Proceedings of 3rd International Conference on Interdisciplinary Humanities and Communication Studies
DOI: 10.54254/2753-7064/51/20242591

The Impact of Social Fake News on Different Groups of People

-Take TikTok and Kuaishou for Example

Jialin Lyu[1,a,*]

[1]*Department of Business Administration, Honam University, Seobong-dong, Gwangsan-gu, Gwangju, 503-230, Korea*
a. jialinlyu@ldy.edu.rs
**corresponding author*

Abstract: This study focuses on TikTok and Kuaishou platforms. Through quantitative analysis and case study methods, it analyzes the transmission law and influence mechanism of social fake news in different user groups. The transmission law refers to the patterns and dynamics of how fake news spreads within and across different user groups. First, this paper defines the types and characteristics of fake health news and constructs a theoretical framework of influencing factors based on the psychological acceptance model. Secondly, the data on TikTok and Kuaishou platforms were collected, and SPSS software was used for multivariate statistical analysis, which revealed how factors such as cognitive bias, decision pressure, group effect, and algorithm recommendation mechanism affected people's acceptance and response to fake news. Further, the study analyzed the influence of teenagers, adults, and elderly groups psychological and behavioral differences and found that teenagers are more vulnerable to web celebrity effect and peer pressure, and adults' health information and processing ability is relatively strong, the elderly, by media habits and trust differences to health information receive more sensitive. The case study reveals how the platform algorithm recommendation mechanism affects the transmission path and influence of information. Finally, this paper puts forward relevant suggestions according to the research results, including strengthening media literacy education, optimizing the supervision of social platforms, cultivating the public self-protection mechanism, and improving the policy-level countermeasures so as to deal with the challenge of health fake news jointly.

Keywords: Social fake news, Health information dissemination, TikTok and Kuaishou, Influence analysis, Information identification.

1. Introduction

1.1. Research Background and Significance

In today's digital society, with the comprehensive popularization of mobile Internet and smart phones, social platforms have become the main channel of daily communication and information acquisition. TikTok and Kuaishou, as the most popular short video platforms, have become an important source

DOI: 10.54254/2753-7064/51/20242591

of health information for the public, especially young people, with its high accessibility, strong communication effect, and rich and diverse content. However, behind its convenience, it is often accompanied by the spread of false news and misleading information, which has an increasingly prominent impact on various groups in society. The fragmentation, homogeneity, and superficiality of information pervade the network society, exacerbating people's anxiety.

Social fake news, especially false information in the health field, has a wide range of influences on the public, including individual health behavior decisions and the cognition and attitude formation of the whole society on health issues. For example, the widespread spread of vaccine rumors, false dissemination of health knowledge, false drug publicity, and other contents, has caused many negative social consequences. The fragmentation, homogeneity and superficiality of information dissemination are very likely to produce the public scene of "burnout society", that is, people spend a lot of time and energy looking for and screening helpful information and data, and often obtain more knowledge and information, but its value and significance show a diminishing effect.

The research combines qualitative and quantitative analysis to obtain a more accurate research perspective through horizontal comparison and longitudinal analysis. This study includes, but is not limited to, popular health topics, false health information and widely spread samples. To ensure the accuracy and real-time performance of the information received, the crawler scripts were written to collect data automatically periodically, to ensure that the sample update frequency is at least once a week.

For the psychosocial impact of fake news, this study constructs a theoretical framework based on social cognition theory, involving individual cognition, social influence, and behavioral intentions[1]. And other aspects of the internal mechanism. By defining and measuring key variables in this framework, a structural equation model is constructed to explore how factors such as information cognitive bias, group pressure perception, social platform uses habits and so on regulate the influence effect of fake news.

1.2. Research Status at Home and Abroad

The research on the regulatory mode of foreign social platforms shows that the platforms have various management strategies for fake news. In the US, social media giants such as Twitter and Facebook have begun to adopt more stringent content censorship and work with third-party fact-checkers to mark suspicious information. For example, in the direction of fake news detection, contextual feature- and temporal feature-based analytical models are widely used to mine the propagation path of fake news. In addition, Misinformation Studies covers many dimensions, such as population psychology and rumor communication, involving data analysis methods including Logistic Regression Analysis and Social Network Analysis.

1.3. Research content and research methods

This research will deeply explore how social fake news, especially disinformation in the health field, can affect different groups through short video platforms such as TikTok and Kuaishou. To this end, multiple research methods and comprehensively apply the theoretical basis of social psychology and communication science will gain systematic understanding and empirical support. This study will use the rigor of quantitative analysis and the depth of qualitative research to reveal and interpret the social phenomena under the influence of fake news and try to propose effective interventions. Data analysis will rely on SPSS 25.0 software to perform descriptive statistics, confirmatory factor analysis, Cronbach reliability analysis, logistic regression, and other statistical procedures. At the same time, a multivariate linear regression model will be used to evaluate the impact of fake news transmission on different groups of people. These analyses will help us understand the path of transmission,

DOI: 10.54254/2753-7064/51/20242591

individual differences, and the combined effects of psychosocial factors on information reception and processing capabilities.

2. Fake News and its General Impact on Society

2.1. Definition and Classification of Fake News

Fake news can be defined as disinformation that intentionally creates or misdistorts facts, possibly to influence public opinion, political dynamics, or to attract attention and increase clicks. In this study, the classification of fake news is divided into three categories according to the degree of content distortion and the publishers' motivation: misleading information, malicious false reports, and falsified information based on groundless rumors.

By classifying the obtained data, the structural equation model (SEM) analysis method was adopted to correlate the spread of fake news with the behavioral responses of social groups. In addition, to examine the impact of cognitive differences between different populations, which conducted reliability and validity analysis on the questionnaire data based on Spearmans rank correlation coefficient and Klambach & rsquos alpha coefficient to ensure the scientificity and universality of the research results. Through this series of comprehensive methodological designs, this study tries to deeply explore the influence mechanism and development trend of fake news, especially health fake news, on different groups in the era of social media so as to make targeted management and guidance suggestions to deal with such information.

2.2. Social Factors of Fake News Communication

As a kind of psychological tactic, the spread of social fake news shows a unique communication power at the social psychological level. On the one hand, the reason why the phony health news has spread rapidly on social media platforms such as TikTok and Kuaishou is partly because it inspires people's cognitive bias. According to the dual processing theory (Dual Process Theory), in the platform "recommendation-browse-feedback" loop mode, users tend to respond quickly to information based on intuitive thinking (System 1), rather than in-depth analysis and critical thinking (System 2), which leads to ineffective screening of rumors and false information. For popular platforms like TikTok and Kuaishou, the criteria for choosing news are not based on the social value and practical significance it brings, but to meet the psychological needs of the public. As the individual's interest gradually shifts to social news, even if the platform has the subjective intention to guide in the right direction, it often can't resist the temptation of fantastic "facts".

At the same time, group effect also plays a vital role in sorting out the process of fake news. Peoples behavior is susceptible to group-dominated cognition[2], Statistical analyses were performed using the SPSS and R software. The descriptive statistical analysis reveals the basic tendency of users to fake news; the correlation analysis reveals the interaction between cognitive bias, decision pressure and group effect, and the multiple regression analysis further explores the influence of different psychosocial factors on the willingness to spread fake news.

2.3. Communication Mechanism of Fake news in Social Media

The communication mechanism of fake news in social media is a complex systematic engineering involving not only the algorithm design, but also many factors such as user psychology and social network structure [3]. The analysis of TikTok and Kuaishou platforms can reveal the spread mode of fake news on such social media platforms.

On the one hand, the recommendation algorithms of social media platforms are an essential factor affecting the dissemination of fake news. TikTok And Kuaishou use a personalized recommendation

DOI: 10.54254/2753-7064/51/20242591

algorithm based on user's behavior and preferences. This algorithm can calculate and predict users' interests based on users' behavioral data, such as likes, comments, and viewing time, and then recommend similar or related content. Therefore, once a user interacts with a health fake news, the platform may continue to push similar fake content, thus increasing the speed and scope of misinformation.

On the other hand, users' psychological characteristics and social behavior are also the key to promote the dissemination of fake news[3]. From the social psychology perspective, users tend to find a sense of identity and belonging in the social media environment faced with information overload, which may lead them to spread false information without knowing it. In addition, according to the psychological certainty needs theory (Need for Certainty), users tend to receive information that reduces external uncertainty and gives psychological comfort, even if it may be inaccurate.

Table 1: Summary of the mediation effect test results

Item	cgross effect	c(95%BootCI)	a	b	a*b The mediation effect value	a*b(Boot SE)	a*b(95%BootCI)	c direct effect	c(95% BootCI)	inspect the conclusion
Health information literacy => fake news perceived risk => health behavior change	0.469	0.375~0.564	-0.442	-0.228	0.101	0.029	0.047~0.160	0.368	0.254~0.481	The mediation effect was significant

To gain a deeper understanding of the transmission mechanisms, multiple linear regression analysis was used to identify those variables that were significantly associated with the speed and range of information transmission. Meaningful findings include that information source credibility had a significant effect on health behavior change with a standardized regression coefficient of 0.349. Meanwhile, the credibility of the information source also significantly affected the perceived risk of fake news, with a standardized regression coefficient of-0.366. After the inclusion of fake news perceived risk as the mediating variable, the effect of information source credibility on health behavior change remained significant, but the coefficient decreased to 0.245, while the standardized regression coefficient of fake news perceived risk on health behavior change was-0.283. This suggests that fake news perceived risk is partly mediated between information source credibility and health behavior change. The frequency of containing emotional words in the video content is positively correlated with the transmission range, and the number of label interactions is positively correlated with the video transmission speed.

3. TikTok and Kuaishou platform introduction

3.1. TikTok Platform Characteristics and User Behavior Analysis

TikTok is one of the most popular short video social media platforms in China, and its unique algorithm recommendation mechanism enables users to access personalized content push. Regarding user group analysis, the main force of TikTok platforms is young people. According to the report of China Internet Information Center (CNNIC), the majority of TikTok users were born in the 1990s and 2000s, which accounts for a large proportion of the total number of users. Young users are highly active and interactive, and they promote the rapid dissemination of content through likes, comments, sharing and other ways.

DOI: 10.54254/2753-7064/51/20242591

Further, for content creators (from now on referred to as "creators"), the TikTok platform provides a wealth of tools and resources to assist in producing and editing content. The AI beauty, music accompaniment, special effects filter, and other functions provided by the platform have significantly lowered the video creation threshold and attracted many grassroots creators.

3.2. Analysis of Kuaishou Platform Characteristics and User Behavior

As one of the essential short video and live broadcast platforms in China, Kuaishou plays a special role in disseminating fake health news with its unique user group structure and strong community cultural characteristics. Based on the path dependence on lightweight video applications and the low threshold for content production, Kuaishou platform has attracted many users from t hird tier and fourth-tier cities and rural areas, forming a diversity at the user level. These users usually have a relatively limited ability to collect and identify information and are more vulnerable to fake health news than users in first-tier and second-tier cities.

Compared with other platforms, Kuaishous algorithm recommendation system is more inclined to show life-based, down-to-earth content, and videos that highly match users' interests. This recommendation mechanism may not be effective in filtering out false information. Through the systematic study of user behavior analysis, it is found that health video content spreads fast and has a wide coverage.

4. Research methodology

4.1. Data Analysis Method

This study used multivariate statistical analysis of the data, to reveal the difference in the degree of influence of social fake news on different populations and the correlation of influencing factors. Considering that the samples are from TikTok and Kuaishou, two platforms with the characteristics of various user groups, the confirmatory factor analysis (Confirmatory Factor Analysis, CFA) was first used to test the validity and reliability of the questionnaire construction.

After the reliability and validity analysis, SPSS was used to conduct data processing and analysis and calculate descriptive statistics to master the communication characteristics of social fake news in different groups. Preliminary data on the speed of fake news, user interactions (likes, comments, retweets), and users' attention to health information will be presented in this step.

To explore the factors that affect users' judgment of true or false information, the study used a multiple logistic regression analysis models, in which the independent variables included individual age, education level, media literacy level, and the frequency and duration of using TikTok and Kuaishou, and the dependent variable was the result of users' judgment of health information (correct or wrong). The model can quantify the degree and direction of the influence of each factor on the judgment rate and provide data support for the subsequent targeted intervention measures.

DOI: 10.54254/2753-7064/51/20242591

Table 2: Distinguishing validity: Pearson correlation with AVE square root value

	Health source credibility	Health information literacy	Frequency of social media use	Fake news is a perceived risk	Changes in health behavior
Health source credibility	0.863				
Health information literacy	0.413	0.835			
Frequency of social media use	0.383	0.455	0.842		
Fake news is a perceived risk	-0.387	-0.433	-0.348	0.850	
Changes in health behavior	0.373	0.463	0.368	-0.387	0.847

5. Analysis of the Impact of Social Fake News on Different Categories of People

5.1. Theoretical Framework of Influencing Factors

Based on social cognitive theory (Social Cognitive Theory, SCT) and dual-process information processing theory (Dual-process Information Processing Theory), this study explores the influence mechanism of fake news, especially health information, on different populations. In SCT theory, behavioral, cognitive, and other personal factors, as well as environmental factors, interact, and this framework contributes to understanding individual cognitive processes and their behavioral responses in the social media environment. Dual-process information processing theory explains how individuals process information through systematic thinking (systematic processing) and heuristic thinking (heuristic processing).

To quantify the impact of fake news on different groups, a model containing five dimensions wa s constructed, including cognitive quality, emotional attitude, cultural background, social identity and information processing habits. Finally, the information processing habits examine individuals' processing patterns and habits in the face of massive amounts of information.

It can be seen that the construction of effective intervention strategies for different groups of people needs to comprehensively consider various psychological and social factors to improve the public's ability to identify and respond to fake health news[4].

5.2. Impact analysis of the adolescent group

5.2.1. Cognitive bias and information screening ability

This study focuses on this group's cognitive bias and information screening ability in a health-like fake news environment. Through the collection and analysis of the data, this study follows a combination of quantitative and qualitative research methods.

Due to the characteristics of the cognitive development stages[5,6], adolescents Are often vulnerable to information interference in the social media environment. Multiple linear regression models were constructed to analyze the relationship between each factor and the adolescent's ability to identify health information. The results showed that adolescents who spent more than 2 hours a day on these platforms had significantly below average ability to discriminate fake news, with a model R^2 value of 0.67, standard error 0.051 and P-value <0.001, suggestive of high statistical significance. This phenomenon may be related to a lack of cognitive maturity as well as social media use habits.

DOI: 10.54254/2753-7064/51/20242591

5.3. Impact Analysis of the Adult Population

5.3.1. Judgment and Processing Ability of Health Information

In analyzing the judgment and processing ability of adults when facing social fake news (especially health-related), the psychological acceptance model was taken as the research framework, four dimensions were paid attention: cognitive bias, information quality identification, risk prevention awareness and decision-making consequences. In sample selection, aiming to include adults with different educational backgrounds, occupational categories, age groups, and socioeconomic statuses. To control the study variables, selecting 300 adults between 25 and 60 years according to the correlation model between demographic characteristics and health information identification ability proposed in the existing literature. This research ensured the misrepresentations of the sample through the Taro stratified sampling method.

This research conducted pre-tests in advance and controlled the Cronbach & rsquos α coefficient above 0.85 to ensure the high internal consistency of the questionnaire.

This research applied the SPSS 25.0 software for data processing and analysis in the empirical analysis stage. First, by using descriptive statistics to analyze the subject's basic information and the effects of different demographic variables, such as gender and education level, on health information judgment and identification ability using the chi-square test. Secondly, the relationship between subjects' risk prevention awareness and decision consequences was analyzed, and the interaction between the three abilities (the cognitive bias, the information identification of the quality awareness, the risk prevention awareness) and the final decision behavior was further explored by constructing the structural equation model (SEM).

The results showed that when faced with fake health news, adults usually rely on their existing health knowledge and experience for preliminary judgment, followed by the reliability of reference news sources. In front of the health information pushed by social platforms, the information judgment ability of the subjects is closely related to their socio-economic status and health information literacy level. Especially in media platforms such as TikTok and Kuaishou, due to the attributes of algorithm recommendation, users are easily exposed to the content of the information bubble, thus aggravating the generation of cognitive bias.

5.3.2. Group Identification and Information Dissemination Behavior

Studies have shown that adults information dissemination behavior on social platforms is often due to a certain group[5]The identity of[7], This identity may be based on occupational groups, interest groups, or cultural community, etc. Individuals seek a sense of belonging in these groups and, and once identity is established, may accept and disseminate widely circulated information within the group without careful thinking.

Group sense of identity and information dissemination behavior in adult groups are important factors affecting the dissemination of health fake news. This study reveals the psychological and behavioral patterns of adults dealing with social media fake news, and proposed regulatory and coping strategies, in the hope to effectively reduce the potential threat of fake news to the security of public health information.

5.4. Impact Analysis of the Elderly Population

5.4.1. Sensitivity of Health Information

When exploring the impact of social fake news (health) on the elderly group, the special attention was paid to the sensitivity of health information. Studies have shown that the elderly population is

DOI: 10.54254/2753-7064/51/20242591

highly sensitive to the reception of health-related details due to their unique physiological and psychological characteristics. To explore their interaction patterns, recognition ability, and degree of trust in health fake news on TikTok and Kuaishou platforms.

As for the media use mode, the elderly mainly contact health information through children recommendations, sharing on friends circle, and push functions on social platforms. In addition, they often lack the ability and skills to identify the authenticity of the information and rely more on the opinions of others and the recommendation system of the platform.

The results highlight older adults' high sensitivity and low discrimination when receiving health messages on social media. To improve their media literacy and information identification ability, it is suggested that social platforms provide more targeted information review mechanisms to safeguard this group's health rights and interests and improve their mental health level.

5.4.2. The Potential Impact of Information Dissemination on Mental Health

In the analysis of multiple factors affecting elderly populations, the potential impact of information transmission on mental health[7]Its particularly noteworthy. Because older people usually have low information screening ability and high trust tendency, they are susceptible to the negative influence of fake news, especially health fake news, which may lead to cognitive confounding and even affect their mental health and quality of life.

The mechanism behind this phenomenon is closely related to the information processing method of the elderly. Most older people lack the ability to identify complex information due to their declining intellectual activity, and they are often exposed to social media[8]Authoritative figures or people familiar with the influence of the crowd, and thus inadvertently accept and spread false information. Related empirical studies also show that psychological security plays an important role in the process of information judgment. In the face of the rapid development of digital information, the elderly often seek simple, intuitive and easy to understand information, so as to obtain psychological satisfaction and security.

Combining the research findings and the international experimental results, it can be clearly seen that social fake news, especially in health, has a significant negative impact on the mental health of the elderly group. Therefore, the ability of media literacy education and information identification to match the mental health characteristics of the elderly[8].This is also the key to prevent and solve similar problems in the future.

6. TikTok and Health Fake News Case Study in Kuaishou Platform

6.1. Selection and Analysis of Fake News Cases on TikTok Platform

In this study, utilizing data analysis tools provided by the platform, such as Social Tracker and Viral Insight, this process enabled us to identify the accounts that were the initial sources of the information and to further examine various parameters, including account activity, follower count, and the nature of the published content. By designing a coding manual, systematically summarized and coded the video content, textual descriptions, user comments, and associated interactive data, such as the number of likes and shares. The impact assessment component of case analysis was performed using user behavior data, which included reconstructing the decision-making pathways for video viewing, conducting statistical analyses of user interaction behavior patterns, and applying natural language processing techniques to assess emotional bias.

DOI: 10.54254/2753-7064/51/20242591

6.2. Selection and Analysis of Fake News Cases on Kuaishou Platform

Utilizing text mining libraries in the Python programming language, specifically jieba and NLTK, the emotion analysis and keyword extraction on the collected comments to identify prevalent terms associated with health-related rumors. Additionally, the social network analysis techniques can construct a model of the fake news communication network using Gephi software. In this model, the nodes represent active users, while the edges illustrate the information transmission behaviors among users.

In the context of the empirical study, a regression analysis methodology was employed, utilizing transmission data as the independent variable and the trust score, along with behavior change derived from user surveys, as the dependent variables. This approach aimed to assess the impact of fake news on user behavior. By analyzing the R-squared value obtained from the regression model, specific health-related fake news can be identified that exert a significant communicative influence on the Kuaishou platform.

6.3. Case Comparison and Discussion on Media Responsibility

This compares the strategy differences between TikTok and Kuaishou platforms in monitoring and managing fake news. Through in-depth analysis of the community guide, reporting mechanism and implementation efficiency of the two platforms, it is found that Kuaishou platform has more detailed operation strategies in localized community management and user group segmentation, such as regional or content review for specific groups. The TikTok platform, on the other hand, adopts a more centralized content monitoring strategy, using AI technology to screen and mark potential false content extensively, but sometimes relies too much on technical detection, which may lead to the manslaughter of standard information.

This study summarizes the current situation of health fake news cases and platform regulation on two major platforms, and explores the responsibilities and challenges of social media in the dissemination of public health information. The analysis points out that although both platforms have established a certain response mechanism for fake news, there are still loopholes and deficiencies in the actual implementation, and it is necessary to strengthen the supervision of the platform further, improve the efficiency of audit, and strengthen the investigation of the responsibility of publishers and dissemination. At the same time, social platforms should further enhance the transparency of algorithms and strengthen the verification of the authenticity of posts, so as to curb the breeding and spread of fake health news.

7. Coping Strategies and Suggestions

7.1. The Importance of Media Literacy Education

In the era of social media, media literacy education has become the first line of defense for the public to resist the influence of health fake news. Therefore, a systematic media literacy education system should be constructed, and differentiated education strategies should be implemented for people of different ages and cognitive levels.

For teenagers, media literacy courses can be introduced through the school education system, and a series of classroom activities and extracurricular practices can be designed in combination with multi-disciplinary content such as psychology, informatics and media criticism. For example, carrying out "identifying fake news" competition and making short videos of "health science" can improve their practical ability.

Media literacy education for adult groups can be implemented through workplace training, community education, and online courses. Aiming at adult's busy work and diversified time

DOI: 10.54254/2753-7064/51/20242591

allocation, providing flexible learning time and optional learning content can better attract them to participate in learning. For example, communities can organize regular lectures on health information identification, and companies can add training modules for information screening skills to employee training.

For the elderly, media literacy education should not only solve the cognitive level, but also consider the challenges of the use of technology. Therefore, educational programs for the elderly group need to be more detailed, such as customized simple operation educational applications, popularization of health knowledge through TV broadcasts, and face-to-face guidance courses in community centers. The educational content should focus on how to identify health information of unknown origin, how to use modern communication devices such as smartphones to obtain authoritative health information, so that the elderly can understand and master the basic Internet search and information retrieval methods.

7.2. Self-protection Mechanism of the Public

According to the research and analysis, the identification ability of fake news is directly proportional to the level of individual information literacy, among which the consolidation of knowledge plays a significant role in improving the prevention awareness of fake news. Three specific prevention strategies were designed for this educational effect. The first is to build an information screening[8]Model; secondly, this study encourages users to expand information channels, compare and verify the authenticity of information through multiple channels, and reduce the risk of being misled by a single source of fake news. Finally, users are encouraged to form a critical thinking and open mentality, reserve the information to be confirmed, and advocate verifying the facts before dissemination.

In the practical research of the public self-protection mechanism, in order to ensure the feasibility and effectiveness of the strategy, the paper also controls the user characteristics such as age, gender and educational background, and ensures the wide applicability of the results through multiple linear regression analysis. Multiple demographics variables including age, occupation, education, etc. were collected during the study to control other factors that might influence self-protective ability in the model.

7.3. Policy-level Countermeasures

When exploring the impact of social fake news (health) on different categories of people, it is urgent to build an effective response mechanism at the policy level[9]. As the main body of social governance, the government bears an inescapable responsibility. Laws and regulations are the basis of regulating social behavior and maintaining social order. In view of the phenomenon of social media platforms such as TikTok and Kuaishou spreading fake news, the government should update relevant laws and regulations in a timely manner and set up legal provisions specifically for the dissemination of online information.

With the development of network technology, the regulatory system also needs to keep pace with The Times[3,9]And strengthen its comprehensiveness and systematization. Multi-party cooperation is the key to improving the effectiveness of social governance. Government departments should cooperate with social platforms, encourage and urge them to assume social responsibilities, and promote the platform to establish an audit mechanism; Establishing a comprehensive supervision system for real and fake news is a necessary means to maintain positive and authentic news[10].At the same time, cooperate with news media and health professional institutions to promote correct health knowledge, provide authoritative and accurate health information sources, and accelerate the screening of false information.

DOI: 10.54254/2753-7064/51/20242591

8. Conclusion

In the study on the impact of fake health news on the TikTok and Kuaishou platform, focusing on the cognition and response of different populations to such information, all datas were statistically processed through SPSS version 25.0 software, and passed T-test, analysis of variance, and multiple linear regression analysis to ensure the science and accuracy of the analysis results.

The study found that the influence of fake news varied significantly among different populations. Due to the high frequency of exposure to social media, teenagers are more obviously influenced by the recommended content of the algorithm. Compared with adults, they are relatively weak in identifying information. Insufficient cognitive maturity makes individuals vulnerable to the authority effect of web celebrities, and they tend to believe and share unproven health information blindly. The adult population shows a higher ability to identify health information, but at the same time, its sense of identity has an essential impact on information reception. The average score of the health information judgment and processing capacity index (Health Information Judgment and Processing Ability, HIJPA) reached 7.8, indicating that adults have a high standard for health information screening.

Older adults exhibit a higher level of trust in information sources, as indicated by an average Source Trust Index (STI) score of 7.9, in comparison to adolescents and younger adults. This heightened trust may render them a vulnerable demographic for the dissemination of misinformation. Furthermore, older individuals frequently seek to bolster their psychological security through health-related information; however, their ability to critically assess the authenticity of such information remains inadequate.

The selection and size of the study sample present certain limitations. In the empirical study, while efforts were made to include users from various age groups, social backgrounds, and educational levels, the sample size remains limited and does not fully represent the entire social demographic. Although TikTok and Kuaishou have extensive user bases in China, factors such as geographical distribution and cultural differences may significantly influence the research outcomes, potentially constraining the generalizability of certain analyses and conclusions.

Future research directions should place greater emphasis on the potential for cross-cultural comparisons. In light of the extensive dissemination of information in the context of contemporary globalization, the identification and comparison of misinformation and media literacy across diverse cultural contexts represent a significant area for investigation. Drawing upon existing literature and case studies, this research offers a series of empirical analyses and comprehensive interpretations regarding the impact of social misinformation.

References

[1] *Zhang, Q.W. (2019). Analysis of Types and Value Orientation of Social News. News Communication, (11), 77-78.*
[2] *Li, W.Z. and Wu, J.Y. (2021). Analysis of social and psychological effects of fake news. Communication Research, 5(12), 178-180.*
[3] *Li, Y. (2020). Analysis on the spread and response of false news. Science and Technology Communication, 12(9), 1-3.*
[4] *Wang, W.Y. (2019). On the Communication Mode of Social TV News. Research on Communication Power, (7), 44.*
[5] *Sun, Y.N., Wu, Y. and Qian, B. (2019). Social trust in reversal-an empirical study based on the characteristics of news contact and audience. Journalist, (12), 38-48.*
[6] *Xiao, S. (2021). Why do we believe fake news. Today's middle school students, (13), 22-23.*
[7] *Yu, C.J. (2019). Psychological analysis of social network fake news. Young journalists, (7), 45-46.*
[8] *Lu, X.L. (2019). How to get out of the misunderstanding of negative social news reports. Charming China, (20), 321-322.*
[9] *Sui, Y.J. (2021). Research on the Governance Strategy of False Health Information in Social Media. Beijing University of Posts and Telecommunications.*

DOI: 10.54254/2753-7064/51/20242591

[10] Pan,Y.(2018). Reflection on the Negative Social Effects of "Positive Energy Fake News" on the Internet, (A),117-118