Analysis of Driving Factors and Construction of a Theoretical Model of Health Information Avoidance Behavior in College Students (Postprint)

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Abstract

[Purpose/Significance] This study explores the driving factors of college students' health information avoidance behavior and constructs a corresponding theoretical model, which can provide theoretical support for society's in-depth understanding of such behavior and offer references for optimizing college students' health information avoidance behavior.

[Method/Process] Semi-structured interviews were employed to collect relevant data from 28 college students regarding their health information avoidance behavior. Following the procedures of grounded theory methodology and utilizing the qualitative analysis software NVivo 11, the data were coded and analyzed. Three primary driving factors of college students' health information avoidance behavior were identified, namely psychological factors, situational factors, and information factors, encompassing nine sub-factors: negative emotions, maintaining optimism, cognitive conflict, behavioral change, social norms, task-driven, information disutility, information privacy, and information fatigue. A theoretical model of the driving factors of health information avoidance behavior was subsequently constructed.

[Results/Conclusion] In-depth analysis of the model reveals that psychological factors serve as internal driving factors of college students' health information avoidance behavior, while situational and information factors function as external driving factors. Specifically, psychological factors represent the most important driving factor, situational factors are important driving factors, and information factors are the most critical driving factor.

Full Text

Preamble

Exploring the Driving Factors of College Students' Health Information Avoidance Behavior and Constructing a Theoretical Model

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Abstract

[**Purpose/Significance**] This study explores the driving factors behind college students' health information avoidance behavior and constructs a relevant theoretical model. This work provides theoretical support for society to deeply understand this phenomenon and offers references for optimizing such behavior among college students. [**Method/Process**] Using semi-structured interviews, we collected data from 28 college students regarding their health information avoidance behavior. Following the principles of grounded theory and utilizing the qualitative analysis software NVivo 11, we coded and analyzed the data, identifying three main categories of driving factors: psychological factors, situational factors, and information factors. These encompass nine sub-factors: negative emotions, maintaining optimism, cognitive conflict, behavioral change, social norms, task-driven motives, information negative utility, information privacy, and information fatigue. A theoretical model of the driving factors of health information avoidance behavior was constructed. [**Result/Conclusion**] Analysis of the model reveals that psychological factors serve as internal drivers, while situational and information factors act as external drivers. Among them, psychological factors represent the most important driver, situational factors are significant drivers, and information factors are the most critical drivers.

Keywords: college students; information avoidance; health information; driving factors; qualitative research

2. Related Concepts

2.1 Health Information Avoidance

Health information broadly refers to medical or health-related information concerning physical and mental well-being, including medical knowledge, healthcare information, and health services [4]. Research on health information avoidance can be traced back to the early 20th century, when Freud's theory of psychological defense revealed that people use defense mechanisms to avoid uncomfortable information to maintain psychological balance and stability [5]. In the 1940s, communication scholars explored selective exposure to health information, finding that people tend to seek health information consistent with their prior knowledge, beliefs, and attitudes while avoiding information that conflicts

with their internal states [6]. During the 1960s, psychology scholars examined information avoidance characteristics in the context of coping behavior and stress management, conducting in-depth analyses of the emotional components of information avoidance. Since the 1980s, social scientists in library and information science have discussed information avoidance behavior, suggesting it represents a behavioral response based on cost-benefit analysis [7].

Health information avoidance is defined as any behavior aimed at preventing or delaying access to available but potentially unwanted health information [8-9]. It generally has two characteristics: first, users know the avoided health information is available; second, users can freely access that information [10].

2.2 Driving Factors of Health Information Avoidance Behavior

According to drive theory, driving factors refer to forces that drive individual behavior to satisfy instinctual needs [11]. Therefore, driving factors of health information avoidance behavior refer to the motivational forces that trigger such behavior to satisfy instinctual needs. As public attention to health information increases, scholars have explored which factors drive health information avoidance. Research shows that perceived anxiety is an important driver, as seeking health information can create anxiety about uncertain outcomes, leading individuals to avoid it to reduce these negative emotions [12]. Health information that overly frightens people may also trigger psychological defense mechanisms in middle-aged and elderly individuals, causing them to avoid association with it [13]. Empirical studies indicate that both anticipated regret and perceived disappointment are positively correlated with health information avoidance behavior [14-15]. Some research notes that expectant parents avoid information about fetal sex to maintain an optimistic status quo [16]. Beyond emotional factors, health information avoidance is also related to beliefs, as people dislike acquiring information that conflicts with existing beliefs [17]. When health information threatens the beliefs of middle-aged and elderly individuals, they consciously avoid it to prevent psychological discomfort [18]. Studies have found that one-third of survey subjects did not view ultraviolet (UV) photos of their skin damage because such information might require them to change their sun protection habits [19]. Additionally, social norms contribute to health information avoidance, as people may avoid health information due to social atmosphere or pressure [20].

Literature analysis reveals that most health information avoidance research focuses on middle-aged and elderly populations, with limited attention to young people, particularly college students. In this study, the health information avoided by college students includes not only personal health information but also information about significant others that affects them personally. Instances of college students experiencing serious health consequences due to avoiding health checkups or health information occur frequently, and health information avoidance behavior has significantly impacted their academic and daily lives. Therefore, this study conducts exploratory research on the driving factors of

college students' health information avoidance behavior.

3. Research Design

3.1 Research Method

Qualitative research is an activity in which researchers enter natural settings to conduct holistic investigations of social phenomena using multiple data collection methods, analyze data inductively to form theories, and develop interpretive understandings of participants' behaviors and meaning-making through interaction with them [21]. The purpose of qualitative research is not verification or generalization but deep exploration and interpretation of social phenomena [22]. Therefore, this study employs qualitative methods to conduct exploratory research on college students' health information avoidance behavior, gradually inducting the driving factors and ultimately constructing a theoretical model.

3.2 Research Tool

NVivo is a qualitative data analysis software developed by QSR International that helps researchers organize and analyze non-numerical or unstructured data such as interviews, open-ended questionnaires, social media, and web content [23]. NVivo 11, the latest version at the time, supports various data formats including audio, video, photos, Word, PDF, and spreadsheets, making it particularly suitable for qualitative research. Studies have shown that using NVivo enhances research scientific rigor and validity [24]. Therefore, this study uses NVivo 11 to comprehensively manage and analyze interview data, improving research quality and ensuring reliable processes and conclusions.

3.3 Data Collection

3.3.1 Identifying Interview Participants Qualitative research values the richness of information provided by the sample over sample size [25]. Therefore, this study employed purposive sampling from non-random sampling methods. Based on preliminary pilot interviews, we established the ability to provide necessary information as the sampling criterion, specifically selecting college students from various grades and academic backgrounds who had experienced health information avoidance (primarily from Anhui University and Hefei University of Technology) to obtain the richest possible data.

We ultimately selected 28 college students aged 18-23 from regions including Anhui, Hebei, Guangdong, Shaanxi, Jiangsu, Zhejiang, Liaoning, Yunnan, and Shanxi. The sample included 14 males and 14 females; 7 first-year, 8 second-year, 8 third-year, and 5 fourth-year students, providing even distribution across grades. Academic majors included Information Management and Information Systems (11), Management Science (6), Library Science (4), Journalism (3), Computer Science and Technology (2), and Economics (2). Detailed participant demographics are shown in Table 1 . With 28 interviewees, the sample size meets

the requirement for adequate sampling in exploring specific topics, ensuring reliable results [26].

3.3.2 Designing the Interview Protocol Interviewing is a common qualitative research method. Semi-structured interviews allow researchers to flexibly adjust the interview structure based on circumstances and enable participants to actively engage and raise their own questions, facilitating deeper understanding of participants' thoughts, psychology, and beliefs. Therefore, we designed a semi-structured interview protocol based on research questions and relevant literature. Before formal interviews, we conducted pilot testing and modified the initial protocol according to actual conditions and literature to ensure it accurately reflected participants' feelings and thoughts, establishing good content validity.

The interview protocol consisted of two parts: Part 1 defined key terms and collected basic participant information; Part 2 addressed experiences and driving factors of health information avoidance behavior. The main protocol contents are shown in Table 2 .

3.3.3 Interview Process Interviews were conducted between June 16 and July 5, 2017. Before each interview, researchers signed informed consent forms or reached verbal agreements with participants to alleviate information security concerns. With participants' permission, all interviews were audio-recorded. Two researchers conducted each interview to ensure rigor and credibility, with an average duration of approximately 31 minutes. After interviews, these two researchers transcribed the recordings and notes into Word documents. Following the informed consent agreement, participants' names were anonymized using codes I01-I28 (I for Interviewees), which were used as document filenames.

4. Research Process

4.1 Data Coding and Analysis

This study aimed not to provide simple statistical descriptions of college students' health information avoidance behavior but to deeply excavate its driving factors and construct a theoretical model. Therefore, we employed grounded theory methods and procedures, using NVivo 11 to code and analyze interview data [27]. Researchers imported the standardized Word documents into NVivo 11 and strictly followed grounded theory pathways for coding [28], proceeding through open coding, axial coding, and selective coding.

To ensure coding consistency, two researchers coded the data together, organizing group discussions for any disputed nodes and ultimately selecting the node most relevant to the research theme. When the same motivational factor appeared multiple times in a single interview document, it was coded only once, allowing the weight of coding references to serve as a criterion for measuring the importance of each driving factor [9].

In the open coding stage, after decomposing, examining, conceptualizing, and categorizing the data, researchers identified many concepts commonly used by participants, including inner anxiety, feeling regretful, self-contradiction, maintaining optimism, avoiding reality, privacy concerns, reducing worries, fluke mentality, psychological gap, conforming to groups, past experiences, and information weariness. Based on these, nine basic categories were formed: negative emotions, maintaining optimism, cognitive conflict, behavioral change, information negative utility, social norms, information privacy, task-driven motives, and information fatigue, marked as free nodes.

In the axial coding stage, researchers conducted in-depth analysis of the categories formed in open coding, using each category as an axis to identify relationships between data components. Using NVivo's grouping function for repeated categorization, three sub-categories were formed: psychological factors, situational factors, and information factors, marked as tree nodes.

In the selective coding stage, as researchers delved deeper into the data and engaged in theoretical thinking, the core category gradually emerged, ultimately forming a core category that maximally encompassed the most concepts: college students' health information avoidance behavior. The detailed coding summary is shown in Table 3 .

This study used theoretical saturation to test sample reliability, using the preliminary theory formed from data as the criterion for further sampling. Researchers continued interviewing three additional participants to verify data saturation [29]. Results showed that three consecutive interviews produced no new categories, indicating that the theoretical model had reached saturation.

4.2 Constructing the Theoretical Model

After completing data coding and analysis, the logical relationships between categories were basically established. Researchers used NVivo 11's modeling function to construct the theoretical model of driving factors of college students' health information avoidance behavior, shown in Figure 1 [Figure 1: see original paper].

As shown in Figure 1, the driving factors of college students' health information avoidance behavior can be refined into one core category: college students' health information avoidance behavior, consisting of three main categories (psychological factors, situational factors, and information factors) and nine subcategories (negative emotions, maintaining optimism, cognitive conflict, behavioral change, information negative utility, social norms, information privacy, task-driven motives, and information fatigue). Psychological factors are internal drivers, while situational and information factors are external drivers. Each driving factor is analyzed in detail below.

4.2.1 Psychological Factors Psychological factors are internal drivers of college students' health information avoidance behavior, including negative emo-

tions, maintaining optimism, and cognitive conflict.

First, regarding negative emotions, these mainly include perceived fear, anxiety, anticipated regret, and disappointment. For example: "I'm particularly afraid of going to the hospital. If they find a health problem, I might not be able to face my inner fears, so I try as much as possible not to look at my health information" (I05). "I really resist having my blood pressure measured. In high school, I was told my blood pressure was high, and ever since then, whenever I have it measured, I feel anxious and uneasy, with a lot of inner pressure" (I06). "Every time I go for an eye exam, I worry that my vision has deteriorated rapidly, and I feel regretful about not having protected my eyes before, so I keep delaying the exam as much as possible" (I18). "Personal health information is often negative, which makes me feel very disappointed and affects my mood" (I23).

Second, regarding maintaining optimism, examples include: "The reason I avoid certain health information is that I want to spend the present time happily" (I10). "Avoiding my health information is to maintain physical and mental pleasure. I think it's very important for a person to maintain a positive and optimistic attitude" (I14). "Avoiding personal vision information allows me to play on my phone and games without too many concerns, so I can play happily" (I25).

Third, regarding cognitive conflict, this mainly includes inconsistency in self-perception and bias in health information cognition. For example: "I've always thought my vision was good, that I could see everything on the projection screen from the last row of the classroom, but during one physical exam, the doctor said I had strabismus and needed a re-examination. I couldn't accept it and felt repulsed, so I didn't go for the re-examination" (I03). "In my understanding of health issues, I think wisdom teeth are unimportant, so I've never had them checked" (I22).

4.2.2 Situational Factors Situational factors are external drivers of college students' health information avoidance behavior, including behavioral change, social norms, and task-driven motives.

First, regarding behavioral change: "My stomach has always been poor, but whenever friends bring it up, I deliberately avoid it because treating my stomach means I must eat breakfast on time, and I like to sleep in. I don't want to get up early to eat—it's too difficult for me" (I11). "I know obesity can cause various diseases and is bad for health, but I still avoid health information about weight loss because it's painful for me. I don't have the willpower to make changes" (I21).

Second, regarding social norms: "The reason I choose health information avoidance is to fit in, fearing rejection by classmates, so I deliberately avoid this health information and act as if nothing happened" (I06). "My friends have

similar degrees of myopia, but mine is more severe, so I care more about this health information and sometimes choose to avoid it" (I20).

Third, regarding task-driven motives: "I was preparing for final exams at the time. Although I felt something was wrong with my body, I insisted on studying and enduring it, not wanting it to affect my grades" (I17). "I usually like sports and often participate in track competitions. Before each competition, I avoid some negative health information so it won't affect my performance" (I03).

4.2.3 Information Factors Information factors are external drivers of college students' health information avoidance behavior, including information negative utility, information privacy, and information fatigue.

First, regarding information negative utility: "I worry that this health information might trigger other conditions, so I choose to avoid it" (I02). "The negative impact of health information is immeasurable. It might hinder my future development and even involve my parents, relatives, and friends. I don't want to face these consequences" (I05). "I don't want to be told by doctors how poor my health condition is, and treatment costs a lot of money. I don't want to face these adverse outcomes" (I22).

Second, regarding information privacy: "Because health information is personal privacy, I don't like discussing privacy issues in front of others. It makes me uncomfortable" (I18). "I mainly avoid personal health information in public because it's a privacy issue after all. Sometimes I look up relevant health knowledge online, and I don't avoid it when I'm alone" (I23). "When friends discuss others' health information, I feel disgusted and try to avoid the topic" (I28).

Third, regarding information fatigue: "Sometimes I'm tired of certain health information. For example, my stomach is poor, and I've already learned a lot about it online, but my parents keep urging me to get treatment, which annoys me and makes me avoid this information even more" (I11). "Actually, I've already looked up health information online and know what my health problem is, but if people around me keep reminding me, I'll deliberately avoid it instead" (I21).

5. Research Conclusions

Through qualitative analysis of interview data and model construction, this study has clarified the relationships between various driving factors. The following conclusions are drawn:

5.1 Psychological Factors Are the Most Important Drivers

Coding references for psychological factors accounted for 54.7% of all coding references, with almost all interviewees believing that psychological factors influenced their health information avoidance behavior. Combined with theoretical model analysis, psychological factors emerge as the primary driver of col-

lege students' health information avoidance behavior. First, negative emotions are one of the most important drivers. Health information can cause negative emotional reactions in college students, including fear, anxiety, regret, and disappointment, which directly influence their avoidance behavior. Second, the purpose of health information avoidance is to maintain optimism and preserve hope for life [30]. Finally, cognitive conflict is also a major cause, as people tend to establish and maintain their attitudes, beliefs, and convictions, which health information often conflicts with, leading to avoidance behavior [31].

5.2 Situational Factors Play an Important Driving Role

Coding references for situational factors accounted for 24.2%, with about two-thirds of respondents mentioning situational factors as a driver. Theoretical model analysis shows that situational factors have a significant driving effect. Among them, behavioral change is one of the most important drivers. Health information may require college students to change their health behaviors, which is not only difficult but can also trigger many negative outcomes [32]. For example, toothache may require root canal treatment, which is troublesome, painful, and expensive. College students' health information avoidance is also driven by social norms, as they often avoid health information to conform to groups. Task-driven motives are another major driver; when tasks are urgent, college students may avoid health information to pursue their goals.

5.3 Information Factors Are Key Drivers

Coding references for information factors accounted for 21.1%, with over half of participants believing information factors influenced their avoidance behavior. Theoretical model analysis shows that information factors are the most critical drivers. Among them, information negative utility is a primary consideration, as people assume information utility is always non-negative [33]; when health information is expected to have negative utility, they choose avoidance. Information privacy is a major concern for college students, who are more likely to avoid health information in public settings. Society should create a better health information-seeking atmosphere for them. Information fatigue is also a major driver; in the e-health environment, excessive fragmented information reduces attention, causing college students to feel tired of specific health information and thus avoid it.

Additionally, this study identified four common avoidance strategies: (1) physical avoidance—physically leaving the situation to avoid obtaining health information; (2) attention avoidance—using distraction methods; (3) biased interpretation—deliberately misinterpreting health information for psychological comfort when feeling resistant; and (4) information forgetting—using forgetting strategies to avoid health information.

6. Discussion and Outlook

This study employed qualitative methods to explore the driving factors of college students' health information avoidance behavior, identifying three main aspects with nine driving factors, and constructed a theoretical model. Compared with existing international studies [34, 9], this research expands understanding in several ways: (1) it further explores the driving role of psychological factors, particularly emphasizing negative emotions as direct drivers; (2) it examines how social norms and task-driven motives, as external drivers, indirectly affect college students' behavior within China's cultural context; and (3) it explores how information fatigue and information privacy affect avoidance behavior in the e-health environment—factors not widely addressed in previous research.

These conclusions provide theoretical support for understanding college students' health information avoidance and references for optimizing such behavior. For health information recipients, college students should continuously improve their health information management capabilities, optimize avoidance behaviors, and maximize health information utility. For health information disseminators, publishers should consider audience avoidance behaviors, professionally organize and filter health information, and improve dissemination efficiency.

However, this study has not yet generalized the findings about college students to other populations. Future research should explore the universality and specificity of driving factors across different groups to deepen and extend these conclusions.

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Author Contributions

Wang Wentao: Conceptualized the research, designed the overall framework, and revised the manuscript.
Zhang Shuai: Collected and processed data, wrote and revised the manuscript.
Li Jing: Determined research methods and revised the manuscript.
Xie Yangqun: Determined research direction and revised the manuscript.

Note: Figure translations are in progress. See original paper for figures.