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# A Study on Rhetorical Strategies of Health Rumors on the Chinese WeChat Official Account Platforms

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**Abstract**

Social media has become a primary arena for the public to access health information, but it also serves as fertile ground for the spread of health rumors. This study employs a mixed-methods approach, combining qualitative and quantitative analysis, to examine 4,268 health rumors circulating on Chinese WeChat official account platforms. The research investigates these rumors from two perspectives: their prevalent themes and their rhetorical functions. The findings reveal that: 1) rumor themes are concentrated in areas such as disease and dietary health, influenced by factors such as social events and national policies; 2) the persuasiveness of health rumors stems from the use of three rhetorical strategies: ethos, logos, and pathos; and 3) these rhetorical strategies do not operate in isolation but are mutually reinforcing, collectively enhancing the persuasive power of health rumors. The study reveals the underlying logic of textual construction in health rumors and provides a theoretical basis for debunking such rumors and promoting health literacy education.

**Keywords:** Health rumors, WeChat official accounts, Rhetorical strategies, Ethos, Logos, Pathos

## 1. Introduction

In 2019, the Healthy China Action (2019–2030), released by the Healthy China Action Promotion Committee, proposed 15 specialized initiatives centered on the two core pillars of disease prevention and health promotion, including health literacy promotion, mental health promotion and national fitness. This demonstrates the unprecedented strategic attention the state attaches to national health. Language is closely linked to health. As a tool for communication and a carrier for dissemination, it plays a vital role in health communication, health promotion and medical interactions (Harvey & Koteyko, 2012). The early Sophists of

ancient Greece defined rhetoric as the art of persuasion (Herrick, 2020). Integrating the discipline of rhetoric with health research helps us conduct an in-depth analysis of the internal mechanisms underpinning persuasive effects, thereby enabling rhetoric to better serve the core goals of disease prevention and health promotion.

With the development of digital technology, social media has become a core venue for the public to obtain and exchange health information. According to the latest data from the China Internet Network Information Center (CNNIC), by 2024, the number of internet users accessing health information in China has exceeded 900 million, with platforms such as WeChat official accounts, Weibo and Douyin emerging as the primary channels for the public to acquire health knowledge. However, the low barrier to information dissemination has also served as a breeding ground for the emergence and spread of health rumors. From panic over "alleged incompatibility between certain foods and vaccines" and warnings claiming "some daily necessities are carcinogenic" to various pseudoscientific health-preservation claims labeled as "ancestral secret recipes" or "authoritative experts", all types of health rumors leverage the social attributes and communication advantages of social media to exhibit the characteristics of rapid transmission, wide coverage and strong misleading effects. These rumors not only disrupt the public's scientific understanding of health and trigger irrational health behaviors, but also interfere with the normal public health order, thus becoming a severe challenge for social governance (Swire & Lazer, 2020; AlKhaja et al., 2018). Therefore, it is necessary to understand the formation and transmission mechanisms of health rumors on social media, so as to put forward corresponding suggestions for health communication.

The formation and spread of health rumors are not accidental; the employment of rhetorical strategies is the key to their breaking through information filtering barriers and gaining public trust. However, existing studies have mostly focused on exploring the transmission intentions, detection mechanisms, or social harms of health rumors (Chua & Banerjee, 2018; Oh & Lee, 2019; Collier et al., 2008; Zhang et al., 2020), while few have paid attention to the use of rhetorical strategies in health rumors. To address this research gap, this study aims to establish a corpus and examine health rumors on Chinese social media from two perspectives: hot themes and rhetorical functions. It is intended to provide a new theoretical perspective for understanding rumor transmission in the digital age and contribute to the construction of a scientific, healthy and orderly online information environment. Specifically, this study focuses on addressing the following research questions:

(1)What are the hot themes and changing trends of health rumors on Chinese WeChat official accounts?

(2)How do hot health rumors employ ethos, pathos and logos?

## 2. Literature Review

### *2.1 Research on the Dissemination of Health Rumors on Social Media*

Rumors are regarded as unverified, instrumentally meaningful information statements arising from ambiguous situations, risky scenarios, or potential threats in the process of information

dissemination, which help people understand and manage risks (Pendleton, 1998). In other words, a rumor refers to "unverified information that is in circulation" (Myer et al., 2007). In the past, rumors were typically transmitted interpersonal via word-of-mouth communication, lacking reliable evidentiary standards (Alexander & Smith, 2010). By contrast, the sophisticated communication media in modern society have opened up more channels for rumor diffusion, and its speed of transmission and scope of influence may sometimes be difficult to control (Ozturk et al., 2015).

Nowadays, the internet is rife with a vast number of health rumors, covering a wide range of topics including healthcare reform, dietary health, and vaccination (Berinsky, 2017; Suarez-Lledo & Alvarez-Galvez, 2021). A prominent example is the well-known "death panels" rumor associated with the U.S. Affordable Care Act (Berinsky, 2017). In China, dietary health rumors on WeChat official accounts account for 38.91% of all online rumors, and can be further subdivided into three categories: food safety, healthy diet, and nutritional health (Li et al., 2023). Among the rumors triggered by public health crises, health-related rumors account for a higher proportion and exert more severe social impacts (Pu et al., 2021). For instance, 28% of the top 150 most-viewed COVID-19-related videos on YouTube contain misinformation, with a total view count reaching 62 million (Li et al., 2020). In China, pandemic-related rumors such as "Shuanghuang Oral Liquid can treat COVID-19" circulating on social media sparked a widespread shopping frenzy (Zhang et al., 2020).

The dissemination of health rumors on social media is a complex process involving interactions among multiple actors, whose core participants can be primarily divided into two groups. The first group consists of health rumor producers, whose intentions for creating and disseminating rumors are usually characterized by a clear instrumental orientation, mainly driven by the pursuit of economic gains, the desire to garner public attention, and the need to boost traffic or follower counts (Swire & Lazer, 2020; Bode & Vraga, 2018). To achieve these goals, producers often intentionally leverage the acquaintance network attribute of social media and the daily concerns of the public, deliberately fabricating rumor content with themes close to everyday life and emotionally resonant narratives, thereby increasing the share volume and dissemination scope of such content (DiFonzo et al., 2014).

The second group comprises the receivers and secondary disseminators of health rumors, mainly consisting of populations with a relatively weak ability to perceive and judge online misinformation, such as the elderly (Allen et al., 2020) and individuals with lower educational attainment (Scherer et al., 2021). Their prevalent health anxiety when faced with health-related issues, coupled with the information asymmetry caused by insufficient professional knowledge or a single source of information, renders them more susceptible to seemingly plausible rumor content. The strong herd mentality in social settings further drives them to follow others in spreading such rumors (Oh & Lee, 2019). Against this backdrop, trust intention and sharing intention have become crucial influencing mechanisms, inadvertently turning this group into key contributors to rumor diffusion (Chua et al., 2016).

At present, health rumors have become a prominent social issue, exerting multifaceted negative impacts on public health, social trust and even public governance. On the one hand,

by disseminating scientifically unsubstantiated folk remedies or risk warnings, rumors are likely to induce cognitive biases among the public, thereby misleading them into adopting inappropriate health behaviors (Tang et al., 2018; Swire & Lazer, 2020; AlKhaja et al., 2018). On the other hand, a large number of anxiety-provoking health rumors continue to erode the social information environment and the foundation of public trust in mainstream media. Particularly during public health emergencies, they are prone to triggering irrational social panic, group polarization and even unnecessary resource hoarding, thus disrupting the normal prevention and control order. More profoundly, health rumors has exacerbated the spread of the infodemic (Suarez-Lledo & Alvarez-Galvez, 2022), making it difficult for authoritative and useful health information to gain public trust amid the chaotic public opinion landscape, which forms a vicious circle.

Therefore, revealing the formation and dissemination mechanisms of health rumors, especially their inherent rhetorical strategies and persuasive logic, holds urgent practical significance for curbing their negative impacts and rebuilding a clean and healthy online health information ecosystem.

### *2.2 Research on Rhetorical Strategies in Health Dissemination*

Rhetoric is the art of persuasion (Herrick, 2020). Its fundamental function is that agents, through the use of words, prompt other agents to form a certain attitude or take specific actions (Burke, 1969). Kenneth Burke, a representative figure of the New Rhetoric, pioneered the integration of rhetorical studies into the scientific domain and expanded the scope of rhetorical analysis (Segal, 2009). Rhetoric of Health and Medicine (RHM) is an emerging research field developed from scientific and technical rhetoric.

Wegar (1992) explored the phenomenon of the “rhetoric of reform” in American medical education, becoming the first scholar to integrate rhetoric with health communication. Segal (2009) further pointed out that medical discourse constructs medical authority through rhetorical devices, thereby persuading the public to accept it. She also revealed how metaphors such as “the body is a machine” shape and constrain society’s perception of health and illness. This perspective was extended in Keränen’s (2015) research, which examined how life and health are politicized and commodified through rhetoric, as well as the intertwining of the global discourse on infectious diseases and metaphors of digital viral transmission.

Rhetorical phenomena in the context of public health crises have become a research hotspot in academic circles, and the uncertainty amid crises often gives rise to unique public rhetoric. For instance, Glowacki and Taylor (2020) proposed the concept of Health Exaggerationism to describe how the public employs rhetorical devices such as exaggeration, emotionalism and conspiracy theories to cope with the unknown in a state of fear. Salek and Cole (2019), through a rhetorical critique of Trump’s tweets about Ebola, revealed how apocalyptic rhetoric is utilized to construct an exaggerated narrative of health crises. This indicates that rhetoric in crises is not merely a passive response to fear, but also a tool for active political mobilization.

With the popularization of digital media, a great amount of research has shifted its focus to online platforms, examining the rhetorical strategies employed in health-related discussions and interventions. For instance, Gallagher and Lawrence (2020) explored the rhetorical strategies and appeals utilized by both pro-vaccine and anti-vaccine camps in online public debates, thereby providing critical insights for improving persuasive practices in public health communication. Online platforms, social media in particular, are fertile breeding grounds for rumors, and academic circles have also conducted certain discussions on the rhetorical strategies for rumor debunking. Based on data from China's Weibo platform, Yang et al. (2022) compared the significant differences in rhetorical strategies among four types of rumor debunkers—governments, media outlets, institutions, and individuals—and verified the temporal sensitivity and contextual dependence of debunking effects. Peng et al. (2022) further summarized 12 major categories of persuasive strategies adopted in online health misinformation, pointing out that these strategies generally exploit heuristic cues and a mixture of true and false information to mislead audiences.

Although numerous researchers have investigated rhetorical strategies in health communication, most of these studies have focused on platforms such as YouTube, Twitter, and Weibo, with relatively few exploring the rhetorical strategies of health rumors on Chinese WeChat official accounts. This research gap cannot be ignored, given that there are significant differences in rumor dissemination across various platforms, and such variations exert an impact on the rhetorical strategies of health rumors as well as their ultimate effects.

Health rumors tend to be characterized by being life-relevant, emotionally resonant, and focused on high-frequency demands such as health preservation and disease prevention and treatment. The community attributes and strong-tie networks of WeChat are precisely aligned with the transmission environment conducive to health rumors. In contrast to open social media platforms like Weibo and Twitter, the dissemination of health rumors on WeChat official accounts usually takes place via group chats, which greatly enhances the credibility and emotional persuasiveness of such rumors. Coupled with the information scarcity in this closed-loop environment, the effectiveness of rumor debunking is significantly diminished, enabling rumors to more easily form a community consensus. As a result, the misleading effects of these rumors on audiences' health perceptions and behavioral decisions are more persistent and profound.

Therefore, we have selected WeChat official accounts as the research platform to conduct a study on the rhetorical strategies of health rumors. The findings of this study can enhance the public's ability to identify health rumors, effectively prevent the dissemination of such rumors, and provide insights for the debunking of health rumors.

## 3. Data Collection

### *3.1 Corpus Collection and Research Methods*

Given that rumors themselves are characterized by dispersed themes, inconsistent expression formats, and the difficulty of direct systematic retrieval, this study drew on the research methodology proposed by Li et al. (2023) during the data collection phase for health rumors.

By retrieving rumor-debunking articles published on official WeChat official accounts to locate and trace back their corresponding original rumors. A key advantage of this approach is that rumors officially debunked typically exhibit the typical characteristics of wide dissemination scope and significant social impact, which can effectively avoid the interference of unrepresentative samples. Users can search relevant keywords to access the corresponding accounts and articles (Li et al., 2021). Thus, the rumor texts collected using this method can reliably reflect the distribution of hot themes in current health rumors on WeChat official accounts and provide representative research samples for the subsequent analysis of their rhetorical strategies.

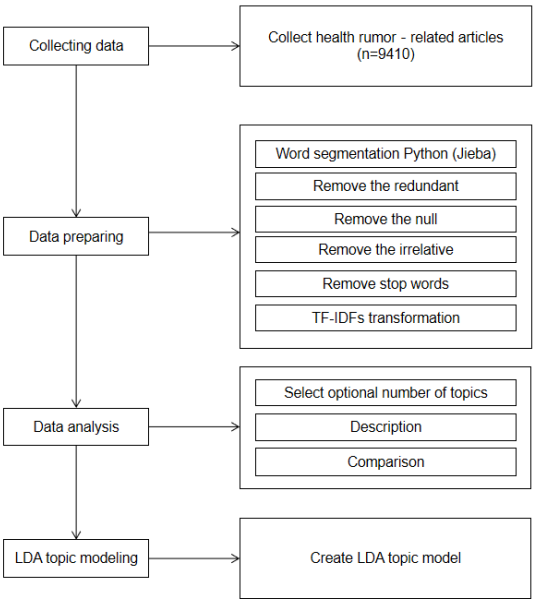


Figure 1. Flowchart in this study (Li et al., 2023)

The hot themes of rumors evolve over time, and their content adjusts in response to changes in social policies, public health emergencies, and public health needs. Li et al. (2023) conducted their research covering the time span from January 1, 2016 to August 31, 2022. This study sets the data collection period as September 1, 2022 to December 1, 2025, aiming to explore the composition of hot themes of health rumors on Chinese WeChat official accounts in the past three years. Through searching keywords such as “rumor debunking” and “health rumor debunking” and so on, this study used Python to extract relevant official rumor-debunking articles from WeChat official accounts. After standardized processes including corpus cleaning and removal of irrelevant information, a total of 4,268 valid official rumor-debunking articles were finally collected. These data provide support for the subsequent statistical analysis of rumor types categorized by hot themes and the analysis of rhetorical strategies.

### *3.2 Analytical Framework*

This study adopts Aristotle’s rhetorical model of the three appeals as its analytical framework.

Aristotle argued that there are three fundamental modes of effective persuasion: ethos, logos, and pathos. Regarded as the core framework of classical rhetoric, this theory continues to exert a profound influence to this day (Burke, 1966). Ethos centers on the rhetor's moral character and personal credibility; logos relies on the inherent logic and evidence within the discourse itself; and pathos aims to evoke emotional resonance among the audience. Modern research further indicates that effective persuasion often requires the integration of multiple persuasive devices.

Ethos emphasizes the determinant role of the rhetor's character, authority, and credibility in persuasive effectiveness (Hartelius & Browning, 2008). Character refers to the inherent influence emanating from the rhetor, which can be derived from reputation, titles, introductions, as well as achievements and honors. To achieve persuasive goals, the rhetor must project a charismatic character (Green, 2004), with the persuasive power of the rhetor's character being underscored as a core element (Aho, 1985).

Logos refers to the rhetor's use of logical reasoning to enable the audience to comprehend or accept their viewpoints, emphasizing the power of logic and rational appeal (Green, 2004). The rhetor must employ appropriate verbal communication techniques to persuade the audience to embrace their positions and values, such as the utilization of data (Clatworthy & Jones, 2006) and visual elements (Scott, 1994).

Pathos refers to the mobilization of audience emotions to achieve persuasive effect (Aho, 1985). By studying the psychological and emotional needs of the audience, appropriate means are selected to elicit identification. Pathos often possesses cultural or institutional specificity (Allen & Caillouet, 1994), using biased or suggestive statements to guide the receiver, thereby enhancing the influence of emotion in the persuasion process.

Higgins & Walker (2012) further refined the elements of Aristotelian rhetorical appeals, as shown in Table 1. This paper will analyze the rhetorical strategies of health rumors on WeChat official accounts in accordance with Table 1.

Table 1. Elements of rhetorical appeals(Higgins & Walker, 2012).

| Appeal | Examples of persuasive techniques: |
|---|---|
| *ETHOS*: credibility | Similitude |
| | Ingratiation |
| | Deference |
| | Expertise |
| | Self-criticism |
| | Inclination to succeed |
| | Consistency |
| *PATHOS*: emotion | Metaphors |
| | Identification, especially through cultural references such as: |
| | Sport |
| | Under-privilege |
| | Health, well-being |
| | Hope, aspiration |
| | Loyalty |
| | Friendship |
| | Sympathy |
| *LOGOS*: reason | Argumentation |
| | Logic |
| | Warrants/justifications |
| | Claims |
| | Data |
| | Evidence/examples (e.g. historical) |

## 4. Results and Discussion

### *4.1 Hot Themes and Changing Trends of Health Rumors on WeChat Official Accounts*

Based on the LDA topic modeling results of Li et al. (2023), this study conducted a classified statistical analysis of health rumors on WeChat official accounts over the past three years, with the findings presented in Table 2 below.

Table 2. Hot Themes and Keywords of Health Rumors on WeChat Official Accounts in the Recent Three Years (N=4268).

| Theme | Values, n (%) |
|---|---|
| Theme 1: Public health rumors | 276 (6.47) |
| Theme 2: Disease rumors | 1561 (36.57) |
| Theme 3: Diet and health rumor | 1843 (43.18) |
| Theme 4: Spread of rumors | 588 (13.78) |

To explore the changing trends of the four health rumor themes, this study compared the data proportions of the two periods, namely January 1, 2016 to August 31, 2022 and September 1, 2022 to December 1, 2025, with the results presented in Figure 2 below.

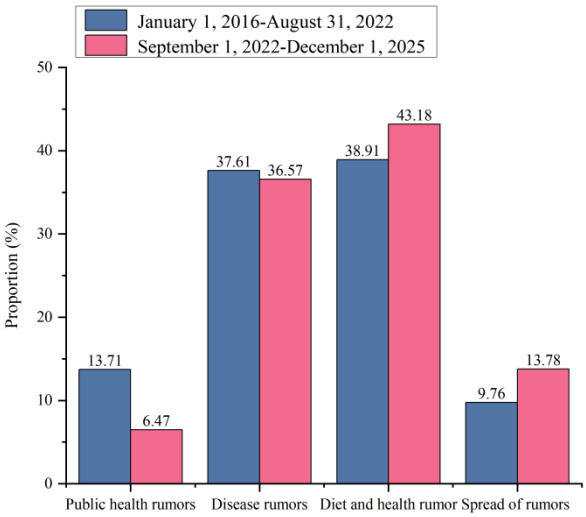


Figure 2. Change Trend of Health-Related Rumors on WeChat Official Account Platform

Based on the data analysis of Table 2 and Figure 2, Themes 2 and 3 remain the main components of health rumors on WeChat official accounts. Specifically, the number of

rumors under Theme 1 decreased significantly, which may be related to the end of COVID-19 as a public health emergency, with public attention to relevant issues declining accordingly. Theme 2 showed no significant change trend and maintained a consistently high proportion, indicating that health rumors related to diseases have sustained public attention and dissemination momentum. Theme 3 exhibited an upward trend in proportion over the past three years, with its content mostly focusing on areas such as obesity and weight management; this change is somewhat correlated with the advancement of national health initiatives including the Healthy China Initiative and the Weight Management Year. Theme 4 also demonstrated growth momentum, which to a certain extent reflects that the governance measures for health rumors on the platform are being gradually improved. Nevertheless, in terms of dissemination scale, the relevant supervision and punishment mechanisms still need to be further strengthened.

Based on the above analysis, Themes 2 and 3 have consistently occupied a central position in the dissemination of health rumors over the past decade. Their high frequency of occurrence and long duration indicate that they possess strong potential to appeal public attention and drive dissemination. To further explore the inherent mechanisms through which health rumors exert extensive social impacts, this study selects health rumors under Themes 2 and 3 as typical cases. It focuses on their textual content and discourse construction methods, analyzes the rhetorical strategies and persuasive techniques employed in, thereby revealing how health rumors generate significant impacts and providing targeted references for the governance of health communication.

### *4.2 Rhetorical Strategies of Health Rumors on WeChat Official Accounts*

#### 4.2.1 Ethos Strategies of Health Rumors

Ethos includes similitude, deference, expertise, self-criticism, and the appeal to the inclination to succeed. Similitude builds a foundation of trust by emphasizing shared identities, experiences, or values with the audience. Rumor producers often deliberately portray an approachable image of an ordinary person. Example 1 is an article titled “A Folk Remedy Cures Heart Disease”. Instead of citing experts at the outset, it opens with a personal identity statement. The narrator quickly establishes an emotional connection with specific audience groups, thereby making the personal experiences shared subsequently appear particularly credible.

Example 1:

“*I am a grassroots cadre at a state-owned enterprise. I have a heavy workload on a daily basis, and working overtime is a common occurrence...*”(Note 1)

Deference refers to the author’s expression of respect for the audience. It usually involves proactively showing respect and recognition to the audience to reduce their psychological defensiveness, thereby gaining the audience’s acceptance of both the communicator and the information being conveyed. For example, the opening of Example 2 first affirms the value of the individual audience by stating, “The best doctor is yourself.” It then emphasizes that the effects of expensive health supplements purchased by others are not comparable to the small

daily gestures we incorporate into our routines, explicitly validating the audience's preference for health preservation through daily habits to build trust.

Example 2:

"*The best doctor is yourself—there is absolutely no need to buy a bunch of expensive health supplements!*"(Note 2)

Expertise involves demonstrating knowledge, data, details, or terminology specific to a given field to cultivate an image of technical authority. It aims to make the audience develop trust and even reliance due to their perceived lack of relevant knowledge. Many health rumors cite other research findings related to their core themes, thereby demonstrating that their arguments are grounded in existing studies and endowing their discourse with legitimacy and authority. For example:

Example 3:

"*Harvard Research: Natural Vitamins Far More Effective Than Synthetic Ones*"(Note 3)

Self-criticism is a strategy of retreating to advance. By proactively disclosing minor limitations in one's own arguments, it cultivates an image of objectivity and honesty, thereby strengthening the audience's conviction in its core claims. The author in Example 4 engages in self-criticism in the text, then describes the process of adjusting the frequency to drinking it three times a week, leading to the false claim that consuming more sweet rice wine can improve one's appearance.

Example 4:

"*Honestly, I never believed in this stuff before—I thought it was all just superstition passed down by the older generation. It wasn't until I tried it myself that I realized: the wisdom of our ancestors is truly something!*"(Note 4)

Appeal to the Inclination to Succeed directly taps into people's desire for health outcomes. It presents a clear, replicable success path guided by the rumor producer, positioning them as a reliable success mentor. These articles typically narrate a complete "success journey," provide plans, and display quantitative evidence of results, fatally attractive to audiences craving similar outcomes.

Example 5:

"*Diabetics: No Medication, No Injections—Fasting Blood Glucose Dropped from 16 to 6 in Just 3 Months! The Entire Process of Meal-Based Blood Sugar Reduction Captured in This Documentary Is Absolutely Eye-Opening!*"(Note 5)

All the above analyses enhance the acceptability of rumors by building a credible image of the communicator, narrowing the psychological distance with the audience, fostering an impression of professional authority or sincerity, and echoing the audience's yearning for positive health outcomes. This embodies the rhetorical function of ethos in rumor texts by shaping the credibility and appeal of the communicator, it makes the audience more inclined

to accept and believe the information conveyed thereby.

4.2.2 Logos Strategies of Health Rumors

Logos derives from the ancient Greek concept of logos, it refers to persuasion through rationality, emphasizing the clarity and completeness of arguments (Holt & MacPherson, 2010). Logos is primarily achieved through the form and content of reasoning. Therefore, it is particularly important to analyze how rumor-producers provide evidence or justifications to support their pseudoscientific claims. Statistics show that many health rumors are disseminated under the guise of biology and science, incorporating a wealth of professional terminology and mimicking the writing style of academic papers to enhance the technical credibility of their arguments. For instance, the article in Example 6 contains scientific terms such as chitin, calcium dichlorophosphate, and nitrite. Nevertheless, its core claim that "chitin is the top anti-cancer food" has long been refuted by the mainstream scientific community.

Example 6:

"*Chitin, also known as jiakeshi, jiakesu or jidingzhi, is a type of high-molecular-weight polysaccharide.*"(Note 6)

Beyond pure textual arguments, many rumor producers also resort to data charts and graphs to substantiate their claims. By fabricating figures, distorting percentages, or tampering with research charts, they deliberately create an illusion of objectivity "backed by data", thereby leveraging the inherent authority of numbers to enhance persuasive effects. For example, Example 7 spreads the false claim that drinking milk causes cancer whereas yogurt offers a protective effect by falsifying the correlation between daily dairy intake and the risk of death from CLD.

Example 7:

| Dairy items | | CLD mortality | | | Liver cancer | | |
|---|---|---|---|---|---|---|---|
| (servings/week) | Subjects | Cases | Model 1 | Model 2 | Cases | Model 1 | Model 2 |
| Total dairy | | | | | | | |
| 0–<7 | 126416 | 258 | 1 (ref) | 1 (ref) | 222 | 1 (ref) | 1 (ref) |
| 7–<14 | 130223 | 256 | 0.95 (0.80, 1.12) | 1.04 (0.87, 1.24) | 234 | 1.00 (0.84, 1.21) | 1.06 (0.88, 1.28) |
| 14–<21 | 83611 | 160 | 0.93 (0.76, 1.13) | 1.01 (0.83, 1.24) | 156 | 1.05 (0.86, 1.29) | 1.07 (0.86, 1.32) |
| 21–<28 | 49313 | 112 | 1.11 (0.89, 1.39) | 1.21 (0.96, 1.52) | 110 | 1.28 (1.02, 1.60) | 1.26 (0.99, 1.59) |
| 28+ | 96368 | 207 | 1.05 (0.87, 1.26) | 1.04 (0.85, 1.28) | 218 | 1.27 (1.06, 1.53) | 1.18 (0.96, 1.45) |
| Per 7 increase | | | 1.02 (0.99, 1.04) | 1.01 (0.98, 1.04) | | 1.05 (1.02, 1.07) | 1.03 (1.00, 1.06) |
| *P* for trend | | | 0.19 | 0.52 | | <0.001 | 0.040 |
| High-fat dairy | | | | | | | |
| 0–<3.5 | 248374 | 394 | 1 (ref) | 1 (ref) | 417 | 1 (ref) | 1 (ref) |
| 3.5–<7 | 60053 | 140 | 1.47 (1.21, 1.79) | 1.38 (1.13, 1.68) | 122 | 1.20 (0.98, 1.47) | 1.12 (0.91, 1.38) |
| 7–<14 | 66726 | 155 | 1.49 (1.24, 1.80) | 1.33 (1.10, 1.61) | 136 | 1.23 (1.02, 1.50) | 1.08 (0.88, 1.33) |
| 14–<21 | 38838 | 105 | 1.75 (1.41, 2.17) | 1.52 (1.21, 1.91) | 99 | 1.56 (1.26, 1.95) | 1.35 (1.07, 1.70) |
| 21+ | 71940 | 199 | 1.78 (1.50, 2.12) | 1.51 (1.24, 1.84) | 166 | 1.39 (1.16, 1.67) | 1.16 (0.94, 1.42) |
| Per 7 increase | | | 1.08 (1.05, 1.10) | 1.04 (1.01, 1.08) | | 1.06 (1.03, 1.09) | 1.03 (0.99, 1.06) |
| *P* for trend | | | <0.001 | 0.009 | | <0.001 | 0.14 |
| Low-fat dairy | | | | | | | |
| 0–<3.5 | 165624 | 468 | 1 (ref) | 1 (ref) | 334 | 1 (ref) | 1 (ref) |
| 3.5–<7 | 107638 | 183 | 0.58 (0.49, 0.69) | 0.72 (0.60, 0.86) | 209 | 0.93 (0.78, 1.10) | 1.08 (0.90, 1.29) |
| 7–<14 | 121452 | 214 | 0.60 (0.51, 0.71) | 0.77 (0.64, 0.92) | 221 | 0.88 (0.74, 1.04) | 1.09 (0.91, 1.31) |
| 14–<21 | 50325 | 70 | 0.47 (0.37, 0.61) | 0.64 (0.49, 0.83) | 86 | 0.82 (0.65, 1.04) | 1.01 (0.78, 1.30) |
| 21+ | 40892 | 58 | 0.49 (0.37, 0.64) | 0.62 (0.46, 0.84) | 90 | 1.06 (0.84, 1.34) | 1.22 (0.94, 1.58) |
| Per 7 increase | | | 0.83 (0.78, 0.88) | 0.91 (0.85, 0.97) | | 1.00 (0.95, 1.05) | 1.03 (0.98, 1.09) |
| *P* for trend | | | <0.001 | 0.002 | | 0.98 | 0.18 |

Figure 3. The Association Between Daily Dairy Intake and the Risk of CLD Mortality (Note 7)

A systematic analysis of health rumors employing logos appeal strategies reveals that the majority of such texts exhibit obvious logical flaws. They oversimplify temporal sequences,

superficial co-occurrence phenomena, or the multiple correlations within complex systems into a single, direct and sensational causal relationship, which is essentially a typical logical fallacy. Such reasoning methods pose challenges for audiences with relatively limited ability to identify and evaluate misinformation. For instance, the argument in Example 8 equates walnut consumption with blood lipid reduction as a direct logical cause-effect relationship, completely ignoring other determining factors such as overall diet, living habits, and medical conditions. It replaces the complex process of scientific attribution with an appealing anecdote.

Example 8:

"*A man from Shandong ate walnuts consistently, and his physical examination results showed that his blood lipid levels returned to normal after one year.*"(Note 8)

4.2.3 Pathos Strategies of Health Rumors

Unlike ethos and logos, pathos refers to persuading the audience to accept a certain viewpoint or take specific actions by arousing emotional responses in them, such as fear, hope, sympathy, or anger. In the dissemination of health rumors, pathos endows rumor texts with strong demagogic appeal. Rumor producers usually construct emotional appeals by employing metaphors or other imagery, and as such, pathos often possesses cultural or institutional specificity.

Health rumors are typically categorized into fear-based and wish-based types based on people's underlying concerns (DiFonzo et al., 2012). Research has shown that people tend to pay more attention to fear-based rumors than wish-based ones (DiFonzo & Bordia, 2007), as they are psychologically more drawn to bad news than good news (Baumeister et al., 2001). Therefore, the WeChat official account platform is rife with a large number of fear-based health rumors, such as Example 9:

Example 9:

"*There are 120 substances in total classified as Group 1 carcinogens, including those closely associated with people's daily lives: alcoholic beverages, Chinese-style salted fish, processed meats, air pollution, solar radiation and tobacco smoking.*"(Note 9)

Example 9 classifies 120 common items in people's daily lives as Group 1 carcinogens and urges people to stay away from them. This induces intense anxiety and fear in the audience, thereby prompting them to forward and spread the rumor. Besides fear-based rumors that spread anxiety, the more covert and profound pathos appeals in health rumors often rely on elaborate metaphorical construction and cultural resonance. Such strategies achieve a deeper level of emotional persuasion by arousing the audience's identification, yearning and trust, as illustrated in Examples 10 and 11:

Example 10:

"*Ordinary detoxification is more like a cleaner, which merely cleanses superficial toxins. In contrast, detoxification with ancient herbal remedies acts as a precision restorer, it enhances*

*the body's innate capacity to process toxins at the source. This constitutes a 'teaching one to fish' approach to health enhancement.*"(Note 10)

Example 11:

"*Autumn Pear Paste is said to be a secret recipe from the imperial court that has served as a royal health tonic since the Tang Dynasty. It remained exclusively in the palace until the Qing Dynasty, when it was finally brought out by court physicians and spread among the common people.*"(Note 11)

As illustrated in Example 10, it employs metaphor to equate ordinary detoxification to a cleaner, implying that its effects are superficial, transient, and low-level. In turn, it likens detoxification with ancient herbal remedies to a precision restorer, which suggests a root-cause, targeted restorative function. Ultimately, by drawing on the classic fable of "teaching one to fish," it elevates the product's function from eliminating toxins to the philosophical level of enhancing the body's fundamental capabilities. This sequence of metaphors enables the audience to perceive the practice as an investment in a more autonomous form of life wisdom, thus significantly weakening their psychological resistance and stimulating a sense of identification and yearning.

Example 11, in turn, demonstrates the power of another form of cultural resonance: by invoking the authority of traditional culture, it establishes unquestionable emotional trust. The rumor text anchors Autumn Pear Paste in a series of weighty historical and cultural connotations such as "imperial court secret recipe" and "royal health tonic". They symbolize supreme quality and authority; "secret recipe" implies scarcity and preciousness; and the time span "from the Tang Dynasty to the Qing Dynasty" endows it with timeless value that transcends history. This rhetorical strategy successfully evokes in the audience a sense of reverence for this historical treasure and trust in the essence of traditional culture. To question its efficacy is almost tantamount to questioning a celebrated segment of history and traditional wisdom itself. These two strategies jointly reveal that the deepest driving force behind rumor dissemination often lies in its precise grasp of and resonance with the audience's cultural psychological structures and value aspirations.

## 5. Conclusion

Through an analysis of health rumors on the WeChat official account platform and an examination of their hot themes and rhetorical functions, this study finds that: over the past three years, the core themes of health rumors have consistently focused on disease treatment and dietary health, accounting for nearly 80% of the total. This reflects the public's persistent cognitive anxiety and information needs in these areas. Notably, there has been a significant decline in the proportion of public health-related rumors, accompanied by an increase in that of dietary health-related ones, indicating that the hot themes of rumors are influenced by factors such as public health incidents and national policies. There has been a slight yet non-significant increase in the proportion of rumor dissemination, which suggests that although the platform's governance measures against health rumors have been gradually refined, the relevant supervision and punishment mechanisms still need to be further

strengthened.

In rhetorical strategies, the ingenious application of ethos, logos, and pathos functions in health rumors transforms articles that are false in content and muddled in logic into coherent pieces, making them relatable to readers while projecting the author's persona, credibility, audience awareness, and connection to the content. These three rhetorical appeals are neither employed independently nor simply superimposed; instead, they complement one another to collectively form a persuasive rumor article: ethos lowers the audience's psychological defenses, logos constructs cognitive plausibility, and pathos drives the final behavioral mobilization. This strategic combination proves particularly effective within WeChat's strong-tie communication ecosystem, facilitating the spread of rumors and exerting deep-seated impacts on the audience's perceptions.

The value of this study lies in the systematic application of the classical rhetoric framework to new media health dissemination research. It reveals the root cause of rumor transmissibility from the internal logic of rhetorical strategies and addresses the gap in existing research that emphasizes dissemination effects while neglecting textual construction. The research findings suggest that future rumor refutation practices should not only provide scientific facts but also consciously expose and dismantle the rhetorical strategies employed by rumors, so as to cultivate the public's critical information literacy. This study also has certain limitations. Primarily based on textual analysis, future research could further explore the actual impact of different rhetorical strategies on diverse population groups. Furthermore, this study focuses solely on health rumor texts on China's WeChat official account platform; future research should expand the scope to cover other social media platforms to explore differences in the use of rhetorical strategies for health rumors across various social media. Finally, cross-cultural comparisons of the use of rhetorical strategies in health rumors could be conducted to identify the influence of different cultural contexts on the application of these strategies.

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## Notes

Note 1. https://mp.weixin.qq.com/s/tz2AH0AMA8Xj42nj4xyWZQ

Note 2. https://mp.weixin.qq.com/s/JD-GuLe27PqnoFF96AvY2Q

Note 3. https://mp.weixin.qq.com/s/qJHfpv2yQaCFbrHG4gfylQ

Note 4. https://mp.weixin.qq.com/s/KYOSuVtLbpUTSqZ_TJrHgw

Note 5. https://mp.weixin.qq.com/s/WHwxwPhJLHnoF1gfntgKtw

Note 6. https://mp.weixin.qq.com/s/Tg4A1Tf7uZiZgdJ2xienzA

Note 7. https://mp.weixin.qq.com/s/o1eI5TvRxa0Gfh9MxiD4jA

Note 8. https://mp.weixin.qq.com/s/-GEcY2m4NzgNU0qChrNlJQ

Note 9. https://mp.weixin.qq.com/s/skby8xw8raqsBuC87Y0RfA

Note 10. https://mp.weixin.qq.com/s/Bn6VRcdRbkOOjN4N6t9PlA

Note 11. https://mp.weixin.qq.com/s/De9zvOXyz8-offnq6kitYg

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