponding hypotheses are illustrated in Figure 1 for information seeking and Figure 2 for information avoidance and will be further elaborated in the following paragraphs.

### *Attitudes toward information seeking and avoidance*

Attitudes toward information behaviors serve as predictors of specific information behaviors derived from the TPB. Attitudes refer to an individual's instrumental and affective evaluation of engaging in information behaviors (Dunwoody & Griffin, 2015; Kahlor, 2010). In the current study, we differentiate seeking and avoidance as attitude objects. In line with the PRISM and the current state of research (Kahlor, 2010; Link et al., 2021; Ou & Ho, 2022; X. Wang et al., 2021), it is assumed that if an individual holds more favorable attitudes toward information seeking, these positive attitudes contribute positively to intentions to seek for information (see Figure 1, H1). In contrast, a more positive evaluation of information avoidance is supposed to be associated with information-avoidance intentions (see Figure 2, H17) (Kahlor, Olson, et al., 2020; Link & Kahlor, 2024; Wang et al., 2023).

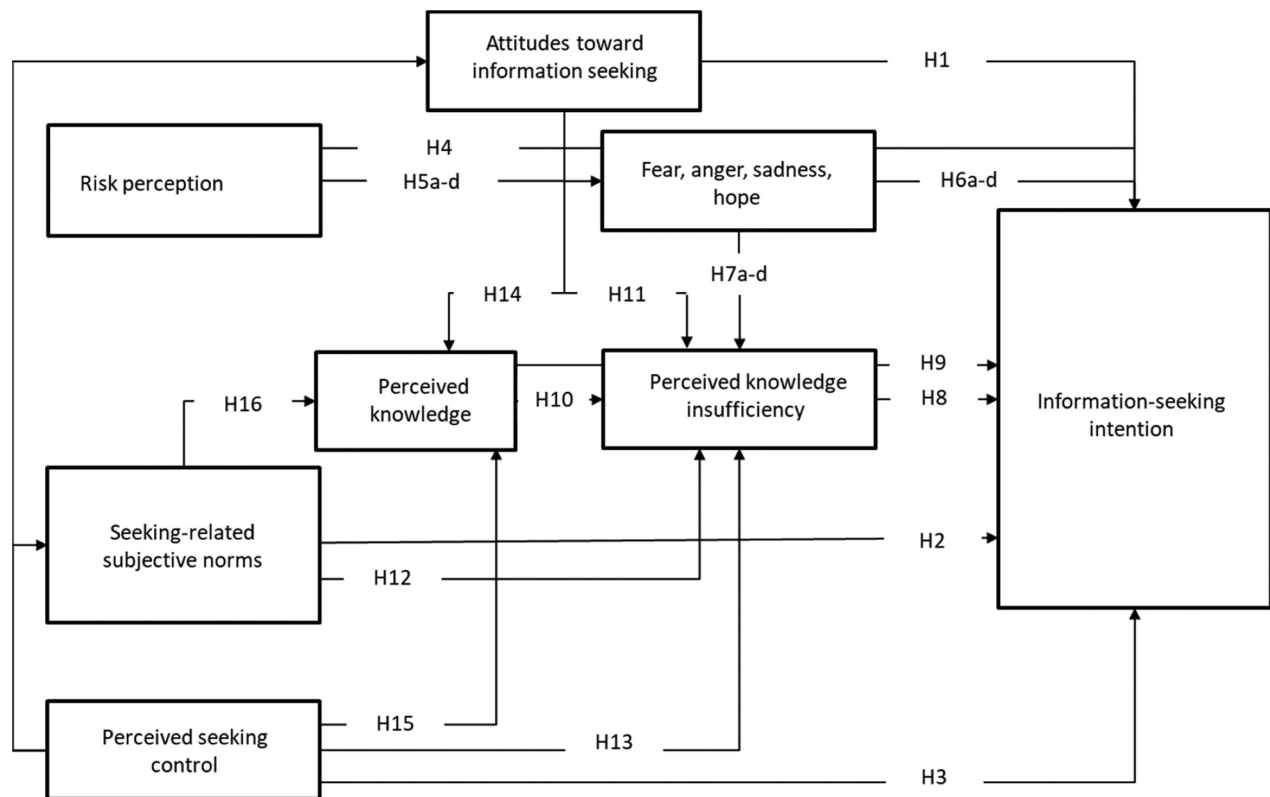


Figure 1. Overview of the postulated PRISM paths for predicting information-seeking intentions.

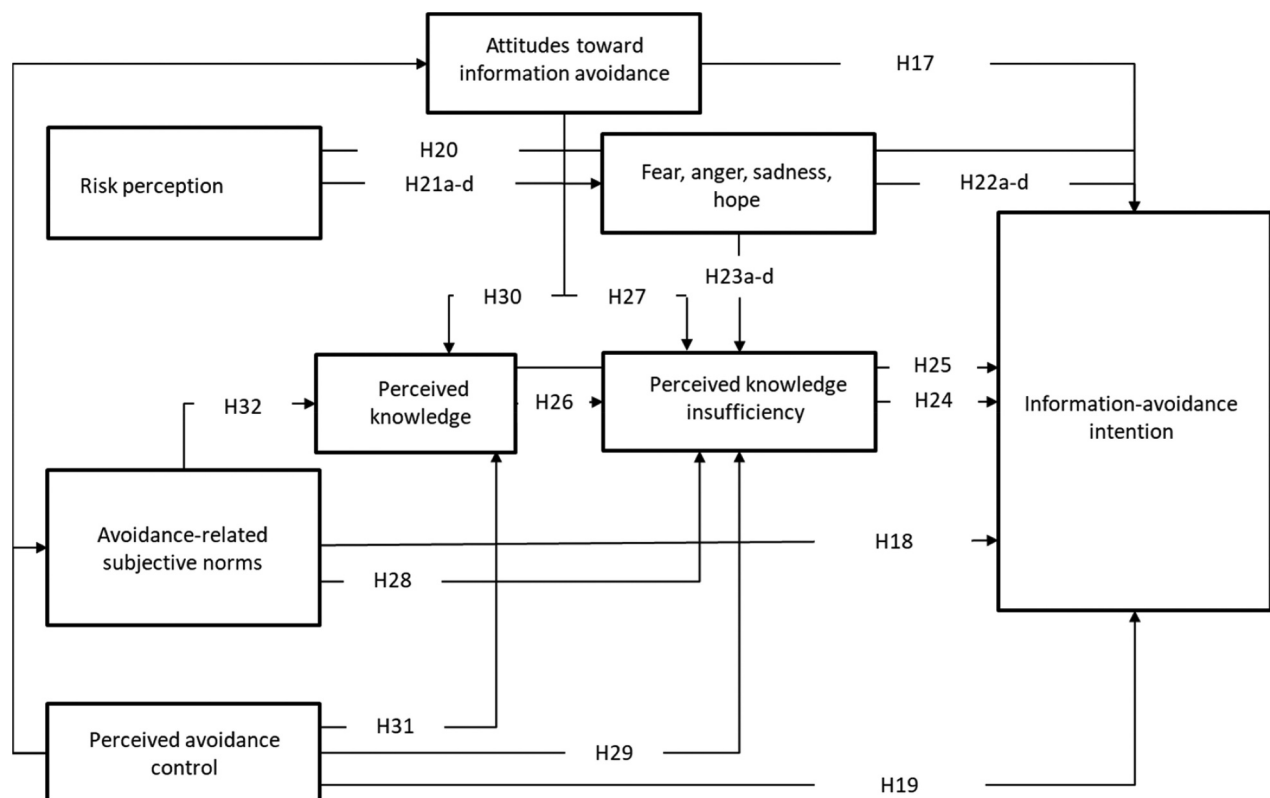


Figure 2. Overview of the postulated PRISM paths for predicting information-avoidance intentions.

Further, there is preliminary evidence indicating that the role of attitudes depends on the prevailing health condition, i.e., the association between attitudes toward seeking and information-seeking intention was found to be moderated by the individual's health status (Link et al., 2021). Transferring these differences to the comparison between physical and mental health conditions, individuals with mental health problems tend to have lower perceived efficacy regarding outcomes of their behaviors (Kelly & Sharot, 2021), which is likely to be associated with more unfavorable attitudes toward information behaviors. Further, self-stigma and fear of public stigma might hamper information seeking among individuals with mental illness through less favorable attitudes (McLaren et al., 2023).

### *Seeking- and avoidance-related subjective norms*

The PRISM also posits in line with the TPB that identity-based codes of conduct – theorized as subjective norms (Lapinski & Rimal, 2005; Rimal & Real, 2003; Rimal et al., 2005) – influence one's intention to perform information behaviors. In the current context, individuals' perceptions that seeking or avoidance is approved by their social surrounding (injunctive norms) and how prevalent they think that seeking and avoidance behaviors are among their significant others (descriptive norms) (Cialdini et al., 1990) form the subjective norms. They aggregate the perceived social pressure to perform information seeking or avoidance. We propose in line with the PRISM and its applications to information avoidance (Deline & Kahlor, 2019; Kahlor, Olson, et al., 2020; Link & Kahlor, 2024; Link et al., 2024; Ou & Ho, 2022) that seeking-related norms will be positively related to information seeking (cf. H2; see Figure 1) and avoidance-related norms will be positively related to information avoidance (cf. H18; see Figure 2).

The question whether the relevance of subjective norms depend on an individual's health condition is raised by research comparing the general population to specific patient groups (Kahlor et al., 2006; Yang et al., 2011). Preliminary findings indicate that subjective norms are more influential among the healthy group (Link et al., 2021), while they were less influential in the context of more urgent and serious health conditions (Xia et al., 2017). The results on health conditions do not allow for the drawing of any conclusions regarding the relative importance of social norms in the context of physical compared to mental health conditions. Therefore, it should be explored whether the role of norms is moderated by the prevailing physical or mental health condition.

### *Perceived seeking and avoidance control*

Perceived behavioral control is another PRISM concept that reflects an individual's perceived ease of performing information behaviors (Ajzen, 1991). For the behaviors under investigation, we distinguish between perceived seeking and avoidance control. Perceived seeking control is a well-established predictor of information-seeking intentions (Ou & Ho, 2022), which is considered in H3 (see Figure 1). In line with first evidence on information-avoidance intentions (Kahlor, Olson, et al., 2020; Link & Kahlor, 2024), we posit in H19 that perceived avoidance control positively predicts information-avoidance intentions (see Figure 2).

Both self-perceived capacities to succeed in performing information behaviors may be influenced by underlying health conditions. A lower conviction of having control over the outcomes of events characterizes mental health conditions more than physical health conditions (Kelly & Sharot, 2021). This may result in reduced control beliefs and a diminution of the impact of perceived seeking and avoidance control on one's intention to engage in information seeking or avoidance. Therefore, this rationale suggests a moderating role of mental compared to physical health conditions for the path between perceived control and information seeking and avoidance.

### *Risk perceptions*

Risk perception describes a cognitive assessment of the relevance of a threat (Gutteling & Vries, 2017). In this study, risk perception refers to the health challenge an individual is currently facing. It refers to one's perception of the likelihood of experiencing a negative event and its anticipated severity (Griffin et al., 1999; Kahlor, 2010). Within the PRISM, this motivational force is not a direct predictor of information-seeking intention but serves as an antecedent to emotional responses (Kahlor, 2007, 2010; Yang & Kahlor, 2013). This prioritizes the experiential over the analytic system as two relevant ways how individuals respond to risks (Slovic et al., 2004). In contrast, theories like the Risk Perception Attitude (RPA) Framework (Rimal & Real, 2003) focus on the cognitive dimension postulating that an increase in perceived risk motivates self-protective behaviors such as information behaviors, particularly information seeking. In line with this theoretical assumption, current research and meta-analyses (e.g., Ahn et al., 2021; Ou & Ho, 2022; Wang et al., 2023) revealed small-level direct correlations of risk perceptions with health information seeking. Therefore, H4 posits a direct relation between risk perception and information seeking.

Risk perception was also considered to predict information avoidance (Deline & Kahlor, 2019). The PRIA postulates a direct relationship between risk perception and information avoidance. Deline and Kahlor (2019) suggest an inverted quadratic relationship, but this modeling seems incompatible with the current understanding of information avoidance (Sweeney et al., 2010). Low risk perception indicating low personal relevance and information utility is not a driver of information avoidance but information ignorance (Link, 2024). Therefore, we decided against modeling a quadratic relationship. Although the preliminary state of research is mixed (Ahn et al., 2021; Chae, 2015; Link, 2021; Taber et al., 2015; Wang et al., 2023; Yang & Kahlor, 2013), we postulate that risk perception is positively associated with information avoidance (cf. H20).

Referring to these postulated associations, an interaction between one's physical or mental health condition and risk perception can be justified by research revealing that the role of risk perception for information behaviors is moderated by the illness type (Ou & Ho, 2022; Xia et al., 2017) and that risk perceptions might be biased by mental health conditions (Kelly & Sharot, 2021).

### *Emotional responses*

Most current PRISM-based research highlights the role of discrete emotions (Ahn et al., 2021; Deline & Kahlor, 2019;

Link & Kahlor, 2024; Volkman et al., 2023; Yang et al., 2019). According to cognitive appraisal theories (Lazarus, 1991), each discrete emotion can be characterized by a qualitatively distinguishable appraisal pattern determined by an individual's unique appraisal of a situation and anticipated behavioral effects (see also Frijda et al., 1989; Izard, 1977; Savolainen, 2014).

Focusing on discrete emotions as a motivational force for information behaviors, we select emotions whose appraisal pattern could be triggered by personal health challenges and are considered to be relevant for information behaviors. The appraisal dimension of attentional activity is stressed as highly relevant for information behaviors (Deline & Kahlor, 2019). It considers whether discrete emotions are associated with the behavioral tendency to attend to or avoid a stimulus. According to this dimension, *fear and anxiety* are suggested to be the most influential emotions (Deline & Kahlor, 2019). In our context of a prevailing health challenge, we consider fear as more relevant than anxiety as fear is a reaction to a significant, severe, and concrete threat, while anxiety is the result of an uncertain, existential threat (Lazarus, 1991; So, 2013; Volkman et al., 2023). Extant research shows that fear is positively associated with risk perceptions (cf. H5/21a) (Kim, 2021; Link & Kahlor, 2024; Yang & Chu, 2018), perceived information insufficiency (cf. H7/23a) (Volkman et al., 2023), and information seeking (cf. H6a) (Ahn et al., 2021; Chae, 2015; So et al., 2019).

According to the PRIA, fear is also positively related to information avoidance. However, the state of research is heterogeneous (see e.g., Ahn et al., 2021; Chae, 2015; Chen & Chen, 2023; Link & Kahlor, 2024; Liu & Chen, 2024), which can be attributed to a complex, non-linear relationship between fear and information behaviors (Liu & Chen, 2024): while high levels of fear might evoke information avoidance, moderate levels could induce information seeking (Dillard et al., 2017), which is probably additionally influenced by the individual and situational contexts. Despite the heterogeneous state of research, we assess the theoretically derived assumption of a positive correlation between fear and information-avoidance intention (cf. H22a).

The attention attribute also applies to *anger*. It arises from health risks that are perceived as extremely unpleasant, highly certain, and attributed to the responsibility of others (Yang & Chu, 2018). The appraisal pattern of anger suggests that risk perceptions are positively associated with anger (cf. H5/21b). The action tendency of anger resulting in direct, offensive engagement in a situation can be transferred to a positive relation between anger and information seeking (cf. H6b) and a negative relation between anger and information avoidance (cf. H22b) (Link & Kahlor, 2024). However, the very first evidence showed that anger might not be related to information seeking (Ahn et al., 2021). For the link between anger and information avoidance, Ahn et al. (2021) found a positive relation, while Link and Kahlor (2024) found no relation. Regarding information insufficiency, we follow the original PRISM that negative affective responses such as anger will be positively related to perceived knowledge insufficiency (cf. H7/23b).

Emotions that seem to be crucial to be considered when facing health challenges are sadness and hope. The appraisal patterns of *sadness* can be described as feeling threatened and

helpless when facing a negative event. Therefore, we propose that risk perceptions can also trigger sadness (cf. H5/21c). Sadness can be the result of a low coping potential in combination with non-optimistic future expectancy (Jin et al., 2012; Lazarus, 1991; Xu & Yue, 2023). Against the limited state of research (Ahn et al., 2021), we refer to the appraisal pattern to argue that sadness should be positively related to information insufficiency (cf. H7/23c), information seeking (cf. H6c), and information avoidance (cf. H22c).

The discrete emotion of *hope* arises when one is facing a negative, challenging situation but yearns for relief (Lazarus, 1991, 1999). As hope goes along with positive expectations, we assume a negative association with risk perceptions (cf. H5/21d; Link & Kahlor, 2024; Volkman et al., 2023). Although first evidence suggests that hope is not related to an individual's perceived knowledge insufficiency (Ahn et al., 2021; Link & Kahlor, 2024), we postulate in line with the theoretical assumption (Yang & Kahlor, 2013) that hope as a positive affective response is positively linked to one's perceived knowledge insufficiency (cf. H7d and H23d). Hope was further found to have a positive influence on information seeking, which is postulated in H6d (Ahn et al., 2021; Chadwick, 2015; Huang & Yang, 2020; Volkman et al., 2023), while research on the relationship between hope and information avoidance is mixed: some studies found a positive association (Ahn et al., 2021; Barbour et al., 2012), while others revealed negative paths (Chen & Chen, 2023; Link & Kahlor, 2024). Therefore, we derived the non-directional hypothesis H22d.

Besides emotions' appraisal patterns, the intensity of experiencing fear, anger, sadness, and hope – which builds the concept of emotional reactivity (Hollenstein, 2015; Kuppens et al., 2010) – should be reflected regarding the impact of individuals' health condition. Across all considered discrete emotions, it is theorized that an individual's health condition is related to the intensity of emotions. Most mental compared to physical health conditions can be characterized by lower intensity of emotional experiences (Kuppens et al., 2010; Rottenberg et al., 2005) resulting in less engagement in information behaviors (Hmielowski et al., 2019; Reisenzein, 1994). In addition, also the diversity of emotions might differ between mental and physical health conditions. First research suggests that mental conditions are associated with a greater diversity of emotional states (Hollenstein, 2015), which might go along with more pronounced correlations between emotions and information behaviors (Ou & Ho, 2022; Scherr & Goering, 2020). Against this backdrop, the extant literature suggests a moderating influence of health conditions on the relationship between emotions and information behaviors but does not yet provide a clear picture of the moderating influence of mental compared to physical health conditions.

### **Perceived knowledge and perceived knowledge insufficiency**

The fundament of the PRISM stresses the role of individuals' general aim for accuracy in decision-making, which points to perceived knowledge and perceived knowledge insufficiency as important determinants of information behaviors (Chaiken, 1980; Kahlor, 2010). Perceived knowledge captures the current state of knowledge, while perceived knowledge insufficiency

describes the gap between the current and the desired level of knowledge. The PRISM posits that perceived knowledge insufficiency triggers higher intentions to seek health information (cf. H8, see Figure 1). Additionally, both also mediate the association between attitudes, norms, perceived seeking control, and information seeking (Kahlor, 2010), which is considered in H10–16. While the PRISM does not theorize that perceived knowledge is directly related to information-seeking intention, research indicates that perceived knowledge is more strongly linked to one's seeking intention than perceived knowledge insufficiency (Volkman et al., 2023; Yang et al., 2014). Therefore, we also postulate a direct positive path between perceived knowledge and seeking intent (cf. H9; see Figure 1).

The scarce evidence for the predictors of information avoidance indicates a limited relevance of perceived knowledge and perceived knowledge insufficiency for predicting information avoidance (Brinker et al., 2020; Kahlor, Olson, et al., 2020; Link, 2021; Link & Kahlor, 2024; Zhao & Liu, 2021). Nevertheless, this present study examines the perceived level of knowledge (insufficiency) following the PRISM for information seeking and avoidance equally. In line with Link and Kahlor (2024), we postulate that attitudes toward information avoidance, avoidance-related subjective norms, and perceived avoidance control are negatively related to (perceived) knowledge insufficiency. Additionally, perceived knowledge (insufficiency) is assumed to be negatively associated with information avoidance intention (cf. H24–32, see Figure 2).

Potential differences of perceived knowledge (insufficiency) between individuals with physical and mental health conditions can be attributed to the relation between mental health conditions on self-perceptions, such as self-confidence or efficacy beliefs (Kelly & Sharot, 2021). Preliminary research supports that the impact of knowledge insufficiency on information seeking was influenced by their health status (Link et al., 2021).

### **Physical versus mental health condition as moderator of the postulated paths**

Considering the postulated associations derived from PRISM and the related work reviewed above (see Figures 1 and 2), we can conclude that the state of research comparing physical and mental health conditions is limited. Nevertheless, referring to extant studies stressing the role of health conditions (e.g., Link et al., 2021; Ou & Ho, 2022) and described indications for a relation between physical and mental health and the single predictors, it would be examined exploratively whether health conditions moderate the association of the derived predictors with health information-seeking and avoidance intentions. Therefore, we propose that the PRISM fits differently for mental than physical health challenges. The current study aims to compare the empirical importance of predictors of health information-seeking (cf. RQ1) and information-avoidance intentions (cf. RQ2) in groups of individuals affected by physical versus mental health conditions:

**RQ1:** How do PRISM's paths (H1–H16) for predicting health information-seeking intentions differ between physical and mental health conditions?

**RQ2:** How do PRISM's paths (H17–H32) for predicting health information-avoidance intentions differ between physical and mental health conditions?

## **Methods**

We conducted an online survey ( $N = 1,511$ ) with a sample of individuals who reported on a screening question that they were currently severely affected by a health challenge. The inclusion criterion for participants was that they (fully) agreed that their health was currently severely affected or under stress. They named one current main challenge in the beginning, which was referred to in all following questions to establish a clear link between the challenge and the information behaviors. 184 (12.2 %) individuals gave a list of challenges, which makes it impossible to identify the reference of their information behaviors. Therefore, they were not included in the following analysis. The final sample consists of  $n = 1,327$  participants.

The participants were recruited via a German online access panel (Norstat). No quota system was employed; however, efforts were made to ensure that representation across age, gender, and education was as comprehensive as possible. The respondents were aged between 18 and 91 years ( $M = 54.44$ ;  $SD = 15.40$ ), more than half were female (53.8 %), 13.1 % had completed junior high school, 35.2 % had a general certificate of upper secondary education, and 51.7 % had a least a university entrance qualification. For this type of data collection, according to German standards, an institutional ethics approval is not mandatory, but principles of ethical research have to be warranted. Therefore, the participants were comprehensively informed about the scientific purpose of the study, they were asked for informed consent at the beginning of the survey and were informed about their right to withdraw their consent and cancel their participation at any time.

## **Measures**

All items of the questionnaire were adapted from earlier studies using established measures that had already been translated into German using a team translation approach. The items' wording and model fit can be found in Table 1. The zero-order correlations are reported in the Online Appendix, Table S1.

### **Health information-seeking and avoidance intentions**

To describe participants' intention to seek or avoid information referring to their current main health challenge, we used measures adapted from Kahlor (2010). For information-seeking intention, three out of five items were selected that express different strengths of intentions (Link et al., 2021). For avoidance, a four-item measure assessed whether and how intensely respondents shun away from information. Although both measurements do not consider motivational patterns underlying seeking or avoidance, they consider their purposeful nature. The internal consistency and the fit of both latent measurement models were adequate (seeking:  $\alpha = .92$ ,  $M = 3.1$ ,  $SD = 1.19$ ;

**Table 1.** Overview of the measures and fit of measurement models to the data.

Construct	Examples of item wording	Response scale	Descriptive	Model fits the data	Source
Seeking intention	SI1: I plan to seek information about my current health challenge in the near future. SI2: I will try to seek information about my current health challenge in the near future. SI3: I intend to find more information about my current health challenge.	five-point Likert-type scale from 1 "does not apply at all" to 5 "does apply fully"	$M = 3.1$ , $SD = 1.19$	$\alpha = .92$ [.91; .93]; $\chi^2 (1) = 2.15$ , $p = .143$ ; CFI = .999; RMSEA = .028, 90%CI [.000; .005], SRMR = .013	Kahlor (2010), Link et al. (2021)
Avoidance intention	AI1: I plan to avoid information about my current health challenge in the near future. AI2: I will try to pay no attention to information about my current health challenge in the near future. AI3: I intend to learn as little as possible about my current health challenge in the future. AI4: I will try to avoid information about my current health challenge in the future.	five-point Likert-type scale from 1 "does not apply at all" to 5 "does apply fully"	$M = 1.98$ , $SD = 1.05$	$\alpha = .90$ [.89; .91]; $\chi^2 (2) = .142$ , $p = .931$ ; CFI = 1.00; RMSEA = .000, 90%CI [.000; .025], SRMR = .001	Kahlor (2010), Link and Kahlor (2024)
Attitudes toward information seeking	How do you feel about seeking information about your described health challenge? Seeking information about my current health challenge is AT1 - ... bad or good. AT2 - ... harmful or beneficial. AT3 - ... unhelpful or helpful.	five-point semantic differential scale	$M = 3.78$ , $SD = .92$	$\alpha = .94$ [.93; .94], $\chi^2 (14) = 34.13$ , $p \leq .001$ , CFI = .994, RMSEA = .031 90%CI [.025; .040], SRMR = .014	Kahlor (2010)
Attitudes toward information avoidance	How do you feel about avoiding information about your described health challenge? Avoiding information about my current health challenge is AT1 - ... bad or good. AT2 - ... harmful or beneficial. AT3 - ... unhelpful or helpful.	five-point semantic differential scale	$M = 2.30$ , $SD = 1.09$	$\alpha = .96$ [.96; .97], $\chi^2 (14) = 45.31$ , $p \leq .001$ , CFI = .993, RMSEA = .039 90%CI [.030; .047], SRMR = .011	Kahlor (2010)
Perceived seeking control	PSC1: I know where to look for information about my current health challenge. PSC2: When it comes to information about my health challenge, I know how to separate facts from fiction.	five-point Likert-type scale from 1 "does not apply at all" to 5 "does apply fully"	$M = 3.64$ , $SD = .90$	$\alpha = .81$ [.79; .83], $\chi^2 (1) = 10.50$ , $p \leq .001$ , CFI = .988, RMSEA = .079 90%CI [.049; .119], SRMR = .045	Kahlor, Olson, et al. (2020)
Perceived avoidance control	PAC1: When it comes to avoiding information about my current health challenge, I know what to do. PAC2: I can readily avoid information about my current health challenge.	five-point Likert-type scale from 1 "does not apply at all" to 5 "does apply fully"	$M = 3.28$ , $SD = 1.17$	$\alpha = .92$ [.91; .92], $\chi^2 (1) = .492$ , $p = .482$ , CFI = 1.00, RMSEA = .000 90%CI [.000; .052], SRMR = .007	Kahlor, Olson, et al. (2020)
Seeking-related subjective norms	SN1: Most people who are important to me think that I should be informed about my health challenge. SN2: Most people whose opinion I value inform themselves about health challenges. SN3: Most people who are important to me approve that I seek information about my health challenge.	five-point Likert-type scale from 1 "does not apply at all" to 5 "does apply fully"	$M = 2.98$ , $SD = 1.09$	$\alpha = .90$ [.89; .90], $\chi^2 (3) = 2.51$ , $p = .473$ , CFI = 1.00, RMSEA = .000 90%CI [.000; .033], SRMR = .005	Kahlor (2010)
Avoidance-related subjective norms	SAN1: Most people who are important to me think that I should avoid information about my current health challenge. SAN2: Most people who are important to me would endorse my avoidance of information about my current health challenge. SAN3: Most people who are important to me avoid information about health challenges.	five-point Likert-type scale from 1 "does not apply at all" to 5 "does apply fully"	$M = 2.34$ , $SD = .99$	$\alpha = .90$ [.89; .91], $\chi^2 (6) = 14.68$ , $p = .023$ , CFI = .997, RMSEA = .031 90%CI [.016; .046], SRMR = .011	Link and Kahlor (2024)
Risk perception	RP1: Please rate the overall level of risk posed by your current health challenge. RP2: How serious are the risks posed by your current health challenge?	five-point Likert-type scale from 1 "very low/serious" to 5 "extremely high/serious"	$M = 3.45$ , $SD = .84$	Spearman-Brown Coefficient = .855	Kahlor, Yang, et al. (2020)
Hope	Hope Optimistic Encouraged	five-point Likert-type scale from 1 "not at all" to 5 "extremely"	$M = 2.65$ , $SD = 1.04$	$\alpha = .87$ [.86; .88], $\chi^2 (1) = .63$ , $p = .427$ , CFI = 1.00, RMSEA = .000 90%CI [.000; .062], SRMR = .007	Link and Kahlor (2024)
Sadness	Sad Lonely Empty	five-point Likert-type scale from 1 "not at all" to 5 "extremely"	$M = 2.84$ , $SD = 1.12$	$\alpha = .79$ [.77; .80], $\chi^2 (1) = .002$ , $p = .962$ , CFI = 1.00, RMSEA = .000 90%CI [.000; .000], SRMR = .000	Merten and Krause (1993)
Anger	Anger Rage Mad	five-point Likert-type scale from 1 "not at all" to 5 "extremely"	$M = 2.47$ , $SD = 1.17$	$\alpha = .87$ [.86; .88], $\chi^2 (1) = .028$ , $p = .868$ , CFI = 1.00, RMSEA = .000 90%CI [.000; .036], SRMR = .001	Merten and Krause (1993)
Anxiety	Anxiety Nervous Worry	five-point Likert-type scale from 1 "not at all" to 5 "extremely"	$M = 2.60$ , $SD = 1.07$	$\alpha = .80$ [.78; .81], $\chi^2 (1) = 1.41$ , $p = .235$ , CFI = 1.00, RMSEA = .016 90%CI [.000; .069], SRMR = .008	Merten and Krause (1993)
Perceived knowledge	Please rate your current knowledge about your current health challenge on a scale of 0 to 100. Zero means knowing nothing. 100 means knowing everything you could know about your health challenge.	Scale from 0 to 100	$M = 70.74$ , $SD = 22.24$	-	Kahlor (2010)

(Continued)

Table 1. (Continued).

Construct	Examples of item wording	Response scale	Descriptive	Model fits the data	Source
Perceived knowledge insufficiency	Think of that same 0 to 100 scale again. This time, estimate how much information you need to deal adequately with your current health challenge. How much information would be sufficient for you, that is, good enough for your purposes?	Scale from 0 to 100	$M = 79.40$ , $SD = 20.16$	-	Kahlor (2010)

avoidance:  $\alpha = .90$ ,  $M = 1.98$ ,  $SD = 1.05$ ; see Table 1 and S3 for distributional information per indicator).

#### Attitudes toward information seeking and avoidance

Attitudes toward information seeking and avoidance were both measured according to Kahlor (2010). Individuals' evaluation of acquiring or avoiding health information was reported by seven five-point semantic differential items each considering how the information behavior under investigation is evaluated. Both measurement models showed an adequate fit to the data (attitudes toward seeking:  $\alpha = .94$ ,  $M = 3.78$ ,  $SD = 0.92$ ; attitudes toward avoidance:  $\alpha = .96$ ,  $M = 2.30$ ,  $SD = 1.09$ ; see Table 1).

#### Seeking and avoidance-related subjective norms

Subjective norms were measured through the inclusion of injunctive and descriptive norms for both types of information behaviors. For seeking-related norms, we applied a five-item measurement by Kahlor (2010). For avoidance-related norms, a six-item measurement was adapted from Link and Kahlor (2024). Both measurements were evaluated as satisfying (seeking-related norms:  $\alpha = .90$ ,  $M = 2.98$ ,  $SD = 1.09$ ; avoidance-related norms:  $\alpha = .90$ ,  $M = 2.34$ ,  $SD = .99$ ; see Table 1).

#### Perceived seeking and avoidance control

The measurements for perceived behavioral control cover the ability to seek or avoid health information. Both four-item measures adapted from Kahlor, Olson, et al. (2020) were of adequate fit (seeking control:  $\alpha = .81$ ,  $M = 3.64$ ,  $SD = .90$ ; avoidance control:  $\alpha = .92$ ,  $M = 3.28$ ,  $SD = 1.17$ ; see Table 1).

#### Risk perception

Risk perceptions associated with the individual's reported current main health challenge were assessed using two items. One item represented the overall probability of the occurrence of negative events in this context, whereas the other addressed the severity of such events. Both items were adapted from a measurement by Kahlor, Yang, et al. (2020). The resulting index demonstrated good reliability (spearman-brown-coefficient = .86;  $M = 3.45$ ,  $SD = .84$ ).

#### Discrete emotions

Fear, anger, and sadness were each queried by a three-item measure adapted from the German version of the modified differential emotion scale (M-DES) (Merten & Krause, 1993). A three-item measure was also used for hope (Link & Kahlor, 2024). The fit of all four measurement models was evaluated as satisfactory (fear:  $\alpha = .80$ ,  $M = 2.60$ ,  $SD = 1.07$ ; anger:  $\alpha = .87$ ,

$M = 2.47$ ,  $SD = 1.17$ ; sadness:  $\alpha = .79$ ,  $M = 2.84$ ,  $SD = 1.12$ ; hope:  $\alpha = .87$ ,  $M = 2.65$ ,  $SD = 1.04$ ; see Table 1).

#### Perceived knowledge and perceived knowledge insufficiency

In line with the PRISM, scales between 0 and 100 were used to assess individuals' actual level of knowledge ( $M = 70.74$ ,  $SD = 22.24$ ) and their desired level of knowledge ( $M = 79.40$ ,  $SD = 20.16$ ) about their reported health challenge.

#### Health condition

Individuals were invited to describe their current main health challenge verbally in an open-ended question. Respondents' answers to the open-ended question were open coded by the first author. The codes were categorized inductively and grouped on various levels of abstraction. A closer look at the reported challenges showed that musculoskeletal and rheumatic diseases (33.2 %), cardiovascular diseases (9.0 %), infectious and immunological diseases (8.6 %), and respiratory diseases (7.0 %) were particularly common. Among mental health complaints and diseases, participants most commonly reported symptoms ranging from stress (2.6 %), exhaustion (2.4 %) to burnout (1 %), depression (5.3%), and anxiety disorders (3.0%). Finally, the answers were grouped into physical (77.9 %;  $n = 1,034$ ) and mental health conditions (22.1 %;  $n = 293$ ).

#### Data analysis

We performed multiple group analyses, which is a method to examine group differences with structural equation models (SEMs). Two latent variable SEMs – one for information-seeking and one for information-avoidance intention – with the moderating group comparison variable health condition were constructed in R using the Lavaan package. In both models, two-step modeling was employed to validate all measurement models prior to testing the structural model. To account for any deviations from multivariate normality indicated by the mardia test, we used a robust estimation method (MLR). To prepare for the group comparison, in the first step, the measurement invariance of the measurement models was evaluated to determine whether the used measures can be interpreted in the same way across the groups (Putnick & Bornstein, 2016). The results for measurement invariance are satisfying, allowing that the constructs can be meaningfully tested across the health conditions (see Online Appendix, Table S2). In the second step, the structural invariance focusing whether the factorial structure remains the same across the

examined groups was determined by comparing the unconstrained and constrained models using  $\chi^2$  – and fit statistics. The unconstrained model allows all parameters such as path coefficient to vary, while parameters were set equal in the constrained model. Wald tests per path were performed to compare the assumed associations across the groups of individuals with physical and mental health conditions. For the measurement and structural models, indicators of model fit included the chi-square statistic, the comparative fit index (CFI; values close to or greater than .95), the root mean square error approximation (RMSEA; values lower than .08), and the standardized root mean residual (SRMR; values lower than .08; Hu & Bentler, 1999).

## Results

### Comparing the predictions of information-seeking intentions (RQ1)

RQ1 asked for differences in the predictors of health information-seeking intentions between individuals with physical and mental health conditions. Comparing the unconstrained and constrained structural model showed that both models fit the data fairly well (unconstrained:  $\chi^2$  (924) = 1634.76,  $p \leq .001$ ; CFI = .969; RMSEA = .034 [.031; .037]; SRMR = .059; CN = 747.77; constrained:  $\chi^2$  (996) = 1737.60,  $p \leq .001$ ; CFI = .966; RMSEA = .035 [.033; .038]; SRMR = .060; CN = 747.53), but the  $\chi^2$  – difference test indicated that the models were not equivalent ( $\Delta\chi^2 = 101.84$ ;  $\Delta df = 72$ ,  $p = .011$ ). The unconstrained model fitted the data slightly better than the constrained model, implying that path coefficients vary among the groups of individuals with physical and mental health conditions. In total, the model accounted for 35.2 % of the variance in information-seeking intention among individuals with physical health conditions and 30.9 % of the variance in information-seeking intention among individuals with mental health conditions.

Focusing on the single paths derived from the PRISM, we found the following common association patterns focusing on direct paths to information seeking-intention: information-seeking intentions revealed to be associated with attitudes toward seeking (H1; physical:  $\beta = .30$ ;  $p \leq .001$ ; mental:  $\beta = .29$ ;  $p \leq .001$ ), seeking-related subjective norms (H2; physical:  $\beta = .27$ ;  $p \leq .001$ ; mental:  $\beta = .17$ ;  $p = .011$ ), fear (H6a; physical:  $\beta = .18$ ;  $p = .007$ ; mental:  $\beta = .29$ ;  $p = .019$ ), anger (H6b; physical:  $\beta = .16$ ;  $p \leq .001$ ; mental:  $\beta = .16$ ;  $p = .050$ ), perceived knowledge insufficiency (H8; physical:  $\beta = .14$ ;  $p \leq .001$ ; mental:  $\beta = .16$ ;  $p = .008$ ) and perceived knowledge (H9; physical:  $\beta = -.19$ ;  $p \leq .001$ ; mental:  $\beta = -.15$ ;  $p = .035$ ). Although seeking-related subjective norms were found to be more influential among individuals with physical health conditions than for those with mental health conditions, and fear was more strongly associated with information seeking in mental compared to physical conditions, neither of these differences was statistically significant (see Table 2).

Considering indirect paths relevant in both samples, the findings showed that risk perceptions induce fear, anger, and sadness, and reduce hope (H5a-d; see Table 2 for the coefficients). We

further found that perceived knowledge was associated with perceived knowledge insufficiency (cf. H10) and perceived seeking control related to perceived knowledge (cf. H15).

Direct associations with seeking intent that were not present in any of the two groups concerned perceived seeking control (cf. H3), risk perception (cf. H4), and sadness (cf. H6c). Further indirect correlations that could not be confirmed in either group included the link between perceived knowledge insufficiency and the four discrete emotions (cf. H7a-d), seeking-related subjective norms (cf. H12), and perceived seeking control (H13). Further, we found no relationship between perceived knowledge and attitudes toward seeking (cf. H14) as well as seeking-related subjective norms (cf. H16).

Besides the similar association patterns, the findings revealed one significant difference in direct predictors of information-seeking intent. Within the group of individuals with mental health challenges, the information-seeking intention was rather strongly related to feeling hopeful (H6d;  $\beta = .227$ ;  $p = .002$ ), while hope was not a significant predictor among individuals with physical health conditions ( $\beta = .079$ ;  $p = .057$ ; see Table 2). Focusing on differences among the indirect PRISM paths, attitudes toward seeking were only significantly associated with perceived knowledge insufficiency in the group of individuals with physical health conditions (cf. H11). However, the Wald test revealed that the difference was not significant (see Table 2).

### Comparing the predictions of information-avoidance intentions (RQ2)

RQ2 asked for group-specific predictors of information-avoidance intentions. The unconstrained and constrained model both fitted the data fairly well (unconstrained:  $\chi^2$  (1052) = 1624.99,  $p \leq .001$ ; CFI = .980; RMSEA = .029 [.026; .031]; SRMR = .042; CN = 841.82; constrained:  $\chi^2$  (996) = 1737.60,  $p \leq .001$ ; CFI = .966; RMSEA = .035 [.033; .038]; SRMR = .060). The  $\chi^2$  – difference test suggested a group-specific analysis as the unconstrained model fitted the data slightly better than the constrained model ( $\Delta\chi^2 = 101.88$ ;  $\Delta df = 76$ ,  $p = .025$ ). For information avoidance, the model accounted for 31.0 % of the variance among individuals with physical health conditions compared to 41.5 % of the variance among individuals with mental health conditions.

Similar for individuals with physical and mental health conditions, information-avoidance intention was found to be rather strongly associated with attitudes toward avoidance (H17; physical:  $\beta = .28$ ;  $p \leq .001$ ; mental:  $\beta = .31$ ;  $p \leq .001$ ) and avoidance-related subjective norms (H18; physical:  $\beta = .30$ ;  $p \leq .001$ ; mental:  $\beta = .34$ ;  $p \leq .001$ ).

Considering the significant indirect paths relevant in both groups, the findings revealed that risk perceptions were related to more pronounced experiences of fear, anger, and sadness, and to feeling less hopeful (cf. H21a-d, see Table 3). Additionally, perceived knowledge was found to be positively related to perceived knowledge insufficiency (cf. H26).

Similarities regarding the absence of significant direct paths to information-avoidance intentions were revealed for the association with risk perceptions (cf. H20), anger (cf. H22b), sadness (cf. H22c), and hope (cf. H22d). Non-significant

**Table 2.** Overview of the model paths and outcomes for information-seeking intention.

Proposed path	Information-Seeking intention						
	Group of individuals with current physical health condition			Group of individuals with current mental health condition			Wald $\chi^2$
	$\beta$	SE	95% CI	$\beta$	SE	95% CI	
H1 Attitude toward seeking → information-seeking intention (+)	.297***	.03	[.23; .36]	.290***	.07	[.15; .43]	$W(1) = .05$ , $p = .82$
H2 Seeking-related subjective norms → information-seeking intention (+)	.266***	.03	[.20; .33]	.165*	.06	[.04; .29]	$W(1) = .83$ , $p = .36$
H3 Perceived seeking control → information-seeking intention (+)	.064	.04	[-.01; .14]	-.017	.08	[-.17; .14]	$W(1) = .71$ , $p = .40$
H4 Risk perceptions → information seeking-intention (+)	.057	.03	[-.01; .12]	.007	.01	[-.12; .13]	$W(1) = .40$ , $p = .53$
H5a Risk perceptions → fear (+)	.473***	.03	[.42; .52]	.396***	.06	[.28; .51]	$W(1) = 1.42$ , $p = .23$
b → anger (+)	.228***	.04	[.16; .30]	.261***	.06	[.14; .39]	$W(1) = 1.42$ , $p = .23$
c → sadness (+)	.388***	.03	[.33; .45]	.403***	.07	[.27; .53]	$W(1) = 2.05$ , $p = .15$
d → hope (-)	-.227***	.03	[-.29; -.16]	-.259***	.07	[-.39; -.13]	$W(1) = .008$ , $p = .77$
H6a Fear → information-seeking intention (+)	.175**	.07	[.05; .30]	.289*	.12	[.05; .53]	$W(1) = 1.02$ , $p = .31$
H7a → perceived knowledge insufficiency (+)	.028	.08	[-.12; .17]	-.110	.15	[-.41; .19]	$W(1) = .62$ , $p = .43$
H6b Anger → information-seeking intention (+)	.160***	.05	[.06; .26]	.156*	.08	[.00; .31]	$W(1) = .07$ , $p = .79$
H7b → perceived knowledge insufficiency (+)	-.028	.06	[-.15; .09]	.094	.08	[-.06; .25]	$W(1) = 1.49$ , $p = .22$
H6c Sadness → information-seeking intention (+)	-.008	.09	[-.18; .17]	-.008	.14	[-.29; .28]	$W(1) \leq .001$ , $p = .99$
H7c → perceived knowledge insufficiency (+)	.153	.11	[-.06; .36]	.106	.16	[-.21; .42]	$W(1) = .14$ , $p = .71$
H6d Hope → information-seeking intention (+)	.079	.04	[-.01; .16]	.227**	.07	[.08; .37]	$W(1) = 3.53$ , $p = .049$
H7d → perceived knowledge insufficiency (+)	.051	.05	[-.05; .15]	-.099	.08	[-.26; .06]	$W(1) = 2.23$ , $p = .14$
H8 Perceived knowledge insufficiency → information-seeking intention (+)	.143***	.03	[.08; .20]	.155**	.06	[.05; .27]	$W(1) = .02$ , $p = .87$
H9 Perceived knowledge → information-seeking intention (+)	-.191***	.04	[-.26; -.12]	-.152*	.07	[-.29; -.02]	$W(1) = .05$ , $p = .82$
H10 Perceived knowledge → perceived knowledge insufficiency (+)	.247***	.04	[.16; .33]	.262***	.08	[.11; .41]	$W(1) = .28$ , $p = .59$
H11 Attitude toward seeking → perceived knowledge insufficiency (+)	.112**	.04	[.03; .20]	.103	.07	[-.04; .24]	$W(1) \leq .001$ , $p = .99$
H12 seeking-related subjective norms → perceived knowledge insufficiency (+)	.020	.04	[-.06; .09]	.021	.07	[-.12; .16]	$W(1) = .003$ , $p = .96$
H13 Perceived seeking control → perceived knowledge insufficiency (-)	-.054	.04	[-.14; .03]	-.090	.08	[-.24; .06]	$W(1) = .21$ , $p = .64$
H14 Attitude toward seeking → perceived knowledge (+)	-.007	.04	[-.08; .06]	-.057	.07	[-.19; .08]	$W(1) = .41$ , $p = .52$
H15 Perceived seeking control → perceived knowledge (+)	.422***	.04	[.35; .50]	.428***	.06	[.30; .55]	$W(1) \leq .001$ , $p = .99$
H16 Seeking-related subjective norms → perceived knowledge (+)	.052	.03	[-.02; .12]	.019	.06	[-.10; .14]	$W(1) = .20$ , $p = .66$

Note. standard.  $\beta$ -Coefficients,  $p$ -values.

indirect paths found in both groups include the predictors of perceived knowledge insufficiency such as discrete emotions (cf. H23a-d), attitudes toward avoidance (cf. H27), avoidance-related subjective norms (cf. H28), and perceived avoidance control (cf. 29). Attitudes toward avoidance (cf. H30) and perceived avoidance control (cf. H31) were not related to perceived knowledge.

The comparison also revealed group-specific predictors. Among individuals with physical health conditions, information-avoidance intention was positively related to perceived avoidance control (H19; physical:  $\beta = .07$ ;  $p = .038$ ; mental:  $\beta = .08$ ;  $p = .187$ ) and fear (H22a; physical:  $\beta = .17$ ;

$p = .009$ ; mental:  $\beta = .02$ ;  $p = .850$ ) as well as weak, but negatively related to perceived knowledge insufficiency (H24; physical:  $\beta = -.08$ ;  $p = .015$ ; mental:  $\beta = .004$ ;  $p = .936$ ) and perceived knowledge (H25; physical:  $\beta = -.07$ ;  $p = .023$ ; mental:  $\beta = -.07$ ;  $p = .221$ ). Avoidance-related subjective norms were found to be positively associated with one's perceived knowledge of individuals with physical health conditions ( $\beta = .10$ ;  $p = .003$ ) but not of those with mental health conditions ( $\beta = .03$ ;  $p = .706$ ; cf. H32). Although the associations were significant in only one of the groups examined, the Wald test indicated that none of the paths differed significantly between the groups (see Table 3).

**Table 3.** Overview of the model paths and outcomes for information-avoidance intention.

Proposed path	Information-Avoidance Intention						
	Group of individuals with current physical health condition			Group of individuals with current mental health condition			Wald $\chi^2$
	$\beta$	SE	95% CI	$\beta$	SE	95% CI	
H17 Attitude toward avoidance → information-avoidance intention (+)	.283***	.04	[.20; .36]	.311***	.08	[.15; .48]	$W(1) = .30$ , $p = .58$
H18 Avoidance-related subjective norms → information-avoidance intention (+)	.297***	.05	[.21; .39]	.342***	.09	[.18; .51]	$W(1) = .05$ , $p = .82$
H19 Perceived avoidance control → information-avoidance intention (+)	.065*	.03	[.01; .13]	.083	.06	[-.04; .21]	$W(1) = .11$ , $p = .74$
H20 Risk perceptions → information-avoidance-intention (+)	-.045	.04	[-.12; .03]	-.043	.07	[-.17; .08]	$W(1) \leq .001$ , $p = .99$
H21a Risk perceptions → fear (+)	.473***	.03	[.42; .52]	.394***	.06	[.28; .51]	$W(1) = 1.47$ , $p = .23$
b → anger (+)	.228***	.04	[.16; .30]	.262***	.06	[.14; .39]	$W(1) = 1.36$ , $p = .24$
c → sadness (+)	.388***	.03	[.33; .45]	.404***	.07	[.27; .53]	$W(1) \leq .001$ , $p = .92$
d → hope (-)	-.227***	.03	[-.29; -.16]	-.258***	.07	[-.39; -.13]	$W(1) = 0.34$ , $p = .56$
H22a Fear → information-avoidance intention (+)	.170**	.07	[.04; .30]	.022	.11	[-.20; .24]	$W(1) = 1.13$ , $p = .29$
H23a → perceived knowledge insufficiency (+)	.020	.08	[-.13; .17]	-.090	.15	[-.38; .20]	$W(1) = .43$ , $p = .51$
H22b Anger → information-avoidance intention (-)	-.053	.05	[-.15; .04]	-.109	.07	[-.24; .03]	$W(1) = .23$ , $p = .63$
H23b → perceived knowledge insufficiency (+)	-.028	.06	[-.14; .09]	.108	.08	[-.05; .27]	$W(1) = 1.74$ , $p = .18$
H22c Sadness → information-avoidance intention (+)	.007	.09	[-.17; .18]	.147	.15	[-.14; .43]	$W(1) = .71$ , $p = .40$
H23c → perceived knowledge insufficiency (+)	.181	.11	[-.03; .39]	.110	.16	[-.21; .43]	$W(1) = .04$ , $p = .83$
H22d Hope → information-avoidance intention	.013	.05	[.10; -.13]	-.128	.07	[-.27; .01]	$W(1) = 2.87$ , $p = .09$
H23d → perceived knowledge insufficiency (+)	.067	.05	[-.03; .17]	-.085	.08	[-.25; .08]	$W(1) = 2.48$ , $p = .11$
H24 Perceived knowledge insufficiency → information-avoidance intention (-)	-.079*	.03	[-.14; -.02]	.004	.05	[-.08; .09]	$W(1) = 2.48$ , $p = .12$
H25 Perceived knowledge → information-avoidance intention (-)	-.071*	.03	[-.13; -.01]	-.066	.05	[-.17; .04]	$W(1) \leq .001$ , $p = .96$
H26 Perceived knowledge → perceived knowledge insufficiency (+)	.243***	.04	[.17; .32]	.230***	.07	[.09; .37]	$W(1) = .05$ , $p = .83$
H27 Attitude toward avoidance → perceived knowledge insufficiency (-)	.003	.04	[-.08; .09]	-.094	.07	[-.24; .05]	$W(1) = 1.37$ , $p = .24$
H28 Avoidance-related subjective norms → perceived knowledge insufficiency (-)	-.070	.05	[-.16; .02]	.006	.08	[-.14; .15]	$W(1) = .71$ , $p = .40$
H29 Perceived avoidance control → perceived knowledge insufficiency (-)	.001	.04	[-.07; .07]	.076	.07	[-.07; .22]	$W(1) = .87$ , $p = .35$
H30 Attitude toward avoidance → perceived knowledge (-)	-.038	.04	[-.12; .05]	-.073	.08	[-.24; .09]	$W(1) = .16$ , $p = .69$
H31 Perceived avoidance control → perceived knowledge (-)	-.029	.05	[-.12; .06]	.032	.08	[-.13; .20]	$W(1) = .43$ , $p = .51$
H32 Avoidance-related subjective norms → perceived knowledge (-)	.104**	.04	[.04; .17]	.081	.07	[-.06; .22]	$W(1) = .05$ , $p = .82$

Note. standard.  $\beta$ -Coefficients,  $p$ -values.

## Discussion

Due to the specific cognitive, affective, and social challenges that individuals face when dealing with mental vs. physical problems, we explored similarities and differences in predictors of information behaviors between these two categories of health challenges. Overall, our findings support the utility of the PRISM for explaining individuals' information-seeking and avoidance behaviors in current physical or mental health conditions. Both postulated models fit the data well and explain an adequate amount of variance in information-

seeking and avoidance intentions. In contrast to information seeking, where the explained variance was higher for the physical than mental health condition, the explained variance for avoidance behavior was greater among individuals with mental health conditions than those with physical health conditions. Thus, the PRISM provides a valuable framework for identifying condition-specific patterns of predictors for both information behaviors. Further, it has been successfully applied to the context of mental health, an area that has previously received limited research attention.

### **Key findings on physical and mental information seeking**

Concerning the predictors of information-seeking intentions, most of the predictors were relevant in both health conditions. Attitudes toward information seeking, anger, perceived knowledge, and perceived knowledge insufficiency were found to be equally influential (Kahlor, 2010; Ou & Ho, 2022; Z. J. Yang & Kahlor, 2013).

Among the differences, the role of hope should be stressed. Hope describing one's desire for relief when facing a threatening situation (Lazarus, 1999) was crucial for mental information-seeking intentions, suggesting its empowering role (Pieper et al., 2015; Scherr & Goering, 2020). Descriptive differences in the role of fear could be rooted in the fact that individuals with mental health problems are emotionally burdened by self-stigma, the fear of public stigma, and experiences of discrimination (Thorncroft et al., 2022). These burdens can result in individuals refraining from speaking up but seeking information in "safe spaces."

Further, we found significant paths for subjective norms in both subsamples (Ou & Ho, 2022; Z. J. Yang et al., 2014). Although the magnitude of the relation did not significantly differ between individuals with physical compared to mental health conditions, the descriptives showed a stronger association for individuals with physical health conditions. This might be associated with the tabooed issue of mental health associated with a lower probability that subjective norms enfold a strong force.

Although risk perceptions and sadness were not found to be predictive, our findings enrich the limited state of research on both predictors. In contrast to meta-analyses (Ou & Ho, 2022; W. Wang et al., 2023) revealing a small-level direct correlation between risk perceptions and information seeking, the non-significant path might be attributed to our sample of affected individuals. For those who are already affected, the probability of occurrence and severity of this health threat is probably no longer as crucial as it would be in the case of an unknown, and uncertain health condition. From a conceptual and methodological perspective on risk perceptions, the components of risk assessments might be more influential when considered separately, as suggested by El-Toukhy (2015). This stresses the need for a more in-depth analysis of the role of risk perceptions requiring a more detailed differentiation of the disease level.

In line with the preliminary findings of Ahn et al. (2021), we could not support that sadness was related to information-seeking intention. This finding can be interpreted in light of the understanding of sadness as a passive emotional state characterized by behavioral withdrawal and a general slowing of cognitive physiological processes (Karnaze & Levine, 2018). Such passivity may function as a barrier to active information seeking. In the context of alternative perspectives emphasizing that sadness can serve as a driver of cognitive change (Karnaze & Levine, 2018), the relatively low levels of reported sadness ( $M = 2.84$ ;  $SD = 1.12$ ) may be insufficient to prompt action (Jin et al., 2012; Lazarus, 1991). More broadly, these findings highlight the need to revisit the role of sadness in information behavior and to clarify whether and under what conditions sadness acts as a motivator or inhibitor of information seeking.

The lack of a significant role of perceived seeking control contradicts former research stressing the role of abilities (Link

et al., 2021; Ou & Ho, 2022). In the current study, individuals' seeking intention might be less a matter of perceived abilities but of the urgency of information needs (Xia et al., 2017). Long-lasting chronic health conditions might result in more routine patterns and higher abilities to acquire health information.

### **Key findings on physical and mental information avoidance**

Focusing on information-avoidance intentions, the findings revealed that attitudes toward information avoidance and avoidance-related norms were the most dominant predictors in both health conditions. Supplementing the state of research on physical health (Liu & Chen, 2024), attitudes, and subjective norms are also of high relevance for individuals with mental health conditions, which might be explained by attempts to protect themselves from further confrontation with public stigma (Clement et al., 2015; Lannin et al., 2020). Further, the social taboo associated with mental diseases may be linked to the individual's perception that it is more favorable, common, and accepted to prevent the acquisition of information.

Although information avoidance is often understood as a strategy to cope with emotional burdens (Sweeny et al., 2010), neither risk perceptions nor anger, sadness, and hope served as triggers of information avoidance across both health conditions. That risk perception is not a significant predictor contradicts theoretical postulates (Deline & Kahlor, 2019) but is in line with preliminary research (e.g., Ahn et al., 2021; Link & Kahlor, 2024). As the direct link is absent in both samples, it is imperative to undertake a comprehensive examination of the type of relationship between risk perceptions and information avoidance. Against the discussed quadric relationship between risk perceptions and information avoidance (Deline & Kahlor, 2019), an additional analysis conducted revealed nonsignificant associations in both groups. Instead of a quadric relationship, there might be a critical cutoff point of perceived risks leading to information avoidance.

Regarding the role of anger, sadness, and hope, our findings showed a minor role of emotions in individuals with physical and mental conditions. Only fear has been shown to have a significant impact on avoidance in individuals with physical health conditions (Deline & Kahlor, 2019; Sweeny et al., 2010), while information avoidance of individuals with mental conditions was not triggered by emotional responses at all. The underlying reasons for not adopting emotion regulation strategies via information avoidance are a task for future research. Further, a more differentiated view on information avoidance comparing various mental health conditions is needed. The findings that anger and sadness were of minor relevance for avoidance intentions across both conditions also enrich the limited evidence on discrete emotions (Ahn et al., 2021; Link & Kahlor, 2024). In contrast, the minor role of hope was inconsistent with its postulated relevance (Barbour et al., 2012; Chen & Chen, 2023; Link, 2023) suggesting that hope-induced information avoidance might not occur in individuals who are consciously dealing with health challenges. In our sample, avoidance tendencies seemed to be independent of the wish

to maintain one's positive attitude, the wish for relief, and positive future expectations.

The condition-specific, minor impact of perceived knowledge and perceived knowledge insufficiency is consistent with Deline and Kahlor (2019) proposing that accuracy goals are less influential for avoidance than seeking behaviors. In addition, a more accurate self-perception (Kelly & Sharot, 2021) might contribute to the (weak) negative relation between perceived knowledge (insufficiency) and information-avoidance intentions of individuals with physical health challenges.

The perceived ability to prevent confrontation with information was found to be a facilitating factor to more pronounced intentions to avoid information about one's physical health which may indicate a self-perception of resilience (Kahlor, Olson, et al., 2020; Link & Kahlor, 2024). The lack of significance of this path for individuals with mental health conditions might be related to a lack of self-confidence to succeed in performing avoidance behaviors (Kelly & Sharot, 2021). However, the relationship between perceived avoidance control and physical information-avoidance intentions was weak and did not significantly differ between both conditions, which indicates that abilities were of minor relevance.

### Limitations and tasks for future research

The study involves several limitations and provides starting points for further research. First, it should be noted that the findings rely on cross-sectional data with a one-time measurement of behavioral intentions. Future research is needed that examines causal inference and accounts for whether the intention is related to actions. Second, the sample size of participants with mental health conditions was small, which may limit the generalizability of the findings. Not all participants were formally diagnosed with mental health conditions, which may have increased variability of symptoms. Further research should examine how information behaviors vary within subcategories of physical and mental health conditions and provide a more nuanced view on the stages of the patient journey. Third, the sample size of both considered conditions were unequal, which might have implications for parameter estimation and model fit. Nevertheless, the robustness is supported as the models converged properly, the overall model fits indicated a good model fit across both groups, the standard errors among participants with mental health condition did not suffer from excessive variability and the invariance was given. Fourth, the categories of physical and mental health conditions are characterized by high within-heterogeneity, which may mask more fine-grained differences. To address this limitation, future research should explore more granular distinctions between condition types, ideally with larger and more diagnostically balanced samples. Fifth, the study did not consider the multi-morbidity of participants, which is highly relevant given that both mental and physical health conditions can co-occur. Sixth, the study focused on the German context, which is a rather individualistic, uncertainty-avoidant, masculine country. These cultural dimensions manifest in a high value to be informed and shape the perception of mental

health conditions (for an internationally comparative view, see Seeman et al., 2016).

### Conclusion and practical implications

The study provides evidence for theory specification considering the similarities and differences between predictors of physical and mental health information-seeking and avoidance guided by the PRISM. Across both health conditions, we found more similarities than differences suggesting the cross-contextual validity of the PRISM. Particularly, attitudes toward information behaviors and subjective norms were revealed as overarching predictors (Ou & Ho, 2022; Z. J. Yang et al., 2014). We further enrich the state of research on mental health information behaviors showing that mental health information-seeking is particularly driven by one's attitudes, fears, and hopes, while information avoidance is driven by attitudes and subjective avoidance norms.

Against the backdrop of the high impact of attitudes across both health conditions, health campaigns should emphasize the benefits of information acquisition. To face the potentially activating power of hope in individuals affected by mental health conditions, health messages are needed that combat stigma, emphasize efficacy and empowerment by information behaviors, and involve patients who report on the benefits of their information acquisition (Thornicroft et al., 2022). Involving principles of social contact with role models with mental illness in interventions proclaiming information acquisition might also help to reduce self-stigma and contribute to counteracting subjective avoidance norms. Campaigns could also explicitly address the role of avoidance norms and appeal particularly to individuals with mental health conditions to take an active role in their health and choose which information is relevant. They should be motivated to weigh their need to get involved in healthcare against their need for self-protection and emotional regulation.

### Disclosure statement

No potential conflict of interest was reported by the author(s).

### Funding

The author(s) reported there is no funding associated with the work featured in this article.

### ORCID

Elena Link  <http://orcid.org/0000-0001-6861-5288>

Eva Baumann  <http://orcid.org/0000-0002-2357-2138>

### References

- Afifi, W. A., & Weiner, J. L. (2004). Toward a theory of motivated information management. *Communication Theory*, 14(2), 167–190. <https://doi.org/10.1111/j.1468-2885.2004.tb00310.x>
- Ahn, J., Kim, H. K., Kahlor, L. A., Atkinson, L., & Noh, G. (2021). The impact of emotion and government trust on individuals' risk information seeking and avoidance during the COVID-19 pandemic: A cross-

- country comparison. *Journal of Health Communication*, 26(10), 728–741. <https://doi.org/10.1080/10810730.2021.1999348>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*, 2(4), 314–324. <https://doi.org/10.1002/hbe2.195>
- Akhter, N., & Sopory, P. (2022). Seeking and sharing mental health information on social media during COVID-19: Role of depression and anxiety, peer support, and health benefits. *The Journal of Technology in Behavioral Science*, 7(2), 211–226. <https://doi.org/10.1007/s41347-021-00239-x>
- Atkin, C. (1973). Instrumental utility and information seeking. In P. Clarke (Ed.), *Sage annual reviews of communication research: Vol. 2. New models for mass communication research* (2. print pp. 205–242). SAGE Publication.
- Barbour, J. B., Rintamaki, L. S., Ramsey, J. A., & Brashers, D. E. (2012). Avoiding health information. *Journal of Health Communication*, 17(2), 212–229. <https://doi.org/10.1080/10810730.2011.585691>
- Brashers, D. E. (2001). Communication and uncertainty management. *Journal of Communication*, 51(3), 477–497. <https://doi.org/10.1111/j.1460-2466.2001.tb02892.x>
- Brinker, D. L., Zhou, Y., Acevedo Callejas, M. L., & MacGeorge, E. L. (2020). Increasing information seeking about antibiotic risks: Testing a clinical intervention message using the risk information seeking and processing model. *Science Communication*, 42(2), 218–243. <https://doi.org/10.1177/1075547020914610>
- Chadwick, A. E. (2015). Toward a theory of persuasive hope: Effects of cognitive appraisals, hope appeals, and hope in the context of climate change. *Health Communication*, 30(6), 598–611. <https://doi.org/10.1080/10410236.2014.916777>
- Chae, J. (2015). A three-factor cancer-related mental condition model and its relationship with cancer information use, cancer information avoidance, and screening intention. *Journal of Health Communication*, 20(10), 1133–1142. <https://doi.org/10.1080/10810730.2015.1018633>
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology*, 39(5), 752–766. <https://doi.org/10.1037/0022-3514.39.5.752>
- Chen, L., & Chen, M. (2023). Danger control and fear control during public health emergencies: Considering the roles of fear and hope in the EPPM across different levels of trust. *Risk Analysis*, 43(5), 928–942. <https://doi.org/10.1111/risa.13985>
- Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology*, 58(6), 1015–1026. <https://doi.org/10.1037/0022-3514.58.6.1015>
- Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüschi, N., Brown, J. S. L., & Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine*, 45(1), 11–27. <https://doi.org/10.1017/S0033291714000129>
- Deline, M. B., & Kahlor, L. A. (2019). Planned risk information avoidance: A proposed theoretical model. *Communication Theory*, 29(3), 272–294. <https://doi.org/10.1093/ct/qty035>
- Dillard, J. P., Li, R., Meczowski, E., Yang, C., & Shen, L. (2017). Fear responses to threat appeals: Functional form, methodological considerations, and correspondence between static and dynamic data. *Communication Research*, 44(7), 997–1018. <https://doi.org/10.1177/0093650216631097>
- Dunwoody, S., & Griffin, R. J. (2015). Risk information seeking and processing model. In H. Cho, T. Reimer & K. A. McComas (Eds.), *The SAGE handbook of risk communication* (pp. 102–116). SAGE Publications.
- El-Toukhy, S. (2015). Parsing susceptibility and severity dimensions of health risk perceptions. *Journal of Health Communication*, 20(5), 499–511. <https://doi.org/10.1080/10810730.2014.989342>
- Freytag, A., Baumann, E., Angermeyer, M., & Schomerus, G. (2023). Self- and surrogate-seeking of information about mental health and illness in Germany. *BMC Public*, 23(1), 65. <https://doi.org/10.1186/s12889-023-14998-0>
- Frijda, N. H., Kuipers, P., & Schure, E. T. (1989). Relations among emotion, appraisal, and emotional action readiness. *Journal of Personality and Social Psychology*, 57(2), 212–228. <https://doi.org/10.1037/0022-3514.57.2.212>
- Griffin, R. J., Dunwoody, S., & Neuwirth, K. (1999). Proposed model of the relationship of risk information seeking and processing to the development of preventive behaviors. *Environmental Research*, 80(2 Pt 2), S230–S245. <https://doi.org/10.1006/enrs.1998.3940>
- Gutteling, J. M., & Vries, P. W. D. (2017). Determinants of seeking and avoiding risk-related information in times of crisis. *Risk Analysis*, 37(1), 27–39. <https://doi.org/10.1111/risa.12632>
- Hmielowski, J. D., Donaway, R., & Wang, M. Y. (2019). Environmental risk information seeking: The differential roles of anxiety and hopelessness. *Environmental Communication*, 13(7), 894–908. <https://doi.org/10.1080/17524032.2018.1500926>
- Hollenstein, T. (2015). This time, it's real: Affective flexibility, time scales, feedback loops, and the regulation of emotion. *Emotion Review*, 7(4), 308–315. <https://doi.org/10.1177/1754073915590621>
- Hovick, S. R., Kahlor, L., & Liang, M. -C. (2014). Personal cancer knowledge and information seeking through PRISM: The planned risk information seeking model. *Journal of Health Communication*, 19(4), 511–527. <https://doi.org/10.1080/10810730.2013.821556>
- Hovick, S. R., Liang, M. -C., & Kahlor, L. (2014). Predicting cancer risk knowledge and information seeking: The role of social and cognitive factors. *Health Communication*, 29(7), 656–668. <https://doi.org/10.1080/10410236.2012.763204>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Huang, Y., & Yang, C. (2020). A metacognitive approach to reconsidering risk perceptions and uncertainty: Understand information seeking during COVID-19. *Science Communication*, 42(5), 616–642. <https://doi.org/10.1177/1075547020959818>
- Hubner, A. Y., & Hovick, S. R. (2020). Understanding risk information seeking and processing during an infectious disease outbreak: The case of zika virus. *Risk Analysis*, 40(6), 1212–1225. <https://doi.org/10.1111/risa.13456>
- Izard, C. E. (1977). *Human emotions*. Plenum Press.
- Jin, Y., Pang, A., & Cameron, G. T. (2012). Toward a publics-driven, emotion-based conceptualization in crisis communication: Unearthing dominant emotions in multi-staged testing of the integrated crisis mapping (ICM) model. *Journal of Public Relations Research*, 24(3), 266–298. <https://doi.org/10.1080/1062726X.2012.676747>
- Johnson, J. D., & Meischke, H. (1993). A comprehensive model of cancer-related information seeking applied to magazines. *Human Communication Research*, 19(3), 343–367. <https://doi.org/10.1111/j.1468-2958.1993.tb00305.x>
- Kahlor, L., Dunwoody, S., Griffin, R. J., & Neuwirth, K. (2006). Seeking and processing information about impersonal risk. *Science Communication*, 28(2), 163–194. <https://doi.org/10.1177/1075547006293916>
- Kahlor, L. A. (2007). An augmented risk information seeking model: The case of global warming. *Media Psychology*, 10(3), 414–435. <https://doi.org/10.1080/15213260701532971>
- Kahlor, L. A. (2010). PRISM: A planned risk information seeking model. *Health Communication*, 25(4), 345–356. <https://doi.org/10.1080/10410231003775172>
- Kahlor, L. A., Olson, H. C., Markman, A. B., & Wang, W. (2020). Avoiding trouble: Exploring environmental risk information avoidance intentions. *Environment and Behavior*, 52(2), 187–218. <https://doi.org/10.1177/0013916518799149>
- Kahlor, L. A., Yang, J., Li, X., Wang, W., Olson, H. C., & Atkinson, L. (2020). Environmental risk (and benefit) information seeking intentions: The case of carbon capture and storage in Southeast Texas.

- Environmental Communication*, 14(4), 555–572. <https://doi.org/10.1080/17524032.2019.1699136>
- Karnaze, M. M., & Levine, L. J. (2018). Sadness, the architect of cognitive change. In H. C. Lench (Ed.), *The function of emotions* (pp. 45–58). Springer. [https://doi.org/10.1007/978-3-319-77619-4\\_4](https://doi.org/10.1007/978-3-319-77619-4_4)
- Kelly, C. A., & Sharot, T. (2021). Individual differences in information-seeking. *Nature Communications*, 12(1), 7062. <https://doi.org/10.1038/s41467-021-27046-5>
- Kim, S. (2021). The role of discrete emotions in risk perception and policy support during public health crises: The moderation effect of SNS dependency. *International Journal of Environmental Research and Public Health*, 18(21). <https://doi.org/10.3390/ijerph182111654>
- Kuppens, P., Allen, N. B., & Sheeber, L. B. (2010). Emotional inertia and psychological maladjustment. *Psychological Science*, 21(7), 984–991. <https://doi.org/10.1177/0956797610372634>
- Lannin, D. G., Kanter, J. B., Russell, L., Parris, L., & Yazedjian, A. (2020). Why do adolescents seek online mental health information? *Journal of Adolescent and Family Health*, 11(1), Article 5. <https://scholar.utc.edu/jafh/vol11/iss1/5>
- Lapinski, M. K., & Rimal, R. N. (2005). An explication of social norms. *Communication Theory*, 15(2), 127–147. <https://doi.org/10.1111/j.1468-2885.2005.tb00329.x>
- Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of emotion. *American Psychologist*, 46(8), 819–834. <https://doi.org/10.1037/0003-066X.46.8.819>
- Lazarus, R. S. (1999). Hope: An emotion and a vital coping resource against despair. *Social Research*, 66(2), 653–678.
- Link, E. (2021). Information avoidance during health crises: Predictors of avoiding information about the COVID-19 pandemic among German news consumers. *Information Processing & Management*, 58(6), 102714. <https://doi.org/10.1016/j.ipm.2021.102714>
- Link, E. (2023). Avoidance of interpersonal discussions about the COVID-19 vaccination: Applying the theory of motivated information management. *Health Communication*, 38(13), 2843–2853. <https://doi.org/10.1080/10410236.2022.2124055>
- Link, E. (2024). Health information as “fodder for fears”: A qualitative analysis of types and determinants of the nonuse of health information. *Health Communication*, 39(13), 3225–3237. <https://doi.org/10.1080/10410236.2024.2312611>
- Link, E. (2025). Single episodes of health information seeking, scanning, and avoidance: Findings of an experience sampling methods study of German residents suffering from acute or chronic illness. *Communication Research*. Advance online publication. <https://doi.org/10.1177/00936502251328717>
- Link, E., Baumann, E., & Klimmt, C. (2021). Explaining online information seeking behaviors in people with different health statuses: German representative cross-sectional survey. *Journal of Medical Internet Research*, 23(12), e25963. <https://doi.org/10.2196/25963>
- Link, E., Baumann, E., & Leuppert, R. (2024). Clarifying the relationship between information seeking and avoidance: Longitudinal analyses of information behaviors and their normative influences. *Health Communication*, 39(5), 1038–1052. <https://doi.org/10.1080/10410236.2023.2201736>
- Link, E., & Kahlor, L. A. (2024). The planned risk information seeking model applied to vaccine information avoidance and the role of affect, emotion and perceived benefits. *Health Communication*, 39(11), 2376–2389. <https://doi.org/10.1080/10410236.2023.2268912>
- Liu, K., & Chen, M. (2024). Disentangling the effects of cognitive, affective, and sociocultural factors on risk information avoidance: A meta-analysis. *Communication Research*. Advance online publication. <https://doi.org/10.1177/00936502241246513>
- McLaren, T., Peter, L.-J., Tomczyk, S., Muehlan, H., Schomerus, G., & Schmidt, S. (2023). The seeking mental health care model: Prediction of help-seeking for depressive symptoms by stigma and mental illness representations. *BMC Public Health*, 23(1), 69. <https://doi.org/10.1186/s12889-022-14937-5>
- Merten, J., & Krause, R. (1993). *DAS (Differenzielle Affekt Skala)*. Arbeiten der Fachrichtung Psychologie, Universität des Saarlandes No 173.
- Mitsutake, S., Takahashi, Y., Otsuki, A., Umezawa, J., Yaguchi-Saito, A., Saito, J., Fujimori, M., & Shimazu, T. (2023). Chronic diseases and sociodemographic characteristics associated with online health information seeking and using social networking sites: Nationally representative cross-sectional survey in Japan. *Journal of Medical Internet Research*, 25, e44741. <https://doi.org/10.2196/44741>
- Narayan, B., Case, D. O., & Edwards, S. L. (2011). The role of information avoidance in everyday-life information behaviors. *Proceedings of the American Society for Information Science and Technology*, 48(1), 1–9. <https://doi.org/10.1002/meet.2011.14504801085>
- Naslund, J. A., Aschbrenner, K. A., Marsch, L. A., & Bartels, S. J. (2016). The future of mental health care: Peer-to-peer support and social media. *Epidemiology and Psychiatric Sciences*, 25(2), 113–122. <https://doi.org/10.1017/S2045796015001067>
- Niederdeppe, J., Hornik, R. C., Kelly, B. J., Frosch, D. L., Romantan, A., Stevens, R. S., Barg, F. K., Weiner, J. L., & Schwartz, J. S. (2007). Examining the dimensions of cancer-related information seeking and scanning behavior. *Health Communication*, 22(2), 153–167. <https://doi.org/10.1080/10410230701454189>
- Oh, Y. S., & Cho, Y. (2015). Examining the relationships between resources and online health information seeking among patients with chronic diseases and healthy people. *Social Work in Health Care*, 54(2), 83–100. <https://doi.org/10.1080/00981389.2014.987940>
- Ou, M., & Ho, S. S. (2022). A meta-analysis of factors related to health information seeking: An integration from six theoretical frameworks. *Communication Research*, 49(4), 567–593. <https://doi.org/10.1177/00936502211043024>
- Pieper, D., Jülich, F., Antoine, S. -L., Bächle, C., Chernyak, N., Genz, J., Eikermann, M., & Icks, A. (2015). Studies analysing the need for health-related information in Germany - A systematic review. *BMC Health Services Research*, 15(1), 407. <https://doi.org/10.1186/s12913-015-1076-9>
- Putnick, D. L., & Bornstein, M. H. (2016). Measurement invariance conventions and reporting: The state of the art and future directions for psychological research. *Developmental Review*, 41, 71–90. <https://doi.org/10.1016/j.dr.2016.06.004>
- Reisenzein, R. (1994). Pleasure-arousal theory and the intensity of emotions. *Journal of Personality and Social Psychology*, 67(3), 525–539. <https://doi.org/10.1037/0022-3514.67.3.525>
- Rimal, R. N., Lapinski, M. K., Cook, R. J., & Real, K. (2005). Moving toward a theory of normative influences: How perceived benefits and similarity moderate the impact of descriptive norms on behaviors. *Journal of Health Communication*, 10(5), 433–450. <https://doi.org/10.1080/10810730591009880>
- Rimal, R. N., & Real, K. (2003). Perceived risk and efficacy beliefs as motivators of change: Use of the risk perception attitude (RPA) framework to understand health behaviors. *Human Communication Research*, 29(3), 370–399. <https://doi.org/10.1111/j.1468-2958.2003.tb00844.x>
- Rottenberg, J., Gross, J. J., & Gotlib, I. H. (2005). Emotion context insensitivity in major depressive disorder. *Journal of Abnormal Psychology*, 114(4), 627–639. <https://doi.org/10.1037/0021-843X.114.4.627>
- Savolainen, R. (2014). Emotions as motivators for information seeking: A conceptual analysis. *Library & Information Science Research*, 36(1), 59–65. <https://doi.org/10.1016/j.lisr.2013.10.004>
- Scherr, S., & Goering, M. (2020). Is a self-monitoring app for depression a good place for additional mental health information? Ecological momentary assessment of mental help information seeking among smartphone users. *Health Communication*, 35(8), 1004–1012. <https://doi.org/10.1080/10410236.2019.1606135>
- Seeman, N., Tang, S., Brown, A. D., & Ing, A. (2016). World survey of mental illness stigma. *Journal of Affective Disorders*, 190, 115–121. <https://doi.org/10.1016/j.jad.2015.10.011>
- Slovic, P., Finucane, M. L., Peters, E., & MacGregor, D. (2004). Risk as analysis and risk as feeling: Some thoughts about affect, reason, risk, and rationality. *Risk Analysis*, 24(2), 311–322. <https://doi.org/10.1111/j.0272-4332.2004.00433.x>
- So, J. (2013). A further extension of the extended parallel process model (E-EPPM): Implications of cognitive appraisal theory of emotion and dispositional coping style. *Health Communication*, 28(1), 72–83. <https://doi.org/10.1080/10410236.2012.708633>

- So, J., Kuang, K., & Cho, H. (2019). Information seeking upon exposure to risk messages: Predictors, outcomes, and mediating roles of health information seeking. *Communication Research*, 46(5), 663–687. <https://doi.org/10.1177/0093650216679536>
- Sweeny, K., Melnyk, D., Miller, W., & Shepperd, J. A. (2010). Information avoidance: Who, what, when, and why. *Review of General Psychology*, 14(4), 340–353. <https://doi.org/10.1037/a0021288>
- Taber, J. M., Klein, W. M. P., Ferrer, R. A., Lewis, K. L., Harris, P. R., Shepperd, J. A., & Biesecker, L. G. (2015). Information avoidance tendencies, threat management resources, and interest in genetic sequencing feedback. *Annals of Behavioral Medicine*, 49(4), 616–621. <https://doi.org/10.1007/s12160-014-9679-7>
- Thornicroft, G., Sunkel, C., Aliev, A. A., Baker, S., Brohan, E., El Chamay, R., Davies, K., Demissie, M., Duncan, J., Fekadu, W., Gronholm, P. C., Guerrero, Z., Gurung, D., Habtamu, K., Hanlon, C., Heim, E., Henderson, C., Hijazi, Z., Hoffman, C., and Winkler, P. (2022). The Lancet commission on ending stigma and discrimination in mental health. *Lancet*, 400(10361), 1438–1480. [https://doi.org/10.1016/S0140-6736\(22\)01470-2](https://doi.org/10.1016/S0140-6736(22)01470-2)
- Volkman, J. E., Day, A. M., McManus, T. G., Hokeness, K. L., & Morse, C. R. (2023). PRISM and emotions: Understanding the role of fear and hope toward vaccine information seeking intentions. *Health Communication*, 38(13), 2806–2817. <https://doi.org/10.1080/10410236.2022.2119689>
- Wang, W., Atkinson, L., Kahlor, L. A., Jamar, P., & Lim, H. S. (2023). Avoiding COVID-19 risk information in the United States: The role of attitudes, norms, affect, social dominance orientations, and perceived trustworthiness of scientists. *Risk Analysis*, 43(6), 1145–1161. <https://doi.org/10.1111/risa.13991>
- Wang, X., Shi, J., & Kong, H. (2021). Online health information seeking: A review and meta-analysis. *Health Communication*, 36(10), 1163–1175. <https://doi.org/10.1080/10410236.2020.1748829>
- Xia, L., Deng, S., & Liu, Y. (2017). Seeking health information online: The moderating effects of problematic situations on user intention. *Journal of Data and Information Science*, 2(2), 76–95. <https://doi.org/10.1515/jdis-2017-0009>
- Xu, S., & Yue, C. (2023). Crisis factors, emotions, and perceived informational channel significance during emergencies. *Journal of Applied Communication Research*, 51(2), 204–223. <https://doi.org/10.1080/00909882.2022.2114294>
- Yang, J. Z., & Chu, H. (2018). Who is afraid of the Ebola outbreak? The influence of discrete emotions on risk perception. *Journal of Risk Research*, 21(7), 834–853. <https://doi.org/10.1080/13669877.2016.1247378>
- Yang, J. Z., Chu, H., & Kahlor, L. (2019). Fearful conservatives, angry liberals: Information processing related to the 2016 presidential election and climate change. *Journalism & Mass Communication Quarterly*, 96(3), 742–766. <https://doi.org/10.1177/1077699018811089>
- Yang, Z. J., Aloe, A. M., & Feeley, T. H. (2014). Risk information seeking and processing model: A meta-analysis. *Journal of Communication*, 64(1), 20–41. <https://doi.org/10.1111/jcom.12071>
- Yang, Z. J., & Kahlor, L. (2013). What, me worry? The role of affect in information seeking and avoidance. *Science Communication*, 35(2), 189–212. <https://doi.org/10.1177/1075547012441873>
- Yang, Z. J., McComas, K. A., Gay, G., Leonard, J. P., Dannenberg, A. J., & Dillon, H. (2011). Information seeking related to clinical trial enrollment. *Communication Research*, 38(6), 856–882. <https://doi.org/10.1177/0093650210380411>
- Zhao, S., & Liu, Y. (2021). The more insufficient, the more avoidance? Cognitive and affective factors that relates to information behaviours in acute risks. *Frontiers in Psychology*, 12, 730068. <https://doi.org/10.3389/fpsyg.2021.730068>