

Study on the Sharing Behavior of Chinese Users towards Short Videos on Traditional Chinese Medicine Health in the New Media Environment

Ruiyang Gao¹, Daili Wang^{1, +}, Ying Huang^{1, 2, *}, Dandan Zhang^{1, 2}

¹ College of Management, Wuhan Technology and Business University, Wuhan, Hubei, China

² Hubei Business Service Development Research Center, Wuhan, Hubei, China

* Corresponding Author: Ying Huang

+The author contributed equally to this work and share first authorship

Abstract. By the end of 2023, the Chinese government had successively issued a series of guiding policies emphasizing the promotion of traditional Chinese medicine (TCM) culture and its integration into people's daily lives. Against the backdrop of short videos saturating people's everyday lives, health science popularization short videos have gradually become an important channel for people to obtain information, thereby providing opportunities for the promotion of TCM health culture. This study takes users of short videos on TCM health in Wuhan as the research object, and constructs a theoretical model of the influencing factors of user sharing behavior based on user attention, usage, expectations, and sharing behavior, combined with the technology acceptance and information adoption models. A series of hypotheses were proposed. A total of 188 valid questionnaires were collected through on-site surveys, and data statistical analysis was conducted using SPSS 26.0. The empirical results show that the middle-aged group aged 22-45 exhibits the most active usage and sharing behavior towards short videos on TCM health. Users' perception of usefulness, ease of use, source credibility, and video quality of short videos on TCM health all significantly influence their information adoption, and information adoption significantly influences users' sharing behavior. Based on the discussion of the results, it is suggested to promote user sharing behavior of short videos on TCM health by improving users' perception of usefulness and ease of use of the videos, encouraging the creation of high-quality videos by users through policy support, and standardizing the credibility of video sources, thereby providing suggestions for the development of TCM culture in Wuhan and promoting the construction of health culture in China.

Keywords: New Media Environment; Short Videos on Traditional Chinese Medicine Health; Information Adoption; Sharing Behavior.

1. Introduction

The 19th National Congress of the Communist Party of China in October 2022 put forward the important goal of "promoting the inheritance, innovation, and development of traditional Chinese medicine (TCM), and advancing the construction of a healthy China." The realization of this goal requires the promotion of TCM culture to improve citizens' awareness and literacy of TCM health culture. TCM culture emphasizes the mutual influence of physiology and psychology on health and disease, as well as the inherent connection between the human body's yin-yang balance and nature, demonstrating the essence of excellent traditional Chinese culture. Especially in the era of the epidemic, short videos have become an important means to efficiently promote and popularize epidemic prevention knowledge to the public. At the same time, TCM has also comprehensively and deeply participated in epidemic prevention and control work, playing an important role in safeguarding the health of the people, changing people's views on TCM, promoting the dissemination of TCM culture to the world, and contributing to the construction of a community with a shared future for mankind.

Against this background, the combination of TCM health and short videos provides opportunities for the promotion of TCM culture. This combination can not only popularize the public's literacy in TCM



health culture and enhance cultural confidence but also promote the innovative development of TCM culture, injecting cultural impetus into the construction of a healthy China. In addition, the state's support for the inheritance of TCM has increased, and the improvement of the talent training system has provided more opportunities for participation in the production of short videos on TCM health, which helps enrich TCM teaching materials.

2. Literature Review

2.1. Research on Technology Acceptance Theory

The technology acceptance theory model effectively describes the inherent logical relationship between external variables such as perceived ease of use, perceived usefulness, usage behavior, and behavioral intention. Guo Wenxin [1] (2023) found that viewers' perceived ease of use of multimedia technology affects their perceived usefulness of the technology. Liao Qian [2] (2023), through empirical evidence using various models including the technology acceptance model, found that subjective norms may have a significant indirect impact on behavioral intention through the mediating effect of perceived usefulness.

2.2. Research on Health Information Adoption

The information adoption model consists of four variables: information quality, source credibility, perceived usefulness, and information adoption, all of which influence willingness to adopt health information. Wang Wei [3] (2020), through in-depth interviews with 40 elderly university students, constructed a relevant theoretical model and empirically demonstrated that health information factors positively influence the adoption behavior of elderly users, and may also indirectly influence through perceived credibility of information. Bao Wenjie [4] (2020), focusing on health-related WeChat public accounts, empirically demonstrated that efforts should be made to improve users' information adoption behavior from aspects such as information quality and effort expectation, and that social influence and user habits have a significant negative impact on perceived risk.

2.3. Research on Traditional Chinese Medicine (TCM) Short Videos

TCM health short videos are a concise form of delivering information to users on TCM health preservation, disease prevention, etc. Shen Ying (2023), in the context of the innovative dissemination of TCM culture through multimedia, emphasized the need to make good use of professional resources and communication methods, innovate in discourse expression and dissemination forms, and promote the innovative development of TCM culture. Zhao Xingqi (2023), in a study on factors affecting users' willingness to participate in short video platform advertisements, found that perceived ease of use and perceived usefulness directly influence users' willingness to participate, and perceived ease of use positively influences perceived usefulness. Wang Xinglan (2023), in an empirical study on factors influencing the adoption behavior of college students towards health science popularization short videos, found that the information quality and source credibility of TCM health short videos also influence users' learning satisfaction and information adoption behavior.

2.4. Literature Review

In the fields of technology acceptance theory, health information adoption, and TCM short videos, rich theoretical and empirical research has been accumulated. However, research on the sharing behavior of users of TCM health short videos is still insufficient. Further exploration is needed on users' behavior of sharing TCM health-related information on short video platforms, as this will help promote the dissemination and popularization of TCM culture.

Through the above literature review, it can be observed that research on the sharing behavior of users of TCM health short videos is still in its infancy and requires further exploration. Therefore, this paper aims to investigate the influencing factors of information adoption and user sharing behavior of TCM

health short videos from the user perspective, providing theoretical and practical guidance for the field of TCM culture new media dissemination.

3. Model Hypotheses and Research Design

3.1. Research Model and Hypotheses

3.1.1. Research Model

This study, based on the technology acceptance model and information adoption model, proposes five main variables influencing people's adoption of health information in traditional Chinese medicine (TCM) health short videos: perceived ease of use, perceived usefulness, source credibility, video content quality, and information adoption.

3.1.2. Research Hypotheses

Based on the eight variables proposed in this study that influence users' sharing behavior of TCM health short videos: perceived ease of use refers to users' perception of the ease of generating health information spread by TCM health short videos; perceived usefulness refers to users' perception of the usefulness of TCM health short videos in terms of health; source credibility represents the audience's trust in the publisher or platform of TCM health short videos; video quality refers to the quality of the content of TCM health short videos; information adoption refers to whether users adopt the information output by TCM health short videos; perceived disease threat specifically refers to users' perception of the likelihood of their own illness; perceived risk refers to the various risks and degrees perceived by users in the health information of TCM health short videos; and sharing behavior refers to whether users' information adoption behavior of TCM health short videos affects their sharing behavior. The following research hypotheses are proposed, as shown in Table 1. These hypotheses constitute the theoretical framework of this study, aiming to explain the influencing factors of users' sharing behavior of TCM health short videos and the relationships between them.

Table 1. Hypotheses Table

Variable	Hypothesis	Hypothesis Content
Perceived Ease of Use	H1a	The perceived ease of use of TCM health short videos positively affects perceived usefulness.
	H1b	The perceived ease of use of TCM health short videos positively affects users' information adoption.
Source Credibility	H2a	The source credibility of health science popularization short videos positively affects perceived usefulness.
	H2b	The source credibility of health science popularization short videos positively affects audience information adoption.
Video Content Quality	H3a	The content quality of health science popularization short videos positively affects perceived usefulness.
	H3b	The content quality of health science popularization short videos positively affects audience information adoption.
Perceived Usefulness	H4b	The perceived usefulness of TCM health short videos positively affects users' information adoption.
Perceived Disease Threat	H5b	Users' perceived disease threat positively affects users' information adoption.
Perceived Risk	H6b	Users' perceived risk negatively affects users' information adoption.
Sharing Behavior	H1c	Users' information adoption behavior of TCM health short videos positively affects their sharing behavior.

3.2. Questionnaire Design and Implementation

3.2.1. Questionnaire Design

The questionnaire is divided into four parts: the first part consists of single-choice questions about selecting TCM health short videos to watch; the second part includes basic information about the participants, involving demographic characteristics such as gender, age, and education level; the third part comprises single-choice and multiple-choice questions about the participants' basic usage of

TCM health short videos, involving viewing frequency, duration, interactive behavior, etc.; the fourth part consists of scale questions about the participants' evaluation of TCM health short videos and willingness to share, including perceived usefulness, perceived ease of use, video source credibility, video quality, perceived disease threat, perceived risk, information adoption, and sharing behavior, totaling 37 items.

3.2.2. Questionnaire Implementation

The questionnaire survey is divided into two stages: pre-survey and formal survey. The pre-survey mainly involves distributing 60 offline questionnaires to university students, in-service faculty, and residents around the campus to test the questionnaire structure and predict the feasibility of the survey. The formal survey stage adopts a primarily offline and supplementary online approach, conducting questionnaire surveys in residential areas near the clinics in Hongshan District and Caidian District, as well as at some subway stations in Wuhan. A total of 220 questionnaires were distributed, and 206 complete questionnaires were collected, including 60 online questionnaires and 146 offline questionnaires. After screening, 188 valid questionnaires were obtained, with an effective questionnaire rate of approximately 85.5%.

4. Empirical Research and Analysis

4.1. Sample Statistical Analysis

4.1.1. Analysis of Sample Characteristics

Regarding gender distribution, the male-to-female ratio is close to 1:1, with slightly more male samples, aligning with the characteristic of TCM health short videos primarily attracting male audiences. In terms of age distribution, the proportion of samples aged 24-45 and 46-69 is relatively high, indicating a high level of interest among middle-aged and elderly groups in this type of video. Regarding education level, the proportion of samples with bachelor's and associate degrees is higher, indicating a higher level of education among the samples.

Participants' viewing duration of TCM health short videos mainly concentrates on 10-30 minutes and 30-60 minutes, accounting for 34.6% and 33.0%, respectively. This indicates that participants can be roughly divided into two groups: one with short viewing times but interest in the videos, and another more interested group willing to spend more time learning. In terms of viewing frequency, the proportions of watching 1-2 times and 3-4 times per week are 36.7% and 32.4%, respectively, indicating a relatively even viewing frequency. The majority of participants follow 3-4 TCM health short video accounts, accounting for 43.1%, showing a trend corresponding to the distribution of viewing duration. Regarding interactive behaviors, liking is the primary way of expressing approval, accounting for 64.2%, followed by following and sharing, accounting for 54.7% and 46.9%, respectively. In terms of viewing types, the sample size for dietary health and disease prevention is relatively high, accounting for 62.2% and 55.9%, respectively, while the sample size for medical popularization, women's health, and health weight loss is relatively low. Regarding the selection of short video formats, most people prefer real-person presentations, accounting for 60.1%, followed by drama scenes and daily recordings, accounting for 50% and 43.6%, respectively, while the choice of simple graphics and animation production is less common. These results illustrate the viewing habits and preferences for TCM health short videos, providing a basis for further analysis.

4.1.2. Descriptive Statistical Analysis

The mean values of all independent variables are close to or above 4 points, indicating that most participants hold positive attitudes towards TCM health short videos. The score for perceived disease threat is also high, indicating a high level of concern among participants for health issues. The scores for information adoption and sharing behavior are also high, indicating that participants are willing to adopt and share information from the videos.

4.2. Reliability and Validity Analysis

4.2.1. Reliability Analysis

The reliability coefficients of the four dimensions—source credibility, perceived disease threat, perceived risk, and perceived usefulness—are all above 0.8, indicating excellent reliability of the variables; while the reliability coefficients of perceived ease of use, perceived usefulness, video quality, information adoption, and sharing behavior are all above 0.7, indicating relatively good reliability of the variables. Overall, the data from this scale demonstrate excellent reliability.

4.2.2. Validity Analysis

Validity refers to whether scores truly reflect the characteristics they intend to measure. The KMO value is 0.924, exceeding 0.6, indicating a good index, meaning the "Evaluation of TCM Health Short Video Users" scale is suitable for factor analysis; Bartlett's test of sphericity yields an approximate chi-square distribution of 3833.107 with 666 degrees of freedom, and a significance probability value of $P=0.000<0.05$, reaching significance, rejecting the hypothesis that the correlation matrix is not a unit matrix, indicating the presence of common factors among the 37 variables of the "Evaluation of TCM Health Short Video Users" scale, making the data suitable for factor analysis.

4.3. Correlation Analysis

Table 2 shows that perceived usefulness, perceived ease of use, source credibility, video quality, perceived disease threat, and perceived risk are all positively correlated with information adoption, and information adoption is positively correlated with sharing behavior. Among them, the correlation coefficients between perceived usefulness, perceived ease of use, source credibility, video quality, and information adoption are all close to or above 0.7, with coefficients of 0.709, 0.700, 0.698, and 0.717, respectively, indicating a very close relationship between these predictor variables and information adoption. The correlation coefficients between perceived ease of use, source credibility, video quality, and perceived usefulness are 0.718, 0.677, and 0.738, respectively, indicating a significant positive correlation between these predictor variables and perceived usefulness. The correlation coefficient between perceived disease threat and information adoption is 0.577, indicating a high positive correlation between the two. However, the correlation coefficient between perceived risk and information adoption is only 0.319, indicating a weak correlation between the two. The correlation coefficient between information adoption and sharing behavior is 0.678, indicating a strong correlation between the two.

Table 2. Correlation Analysis of Main Variables

	Perceived Usefulness	Perceived Ease of Use	Source Credibility	Video Quality	Perceived Disease Threat	Perceived Risk	Information Adoption
Perceived Usefulness	1						
Perceived Ease of Use	.718**	1					
Source Credibility	.677**	.641**	1				
Video Quality	.738**	.688**	.742**	1			
Perceived Disease Threat	.528*	.597*	.579*	.650**	1		
Perceived Risk	.321	.463	.372	.373	.624**	1	
Information Adoption	.709**	.700**	.698**	.717**	.577*	.319	1
Sharing Behavior	.630**	.695**	.599*	.639**	.514*	.381	.678**

Note:**. Significant correlation at the 0.01 level (two-tailed).

*. Significant correlation at the 0.05 level (two-tailed).

These results reflect the significant correlation between users' evaluation of usefulness, ease of use, credibility, and quality of TCM health short videos and their level of information adoption. Users' evaluation of the ease of use, credibility, and quality of TCM health short videos significantly positively influences their evaluation of the usefulness of the videos. The correlation between users' perceived disease threat and the level of information adoption is significant, while the impact of perceived risk on information adoption related to short videos is less significant.

4.4. Regression Analysis

4.4.1. Regression Analysis of Perceived Disease Threat on Information Adoption

A univariate linear regression analysis was conducted for information adoption on perceived disease threat. The significance probability value of perceived disease threat on information adoption was $P < 0.05$. The regression coefficient of perceived disease threat was 0.357, with a t-value of 9.634 and a standardized coefficient of 0.577. The R-squared value was 0.333, indicating that the predictor variable, perceived disease threat, could explain 33.3% of the variance in the dependent variable, information adoption. The Durbin-Watson (D-W) value was 1.209, suggesting that the sample largely adhered to the principle of independence. With an F-value of 92.806 and $P < 0.05$, perceived disease threat significantly influenced information adoption. Therefore, it can be concluded that perceived disease threat has a positive and significant impact on information adoption, supporting research hypothesis H5b.

The regression equation is: Information Adoption = 0.357 * Perceived Disease Threat + 2.686. For every unit increase in perceived disease threat, information adoption increases by 0.357 units. The constant term 2.686 represents the level of information adoption when perceived disease threat is zero.

4.4.2. Regression Analysis of Information Adoption on Sharing Behavior

A univariate linear regression analysis was conducted for sharing behavior on information adoption. The significance probability value of information adoption on sharing behavior was $P < 0.05$. The regression coefficient of information adoption was 0.789, with a t-value of 12.573 and a standardized coefficient of 0.678. The R-squared value was 0.459, indicating that information adoption could explain 45.9% of the variance in sharing behavior. The Durbin-Watson (D-W) value was 1.810, suggesting adherence to the independence principle. With an F-value of 158.086 and $P < 0.05$, information adoption significantly influenced sharing behavior. Therefore, it can be concluded that information adoption has a positive and significant impact on sharing behavior, supporting research hypothesis H1c.

The regression equation is: Sharing Behavior = 0.789 * Information Adoption + 0.783. For every unit increase in information adoption, sharing behavior increases by 0.789 units. The constant term 0.783 represents the level of sharing behavior when information adoption is zero.

4.4.3. Regression Analysis of Perceived Ease of Use on Perceived Usefulness

A univariate linear regression analysis was conducted for perceived usefulness on perceived ease of use. The significance probability value of perceived ease of use on perceived usefulness was $P < 0.05$. The regression coefficient of perceived ease of use was 0.745, with a t-value of 14.072 and a standardized coefficient of 0.718. The R-squared value was 0.516, indicating that perceived ease of use could explain 51.6% of the variance in perceived usefulness. The Durbin-Watson (D-W) value was 1.554, indicating adherence to the independence principle. With an F-value of 198.034 and $P < 0.05$, perceived ease of use significantly influenced perceived usefulness. Therefore, it can be concluded that perceived ease of use has a positive and significant impact on perceived usefulness, supporting research hypothesis H1a.

The regression equation is: Perceived Usefulness = 0.745 * Perceived Ease of Use + 1.118. For every unit increase in perceived ease of use, perceived usefulness increases by 0.745 units. The constant term 1.118 represents the level of perceived usefulness when perceived ease of use is zero.

4.4.4. Regression Analysis of Perceived Usefulness and Perceived Ease of Use on Information Adoption

A multiple linear regression analysis was conducted for information adoption on perceived usefulness and perceived ease of use. The VIF values were less than 10, indicating no multicollinearity. The significance probability value of perceived usefulness and perceived ease of use on information adoption was $P < 0.05$. The regression coefficient of perceived usefulness was 0.420, with a t-value of 6.204 and a standardized coefficient of 0.426. The regression coefficient of perceived ease of use was 0.404, with a t-value of 5.751 and a standardized coefficient of 0.395. The R-squared value was 0.574, indicating that perceived usefulness and perceived ease of use could explain 57.4% of the variance in information adoption. The Durbin-Watson (D-W) value was 1.709, suggesting adherence to the independence principle. With an F-value of 126.782 and $P < 0.05$, perceived usefulness and perceived ease of use significantly influenced information adoption. Therefore, it can be concluded that perceived usefulness and perceived ease of use both have a positive and significant impact on information adoption, supporting research hypotheses H1b and H4b.

The regression equation is: Information Adoption = 0.420 * Perceived Usefulness + 0.404 * Perceived Ease of Use + 0.568. For every unit increase in perceived usefulness and perceived ease of use, information adoption increases by 0.824 units. The constant term 0.568 represents the level of information adoption when perceived usefulness and perceived ease of use are zero.

4.4.5. Regression Analysis of Source Credibility and Video Quality on Perceived Usefulness

A multiple linear regression analysis was conducted for perceived usefulness on source credibility and video quality. The VIF values were less than 10, indicating no multicollinearity. The significance probability value of source credibility and video quality on perceived usefulness was $P < 0.05$. The regression coefficient of video quality was 0.400, with a t-value of 6.195 and a standardized coefficient of 0.065. The regression coefficient of source credibility was 0.327, with a t-value of 5.178 and a standardized coefficient of 0.063. The R-squared value was 0.576, indicating that source credibility and video quality could explain 57.6% of the variance in perceived usefulness. The Durbin-Watson (D-W) value was 1.568, suggesting adherence to the independence principle. With an F-value of 125.414 and $P < 0.05$, source credibility and video quality significantly influenced perceived usefulness. Therefore, it can be concluded that both source credibility and video quality have a positive and significant impact on perceived usefulness, supporting research hypotheses H2a and H3a.

The regression equation is: Perceived Usefulness = 0.400 * Video Quality + 0.327 * Source Credibility + 1.054. For every unit increase in source credibility and video quality, perceived usefulness increases by 0.727 units. The constant term 1.054 represents the level of perceived usefulness when source credibility and video quality are zero.

4.5. Path Analysis

From Table 3, it is evident that the independent variables—video quality, perceived ease of use, and source credibility—significantly influence the dependent variable, perceived usefulness, supporting the research hypothesis. Similarly, the independent variables—perceived usefulness, perceived ease of use, source credibility, and video quality—significantly affect the dependent variable, information adoption, validating the research hypothesis. Moreover, the independent variable, information adoption, significantly influences the dependent variable, sharing behavior, confirming the research hypothesis. Hence, three regression equations can be derived.

Perceived Usefulness = 0.647 + 0.328 * Video Quality + 0.366 * Perceived Ease of Use + 0.166 * Source Credibility

Information Adoption = 0.494 + 0.192 * Video Quality + 0.225 * Perceived Ease of Use + 0.209 * Source Credibility + 0.210 * Perceived Usefulness

Sharing Behavior = 0.783 + 0.789 * Information Adoption

Table 3. Path Analysis

Dependent Variable	Independent Variable	Unstandardized Coefficients		Standardized Coefficients	T	Significance	R ²
		B	Standard Error	Beta			
Perceived Usefulness	(Constant)	0.647	0.192		3.375	0.001	0.643
	Video Quality	0.328	0.066	0.358	4.963	0.000	
	Perceived Ease of Use	0.366	0.065	0.353	5.604	0.000	
	Source Credibility	0.166	0.061	0.185	2.714	0.007	
Information Adoption	(Constant)	0.494	0.195		2.530	0.012	0.643
	Video Quality	0.192	0.070	0.213	2.762	0.006	
	Perceived Ease of Use	0.255	0.070	0.250	3.651	0.000	
	Source Credibility	0.209	0.062	0.236	3.391	0.001	
	Perceived Usefulness	0.210	0.073	0.213	2.878	0.004	
Sharing Behavior	(Constant)	0.783	0.251		3.120	0.002	0.459
	Information Adoption	0.789	0.063	0.678	12.573	0.000	

Note: *** indicates significance at the 0.01 level.

4.6. Mediation Analysis

Based on Baron and Kenny's causal method, as per the analysis results in Table 4, it can be observed that perceived usefulness → information adoption (0.210, SE = 0.073, $t = 2.878$, $P > 0.001$). Thus, perceived usefulness does not act as a mediator between perceived ease of use, source credibility, video quality, and information adoption. Source credibility → information adoption (0.209, SE = 0.062, $t = 3.391$, $P = 0.001$) and video quality → information adoption (0.192, SE = 0.070, $t = 2.762$, $P > 0.001$), indicating that information adoption does not mediate between source credibility, video quality, and sharing behavior. However, perceived ease of use → information adoption (0.255, SE = 0.070, $t = 3.651$, $P < 0.001$), and information adoption → sharing behavior (0.789, SE = 0.063, $t = 12.573$, $P < 0.001$). According to Baron and Kenny (1986), since the two path coefficients of perceived ease of use → information adoption → sharing behavior are significant, the mediating effect is established.

Table 4. Mediation Analysis

Path	Model 1		Model 2		T	P
	Unstandardized Value		Unstandardized Value			
	B	SE	B	SE		
Perceived Ease of Use → Perceived Usefulness (H1a)	0.366	0.065			5.604	0.000
Source Credibility → Perceived Usefulness (H2a)	0.166	0.061			2.714	0.007
Video Quality → Perceived Usefulness (H3a)	0.328	0.066			4.963	0.000
Perceived Usefulness → Information Adoption (H4b)			0.210	0.073	2.878	0.004
Perceived Ease of Use → Information Adoption (H1b)	0.255	0.070			3.651	0.000
Source Credibility → Information Adoption (H2b)	0.209	0.062			3.391	0.001
Video Quality → Information Adoption (H3b)	0.192	0.070			2.762	0.006
Information Adoption → Sharing Behavior (H1c)			0.789	0.063	12.573	0.000

5. Hypothesis Testing and Results Discussion

5.1. Hypothesis Testing

This study, based on the perspective of users, analyzed the factors influencing the sharing behavior of users of short videos on traditional Chinese medicine (TCM) health in Wuhan City. Through correlation analysis, regression analysis, and mediation analysis of factors including perceived ease of use, perceived usefulness, source credibility, and video quality, all research hypotheses were verified except for H6b.

5.2. Results Discussion

This study quantitatively analyzed the main variables through literature review, model construction, and data verification. Based on the results of information adoption and the Technology Acceptance Model, the research hypotheses were validated, and the following conclusions were drawn regarding the residents of Wuhan City's perception of short videos on TCM health.

Firstly, through sample statistical analysis, it was found that Wuhan residents who have watched short videos on TCM health have a generally positive attitude and evaluation towards this type of content. They prefer short videos featuring real people or dramatic scenarios. In terms of age groups, the 18-23 age group rarely actively watches short videos on TCM health but is willing to learn and watch related videos when they come across them. They mainly focus on medical popular science and dietary health content and rarely engage in sharing and commenting interactions. The 24-45 age group is the most active in terms of attention to short videos on TCM health, although they watch less frequently, spending 30-60 minutes on average. They often engage in sharing and commenting interactions and mainly focus on medical popular science and disease prevention videos. The 46-60 age group is more concerned about their own health condition, frequently watches short videos on TCM health, spends less time due to limited energy, but also engages in sharing interactions. They mainly focus on dietary health and disease prevention content.

Secondly, through correlation regression empirical analysis, it was found that perceived usefulness, perceived ease of use, source credibility, and video quality significantly and positively influence information adoption, and information adoption significantly and positively influences sharing behavior. This is consistent with the viewpoints of the Technology Acceptance Model. The higher the perceived ease of use, the higher the perceived usefulness and source credibility, and the better the video quality, the higher the level of information adoption by users, thereby making it easier to engage in sharing behavior. Perceived threat of disease also positively influences information adoption but does not affect users' sharing behavior. In an era of increasing material and spiritual needs and just after the end of the epidemic, people are paying more attention to disease prevention, especially the middle-aged and elderly population.

Thirdly, through path mediation analysis, it was found that information adoption acts as a mediator between perceived ease of use and sharing behavior. When perceived ease of use is higher, the level of information adoption by users is higher, and the probability of users engaging in sharing behavior is greater.

In summary, Wuhan residents have a high degree of acceptance of short videos on TCM health, with the middle-aged group being the most active. Most are willing to actively like and follow, while the adult group rarely engages in sharing behavior, and the middle-aged and elderly groups are more likely to engage in sharing behavior. Short videos on TCM health should focus on real people and dramatic scenarios as well as content related to dietary health, disease prevention, and medical popular science.

5.3. Implications and Recommendations

5.3.1. Strengthening Cultural Identity

Creating a multi-level atmosphere of traditional Chinese medicine (TCM) culture offline and enhancing public identification with TCM culture through online promotion. Tailored measures should be taken for different age groups: for the 18-23 age group, TCM culture elective courses can be added, knowledge lectures and fun activities can be organized to create a TCM culture atmosphere on campus; for the 24-45 age group, TCM culture exhibitions can be set up at tourist attractions, and cooperation between units and TCM clinics can be encouraged to provide employee benefits; for the 46-60 age group, TCM clinic activities can be held regularly in communities, nursing homes, and other places to allow them to have more contact with TCM culture. Meanwhile, efforts should be

made to increase the publicity on online platforms, widely disseminate knowledge of TCM culture, and enhance the public's sense of cultural identity.

5.3.2. Encouraging Video Creation

Expanding the quantity and content of short videos on TCM health and improving the level of creation. Encouraging TCM scholars and enthusiasts to create content related to TCM culture through video platforms, innovating forms of expression, and meeting the needs of different groups. Meanwhile, improving the quality of videos, featuring real people and dramatic scenarios are more popular, and the participation of experts can increase the credibility of the videos, while the plot is more close to life, enhancing users' understanding and utilization.

5.3.3. Standardizing Information Sources

Establishing professional creative teams, strengthening platform supervision, and standardizing the content and release standards of short videos on TCM health. By strictly implementing the real-name authentication system, enriching the types of videos, and improving the quality of videos, the scientific rigor of video content is ensured, and the spread of false information is reduced. For false propaganda and excessive marketing behavior, timely measures should be taken to ban them, maintaining a good environment for the dissemination of health videos.

5.3.4. Guiding User Interaction

Enhancing user engagement and sharing behavior through personalized recommendation functions and user interaction. Optimizing recommendation algorithms based on the characteristics of different age groups, increasing user stickiness, promoting communication and interaction among users, and guiding users to participate more in the dissemination of TCM culture.

Acknowledgments

The authors gratefully acknowledge the financial supports from Provincial Excellent Grassroots Teaching Organizations of Ordinary Undergraduate Universities in Hubei Province (2023JY07), Provincial Teaching Reform Project for Undergraduate Universities in Hubei Province (2023542) and Hubei Province Higher Education Laboratory Research Project (HBSY2021-26).

References

- [1] Wenxin Guo. "Study on the Willingness to Use Multimedia Technology among Museum Visitors and Its Influencing Factors." *Science Education and Museums*, (2), pp. 28-37, 2023.
- [2] Qian Liao. "An Empirical Study on the Intention of Synchronous Online Learning Behavior among College Students." *Journal of Guangzhou Radio and Television University*, (1), pp. 45-50, 2023.
- [3] Wei Wang. "Research on the Health Information Adoption Behavior of Elderly WeChat Users." *International Journalism*, (3), pp. 91-107, 2020.
- [4] Wenjie Bao. "An Empirical Study on the Information Adoption Behavior of Health-Related WeChat Official Account Users--Taking 'Dingxiang Doctor' as an Example." *Anhui: Anhui University*, pp. 49-51, 2020.
- [5] Ying Shen. "Innovative Communication of Traditional Chinese Medicine Culture through All-Media." *Audio-Visual World*, (6), pp. 101-103, 2023.
- [6] Xingqi Zhao. "Research on the Factors Influencing Users' Participation Willingness in Short Video Platform Advertising." *China Marketing*, (12), pp. 27-30, 2022.
- [7] Xinglan Wang. "An Empirical Study on the Factors Influencing College Students' Adoption Behavior of Health Popular Science Short Videos." *Information Exploration*, (2), pp. 84-89, 2023.