Identifying Influencing Factors of Health Information Anxiety Among Social Media Users During Public Health Emergencies: A Postprint Study

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Abstract

[Purpose/Significance] This study analyzes the influencing factors of health information anxiety among social media users in the context of public health emergencies, providing theoretical and practical references for scholars at home and abroad to further explore this issue. [Method/Process] Based on information ecology theory, elements are extracted from four dimensions: information user, information, information environment, and information technology. By combining the improved Interpretive Structural Model (ISM) and Matrix Impact Cross-Multiplication Applied to Classification (MICMAC), correlation path analysis and hierarchical model construction are performed on the influencing factors of health information anxiety among social media users. [Results/Conclusions] The research results demonstrate that the direct-level factors, middle-level factors, and root-level factors in the Interpretive Structural Model show high consistency in influence nature with the independent cluster factors, autonomous cluster factors, and dependent cluster factors obtained from MICMAC, further validating the feasibility of ISM for correlation analysis and hierarchical classification of influencing factors.

Full Text

Preamble

Identification of Influencing Factors of Social Media Users' Health Information Anxiety in Public Health Emergencies

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Abstract: [Purpose/Significance] This study analyzes the influencing factors of health information anxiety among social media users in the context of public health emergencies, providing theoretical and practical references for scholars at home and abroad to further explore this issue. [Method/Process] Based on information ecology theory, factors were extracted from four dimensions: information user, information, information environment, and information technology. An improved Interpretive Structural Model (ISM) and Cross-Matrix Multiplication (MICMAC) were employed to analyze the correlation paths and construct a hierarchical model of these influencing factors. [Result/Conclusion] The findings demonstrate that the direct-layer, intermediate-layer, and root-layer factors in the ISM show high consistency in nature with the independent-group, autonomous-group, and dependent-group factors identified through MICMAC, further validating the feasibility of ISM for correlation analysis and hierarchical classification of influencing factors.

Keywords: public health emergency; social media users; health information anxiety; influencing factors
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Public health emergencies refer to sudden events that cause or may cause serious harm to public health [1]. The COVID-19 outbreak in December 2019 was declared a public health emergency of international concern by the World Health Organization (WHO) due to its rapid transmission and high mortality rate among severe cases. Following the outbreak, massive amounts of health information data spread rapidly across social media platforms such as Facebook, Twitter, WeChat, and Weibo, triggering various degrees of negative emotions among users. Health information anxiety imposes a heavy psychological burden on users, seriously affecting their normal work, study, and daily life. Based on this context, this study investigates the influencing factors and correlation paths leading to health information anxiety among social media users during public health emergencies, constructs a mechanism model for this phenomenon, and reveals the key elements and their interrelationships to provide theoretical and practical guidance for future research.

2 Literature Review

Under public health emergencies, health information anxiety has gradually attracted social attention, prompting scholars to integrate health information seeking, dissemination, and anxiety research to explore the underlying causes. This section reviews relevant studies from three perspectives: health information seeking, health information dissemination, and health information anxiety.

2.1 Health Information Seeking Research

Online health information seeking has been a major focus in recent research. At the demographic level, older adults primarily seek health information for disease prevention, lifestyle improvement, family care, and reducing burdens on their children, thereby enhancing personal health safety awareness [4]. Young people, in contrast, focus more on weight loss, beauty [5], and weight control [6]. Regarding gender differences, women demonstrate higher initiative and broader scope in online health information seeking compared to men [7]. In terms of residential areas, urban youth exhibit more extensive health information needs and more diverse retrieval strategies and platform choices than their rural counterparts [8], while rural elderly face multiple barriers in seeking epidemic prevention information during public health emergencies [9]. Additionally, social media users' online health information seeking behavior is influenced by factors including information needs [10], economic status [11], health self-awareness [12], personality traits [13], user group characteristics [14], and self-management [15].

2.2 Health Information Dissemination Research

In terms of content, international scholars have primarily investigated the dissemination of sexual health information [16] and diabetes-related information [17], while domestic researchers have focused more on health preservation and the spread of authentic versus false health information [18]. Regarding dissemination methods, studies have analyzed how major U.S. health associations utilize Twitter for health communication [19]. Jin et al. [20] demonstrated significant differences in health communication effects among different user types from a health information perspective. Zhang Aijun [21] analyzed the characteristics of health information dissemination during public health emergencies and proposed corresponding management strategies. Research on users' health information literacy has identified risk perception, problem perception, involvement perception, and constraint perception as four key dimensions affecting health information dissemination on social media [22]. Furthermore, factors such as information 趣味性 [23], relevance [24], and emotional attachment [17] also influence users' health information dissemination behavior.

2.3 Health Information Anxiety Research

Individual user factors and information factors constitute the primary causes of health information anxiety. At the individual level, cognitive biases during health information seeking represent the main source of anxiety [25]. Young people exhibit higher levels of health information anxiety compared to older adults [26]. Anxiety induced by health information anxiety further affects users' cognition, emotions, and behavior [27]. At the information level, information overload [28] and search channels [29] are major causes of anxiety during online health information seeking [30]. Users with different anxiety levels vary in their search frequency and duration; those with high-level anxiety search more frequently and spend more time monitoring and seeking health information [31], and more negative search results exacerbate their anxiety [32]. Additionally, health information anxiety is influenced by information sensitivity [33], source uncertainty [34], and source differences [35].

In summary, current research on online health information primarily concentrates on user seeking behavior, dissemination, and anxiety. While some studies have integrated public health emergencies with health information seeking and dissemination, research combining public health emergencies with health information anxiety remains limited. Therefore, this study explores the influencing factors of social media users' health information anxiety during public health emergencies and addresses the following questions: (1) identify influencing factors based on information ecology theory; (2) construct a hierarchical model of these factors using ISM; and (3) analyze the driving and dependent relationships among factors using MICMAC to provide theoretical guidance for future research.

3 Influencing Factors of Social Media Users' Health Information Anxiety

Information ecology theory, guided by user needs, analyzes systems from four dimensions—information user, information, information environment, and information technology—emphasizing the active state of information users within information environments [36]. During public health emergencies, excessive attention to multi-source health information data triggers complex emotions such as unease and anxiety among users. Social media users (as information users), driven by physiological and psychological needs, extensively seek and disseminate health information through online platforms (information technology) in specific contexts (information environment), forming a complete information ecological tribe [37]. As an ecological element within the entire network information ecosystem, social media users' health information anxiety is susceptible to multiple direct or indirect influencing factors. Extracting influencing factors based on the four dimensions of information ecology theory is both applicable and necessary, aligning perfectly with the logical framework of this research. Therefore, health information anxiety among social media users can be specifically interpreted from an information ecology perspective.

This study invited six experts in user behavior research to evaluate influencing factors through the Delphi method. The expert panel comprised four professor-level scholars in library and information science and two PhD candidates specializing in social media research. After three rounds of consultation and discussion, consensus was reached, yielding 14 influencing factors based on information ecology theory, as shown in Table 1 .

4 Algorithm Design for Influencing Factor Identification

This study employs an improved ISM-MICMAC method to identify influencing factors of social media users' health information anxiety during public health emergencies. The improved ISM utilizes fuzzy matrix operations from fuzzy mathematics, enabling pairwise comparison of factor relationships using fuzzy numbers to quantify evaluation results and reduce divergence caused by subjective opinions [41]. The combined improved ISM-MICMAC model constructs relationship matrices for factor discrimination and hierarchical classification, with analysis of driving power and dependence providing substantive insights into complex system interrelationships. The specific algorithmic steps are as follows:

Step 1: Define the research system and identify influencing factors. Through literature review and expert consultation, determine the system scope and influencing factors, denoted as set SN (N = 1, 2, 3, …, n).

Step 2: Conduct fuzzy scoring of factors to establish a fuzzy adjacency matrix. Organize experts to score factor relationships on a 0-1 scale, where higher scores indicate stronger correlations. Compile the fuzzy scoring data to determine fuzzy adjacency matrix F.

Step 3: Determine relationships between Si and Sj, select membership functions with value 1, and calculate the correlation strength matrix.
Formula (1): $b_{ij} = (f_{i\cdot} + f_{j\cdot} - f_{ij}) / (f_{i\cdot} + f_{j\cdot} - f_{ij})$
where b_{ij} is an element of correlation strength matrix B, f_{ij} is an element of fuzzy adjacency matrix F, $f_{i\cdot}$ is the sum of elements in row i of matrix F, and $F_{j\cdot}$ is the sum of elements in column j of matrix F.

Step 4: Calculate adjacency matrix A. Determine threshold λ to transform correlation strength matrix B into adjacency matrix A. Note that λ values affect hierarchy count: smaller λ yields fewer levels, while larger λ produces more hierarchical divisions, both potentially impacting final analysis [42]. Fuzzy classification recommends λ [0, 1].
Formula (2): $a_{ij} = \{1, \text{if } b_{ij} \geq \lambda; 0, \text{if } b_{ij} < \lambda\}$
where a_{ij} represents elements of matrix A.

Step 5: Calculate reachability matrix M. To visually describe path relationship strengths in the adjacency matrix, perform Boolean power operations on adjacency matrix A plus identity matrix I:
Formula (3): $(A+I)^1 \neq (A+I)^2 \neq (A+I)^3 \neq \ldots \neq (A+I)^r = (A+I)^{(r+1)} = M$

Step 6: Determine the system skeleton matrix. Reduce and integrate relationships in the reachability matrix to obtain skeleton matrix M*.

Step 7: Draw the multi-level hierarchical diagram. Using formulas (4) and (5), determine the reachable set R(Si) and antecedent set A(Si) for each factor in matrix M. The reachable set includes all factors with value 1 in row Si, while the antecedent set includes all factors with value 1 in column Si. Then apply formula (6) for hierarchical classification and draw the hierarchical diagram.
Formula (4): $R(S_i) = \{S_j \mid m_{ij} = 1\}$ (j = 1, 2, 3, … n)
Formula (5): $A(S_i) = \{S_j \mid m_{ji} = 1\}$ (j = 1, 2, 3, … n)
Formula (6): $A_i \quad R_i = R_i$

To reduce subjective bias, scoring followed the principles in Table 2 .

Step 8: Draw the "driving power-dependence" quadrant diagram. Driving power indicates a factor's influence on others, calculated as the row sum in the reachability matrix (Formula 7). Dependence indicates the degree to which a factor relies on others, calculated as the column sum (Formula 8). Compute these values and plot the quadrant diagram.
Formula (7): $D_i = \Sigma(m_{ij})$ $(i = 1, 2, 3, \ldots n)$
Formula (8): $R_j = \Sigma(m_{ij})$ $(j = 1, 2, 3, \ldots n)$
where D_i represents driving power, R_j represents dependence, and m_{ij} are elements of reachability matrix M.

5 Establishment and Analysis of the Improved ISM-MICMAC Model

5.1 Establishing the Adjacency Matrix

Fourteen factors constituting the health information anxiety system were identified. Six experts conducted comparative scoring of these factors to establish a fuzzy adjacency matrix. Combining Formula (1) with this matrix yielded the correlation strength matrix. After multiple expert discussions, average scores were calculated. Using Formula (2) with threshold $\lambda = 0.07$, the adjacency matrix for social media users' health information anxiety was constructed, as shown in Table 3 .

5.2 Calculating the Reachability Matrix

The reachability matrix, derived from the adjacency matrix by adding identity matrix I, demonstrates transitivity among factors (if Si reaches Sj and Sj reaches Sh, then Si reaches Sh). Applying Formula (3) produced the reachability matrix shown in Table 4 .

5.3 Hierarchical Classification

Using the hierarchical classification rules from Step 7, the highest-level factors were identified (Table 5), removed from the matrix, and the process repeated until all levels were extracted. The final hierarchy comprises six levels: Level 1 (S1, S2); Level 2 (S3, S4); Level 3 (S5, S6); Level 4 (S7, S8, S11); Level 5 (S9, S10); and Level 6 (S12, S13, S14). Reorganizing reachability matrix M produced new matrix M*, shown in Table 6 .

5.4 Interpretive Structural Model Analysis

The diagonal of Table 6 reveals six unit matrices forming a multi-level hierarchical structure, dividing the ISM into six levels. Based on inter-factor relationships, the interpretive structural model of influencing factors was constructed, as shown in Figure 1 [Figure 1: see original paper].

The six levels were further categorized into direct, intermediate, and root layers. The direct layer includes information perception ability (S1), information acquisition ability (S2), information selection ability (S3), and information evaluation ability (S4). The intermediate layer comprises information quality (S5), information overload (S6), information conflict (S7), information cocoon (S8), information dissemination environment (S9), information supervision environment (S10), and legal constraint environment (S11). The root layer consists of information 甄别技术 (S12), information 审核技术 (S13), and information feedback technology (S14).

5.5 Drawing the "Driving Power-Dependence" Quadrant Diagram

Based on reachability matrix M and Formulas (7) and (8), each factor's driving power and dependence were calculated (Table 7). These were plotted on a quadrant diagram with dependence on the horizontal axis and driving power on the vertical axis. Factors were classified into four clusters: I (linkage), II (independent), III (autonomous), and IV (dependent), as shown in Figure 2 [Figure 2: see original paper].

5.6 Analysis of "Driving Power-Dependence"

(1) **Information User Dimension (Direct Layer):** In information ecosystems, information users are key species who absorb and interpret information, serving as bridges for information transmission and utilization. All ISM direct-layer factors (S1-S4) fall in Quadrant IV (dependent group), characterized by high dependence and low driving power. Information quality (S5) and information overload (S6) also reside here. These factors are most directly influenced by others and represent the immediate causes of health information anxiety. During public health emergencies, users' varying health information literacy levels lead to different information needs and behaviors, with lower literacy correlating with higher anxiety.

(2) **Information and Information Environment (Intermediate Layer):** Information requires technical processing before reaching users, while information environment mediates this process. Most intermediate-layer factors (S7, S8, S11) appear in Quadrant III (autonomous group), showing low dependence and low driving power. These transitional factors are constrained by lower-level factors while influencing upper-level ones. When users cannot resolve conflicts between health information from different sources, anxiety intensifies. Personal preferences narrow information scope [38], and inadequate legal systems further contribute to anxiety.

(3) **Information Technology (Root Layer):** Advanced information technology ensures information quality and data provision [43]. During public health emergencies, technology is crucial for distinguishing authentic health information. All root-layer factors (S9, S10, S12, S13, S14) appear in Quadrant II (independent group), featuring high driving power and low dependence. These foundational factors minimally affect each other but

significantly influence other factors. Unverified false information exacerbates user anxiety [44]. Information dissemination (S9) and supervision (S10) environments, though intermediate-layer factors, show independent group characteristics because their deficiencies directly impact information quality and user capabilities.

(4) **Linkage Group:** No factors appear in Quadrant I (linkage group), indicating that while factors influence others to varying degrees, they do not create feedback loops affecting themselves, demonstrating high system stability.

6 Countermeasures and Recommendations

Based on the identified influencing factors, the following recommendations are proposed from an information ecology perspective:

6.1 Strengthen User Capacity Building and Improve Health Information Literacy

The information user dimension represents direct influencing factors. Users' health information literacy determines their ability to process and utilize health information. In the new media environment, information redundancy and low quality increase usage costs. Users' physiological conditions, education levels, and living environments create varying health information literacy levels, resulting in different anxiety manifestations. During public health emergencies, users should leverage online platforms (Weibo, WeChat, Zhihu) to access authoritative information, enhance risk awareness through expert lectures, and improve health information literacy through online education to reduce anxiety.

6.2 Establish Authoritative Release Channels and Enhance Information Quality Requirements

While network development facilitates access, it also creates problems including information overload, low quality, uncertain sources, information conflicts, and information cocoons that weaken dissemination capabilities. Network management departments should utilize IoT, 5G, and AI technologies to rectify health information sources and content. Establish authoritative release channels with strict quality control, implement robust information filtering mechanisms, and improve early warning systems [37]. During public health emergencies, authorities should develop legal regulations, implement hierarchical information management based on authenticity and credibility [45], and penalize producers, publishers, and disseminators of harmful information to reduce anxiety caused by poor-quality information.

6.3 Strengthen Information 甄别 Technology and Improve Dissemination Environment

Information dissemination environment, supervision environment, and legal constraints significantly impact user anxiety. Network service providers should optimize social platform structures to rectify channels for poor-quality information production and dissemination [46]. Information 甄别, 审核, and feedback departments should combine online and offline health-seeking behavior characteristics to identify and process health information during emergencies. Strengthen training for technical personnel to establish emergency information detection and management systems. Collaborate with government agencies at all levels to enhance network supervision, improve the information dissemination environment, upgrade processing technologies, and provide real-time data to prevent the spread of health information anxiety.

Conclusion

This study analyzed influencing factors of social media users' health information anxiety during public health emergencies from an information ecology perspective. Using ISM, factors were hierarchically classified into direct, intermediate, and root layers, with each level's characteristics analyzed. MICMAC analysis examined driving power and dependence relationships. The high consistency between ISM layers and MICMAC groups validates the feasibility of ISM for factor correlation and hierarchical analysis. Theoretically, this research enriches studies on social media users' health information behavior by constructing a hierarchical association model. Practically, it provides application references for future research by analyzing how users search for, utilize, and evaluate health information during public health emergencies.

References

[1] Sohu.com. 2020 China Internet Medical Industry Market Status and Development Prospect Analysis: User Scale Expected to Exceed 100 Million in First Four Months [EB/OL]. [2020-04-13]. https://www.sohu.com/a/380564075_{473133}.
[2] Han Jingti, Fan Weiguo, Luo Xiaolan, et al. The Impact of User Health Information Seeking Behavior on Health Behavior [J]. Journal of the China Society for Scientific and Technical Information, 2018, 37(9): 912-922.
[3] Cao Jindan, Wang Chang, Liu Xin, et al. Influencing Factors of User Information Anxiety and Intervention Models [J]. Library Tribune, 2020, 40(9): 106-114.
[4] Zhao Dongxiang, Ma Feicheng, Zhang Qiping. A Phenomenological Study of Elderly Health Information Seeking Behavior [J]. Journal of the China Society for Scientific and Technical Information, 2019, 38(12): 1320-1328.
[5] Zhang Haitao, Cui Yang, Wang Dan, et al. User Profiling in Online Health Communities Based on Concept Lattices [J]. Information Science, 2010, 28(10): 1461-1463.

[6] Jaimie L, Freeman P, Patrina H, et al. How Adolescents Search for and Appraise Online Health Information: A Systematic Review [J]. The Journal of Pediatrics, 2018, 195(4): 244-255.
[7] Wu Xiaoxian. Investigation on Internet Health Information Seeking Behavior of Pregnant Women in a Tertiary Hospital [J]. Chinese Journal of Medical Library and Information Science, 2018, 27(5): 61-64.
[8] Li Ying, Yang Weina, Li Yuan. Research on Urban and Rural Youth Health Information Seeking Behavior in Digital Environments [J]. Journal of the China Society for Scientific and Technical Information, 2019, 38(8): 838-848.
[9] Wu Qi. Influencing Factors of Rural Elderly Epidemic Prevention Information Seeking During Public Health Emergencies [J]. Information and Documentation Services, 2019, 40(6): 90-97.
[10] Liu Jing, An Lu. Research on Emergency Information Seeking Behavior Profiles of Social Media Users During Public Health Emergencies [J]. Information Studies: Theory & Application, 2020, 43(11): 8-15.
[11] McCloud RF, Okechukwu CA, Sorensen G, et al. Beyond Access: Barriers to Internet Health Information Seeking Among the Urban Poor [J]. Journal of the American Medical Informatics Association, 2016, 23(6): 1053-1059.
[12] Dahl AJ, Milne GR, Peltier JW. Digital Health Information Seeking in an Omni-Channel Environment: A Shared Decision-Making and Service-Dominant Logic Perspective [J]. Journal of Business Research, 2021, 125(3): 840-850.
[13] Zheng Ce, Kong Jun, Fu Shaoxiong. Personality Trait Differences in Youth Health Information Seeking Behavior from a Platform Perspective [J]. Library and Information Service, 2017, 61(12): 77-85.
[14] Deng Shengli, Fu Shaoxiong. Research on the Impact of User Group Characteristic Differences on Health Information Seeking Behavior [J]. Journal of Information Resources Management, 2016, 6(4): 5-11.
[15] Dean CA, Geneus CJ, Rice S, et al. Assessing the Significance of Health Information Seeking in Chronic Condition Management [J]. Patient Education and Counseling, 2017, 100(8): 1519-1526.
[16] Byron P, Albury K, Evers C. “It Would Be Weird to Have That on Facebook”: Young People’s Use of Social Media and the Risk of Sharing Sexual Health Information [J]. Reproductive Health Matters, 2013, 21(41): 35-44.
[17] Zhang Y, Sang Y. Facebook as a Platform for Health Information and Communication: A Case Study of a Diabetes Group [J]. Journal of Medical Systems, 2013, 37(3): 1-12.
[18] Zhang Xiu, Li Yuelin. Research on Network Users’ Health Information 甄别 Ability from an Age Gradient Perspective [J]. Journal of the China Society for Scientific and Technical Information, 2018, 37(9): 912-922.
[19] Park H, Reber BH, Chon MG. Tweeting as Health Communication: Health Organizations’ Use of Twitter for Health Promotion and Public Engagement [J]. Journal of Health Communication, 2016, 21(2): 188-198.
[20] Jin Xiaoling, Zhang Dianyu, Feng Huihui. Empirical Research on Health Information Dissemination Effects in Mobile Social Media [J]. Information Science, 2018, 36(9): 129-135.
[21] Zhang Aijun. Communication Characteristics and Governance Strategies

of Major Public Health Emergency Information [J]. Probe, 2020(4): 169-181.
[22] Guo Lusheng, Liao Lifang, Hu Jiaqi. Research on the Influence Mechanism of Social Media Users' Health Information Dissemination Behavior [J]. Modern Intelligence, 2020, 40(3): 148-156.
[23] Jin Xiaoling, Feng Huihui, Zhou Zhongyun. Research on Health Information Dissemination Behavior in WeChat Moments [J]. Management Science, 2017, 30(1): 73-82.
[24] Zhang N, Tsark J, Campos, et al. Facebook for Health Promotion: Female College Students' Perspectives on Sharing HPV Vaccine Information Through Facebook [J]. Hawaii Journal of Medicine & Public Health, 2015, 74(4): 136-140.
[25] Gerolimos LA, Edelstein BA. Anxiety-Related Constructs Mediate the Relation Between Age and Health Anxiety [J]. Aging & Mental Health, 2012, 16(8): 975-982.
[26] Carolyn L, David A. Health Anxiety in the Digital Age: An Exploration of Psychological Determinants of Online Health Information Seeking [J]. Computers in Human Behavior, 2015, 52(11): 484-491.
[27] Fulton JJ, Marcus DK, Merkey T. Irrational Health Beliefs and Health Anxiety [J]. Journal of Clinical Psychology, 2011, 67(6): 527-538.
[28] Swar B, Hameed T, Reychav I. Information Overload, Psychological Well-Being, and Behavioral Intention to Continue Online Health Information Search [J]. Computers in Human Behavior, 2016, 70(5): 416-425.
[29] Zhao Ye, Chen Ren, Ma Ying, et al. Relationship Between Health Anxiety and Online Health Information Seeking Among Outpatients [J]. Chinese Mental Health Journal, 2019, 33(9): 701-705.
[30] Fam TP, Susanne E. Baumgartner, et al. The Curious Case of Cyberchondria: A Longitudinal Study on the Reciprocal Relationship Between Health Anxiety and Online Health Information Seeking [J]. Journal of Anxiety Disorders, 2016, 43(10): 32-40.
[31] Muse K, McManus F, Leung C, et al. Cyberchondriasis: Fact or Fiction? A Preliminary Examination of the Relationship Between Health Anxiety and Searching for Information on the Internet [J]. Journal of Anxiety Disorders, 2012, 26(1): 186-196.
[32] Doherty-Torstrick ER, Walton KE, Fallon BA. Cyberchondria: Parsing Health Anxiety from Online Behavior [J]. Psychosomatics, 2016, 57(4): 390-400.
[33] Norr AM, Albanese BJ, Oglesby ME, et al. Anxiety Sensitivity and Intolerance of Uncertainty as Potential Risk Factors for Cyberchondria [J]. Journal of Affective Disorders, 2015, 174(6): 64-69.
[34] Starcevic V, Berle D. Cyberchondria: Towards a Better Understanding of Excessive Health-Related Internet Use [J]. Expert Review of Neurotherapeutics, 2013, 13(2): 205-213.
[35] Luo Xiaolan, Han Jingti, Fan Weiguo, et al. Health Information and Health Anxiety in the Internet Era [J]. Information and Documentation Services, 2019, 40(2): 76-86.
[36] Wang Xiwei, Cao Ruye, Yang Mengqing, et al. Influencing Factors of

WeChat Users' Information Sharing Behavior [J]. Library and Information Service, 2016, 60(15): 6-13.
[37] Wang Wentao, Zhang Xingping, Wang Yundi, et al. Causes and Implications of Online Health Anxiety: Content Analysis and Model Construction [J]. Modern Intelligence, 2020, 40(9): 60-70.
[38] Wang Yicheng, Wang Ping, Wang Meiyue. Hierarchical Sensitivity Impact of Online Information Cocoon Based on SVM [J]. Information and Documentation Services, 2019, 40(2): 48-55.
[39] Wang Wentao, Zhang Zhen, Li Shichang, et al. User Online Health Information Acceptance Driver Situation Model Construction [J]. Modern Intelligence, 2019, 39(9): 74-83, 108.
[40] Chen Yue. Analysis of Health Rumor Dissemination on WeChat [J]. Journal of News Research, 2016, 7(16): 316-317.
[41] Wu Nianzi, Xu Lei. Analysis of Construction Engineering Quality Influencing Factors Based on Improved ISM and MICMAC [J]. Science Technology and Engineering, 2020, 20(8): 3222-3230.
[42] Guo Liyang. Research on Subway Fire Risk Factors Based on Improved ISM and MICMAC Models [J]. Journal of Wuhan University of Technology, 2017, 39(4): 36-41.
[43] Zhu Rulong, Shen Lie. Analysis of Influencing Factors of Library Public Opinion Information Service Quality from an Information Ecology Factor Perspective [J]. Library Work and Study, 2020(6): 5-15.
[44] Li Yuelin, Wang Shanshan. Analysis of Information Release Characteristics for Public Health Emergencies [J]. Library & Information, 2020(1): 27-33.
[45] Wang Fang, Lian Zhixuan. Research on Rumor Authenticity Calculation and Its Confrontation with Positive Information in Public Crises [J]. Library & Information, 2020(1): 34-50.
[46] Liu Jianhua, Liu Xinyi. Risk Issues and Prevention Mechanisms of Big Data Technology [J]. Journal of Guangxi Normal University (Philosophy and Social Sciences Edition), 2020, 56(1): 113-120.

Author Contributions:

Zhang Yanfeng: Conceived research ideas and methods, revised the paper;
Liu Yali: Wrote the paper;
Zou Kai: Reviewed the paper.

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