

# A Sequential Mechanism Linking Algorithmic Dependence and News Fatigue

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**Abstract:** In an algorithmically curated media environment, passive modes of news consumption have become increasingly prevalent, raising growing concerns about news avoidance. Focusing on Chinese Gen Z, this study examines the cognitive dimension of passive news consumption through the lens of the news finds me (NFM) perception. It develops an analytical framework incorporating algorithmic recommendation dependence, news fatigue, and fear of missing out (FOMO) to investigate the underlying mechanisms linking passive news consumption to news avoidance. Drawing on survey data (N = 278), the results show that NFM perception does not exert a direct significant effect on news avoidance. Instead, its influence operates indirectly through a sequential mediation pathway involving algorithmic recommendation dependence and news fatigue. Furthermore, FOMO positively moderates the relationship between news fatigue and news avoidance, amplifying the effect of fatigue on avoidance behavior. These findings suggest that news avoidance among Chinese Gen Z is less a direct consequence of passive exposure and more a result of the cumulative psychological burden generated within algorithm-driven information environments. This study contributes to the literature by clarifying the cognitive and affective mechanisms underlying news avoidance in the context of algorithmic news ecosystems.

**Keywords:** news avoidance; NFM perception; algorithmic dependence; news fatigue; FOMO; Gen Z

## 1. Introduction

In contemporary digital media environments, the increasing dominance of social media platforms has fundamentally transformed how individuals access news. News consumption is shifting from active information seeking toward incidental and passive exposure, largely driven by algorithmic curation and social media feed dynamics. Rather than deliberately searching for information, users are now more likely to encounter news through personalized content streams. This structural shift has raised growing concerns about its implications for public engagement with news, particularly the rise of news avoidance. Although passive exposure has become a routine mode of news consumption—especially among younger audiences—its role in shaping avoidance behavior remains insufficiently understood<sup>[1][2]</sup>.

One important conceptual lens for understanding passive news consumption is the news finds me (NFM) perception, which captures individuals' belief that they can stay informed without actively seeking news<sup>[3]</sup>. Existing research has generally associated NFM with lower levels of news engagement, political knowledge, and public affairs attention, suggesting that it may weaken the informational foundations of democratic participation. However, prior studies have largely conceptualized NFM as a direct predictor of behavioral outcomes, paying limited attention to the underlying mechanisms through which this perception translates into news avoidance—particularly in algorithmically curated environments.

At the same time, algorithmic recommendation systems have become a central infrastructure in contemporary news ecosystems. While algorithms enhance accessibility by reducing information costs, they also shape users' information environments in ways that may intensify repetition, accelerate content flows, and amplify emotional and cognitive burdens<sup>[4][5][6]</sup>. Despite this, existing research has predominantly treated algorithmic recommendation as an external structural condition, rather than examining users' subjective dependence on algorithmically curated news and its potential role in

linking passive exposure to behavioral outcomes. Furthermore, although news fatigue has been identified as a key psychological driver of news avoidance, empirical research has yet to systematically examine how it operates within a broader mechanism connecting NFM and algorithmic environments.

In addition, fear of missing out (FOMO), a socio-emotional factor closely associated with social media use, may further shape individuals' responses to news exposure. While FOMO has been shown to increase information-checking behaviors and psychological tension, its role in news consumption remains theoretically ambiguous. It may simultaneously motivate continued engagement and exacerbate psychological strain, suggesting a potential moderating role in the relationship between news fatigue and news avoidance.

Against this backdrop, this study focuses on Chinese Gen Z and develops an integrated framework linking NFM perception, algorithmic recommendation dependence, news fatigue, and news avoidance. Specifically, it examines whether NFM influences news avoidance directly or indirectly through sequential psychological mechanisms, and whether FOMO conditions the strength of this relationship. By doing so, this study makes two main contributions. Theoretically, it moves beyond a direct-effect perspective on NFM by elucidating the cognitive and affective pathways through which passive news consumption shapes avoidance behavior. Empirically, it provides evidence on the formation of news avoidance in a highly algorithm-driven media context, with a particular focus on younger audiences.

## 2. Literature Review

### 2.1 News Avoidance: Conceptual Evolution and Multidimensional Drivers

News avoidance has emerged as a central concern in contemporary journalism research, particularly in the context of increasingly fragmented and platformized media environments. While early studies conceptualized news avoidance primarily as a decline in news consumption or complete disengagement, such static definitions fail to capture the complexity of audience behavior under conditions of high selectivity and algorithmic mediation.

A key theoretical advancement lies in the distinction between conscious and unconscious news avoidance, which reframes avoidance as a dynamic process shaped by both motivational and structural factors<sup>[9]</sup>. Conscious avoidance is typically driven by emotional burden, information overload, or value conflict, whereas unconscious avoidance reflects the gradual marginalization of news within entertainment-oriented and platform-driven information environments. This distinction is particularly relevant in algorithmically curated contexts, where avoidance may occur without explicit intention.

Subsequent research has further refined the typology of news avoidance by distinguishing between persistent, episodic, and selective forms. Among these, selective avoidance has received increasing attention, as it highlights individuals' tendency to avoid specific types of news—particularly those perceived as emotionally distressing or cognitively demanding—rather than disengaging from news altogether<sup>[10][11]</sup>. This perspective underscores that news avoidance is not a binary outcome but a regulated behavioral response shaped by emotional and cognitive mechanisms.

Existing research suggests that news avoidance results from the interaction of individual, content-related, and contextual factors<sup>[9]</sup>. At the individual level, low political interest and limited perceived public value of news reduce motivation for engagement, particularly among younger audiences<sup>[12][13]</sup>. At the content level, the negative tone and high emotional intensity of news contribute to psychological strain, increasing the likelihood of avoidance<sup>[14]</sup>. Importantly, news fatigue—characterized by emotional exhaustion and cognitive overload—has been identified as a key psychological mechanism linking news exposure to avoidance behavior<sup>[15][16]</sup>.

At the contextual level, algorithm-driven media environments introduce structural conditions that facilitate both conscious and unconscious avoidance. Algorithmic curation not only prioritizes emotionally engaging or entertaining content but also reduces the visibility of news within users' information streams, thereby reinforcing passive disengagement<sup>[17][18]</sup>.

Despite these advances, two critical gaps remain. First, conceptual overlaps between news avoidance, low news consumption, and selective exposure continue to blur analytical boundaries. Second, and more importantly, existing research has paid limited attention to how passive modes of news acquisition—such as NFM perception—interact with psychological mechanisms like news fatigue within algorithmically curated environments. In particular, the process through which cognitive

perceptions of passive exposure translate into avoidance behavior via algorithmic dependence and emotional responses remains underexplored.

### ***2.2 NFM Perception: The Cognitive Mechanism and Behavioral Consequences of Passive News Acquisition***

NFM refers to individuals' belief that important news will reach them without active effort, typically through social media networks and algorithmic recommendations<sup>[3]</sup>. Rather than merely reflecting a passive habit, NFM represents a cognitive orientation toward outsourced information acquisition, in which individuals rely on social and technological filtering systems. This perception is reinforced by the "filtering–highlighting" logic of social media, where salient and widely discussed issues are algorithmically amplified, creating an illusion of being sufficiently informed<sup>[19]</sup>. Importantly, NFM is closely linked to algorithmic reliance. Individuals who endorse NFM are more likely to depend on platform-based recommendation systems and social networks for information filtering, thereby reducing their motivation for active information seeking. This reliance may, in turn, increase exposure to repetitive, fragmented, and emotionally charged content—conditions that are conducive to the development of news fatigue.

Although NFM has been associated with lower levels of news engagement and political knowledge, it should not be equated with news avoidance. While avoidance reflects a behavioral strategy, NFM captures a cognitive precondition that may increase the likelihood of avoidance under certain conditions<sup>[20][21]</sup>. Empirical findings regarding the relationship between NFM and news avoidance remain inconsistent, suggesting that this relationship is likely indirect and contingent upon intervening mechanisms. Taken together, these insights indicate that NFM may influence news avoidance not directly, but through a mechanism chain involving algorithmic dependence and psychological responses such as news fatigue. However, this indirect pathway has not yet been systematically tested. Accordingly, this study poses the following research question:

**RQ1.** To what extent does NFM perception influence news avoidance behavior in social media environments?

### ***2.3 Dependence on Algorithmic News Recommendations: A Mechanistic Link Between Passive Exposure and News Avoidance***

In algorithmically curated news environments, users' orientations toward recommendation systems are characterized by an inherent tension between perceived utility and underlying skepticism. On the one hand, algorithms are widely valued for their capacity to efficiently filter vast amounts of information; on the other hand, concerns regarding bias, opacity, and privacy risks persist<sup>[22]</sup>. This coexistence of algorithm appreciation and algorithm aversion reflects a broader paradox in contemporary news consumption and provides a critical entry point for understanding users' increasing reliance on algorithmic systems.

From a functional perspective, algorithmic recommendations substantially reduce the cost of information acquisition by personalizing content based on users' behavioral data. Compared to traditional editorial curation, users—particularly younger and digitally experienced audiences—tend to perceive algorithmic filtering as more efficient and convenient<sup>[23][24]</sup>. This perceived convenience not only enhances acceptance of algorithmic systems but also reinforces a cognitive outsourcing of information discovery, whereby users delegate the task of news selection to platforms. In this sense, algorithmic recommendation systems provide the infrastructural foundation for the formation and stabilization of NFM perceptions, as users come to believe that exposure to "sufficiently important" information can be achieved without active effort<sup>[3]</sup>.

Building on this logic, a close relationship emerges between NFM perception and algorithmic recommendation dependence. Individuals with stronger NFM tendencies are more likely to rely on platform-based filtering mechanisms and to engage with news in a superficial and fragmented manner, such as skimming headlines or brief updates rather than actively seeking in-depth information<sup>[21]</sup>. Within social media environments, where news is embedded in continuous information streams, algorithmic systems curate content in ways that create a subjective sense of being "sufficiently informed", further reducing the perceived need for active information seeking<sup>[25][26]</sup>. As a result, NFM not only diminishes users' motivation for proactive news engagement but also strengthens their dependence on algorithmic curation and socially distributed information flows<sup>[27][28]</sup>.

Taken together, these findings suggest a reciprocal and reinforcing relationship between NFM perception and algorithmic recommendation systems. While algorithms enable and legitimize passive news acquisition by lowering access costs, NFM in turn increases users' willingness to rely on algorithmic filtering, creating a self-reinforcing cycle of passive exposure. Within this cycle, algorithmic dependence functions as a critical structural and behavioral mechanism that links cognitive perceptions (NFM) to downstream outcomes in news consumption.

**H1.** NFM perception is positively associated with reliance on algorithmically recommended news.

Beyond its role as a behavioral tendency, algorithmic dependence may also have important cognitive and emotional consequences. Heavy reliance on algorithmic recommendations is often associated with increased content homogenization, fragmented exposure, and reduced depth of information processing<sup>[24][29]</sup>. Moreover, algorithmic systems frequently prioritize emotionally salient or conflict-driven content to maximize engagement, which may intensify information overload and contribute to psychological strain over time<sup>[28]</sup>.

In this regard, algorithmic recommendation dependence is not merely a neutral usage pattern but may serve as a key mediating mechanism through which passive news consumption shapes users' psychological experiences and behavioral outcomes. However, existing research has rarely integrated NFM perception and algorithmic dependence within a unified analytical framework to examine their joint role in the formation of news avoidance. Accordingly, this study proposes the following research question:

**RQ2.** Does reliance on algorithmically recommended news mediate the relationship between NFM perception and news avoidance?

#### ***2.4 News Fatigue: A Key Psychological Mediator Linking Algorithmic Dependence to News Avoidance***

News fatigue is commonly conceptualized as a state of emotional exhaustion, cumulative cognitive overload, and diminished motivation resulting from prolonged exposure to news<sup>[15]</sup>. Unlike momentary emotional responses, it represents a chronic psychological condition that develops over time through sustained interaction with information environments. As such, news fatigue has been identified as a critical mechanism through which news exposure translates into disengagement and avoidance behaviors<sup>[16]</sup>.

In algorithmically curated social media environments, the formation of news fatigue is shaped by distinct structural features. First, recommendation systems continuously deliver content aligned with users' prior behaviors, leading to repetitive exposure and thematic convergence. This dynamic intensifies what has been described as issue fatigue, in which sustained attention to similar or recurring topics diminishes users' willingness to process news and reduces cognitive engagement<sup>[9][11]</sup>. Under such conditions, news content is increasingly perceived as redundant and emotionally burdensome rather than informative.

Second, algorithmic environments tend to integrate news into entertainment-oriented information streams. To maximize user engagement, platforms frequently prioritize emotionally salient, conflict-driven, or attention-grabbing content<sup>[30][19]</sup>. While this enhances short-term visibility, it also increases the affective intensity and cognitive demands associated with news consumption. As a result, users may experience heightened psychological strain, leading to a gradual erosion of motivation to engage with public affairs<sup>[31][32][33]</sup>.

Importantly, news fatigue should not be understood solely as a consequence of increased information volume. Rather, it emerges from the interaction between algorithmic curation patterns and users' reliance on these systems. When individuals depend heavily on algorithmic recommendations—as is often the case among those with strong NFM perceptions—they are more likely to encounter fragmented, repetitive, and emotionally charged content streams. This mode of exposure amplifies both cognitive overload and emotional exhaustion, thereby accelerating the accumulation of news fatigue. From this perspective, news fatigue functions as a key psychological mediator that translates structurally conditioned exposure patterns into behavioral outcomes. Specifically, it represents the mechanism through which algorithmic dependence—rooted in passive news consumption orientations—leads to active news avoidance. Accordingly, the following hypothesis is proposed:

**H2.** News fatigue is positively associated with news avoidance.

Building on the preceding discussion, this study further posits that news fatigue operates as part of a sequential mediation process linking NFM perception, algorithmic recommendation dependence, and news avoidance. That is, NFM may increase reliance on algorithmic recommendations, which in turn intensifies news fatigue, ultimately leading to higher levels of news avoidance.

**H3.** Algorithmic recommendation dependence and news fatigue sequentially mediate the relationship between NFM perception and news avoidance.

### 2.5 FOMO: A Moderator of the Relationship between News Fatigue and News Avoidance

Explanations of news avoidance that focus solely on “push factors”, such as information overload and news fatigue, remain incomplete. Equally important are the psychological forces that continuously draw users back into information environments. In highly dynamic and real-time media contexts, this tension is often manifested as fear of missing out (FOMO)—a pervasive anxiety that one may miss valuable information or social interactions<sup>[34][35]</sup>. Rooted in self-determination theory, it reflects unmet needs for relatedness and social belonging, which motivate individuals to remain continuously connected to information and social networks<sup>[36]</sup>. In social media environments, particularly among younger users, FOMO functions as a situationally activated psychological state, driving frequent checking behaviors, sustained online presence, and heightened sensitivity to social information<sup>[37][7]</sup>.

Importantly, FOMO is closely associated with intensified exposure to information streams. This pattern accelerates the depletion of cognitive resources and contributes to the accumulation of psychological fatigue<sup>[38]</sup>. Empirical evidence further indicates that FOMO is positively related to both news fatigue and broader forms of social media fatigue<sup>[35]</sup>, suggesting that it may amplify the psychological consequences of sustained news exposure.

However, the role of FOMO in news avoidance is inherently ambivalent. On the one hand, FOMO may intensify the effect of news fatigue on avoidance behavior. When individuals experience both high fatigue and high anxiety about missing out, they may become more likely to withdraw from news consumption as a coping strategy to regulate emotional strain<sup>[39][40]</sup>. On the other hand, FOMO may also inhibit avoidance tendencies. For individuals who are strongly concerned about missing important information or being excluded from public discourse, the motivation to stay informed may counteract the tendency to avoid news, even under conditions of fatigue.

This dual role suggests that FOMO is best conceptualized as a moderating factor reflecting an approach–avoidance conflict in news consumption. Rather than directly influencing news avoidance, FOMO conditions the extent to which psychological fatigue translates into avoidance behavior. Accordingly, this study proposes the following research questions:

**RQ3.** Does FOMO moderate the relationship between news fatigue and news avoidance?

**RQ4.** Does FOMO moderate the relationship between NFM perception and news avoidance?

In summary, this study proposes a dual-chain mediation model in which the passive use of news on social platforms influences news avoidance through the mediating effects of algorithmic dependence and news fatigue; some of these pathways may be moderated by FOMO, as illustrated in Figure 1.

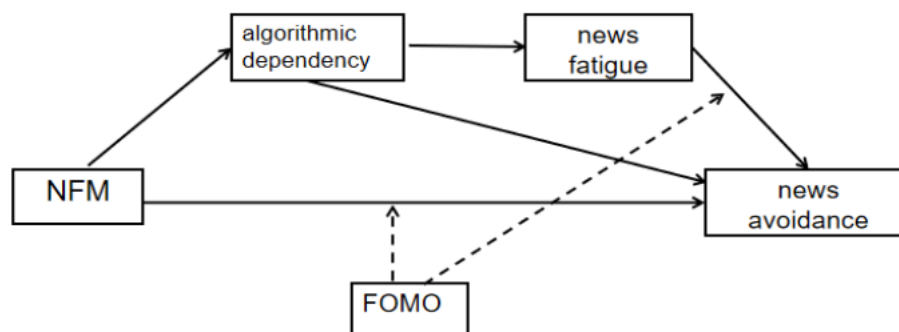


Figure 1. Research model

### 3. Method

Regarding the classification of Gen Z, the Pew Research Center in the United States (2019) defines it as those born from 1997 to 2012 is defined as Gen Z. Currently, although most domestic and international studies differ in their definitions, the common benchmark for this generation is typically those born from the mid-1990s to the mid-2000s. In South Korea, research often focuses on the MZ generation, yet the specific distinction between the MZ and Gen Z remains unclear, and there is relatively little consistency in defining Gen Z itself<sup>[41][42]</sup>. Given that China started its internet development later than the United States and South Korea but has demonstrated a consistently increasing growth rate and penetration rate, and considering Chinese actual media context (CNNIC, 56th, 2025) as well as the characteristics of Gen Z, this study has decided to define the Generation Z age group as 20–30 years old (i.e., those born between 1995 and 2005).

To ensure the validity and reliability of the questionnaire, a preliminary survey collected a total of 37 questionnaires through a snowball sampling method. After excluding invalid questionnaires—those with excessively short response times or showing entirely identical answers or partially consecutive identical responses—the final analysis retained 30 valid questionnaires. The formal survey was conducted by sending targeted links via QuestionStar, with no geographic restrictions (limited to Chinese mainland), and yielded a total of 278 valid responses.

### 4. Measure

**News avoidance.** From the perspective of current research findings, the conceptual operationalization of news avoidance primarily relies on focus-group interviews or mixed-methods studies with a strong qualitative emphasis. In some quantitative studies, news avoidance is measured simply by asking respondents whether they consciously avoid news. These methods not only incorporate quantitative indicators of news exposure but also take into account individuals' subjective intentions. Therefore, in light of the definition of news avoidance presented in this article and the methodologies employed in previous studies<sup>[43][21]</sup>, we have ultimately developed the following measurement for news avoidance: "I tend to actively avoid news" "when I encounter news, I immediately switch to other content" "Generally, news content lacks sufficient appeal or interest" and "When news content makes me feel uncomfortable or repulsed, I promptly switch to other content" ( $M = 4.252$ ,  $SD = 1.405$ ).

**NFM perception.** As Following the commonly used measurement approach in NFM perception, this study adopted the classic research methodology previously employed<sup>[28]</sup>. Specific questions included: "When important news arises, I always trust that my friends will proactively tell me" "I rely on news that my friends like or pay attention to" all total of six questions ( $M = 5.383$ ,  $SD = 0.865$ ).

**Dependency of algorithmic recommendation.** This refers primarily to positive cognitive evaluations of algorithms, which better align with the passive audience's tendency to trust and rely on such systems. Therefore, this study conducted measurements from three distinct perspectives: personal preference<sup>[6][28]</sup>, usefulness<sup>[45]</sup>, and convenience<sup>[46]</sup>. Specific items included: "I think it's quite good that news is automatically recommended based on the news I've viewed in the past" "News recommended by algorithms will push information relevant to me", all total of six questions ( $M = 5.293$ ,  $SD = 1.091$ ).

**News fatigue.** The measurement of news fatigue involved moderate adjustments to existing research methods<sup>[15][18]</sup>. Specific items included: "I'm fed up with the news feeds and information overload on social media" "News updates on social media are frequent and abundant—just reading them leaves me utterly exhausted" "News updates on social media are happening too quickly I'm so tired that I simply can't keep up" all total five questions ( $M = 4.399$ ,  $SD = 0.911$ ).

**FOMO** Based on previous research<sup>[7]</sup>, preliminary surveys, and model fit analyses, this study ultimately identified the following six items: "When on vacation, I can't help but keep checking what my friends are up to" "I'm afraid of missing out on the latest updates on social media" as so on ( $M = 4.327$ ,  $SD = 1.141$ ).

**Control variables.** First, social media uses, which consists of four items measured on a 7-point scale<sup>[19][20]</sup>. Specifically, the items ask: "How often do you check news via social media?" "How often do you use social media to obtain information on public issues or current events?" "How often do you get local news through social media?" And "How often do you access news from traditional media

outlets (such as news agencies, media companies, and political figures) via social media?" ( $M = 2.993$ ,  $SD = 0.889$ ).

Second, news interests is categorized into hard news and soft news<sup>[30]</sup>, specifically the degree of attention paid to hard news topics such as politics, economics, and international affairs ( $M = 3.676$ ,  $SD = 1.379$ ); and the degree of attention paid to soft news topics such as entertainment, sports, travel ( $M = 6.068$ ,  $SD = 0.74$ ). Additionally, news credibility was assessed using an established research methodology<sup>[43]</sup>, which includes four questions: "News on social media is indeed trustworthy" "social media news accurately reflects the facts" "social media news adheres to the principles of neutrality and fairness" and "social media news provides rich and in-depth information" ( $M = 5.563$ ,  $SD = 1.063$ ).

In addition, demographic variables also included questions about gender (1 = male, 55.4%; 2 = female, 44.6%), educational (1 = secondary school or lower, 11.87%; 2 = high school including vocational secondary schools, 20.86%; 3 = bachelor's degree including associate degrees, 59.35%; 4 = postgraduate degree or higher, 7.91%), and income level (1 = no income, 30.22%; 2 = 50,000 yuan or less, 18.35%; 3 = 50,000–100,000 yuan, 43.88%; 4 = 100,000–200,000 yuan, 6.83%; 5 = over 200,000 yuan, 0.72%).

## 5. Analysis and Results

Before the formal analysis, we first conducted an exploratory factor analysis (EFA) on the key variables. The results of the analysis showed that the KMO (Kaiser-Meyer-Olkin) value was 0.908, and Bartlett's test of sphericity, with degrees of freedom  $df = 351$ , yielded a p-value of 0.000, indicating that the analysis was statistically significant. The exploratory factor analysis performed using the Varimax rotation method revealed that the explanatory power of each factor for the construct concept reached 68.796%, significantly exceeding the conventional threshold of 60%. Moreover, the Cronbach's  $\alpha$  coefficients for all factors were above 0.80, demonstrating statistical significance.

To validate the reliability and validity of the factor structure derived from exploratory factor analysis, confirmatory factor analysis (CFA) was subsequently conducted. Firstly, The goodness-of-fit test for the measurement model revealed a  $\chi^2/df$  ratio of 1.911 ( $p < 0.05$ ), an RMSEA value of 0.057, and a 90% confidence interval ranging from 0.050 to 0.064. All these indices were below 0.08, indicating that the model closely matches the theoretical model. Secondly, the SRMR value of 0.055 also meets the good fit criterion. Furthermore, the model's CFI (0.943), IFI (0.943), and TLI (0.936) all exceed the 0.90 benchmark, indicating the model demonstrates significant explanatory power and excellent fit. In summary, the proposed model has demonstrated excellent fitting quality widely recognized in the statistical community, effectively supporting subsequent path analysis and hypothesis testing. The specific results are presented as follows (Table 1-2).

Table 1. Results of confirmatory factor analysis

Variable	Term	B	SE	$z(\text{CR})$	p	CR
1.News avoidance	NA1	0.821	-	-	-	0.906
	NA2	0.840	0.062	16.399	0.00	
	NA3	0.902	0.056	18.03	0.00	
	NA4	0.795	0.041	15.179	0.00	
2.NFM perception	NFM1	0.78	-	-	0.00	0.869
	NFM2	0.745	0.077	12.676	0.00	
	NFM3	0.794	0.065	13.623	0.00	
	NFM4	0.697	0.063	11.742	0.00	
	NFM5	0.667	0.068	11.18	0.00	
	NFM6	0.654	0.074	10.935	0.00	
3.Algorithmic dependency	AN1	0.839	-	-	0.00	0.925
	AN2	0.903	0.048	19.735	0.00	
	AN3	0.858	0.052	18.086	0.00	
	AN4	0.694	0.063	13.148	0.00	
	AN5	0.895	0.058	19.448	0.00	
	AN6	0.718	0.071	13.771	0.00	
4.News fatigue	NF1	0.638	-	-	0.00	0.853
	NF2	0.686	0.098	9.988	0.00	
	NF3	0.801	0.104	11.284	0.00	

Variable	Term	B	SE	<i>z</i> (CR)	p	CR
5.FOMO	NF4	0.551	0.093	8.305	0.00	0.904
	NF5	0.953	0.113	12.385	0.00	
	FOMO1	0.981	-	-	0.00	
	FOMO2	0.669	0.051	14.35	0.00	
	FOMO3	0.875	0.022	26.287	0.00	
	FOMO4	0.667	0.049	14.274	0.00	
	FOMO5	0.674	0.047	14.512	0.00	
	FOMO6	0.788	0.041	19.796	0.00	

Note: The diagonal values are the square root of AVE, and the other values are correlation coefficients.

Table 2. Factor analysis results

Variable	AVE	1	2	3	4	5
1.news avoidance	0.706	0.840				
2.NFM perception	0.526	0.201	0.725			
3.Algorithmic dependency	0.675	0.191	0.557	0.822		
4.news fatigue	0.546	0.496	0.235	0.216	0.739	
5.FOMO	0.616	0.467	0.511	0.451	0.440	0.785

Note: The diagonal values are the square root of AVE, and the other values are correlation coefficients.

To validate the discriminant validity among latent variables, this study employed the Fornell-Larcker criterion by comparing the square roots of the average variance extracted (AVE) for each latent variable with the Pearson correlation coefficients between that latent variable and other latent variables. The analysis results showed that the AVE square roots for the five latent variables were as follows: Factor 1 (0.840), Factor 2 (0.725), Factor 3 (0.822), Factor 4 (0.739), and Factor 5 (0.785). Moreover, all correlation coefficients among the latent variables were higher than the correlation coefficients between each latent variable and any other latent variable. This indicates that there is no discriminant ambiguity caused by excessive correlations among the latent variables. Therefore, it can be concluded that all latent variables in this study demonstrate good discriminant validity. This suggests that each constituent concept possesses clear conceptual independence and that there is no overlap or confusion among them.

### 5.1 Mediation Analysis

This study used Bootstrap techniques to validate the direct and indirect pathways through which NFM cognition influences news avoidance behavior, while also predicting the mediating mechanisms of algorithmic recommendation dependency and news fatigue. The overall analysis results are presented in Table 3. First, in terms of the direct effect, NFM had no significant direct impact on news avoidance behavior ( $t=0.945$ ,  $p=0.345$ ). Given that the confidence interval (LLCI=-0.105, ULCI=0.300) includes zero, even after controlling for other variables, it is difficult to explain users' news avoidance behavior solely based on NFM cognition. This result answers RQ1. Second, no significant mediating effect was observed between algorithmic dependence and NFM cognition on news avoidance behavior ( $t=1.479$ ,  $p=0.139$ ), which also answers RQ 2. On the other hand, NFM cognition has a significant positive impact on algorithmic dependence ( $t=11.144$ ,  $p < 0.001$ ). This finding strongly supports H1. Meanwhile, H2—that news fatigue has a positive impact on news avoidance behavior—was also confirmed ( $t=8.714$ ,  $p=0.00$ ). Furthermore, the analysis addressing H3 revealed that the serial mediating effect is statistically significant ( $z=2.940$ ,  $p=0.003$ ). Although the single mediating path of algorithmic recommendation dependence did not reach statistical significance, the empirical evidence indicates that algorithmic recommendation dependence exacerbates news fatigue, which in turn indirectly reinforces news avoidance behavior. This serial mediating effect is thus empirically supported. Therefore, taken together, although NFM perception do not directly lead to news avoidance behavior, they may ultimately indirectly trigger a tendency toward news avoidance via the chain pathway of “algorithm dependence → news fatigue”. Among these factors, news fatigue plays a central mediating role, while algorithm dependence exerts a mediating effect when combined with news fatigue. The specific path for analyzing this mediating effect is illustrated in Table 3.

Table 3. Mediation effect analysis table

Effect	Term	Effect	SE	z(t)	p	LLCI	ULCI
Direct	NFM⇒newsavoidance	0.097	0.103	0.945	0.345	-0.105	0.30
Indirect	NFM⇒Algorithmic dependency⇒newsavoidance	0.051	0.034	1.479	0.139	-0.031	0.104
	NFM⇒Algorithmic⇒news fatigue⇒newsavoidance	0.052	0.018	2.940	0.003	0.00	0.07
Component	NFM⇒algorithmic	0.703	0.063	11.144	0.00	0.579	0.827
	algorithmic⇒newsfatigue	0.102	0.059	1.748	0.082	-0.013	0.218
	algorithmic⇒newsavoidance	0.072	0.081	0.885	0.377	-0.088	0.232
	news fatigue⇒newsavoidance	0.725	0.083	8.714	0.00	0.561	0.889
Gross	NFM⇒newsavoidance	0.327	0.096	3.418	0.001	0.139	0.516

Note: LLCI represents the 95% confidence interval lower bound of the estimate, while ULCI denotes the 95% confidence interval upper bound of the estimate.

### 5.2 Moderating Analysis

This study aims to explore how news users' perceptions of NFM on social media influence their feelings of new avoidance, and to examine whether users' fear of missing out (FOMO) serves as a moderating effect in this relationship (RQ3 and RQ4). To this end, we first standardized the three relevant independent variables and created interaction terms among them, then conducted a hierarchical regression analysis. We assessed multicollinearity by examining the tolerance values and variance inflation factors (VIFs) of the included independent variables through regression analysis. The tolerance values for all variables ranged from 0.490 to 0.969, while the VIF values ranged from 1.032 to 2.032, confirming that no multicollinearity issues were present. The specific analysis results are presented in Table 4 below.

Table 4. Results of regression analysis

Variable	News avoidance				
	B	SE	t	p	$\beta$
Constant	0.159	0.535	0.296	0.767	-
NFM perception	0.097	0.103	0.945	0.345	0.06
Algorithmic dependency	0.072	0.081	0.885	0.377	0.056
News fatigue	0.725**	0.083	8.714	0.00	0.47
R 2	0.256				
F	F (3,274)=31.385,p=0.000				
FOMO	0.417**	0.079	5.283	0.00	0.338
R 2	0.325				
F	F (4,273)=32.827,p=0.000				
NFM perception*FOMO	-0.094	0.078	-1.201	0.231	-0.065
News fatigue*FOMO	-0.032	0.067	-0.479	0.633	-0.025
R 2	0.33				
F	F (6,271)=22.223,p=0.000				
Gender	0.271	0.15	1.806	0.072	0.096
Edu	0.023	0.082	0.278	0.781	0.013
Income	-0.170*	0.072	-2.358	0.019	-0.121
SNS use frequency	-0.213*	0.092	-2.321	0.021	-0.135
Hard news	0.173**	0.045	3.874	0.00	0.17
Soft news	-0.423**	0.087	-4.875	0.00	-0.223
News trust	-0.304**	0.06	-5.09	0.00	-0.23
R 2	0.605				
$\Delta R^2$	0.276				
F	F (14,263)=28.808,p=0.00				

As shown in Table 4, the overall model is statistically significant. With regard to the independent variable—news avoidance—the model's explanatory power, as indicated by the  $R^2$  value, is 0.605 [F(14,263) = 28.808,  $p < 0.001$ ]. From the perspective of the explanatory power and influence of the key variables in the overall model, the  $\Delta R^2$ , which represents the increase in explanatory power, amounts to 0.276 ( $p < 0.001$ ), demonstrating the highest explanatory strength. Neither NFM cognition

( $\beta=0.06$ ,  $p=0.345$ ) nor algorithm dependence ( $\beta=0.056$ ,  $p < 0.377$ ) has any significant impact on news avoidance. However, news fatigue ( $\beta=0.47$ ,  $p < 0.001$ ) exerts a significant positive effect on news avoidance. This suggests that, in the social-media-based news environment, Gen Z does not tend to avoid news simply because of passive consumption of news; rather, it is those who perceive news fatigue who are more likely to exhibit news-avoidance behavior. This may indicate that, in the context of social media, Gen Z lacks a sufficient awareness of the impact of negative news consumption behaviors. Consequently, their psychological experiences differ significantly from those reported in previous studies.

Subsequently, after introducing the moderating variable FOMO, we found that the overall model's explanatory power significantly improved—FOMO accounted for 6.9% of the variance in news avoidance ( $R^2 = 0.335$ ,  $p < 0.001$ ). However, when we separately added the interaction terms NFM\*FOMO and news fatigue\*FOMO, we found that these interactions did not contribute significantly to the model's explanatory power ( $R=0.33$ ,  $p < 0.001$ ). Meanwhile, with regard to demographic variables, the analysis found that neither gender nor education level had a significant impact. However, income ( $\beta = -0.121$ ,  $p < 0.05$ ), social media usage ( $\beta = -0.135$ ,  $p < 0.05$ ), soft news consumption ( $\beta = -0.223$ ,  $p < 0.001$ ), and news trustworthiness ( $\beta = -0.23$ ,  $p < 0.001$ ) all had significant negative effects on news avoidance; only hard news showed a significant positive effect ( $\beta = 0.17$ ,  $p < 0.001$ ).

In addition, to further examine the moderating effect of the mediating variable FOMO and NFM cognition on news fatigue after their interaction with news fatigue, the study also used slope graphs for illustration. The specific details are shown in the figure 2 below.

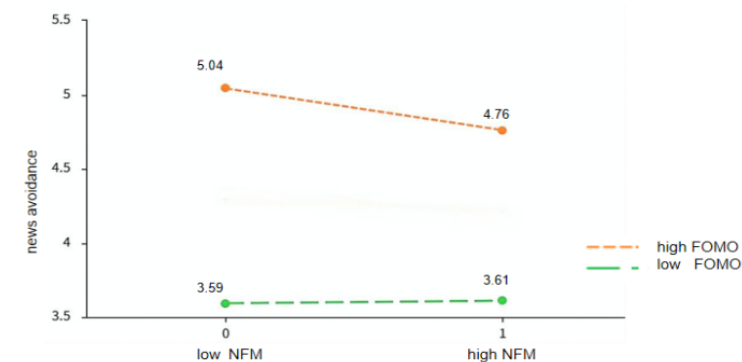


Figure 2. Interactive effects between NFM perception and FOMO

As shown in Figure 2, this is a slope plot illustrating the interaction effect between NFM cognition and FOMO. In the group with lower FOMO levels, when NFM cognition is low, news avoidance is also relatively low. By contrast, in the group with higher FOMO levels, as NFM cognition increases, the tendency toward news avoidance decreases only slightly. In other words, at the overall level, the perceived influence of FOMO does not significantly moderate the relationship between NFM cognition and news avoidance.

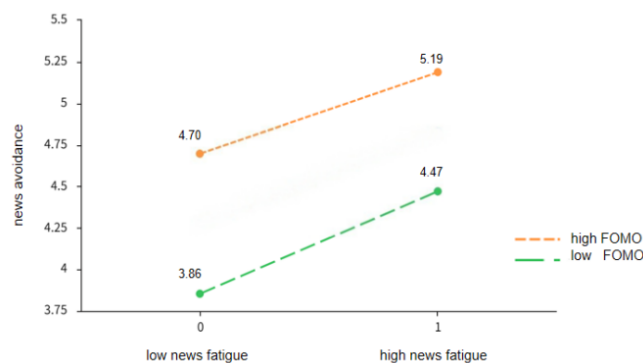


Figure 3. Interactive effect of news fatigue and FOMO

Furthermore, as shown in Figure 3, there is an interaction effect between news fatigue and FOMO. In the group with lower FOMO levels, when perceived news fatigue is low, news avoidance is also

relatively low. By contrast, in the group with higher FOMO levels, as news fatigue increases, the tendency toward news avoidance also rises accordingly. This indicates that FOMO only exerts a positive moderating effect on the relationship between news fatigue and news avoidance.

## 6. Discussion and Conclusion

In algorithmically curated social media environments, passive news consumption has become deeply embedded in the everyday media practices of Gen Z. Drawing on survey data from Chinese Gen Z, this study provides a mechanism-based explanation of how such passive exposure translates into news avoidance. The findings show that NFM perception does not exert a direct effect on news avoidance. Rather, its influence operates indirectly through a sequential pathway involving algorithmic recommendation dependence and news fatigue.

This finding challenges prior research that tends to treat NFM as a straightforward indicator of low engagement with news<sup>[3]</sup>. Instead, the results suggest that in highly algorithmic environments, NFM should be understood less as an intentional disengagement from news and more as a form of adaptive reliance on mediated information infrastructures<sup>[1]</sup>. In other words, passive exposure itself does not directly produce avoidance; rather, it is the cumulative psychological burden generated within algorithmically structured information environments that ultimately drives avoidance behavior.

More specifically, the mediation analysis highlights the central role of news fatigue as the proximal psychological mechanism linking exposure conditions to behavioral outcomes. While algorithmic recommendation dependence alone does not directly lead to avoidance, it reshapes users' information environments by increasing repetition, fragmentation, and emotional intensity. These conditions accelerate the accumulation of cognitive overload and emotional exhaustion, thereby giving rise to news fatigue, which in turn triggers avoidance behavior. This mechanism is consistent with prior research emphasizing the progression from sustained exposure to emotional exhaustion and subsequent behavioral adjustment<sup>[15][32]</sup>, while also extending this line of work by situating it within an explicitly algorithmic context.

Regarding moderating effects, the results indicate that FOMO does not significantly influence the relationship between NFM and news avoidance, but instead strengthens the effect of news fatigue on avoidance. This suggests that FOMO is not a general driver of news-related behavior but rather a conditional amplifier that becomes salient under conditions of psychological strain. When individuals experience high levels of fatigue, FOMO may intensify anxiety related to missing out, thereby increasing the likelihood of withdrawal as a coping strategy. This finding refines existing understandings of FOMO by demonstrating that its effects are context-dependent and contingent upon individuals' psychological states, rather than uniformly promoting engagement<sup>[7][8][35]</sup>.

Taken together, this study advances the literature in several ways. First, it moves beyond a direct-effect perspective on NFM by demonstrating that its influence on news avoidance is indirect and mechanism-driven, operating through both structural (algorithmic dependence) and psychological (news fatigue) pathways. Second, it contributes to research on news avoidance by conceptualizing it as a dynamic and context-sensitive regulatory process, rather than a stable attitudinal disposition. Third, by introducing FOMO as a moderating factor, this study highlights the importance of approach-avoidance tensions in shaping news consumption behaviors within social media environments.

From a practical perspective, these findings suggest that addressing news avoidance requires interventions at multiple levels. At the platform level, algorithmic systems should be designed to reduce excessive repetition and emotional overload, for example by incorporating diversity-enhancing mechanisms and user-controlled filtering options. At the content level, news organizations may need to reconsider the balance between emotional salience and informational value in order to mitigate fatigue effects. At the individual level, improving news literacy and fostering more reflective consumption habits may help users better navigate algorithmically curated environments.

Despite these contributions, this study has several limitations. First, the use of cross-sectional data constrains causal inference. Future research could employ longitudinal or experimental designs to examine the dynamic evolution of news fatigue and avoidance over time. Second, this study does not differentiate between specific platform architectures; variations in algorithmic logic across platforms may produce different effects. Third, the focus on Chinese Gen Z limits the generalizability of the findings. Future studies should incorporate cross-cultural and cross-generational comparisons to assess the robustness of the proposed mechanisms. In addition, mixed-method approaches combining

behavioral trace data with qualitative interviews may provide deeper insights into the situational triggers and meaning-making processes underlying news avoidance.

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