

중·노년층의 건강정보 회피행동 형성과정에 관한 연구: 정보과부하, 인지부조화, 그리고 매체 유형의 역할을 중심으로

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How Health Information Avoidance Forms Among Middle-Aged and Older Adults: The Roles of Information Overload, Cognitive Dissonance, and Media Type

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[요 약]

본 연구는 중국 중·노년층의 건강 정보 회피 행동에 정보 과부하와 인지 부조화가 어떻게 영향을 미치는지 분석하였다. 이를 위해 40세 이상 중국 중·노년층 응답자 374명을 대상으로 설문조사를 실시하였으며, 건강 정보 탐색 행동, 정보 과부하, 인지 부조화 및 건강 정보 회피 행동을 측정하였다. 수집된 자료는 확인적 요인분석과 구조방정식 모형을 통해 분석하였다. 분석 결과, 건강 정보 탐색 행동은 정보 과부하를 증가시키는 것으로 나타났으며, 정보 과부하는 인지 부조화를 유발하고, 이는 다시 건강 정보 회피 행동을 촉진하는 것으로 확인되었다. 미디어 유형별로는 소셜 미디어가 정보 과부하와 인지 부조화의 주요 원천으로 작용했으며, 인쇄 및 전자 미디어와 대인 관계 네트워크에서도 차이가 나타났다. 본 연구는 중·노년층의 건강 정보 회피 행동을 정보 과부하와 심리적 반응의 관점에서 설명하고, 건강 커뮤니케이션 전략에서 정보량, 전달 매체, 이용자의 심리적 부담을 함께 고려할 필요가 있음을 시사한다.

[Abstract]

This study analyzed how information overload and cognitive dissonance influence health information avoidance behavior among middle-aged and older adults in China. A survey was conducted with 374 Chinese respondents aged 40 years and above, measuring health information-seeking behavior, information overload, cognitive dissonance, and health information avoidance behavior. The data were analyzed using confirmatory factor analysis and structural equation modeling. The results showed that health information-seeking behavior increased information overload, which induced cognitive dissonance, thereby promoting health information avoidance behavior. Social media primarily drove these negative outcomes, showing distinct patterns from print, electronic media, and interpersonal networks. This study explains health information avoidance behavior among middle-aged and older adults from the perspective of information overload and psychological responses, and suggests that health communication strategies should consider information volume, delivery media, and the psychological burden of users simultaneously.

색인어 : 정보 필요성, 정보 과부하, 인지 부조화, 정보 회피, 건강 커뮤니케이션

Keyword : Information Need, Information Overload, Cognitive Dissonance, Information Avoidance, Health Communication

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I . Introduction

With the rapid advancement of information technology, the scope and means of information dissemination have transformed dramatically on a global scale. The proliferation of online resources has greatly enriched access to information—particularly in the health sector—enhancing the experience of individuals who engage with these digital resources. For people facing health-related concerns, access to credible information empowers them to make more informed decisions and take greater control of their health[1].

Proponents of health information emphasize the empowerment aspect of information seeking, suggesting that the accessibility of credible information can be as valuable as professional medical guidance[1],[2]. However, this ideal is not always realized. While many patients and caregivers rely on various media platforms to obtain health information, the information landscape remains complex. Some individuals either struggle to access reliable health information or deliberately avoid it, exhibiting health information avoidance rather than proactive information seeking[3],[4]. This behavioral tendency is well recognized in the literature as health information avoidance[5].

Middle-aged and older adults represent particularly important demographic groups in terms of health information access and use. Middle-aged adults are often at a transitional life stage in which chronic disease prevention, family caregiving responsibilities, and personal health management become increasingly important. Although they may have relatively higher digital media literacy than older adults, they can also experience information overload and cognitive conflict when exposed to excessive or inconsistent health information. As people age, their physical and cognitive capacities often decline, limiting their ability to effectively navigate digital technologies. Moreover, older adults tend to adopt a more passive approach to acquiring information. Confronted with challenges such as information overload and the prevalence of misinformation, middle-aged and older adults frequently find it difficult to fully benefit from the conveniences offered by digital technologies. Many experience isolation and frustration due to the so-called “information cocoon” effect, which exacerbates the barriers they

face in accessing and applying health information in the digital age[6].

During the process of searching, filtering, and assimilating health information, middle-aged and older adults often experience various psychological and emotional reactions that stem from individual cognitive differences or disparities in information quality. Over time, these negative experiences can accumulate, leading them to unconsciously avoid or ignore relevant health information or even develop negative attitudes toward it. This issue is particularly pertinent in China, a nation experiencing rapid population aging. Although Internet adoption is rising steadily among Chinese middle-aged and older adults, a substantial proportion remains excluded from digital life or faces difficulties in effectively processing complex health information.

Given these dynamics, this study focuses on Chinese middle-aged and older adults as the primary research population. Drawing upon the Cognitive-Affective-Conative (CAC) framework and Cognitive Dissonance Theory (CDT), this research examines how different types of media influence the dissemination and reception of health information. It also investigates how various media forms shape middle-aged and older adults’ cognitive and emotional responses to health information, thereby contributing to a deeper understanding of health information avoidance behaviors in this critical demographic.

II. Theoretical Framework

This study examines health information behaviors among middle-aged and older adults through the Cognitive-Affective-Conative (CAC) framework[7]. The CAC paradigm is particularly suited to understanding the underlying mechanisms and pathways of health information avoidance behavior. Cognition refers to individual knowledge and rational thought processes; Affect involves cognition-based emotional responses; and Conation refers to behavioral intentions or actual behavior influenced by both cognition and affect[8].

Previous research has demonstrated that cognitive biases significantly influence behavior, as cognitive processes shape emotional responses, positioning cognition as a precursor to emotion generation[9].

Studies also indicate that users' intentions to disengage from social media are driven by both cognitive and emotional factors[10].

Regarding health risk information, factors such as information source, quality, and overload can directly affect avoidance behavior. The quality and credibility of health information determine how users discern and engage with it[6]. Therefore, the CAC framework provides a crucial perspective for analyzing how media users receive and respond to information. This study applies the CAC framework to interpret health information avoidance behaviors—particularly cognitive overload (C) and discomfort arising from cognitive dissonance (A)—within the information-seeking patterns of middle-aged and older adults in the digital age.

III. Literature Review and Variable Relationships

3-1 Health Information Need and Information Overload

Information need arises from an individual's awareness of a knowledge gap[11], driving information-seeking behaviors. In the health context, health information need refers to an individual's perceived need to obtain information related to disease prevention, treatment, health management, or risk reduction. It can range from unexpressed visceral needs to formally articulated needs[12], with information serving as a tool to resolve "problems" of inadequate knowledge[13].

Information overload occurs when information volume exceeds an individual's processing capacity[14], leading to reduced effectiveness[15]. It can be objective (e.g., volume) or subjective (perceived stress)[16].

The relationship between information need and information overload is well-established. A strong or poorly defined information need can compel extensive information searches[17], increasing exposure to vast quantities of information that surpass an individual's processing capacity[18]. For instance, Chen, Shang, & Kao[19] found that in online environments, excessive information driven by consumer need often leads to subjective states of overload affecting buying decisions. Rieh[20] noted that when faced with

complex tasks or high uncertainty, common in health information seeking, users tend to collect more information than necessary, risking overload. Furthermore, Savolainen[21], in his work on everyday life information seeking, suggests that individuals with pressing needs may adopt a "maximalist" approach to information gathering, particularly in information-rich digital environments, thereby increasing overload risk. Thus, we propose the following research hypothesis.

H1: Health information need has a positive effect on information overload among middle-aged and older adults.

3-2 Information Overload and Cognitive Dissonance

Cognitive Dissonance Theory[22] describes the psychological discomfort from holding contradictory beliefs or when beliefs conflict with actions, motivating individuals to reduce this dissonance[23]. The dissonance magnitude depends on the importance of the conflicting elements[22].

Information overload, characterized by an overwhelming amount of information, often presents individuals with conflicting or contradictory data points, which can directly trigger cognitive dissonance. When individuals are bombarded with more information than they can process, especially if it challenges existing beliefs or presents conflicting advice, the resulting psychological stress and confusion are hallmarks of cognitive dissonance[24]. Bernardi & Wu[25], studying online health communities, implied that navigating vast amounts of user-generated content could contribute to uncertainty, a state related to dissonance, although their primary focus was on behavior change. Similarly, Hwang & Lin[26], studying information systems, noted that excessive information can make it difficult for individuals to form a coherent understanding, leading to a state of internal conflict. The cognitive strain from managing and attempting to reconcile disparate pieces of information under overload conditions aligns with the core tenets of dissonance theory. Thus, we propose the following research hypothesis.

H2: Information overload increases cognitive dissonance in middle-aged and older adults as they search for health information.

3-3 Cognitive Dissonance and Health Information Avoidance

Health information avoidance involves overlooking or evading relevant health-related information[27], often as a coping mechanism for distressing information[28],[29].

In health contexts, information avoidance can appear in various forms, such as evading medical personnel[30], avoiding risk-related information[31], or refusing prognostic information[32]. Neben[33] highlights that examining avoidance solely from an acquisition perspective is insufficient; it should also encompass selective acceptance, absorption, and full or partial utilization of information. However, health information avoidance among middle-aged and older adults in risk-prone scenarios remains underexplored. Building on current studies[6],[34], this study distinguishes Avoidance of Health Information Need(AHN) and Avoidance of Health Information Absorption(AHA)[6],[33]. AHN is a condition in which individuals consciously avoid or delay seeking information. They may even shun information about their conditions entirely. AHA is another condition in which avoid fully accepting, processing, or utilizing health information even after being exposed to it.

Cognitive dissonance, the discomfort from conflicting cognitions, motivates individuals to reduce this state, potentially by avoiding information that might exacerbate it[22]. When individuals anticipate that new information, particularly health-related information, might conflict with their existing beliefs, behaviors, or desired self-image, they may choose to avoid it to prevent or alleviate dissonance. Case et al.[35] situated health-related information seeking and avoidance within coping responses to threatening health information, suggesting that individuals may seek information to manage perceived threats or avoid it when such information is expected to intensify psychological discomfort or dissonance. Similarly, Howell & Shepperd[36] found that individuals who feared negative feedback about their health status often chose to avoid receiving that information, a clear manifestation of dissonance reduction through avoidance. Moreover, Sweeny et al.[5], in their model of information avoidance, posit that negative affective forecasts (anticipating feeling bad) associated with potentially dissonance-arousing information are key

drivers of avoidance. Therefore, cognitive dissonance may lead middle-aged and older adults not only to avoid seeking needed health information but also to avoid absorbing or using health information after exposure. Thus, research hypotheses are as follows.

H3-1: Cognitive Dissonance Increases Avoidance of Health Information Need in Middle-aged and Older Adults Seeking Health Information.

H3-2: Cognitive Dissonance Increases Avoidance of Health Information Absorption in Middle-aged and Older Adults Seeking Health Information.

3-4 Differences Due to Type of Media Use

The media landscape is fragmented with increased user autonomy[37], fostering individualized media use[28]. Different media types (e.g., traditional news, social media, health websites) vary in information presentation, credibility cues, and potential for information abundance. The way individuals interact with these diverse media for health information could influence the relationship between their information needs and experienced overload. For instance, Metzger & Flanagin[38] highlight how the characteristics of online media, such as the sheer volume and varying quality of information, can exacerbate challenges in information processing and credibility assessment, potentially intensifying the path from need to overload. Zhang et al.[39], while focused on health literacy and self-management in online health communities, implicitly suggest that the nature of the media platform (e.g., an OHC) shapes how users engage with health information, which could influence overload experiences. This suggests that media characteristics can indeed alter the experience of navigating health information needs. For middle-aged and older adults, differences in media type may be particularly important because each medium provides health information with different levels of accessibility, credibility, interactivity, and information volume. Therefore, we propose the following research question:

RQ1: How does the relationship between information needs and information overload vary across media types when middle-aged and older adults are looking for health information?

IV. Research Design and Methods

4-1 Data and Sample Selection

Data for this study were collected through an online survey, as described in the previous section. The survey items were primarily adapted from established instruments in existing literature, with five additional items developed to address the specific contextual needs of this research. To ensure content validity, the questionnaire was reviewed by a panel of three experts—one in information systems and two in library and information science—who provided feedback and recommended minor revisions to the wording of certain items.

Following these revisions, a pilot test was conducted with a sample of 50 respondents to evaluate the clarity and reliability of the instrument. These pilot participants were subsequently excluded from the main study. Cronbach's alpha coefficients for all constructs ranged between 0.7 and 0.9, indicating an acceptable level of internal consistency and satisfactory reliability.

The finalized questionnaire was administered via "SO JUMP," a widely used online survey platform in China. The survey targeted middle-aged individuals aged 40–60 and older adults aged 61 and above across various regions of the country. The final sample size of 374 was considered sufficient for structural equation modeling, as it exceeded the commonly recommended minimum threshold of 200 cases for SEM[40]. A total of 428 responses were collected. After removing 54 responses due to inconsistencies and invalid data, the final sample comprised 374 valid responses, resulting in a study validity rate of 87.4%.

4-2 Measures

The survey used a combination of single- and multi-construct items. The four main constructs—information seeking, information overload, cognitive dissonance, and information avoidance—were assessed on a five-point Likert scale from 1 ("strongly disagree") to 5 ("strongly agree"). Information seeking was measured using four items: two adapted from Yang and Kahlor[41] and two from Soroya et al.[29]. Information overload was assessed with four items from Farooq et al.[42]. Cognitive dissonance was

measured using four items, including three from Vaghefi et al.[43] and one from Koller & Salzberger[44]. Information avoidance was further divided into two subtypes: Health Information Avoidance – Need(AHN) and Health Information Avoidance – Absorption(AHA), each comprising four items adapted from Chen et al.[34] and Yang and Kahlor[41]. Data were exported as SAV files and screened for completeness and normality using SPSS 27.0 and AMOS 23.0. Additional demographic questions included gender, age, education, and living status.

V. Analysis

5-1 Characteristics of Respondents

To understand the characteristics of the respondents, a frequency analysis was conducted using SPSS 27.0. A total of 374 respondents were included in the analysis based on gender, age, and educational background, and the results are summarized in Table 1.

In terms of gender, 214 respondents were male, representing 57.2% of the sample, while 160 respondents were female, making up 42.8% of the total.

For age distribution, the study focused on middle-aged and older adults, beginning at 40 years of age. Among the respondents, 87 individuals (23.3%) were aged 40–50, and 146 individuals (39.0%) were aged 51–60. This means that 233 respondents, or 62.3%, were classified as middle-aged (40–60 years). Meanwhile, 80 respondents (21.4%) were in the 61–70 age group, 30 respondents (8.0%) were aged 71–80, and 31 respondents (8.3%) were aged 80 or older. Collectively, there were 141 elderly respondents, accounting for 37.7% of the total.

Regarding educational background, 108 respondents (28.9%) had completed junior high school or below. Additionally, 153 respondents (40.9%) had finished high school, while 107 respondents (28.6%) had obtained a university degree. A small proportion (1.6%) had a master's degree or higher, totaling 6 respondents.

Finally, when asked about their primary sources of health information, 79 respondents (21.1%) indicated

they primarily obtained health information from people in their neighborhood. Traditional print media was the most common source, used by 115 respondents (30.7%). Electronic media and social media were used by 94 (25.1%) and 86 respondents (23.0%), respectively.

5-2 Measurement Analysis

To evaluate the measurement model, Confirmatory Factor Analysis (CFA) was conducted using AMOS 23.0 to verify whether the factor loadings of all measurement items exceeded the acceptable threshold

Table 1. Characteristics of respondents (N=374)

Measures		N	%
Gender	Male	214	57.2
	Female	160	42.8
Age	40–50 age	87	23.3
	51–60 age	146	39.0
	61–70 age	80	21.4
	71–80 age	30	8.0
	80 years and over	31	8.3
Education	Junior high school and below	108	28.9
	High school/middle school/technical school	153	40.9
	College	107	28.6
	Graduate students and above	6	1.6
Through what channels do you primarily obtain health-related information?	People around you (family, friends, colleagues, etc.)	79	21.1
	Printed media (newspapers, magazines, medical-related books, etc.)	115	30.7
	Electronic media (television, radio, broadcasts, movies, etc.)	94	25.1
	Social media (WeChat, TikTok, Xiaohongshu, Weibo, etc.)	86	23.0

Table 2. Confirmatory factor analysis (CFA) results

Measures			Estimate	S.E.	C.R.	P	AVE	CR
Q11_Row1	<---	IN	0.754				0.601	0.858
Q11_Row2	<---	IN	0.793	0.071	14.564	***		
Q11_Row3	<---	IN	0.776	0.074	14.273	***		
Q11_Row4	<---	IN	0.777	0.075	14.289	***		
Q12_Row1	<---	IO	0.753				0.572	0.842
Q12_Row2	<---	IO	0.793	0.075	14.459	***		
Q12_Row3	<---	IO	0.806	0.074	14.665	***		
Q12_Row4	<---	IO	0.665	0.068	12.168	***		
Q13_Row1	<---	CD	0.673				0.582	0.847
Q13_Row2	<---	CD	0.750	0.093	12.469	***		
Q13_Row3	<---	CD	0.830	0.094	13.458	***		
Q13_Row4	<---	CD	0.790	0.095	13.001	***		
Q14_Row1	<---	AHN	0.665				0.665	0.887
Q14_Row2	<---	AHN	0.855	0.097	14.283	***		
Q14_Row3	<---	AHN	0.878	0.099	14.562	***		
Q14_Row4	<---	AHN	0.847	0.094	14.181	***		
Q14_Row5	<---	AHA	0.775				0.560	0.835
Q14_Row6	<---	AHA	0.794	0.070	15.253	***		
Q14_Row7	<---	AHA	0.783	0.065	15.029	***		
Q14_Row8	<---	AHA	0.630	0.066	11.887	***		

*p<.05; **p<.01; ***p<.001.

IN (Information Need); IO (Information Overload); CD (Cognitive Dissonance); AHN (Avoidance of Health Information Need); AHA (Avoidance of Health Information Absorption)

of 0.50, as recommended by Gefen and Straub[45]. The model's Composite Reliability (CR) and Average Variance Extracted (AVE) were also computed following the criteria proposed by Bagozzi and Yi[46] to assess the constructs' reliability, discriminant validity, and internal consistency. The detailed results are presented in Table 2.

As summarized in Table 2, the CFA results demonstrated that the proposed model exhibited satisfactory global fit indices. All resultant values fell within the desired thresholds, confirming that the model's constructs possessed strong convergent validity and reliability. Specifically, all factor loadings were above 0.5, with AVE values greater than 0.5 and CR values exceeding 0.7. This indicates that the latent constructs were well-represented by their observed indicators. The fit indices for the model were as follows: CMIN/df=1.692 (≤ 3), RMSEA=0.043 (≤ 0.08), GFI=0.935 (≥ 0.9), AGFI=0.914 (≥ 0.8), and CFI=0.971 (≥ 0.9), suggesting that the model had an acceptable fit and was well-suited for further analysis.

These results confirm that the measurement model was both reliable and valid, providing a solid foundation for the subsequent structural equation modeling (SEM) analysis.

Table 3. Results of tests of discriminant validity

	IN	IO	CD	AHN	AHA
IN	0.601				
IO	0.379	0.572			
CD	0.008	0.489	0.582		
AHN	-0.134	0.237	0.611	0.665	
AHA	-0.013	0.278	0.545	0.778	0.56
$\sqrt{\text{AVE}}$	0.775	0.756	0.763	0.816	0.749

IN (Information Need); IO (Information Overload); CD (Cognitive Dissonance); AHN (Avoidance of Health Information Need); AHA (Avoidance of Health Information Absorption)

And to confirm that the square root of the AVE of each constituent concept is greater than its correlation with the other constituent concepts. We verified this by the discriminant validity of AMOS 23.0, and the results are shown in Table 3:

5-3 Structural Model Analysis

1) Hypotheses Testing

The measurement model was tested by using

validated measurement data. Overall fit metrics were calculated and the values were found to be within the generally accepted range. The model has an adequate fit as indicated by the following metrics: CMIN/df=2.519 ≤ 3 , RMSEA=0.064 ≤ 0.08 , GFI=0.907 ≥ 0.9 , AGFI=0.882 ≥ 0.8 , CFI=0.934 ≥ 0.9 . All these values are in line with the recommended estimation range. Therefore, the results indicate that the model has a valid fit.

Table 4 demonstrates the results of the structural model, where health information-need (IN) and information overload (IO) showed a significant positive correlation (H1: $\beta=0.361$, $p<0.001$), which supports the hypothesis of H1. And Information Overload (IO) presented a significant positive effect on Cognitive Dissonance (CD) (H2: $\beta=0.466$, $p<0.001$), thus H2 was established. Thirdly, in cognitive dissonance (CD) and Avoidance of Health Information Need (AHN) and Avoidance of Health Information Absorption (AHA) both presented a significant positive correlation (H3-1: $\beta=0.659$, $p<0.001$; H3-2: $\beta=0.611$, $p<0.001$). This supports the H3 hypothesis.

Table 4. Path coefficient analysis results of the research model

			Estimate	S.E.	C.R.	P
IO	<---	IN	0.361	0.063	5.828	***
CD	<---	IO	0.466	0.071	7.489	***
AHN	<---	CD	0.659	0.056	9.738	***
AHA	<---	CD	0.611	0.062	9.618	***

* $p<0.05$; ** $p<0.01$; *** $p<0.001$.

IN (Information Need); IO (Information Overload); CD (Cognitive Dissonance); AHN (Avoidance of Health Information Need); AHA (Avoidance of Health Information Absorption)

2) Testing of Research Question 1

To assess how different media channels influence health information avoidance behaviors among middle-aged and older adults, a multicohort analysis was performed using AMOS 23.0 software. This approach allows for the comparison of different media channels within the same model, enabling a more nuanced understanding of how media consumption patterns affect health information avoidance across different cohorts. The results of this analysis are presented in Table 5, which shows significant differences in health information avoidance behavior depending on the media channels used.

Table 5. Comparative path analysis of media use channels

Personal network						
			Estimate	S.E.	C.R.	P
IO	<---	IN	0.218	0.114	1.732	0.083
CD	<---	IO	0.34	0.159	2.592	0.01
AHN	<---	CD	0.56	0.104	4.039	***
AHA	<---	CD	0.609	0.127	4.387	***
Print media						
			Estimate	S.E.	C.R.	P
IO	<---	IN	0.317	0.101	2.907	0.004
CD	<---	IO	0.377	0.159	3.518	***
AHN	<---	CD	0.726	0.091	6.245	***
AHA	<---	CD	0.806	0.099	6.463	***
Electronic media						
			Estimate	S.E.	C.R.	P
IO	<---	IN	0.433	0.121	3.437	***
CD	<---	IO	0.473	0.141	3.857	***
AHN	<---	CD	0.606	0.102	4.233	***
AHA	<---	CD	0.59	0.109	4.644	***
Social media						
			Estimate	S.E.	C.R.	P
IO	<---	IN	0.488	0.145	3.551	***
CD	<---	IO	0.769	0.138	4.408	***
AHN	<---	CD	0.744	0.216	4.579	***
AHA	<---	CD	0.575	0.177	3.596	***

*p<.05; **p<.01; ***p<.001.

IN (Information Need); IO (Information Overload); CD (Cognitive Dissonance); AHN (Avoidance of Health Information Need); AHA (Avoidance of Health Information Absorption)

For Research Question 1, the path analysis results of Information Need (IN) on Information Overload (IO) showed the following: personal network ($\beta=0.218$, $p>.05$), print media ($\beta=0.317$, $p<0.01$), electronic media ($\beta=0.433$, $p<.001$), and social media ($\beta=0.488$, $p<.001$). Except for the personal network ($p>.05$), all other channels had a significant positive effect on IO. Social media demonstrated the largest impact, followed by electronic media, then print media. This indicates that social media exerts the strongest influence on the relationship between IN and IO, followed by electronic and print media. Conversely, personal networks do not significantly lead to information overload for middle-aged and older adults during their information-seeking phase, which may also be related to the varying richness of media content across different channel types.

For the path analysis of Information Overload (IO) on Cognitive Dissonance (CD), the results were as

follows: personal network ($\beta=0.340$, $p<.05$), print media ($\beta=0.377$, $p<.001$), electronic media ($\beta=0.473$, $p<.001$), and social media ($\beta=0.769$, $p<.001$). These findings indicate that information overload experienced through all media channels significantly contributes to cognitive dissonance. Notably, social media demonstrated the strongest effect in exacerbating CD due to IO, followed by electronic media, then print media, and finally personal networks, all showing statistically significant positive relationships.

The path analysis from Cognitive Dissonance (CD) to the two types of avoidance behaviors—Avoidance of Health Information Need (AHN) and Avoidance of Health Information Absorption (AHA)—revealed compelling and distinct patterns across different media channels, with all paths being highly significant ($p<.001$). The results were as follows: for personal network (AHN: $\beta=0.560$; AHA: $\beta=0.609$), for print media (AHN: $\beta=0.726$; AHA: $\beta=0.806$), for electronic media (AHN: $\beta=0.606$; AHA: $\beta=0.590$), and for social media (AHN: $\beta=0.744$; AHA: $\beta=0.575$).

A comparative analysis of these findings highlights that cognitive dissonance is a powerful and universally significant predictor of both avoidance types. However, the media source not only determines the magnitude of the avoidance but also shapes the specific strategy users adopt. Notably, social media emerged as the most potent driver for prompting users to avoid future health information seeking (AHN, $\beta=0.744$), suggesting that dissonance from these platforms leads to a proactive disengagement from the entire information-seeking process. In stark contrast, print media was the strongest catalyst for causing users to reject or refuse to absorb the health information they were currently encountering (AHA, $\beta=0.806$). This indicates that dissonance from print media, perhaps due to its perceived credibility, primarily triggers a reactive avoidance of the message itself.

VI. Discussion

This study examined how information overload (IO) and cognitive dissonance (CD) influence health information avoidance behaviors among Chinese middle-aged and older adults, with particular attention to differences across media types. Most respondents

were able to independently complete the online questionnaire, indicating a certain level of digital literacy and independent information-processing ability.

Given that respondents aged 40–60 accounted for 62.3% of the sample, the findings should be interpreted in relation to both middle-aged and older adults. Middle-aged adults are often in a transitional life stage in which chronic disease prevention, family caregiving, and personal health management become increasingly important. They are also actively exposed to diverse media channels and may experience information overload and cognitive dissonance when confronted with excessive or conflicting health information. Older adults, in contrast, may face greater limitations in digital access, information processing, and media use. Therefore, examining these two groups together allows this study to capture a broader process of health information avoidance across the later life course.

The findings show that middle-aged and older adults obtain health information through diverse media channels. Print media remained an important source, while social media use was also substantial and nearly comparable to traditional electronic media. This suggests that the media use patterns of middle-aged and older adults are becoming more diversified, which is consistent with the CNNIC report showing a steady increase in Internet use among older adults[47].

A key finding is that information overload from various media sources increases cognitive dissonance, which in turn promotes health information avoidance. This result is consistent with prior studies showing that excessive or conflicting information can generate psychological discomfort and belief conflict[24],[34],[48]. It also supports previous research indicating that individuals are more likely to avoid information when they perceive it as overwhelming, contradictory, or psychologically burdensome[27],[29],[49],[50].

The media-specific analysis further shows that different media channels play different roles in this process. Social media had the strongest effect on information overload, followed by electronic media and print media, while interpersonal networks had a non-significant effect. This may be because social media provides large amounts of real-time and fragmented information, which increases the burden of

filtering and evaluating health information[51]. Social media also showed the strongest effect on cognitive dissonance, suggesting that the volume and inconsistency of information on digital platforms may intensify psychological discomfort among middle-aged and older users.

In terms of health information avoidance, the results revealed distinct patterns across media types. Social media was the strongest predictor of Avoidance of Health Information Need (AHN), indicating that dissonance generated through social media may lead users to avoid future health information seeking. This may be related to the fragmented nature of social media information[52] and relatively lower trust among older adults[53]. In contrast, print media was the strongest predictor of Avoidance of Health Information Absorption (AHA), suggesting that users may reject or refuse to absorb health information when printed information conflicts with their existing beliefs. From the perspective of cognitive dissonance theory[54], information from a relatively credible source such as print media may generate stronger psychological discomfort when it contradicts prior beliefs. As a result, individuals may reject the immediate message or avoid similar information in the future[5],[49],[55].

Overall, these findings suggest that health information avoidance among middle-aged and older adults is not a uniform behavior, but a media-specific response shaped by information overload and cognitive dissonance. Social media is more likely to trigger avoidance of future information seeking, whereas print media is more likely to trigger rejection or non-absorption of information already encountered. Therefore, health communication strategies should consider not only the amount and credibility of health information, but also the characteristics of each media channel and the psychological burden experienced by middle-aged and older adults.

VII. Conclusion

This study investigates how Information Need and information overload contribute to health information avoidance among middle-aged and older adults, offering both theoretical and practical insights.

1) Theoretical Implications

This study contributes to the theoretical understanding of health information avoidance among middle-aged and older adults by applying Cognitive Dissonance Theory (CDT) within the Cognitive-Affective-Conative (CAC) framework. The findings demonstrate that cognitive dissonance serves as a key psychological mechanism linking information overload to two distinct forms of avoidance: Avoidance of Health Information Need (AHN) and Avoidance of Health Information Absorption (AHA).

This study makes two theoretical contributions. First, it extends the existing literature by showing that health information avoidance is not merely a passive response to excessive information, but a coping strategy triggered by cognitive conflict across different stages of the information process. Second, unlike previous studies that relied primarily on cognitive-oriented models such as the RISP model or the SOR framework [29],[54], this study explains health information avoidance through the CAC framework by showing how cognitive responses to information overload generate psychological discomfort and eventually lead to avoidance behavior.

Taken together, these findings suggest that health information avoidance should be understood as a dynamic process shaped by the interplay among information overload, cognitive dissonance, and media-specific information experiences.

2) Practical Implications

This study offers several practical implications.

Firstly, regarding the enhancement of health literacy, the findings reveal that although middle-aged and older adults actively seek health information through multiple media channels, the effectiveness of these channels varies considerably. This underscores the critical need to strengthen health literacy within this demographic. Health literacy, as defined by Berkman et al.[56], refers to an individual's ability to obtain, process, and understand basic health information and services necessary to make appropriate health decisions. However, health literacy levels among Chinese middle-aged and older adults remain generally low[57], making it imperative to promote a clearer understanding of health information and improve their ability to evaluate and apply it.

Secondly, in terms of evaluating media credibility,

although this population increasingly uses social media, they continue to rely heavily on traditional media such as print and electronic platforms while maintaining skepticism toward social networks. To address this, the study recommends providing media literacy training to enhance their ability to assess the credibility of information sources and the reliability of content[29], thereby reducing information overload and minimizing confusion.

Moreover, social media platforms should be encouraged to produce high-quality, trustworthy health content and strengthen supervision mechanisms to alleviate users' cognitive burdens and rebuild trust. Conversely, print media, while highly credible, can paradoxically induce both immediate rejection (AHA) and future avoidance (AHN) when the information presented conflicts with pre-existing beliefs. Therefore, print media should be used strategically—emphasizing foundational knowledge or incorporating dissonance-mitigation strategies when addressing sensitive or potentially conflicting health topics.

3) Limitations and Future Research

This study, while providing valuable insights, has several limitations. Firstly, the cross-sectional design limits our ability to infer causality between information overload, cognitive dissonance, and health information avoidance. While longitudinal studies would ideally capture these dynamic processes over time, conducting such long-term follow-up research with an aging population presents significant practical challenges, including participant attrition and evolving health statuses. Secondly, the sample, although focused on middle-aged and older adults in China, may not be fully representative of the entire demographic due to the online survey method, potentially excluding those with lower digital literacy.

Future research could, where feasible, attempt innovative approaches to longitudinal data collection with older adults or employ mixed-methods designs to gain deeper qualitative insights into the lived experiences of health information avoidance. Additionally, exploring the specific content characteristics within different media types that trigger overload and dissonance, and investigating the effectiveness of targeted intervention strategies to mitigate these negative effects, would be fruitful avenues. Expanding research to other cultural

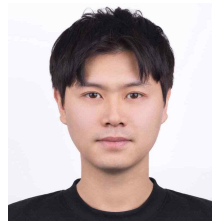
contexts could also enhance the generalizability of the findings. Finally, we suggest to consider diversity based on demographic attributes. In particular, for the elderly population, previous studies have shown that differences may exist depending on gender and education level, so further verification of these factors is needed.

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