Interactive ritual chains: a study of sports netizen-led health media communication in short video platforms

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Abstract: With the rapid development of national fitness, the country has clearly promoted "Internet+fitness", and many professional sports technicians have participated in live fitness activities and become sports web celebrities. Sports weblebrities are a powerful guarantee for improving the fitness level of the general public, and the health media activities led by them promote the audience's willingness to exercise, resulting in a better communication effect. From the perspective of the interactive ritual chain, this paper investigates why the live broadcasts of sports weblebrities can promote the audience's willingness to exercise through a questionnaire survey, examines the factors affecting their interactive effects through correlation analysis, and considers the development direction of personalising the live interaction of sports weblebrities. The study found that the more the sports weblebrities interacted with the audience in their live broadcasts, the more the audience's attention to fitness, willingness to acquire fitness knowledge, and willingness to exercise increased. The study also found that the chaos that exists in the sports weblebrity industry can have a number of negative effects on health communication, which deserves our attention and
reflection.
Keywords: sports weblebrities, health communication, interactive ritual chain

1 Introduction

In August 2021, the National Fitness Plan (2021-2025) issued by the State Council clearly proposed to open online scientific fitness lectures and encourage sports stars and other sports professionals and to participate in fitness science and technology activities. In 2022, Jitterbug will launch a series of live broadcasts of "championship fitness classes", in which professional athletes such as Su Bingtian live-streamed their workouts. According to statistics, a single live broadcast was viewed 660 million times, sparking debate among netizens. We found that the audience's willingness to exercise was by the live broadcasts of sports netizens, and that health media campaigns led by sports netizens had better communication effects.We were curious: why did the health media campaigns led by sports netizens have better communication effects? From the perspective of the interactive ritual chain, why do the live broadcasts of sports weblebrities increase the audience's willingness to exercise?

2 Literature Review

2.1 Literature review of sports weblebrities

Sports weblebrities have been the subject of a number of studies. Foreign scholars Jordi Paniagua and Pawel Korzynski have analyzed the social media interactions of sports stars in general from the perspective of their image, pointing out that sports stars gain wider attention through social media, which directly affects their commercial and market value. Foreign scholar KING analyzed sports symbols in the media in general from the perspective of gender discourse, pointing out that the media uses the promotion of physical attributes such as health and slenderness to emphasize femininity. Gill Lines analyzed the media image of sports stars in general from the perspective of media coverage, pointing out that sports stars can become role models for young people nowadays.

The scholar Zhang Xiaoli has conducted a more detailed study on the development of professional sports netfame phenomenon in China in terms of attention economy, which shows that the value generated by sports netfame can promote the construction of interactive relationship network between professional sports and mass consumers. Domestic scholar Zhao Tingting conducted a more detailed study on the strategies and paths for the healthy communication of sports net popularity in China in terms of rooting theory, and his study showed that exploring the successful paths for sports net popularity to become a sustainable competitive advantage can help solve the dilemma of mass fitness. Domestic scholars Zhou Wenlong and Yang Lu have conducted a more detailed hot analysis and cold reflection on the phenomenon of sports weblebrities in China from the perspective of entertainment, and their research suggests that it is worthwhile to continue exploring how to promote the healthy development of sports celebrity weblebrities image. However, although these studies have examined the current aspect of the development of sports weblebrities, they have neglected the communication effect aspect of live sports weblebrities.

2.2 Literature review of the interactive ritual chain theory

After the theory of ritual interaction chain was proposed by Randall Collins at the beginning of the 21st century, it has received much attention from scholars at home and abroad and has achieved more research results. Foreign scholar Keith R Brown in the field of sociology by studying the phenomenon of moral consumption, the theory has been supplemented by rituals and emotions than identity or compulsory advertising to explain how consumers are mobilized. Foreign scholar SerajM complements the theory in the field of micro-sociological interaction by examining the phenomenon of value creation in online communities to generate emotion and energy. Foreign scholars David Boyns et al. in the field of emotional energetics complement the theory by examining the complex and valued concept of emotional energy in the theory of interactive ritual chains.

Domestic scholars Fan Chuanguo and Deng Sisi combine the actual phenomenon of the operation mode and characteristics of China's bilibili video website with the theory of ritual

interaction chains, suggesting that the interactive communication behaviours among users of bilibili have formed a cyclical interactive ritual chain with continuity within it. Domestic scholar Gu Chudan combines the actual phenomenon of community interaction on China's social platforms with the theory of ritual interaction chains, and proposes that the characteristics of ritual interaction chains on different social platforms are directly related to the strength of emotional energy. Yu Zhaochen, a domestic scholar, combines the actual phenomenon of promoting cultural identity through heritage tourism with the theory of ritual interaction chains, and proposes that the construction of interactive rituals in heritage tourism can help build national cultural identity and forge a sense of national community.

However, these studies do not examine the phenomenon of sports netizens dominating health media campaigns from the perspective of interactive ritual chains, and therefore do not answer questions about why sports netizens' live broadcasts drive audiences' willingness to exercise.

2.3 Problem formulation

This paper will therefore attempt to answer the following questions from the perspective of interactive ritual chain theory:

Why do sports weblebrities-led health media campaigns generate better communication? From an interactive ritual chain perspective, why do live broadcasts by sports netizens increase viewers' willingness to exercise?

3. Research Methodology

This paper uses a questionnaire research method in an attempt to answer the above questions.

3.1 Questionnaire method

3.1.1 Hypothesis building:

Based on the above questions, the corresponding hypotheses are presented here:

H1: The more sports netizens interact with viewers on air, the more effective the communication of sports netizen-led health media campaigns.

H1a: The more sports netizens interact with viewers on air, the more viewers pay attention to exercise and fitness.

H1b: The more sports netizens interact with viewers on air, the more viewers are willing to learn about sports and fitness.

H1c: The more sports netizens interact with viewers during the broadcast, the stronger the viewers' willingness to exercise with the broadcast.

To prove the hypothesis, this study used a questionnaire method to sample the entire population and create a questionnaire.

3.1.2 Sampling methods

This survey completed the process of data collection, collation and analysis on 27 February 2023. The survey was mainly based on open-ended and closed-ended questions, with the following main contents: (1) Confirmation of basic information: including age, gender and occupation. (2) The more sports netizens interact with viewers in the live broadcast; (3) The more viewers are concerned about exercise and fitness; the stronger the viewers' willingness to gain knowledge about sports and fitness; the stronger the viewers' willingness to exercise with the live broadcast. The questionnaire consists of 16 questions, including 8 single choice questions, 4 multiple choice questions, 3 matrix questions and 1 fill-in-the-blank question. It was distributed online via the Questionnaire Star sample bank.

The questionnaire was tested and passed the reliability and validity test to investigate and reflect the impact of sports netizens' interaction with viewers in the live broadcast on the willingness of their healthy media activities to encourage their viewers to exercise. A random sample of questionnaires was taken and 153 questionnaires were collected during the distribution period. 153 valid questionnaires were initially verified, meaning that 153 respondents were interviewed.

4. Research findings and discussion points

4.1 Statistical analysis of the basic information of the interviewees

4.1.1 Gender

Of the 153 respondents, 89 (58.17%) were female and 64 (41.83%) were male. The proportion of male and female respondents was relatively balanced.

4.1.2 Age

As the survey relied on Questionnaire Star for the distribution of the questionnaires, it was an online questionnaire-based survey, so the younger age group accounted for a larger proportion of the respondents. There were 14 people aged 18 and under, representing 9.15% of the total sample; 30 people aged 18-21, representing 19.61% of the total sample; 37.91% of the total sample were aged 22-25 and 9.8% of the total sample were aged 25-30; a further 11.76% were aged 31-40 and 11.76% were aged 40 and over.

4.1.3 Occupation

Because surveys of the public's willingness to exercise may be influenced by factors such as the amount of free time they have, this study also conducted a survey of all respondents' occupations. Of the 153 respondents, 14 were junior and senior high school students (9.15%),

73 were university students (47.71%), followed by office workers (26.14%). There were also freelancers, housewives, entrepreneurs and so on.

4.1.4 Geographical location

The chart below shows the geographical location of respondents to this questionnaire data, with the four provinces and cities of Guangxi, Sichuan, Beijing and Henan accounting for the highest percentage of respondents in terms of geographical representation.

4.2 Statistical analysis of respondents' attention to live sports weblebrities

In addition to the statistical analysis of the basic information of the respondents, this study investigated the behaviour of the respondents in following the live streaming of sports weblebrities, the following is the statistical analysis of whether the respondents follow sports weblebrities, and the frequency of watching live streaming of sports weblebrities, as well as the more concerned sports weblebrities.

4.2.1 Whether they follow live online sports and fitness activities

The highest percentage of respondents "followed but did not participate often", with 65.36% of respondents following but not participating often. In contrast, 37 people "follow and regularly participate in sports", accounting for 24.18% of the total sample size. Another 16 respondents (10.46%) did not follow live online fitness.

4.2.2 Statistics on sports webcasters followed by respondents

In order to better understand whether respondents actually follow online sports webcasters, and to determine which online sports webcasters respondents follow, we intercepted the top-ranked live sports webcasters on each live streaming platform.

The chart below shows the response frequency of sports netizens followed by all respondents. Among them, Liu Hong has the highest level of attention with 78.83%, followed by Pamela with 64.23% of the total sample, the third is Saturday Wild with 40.88%, and the fourth is Ouyang Chunxiao with 32.85%. According to the information search, among them, Liu Hong's fitness is mainly a live streaming business, and the remaining three all have corresponding short video series of courses with a better response. In particular, Pamela's professionalism as a fitness instructor registered in a sports app is widely praised, but the response to her fitness live-streaming is rather lower than that of Liu Hong, who started fitness live-streaming at a later stage.

4.2.3 Analysis of the motivation of following sports netizens

As this study wanted to explore the impact of interaction with sports webcasters on the respondents' exercise hospitals, a preliminary analysis of their motivations for following sports

webcasters was conducted. Among them, "to get in shape" was the highest motivation, with a frequency of 99, accounting for 72.26%, followed by "to improve sports skills" and "to gain knowledge about sports and fitness", accounting for 48.18% and 45.26% respectively. This is followed by "to improve sports skills" and "to gain knowledge about sports and fitness", which accounted for 48.18% and 45.26% respectively. This shows that the majority of respondents have a strong or weak intention to exercise when they first follow sports netizens.

4.2.4 Frequency and duration of watching live sports weblebrities

The willingness to exercise that audiences begin to influence as a result of watching live sports weblebrities interactions is also related to the frequency and duration that audiences watch live broadcasts. Therefore, this study investigated the frequency and length of time viewers watched live sports weblebrities broadcasts. According to the survey analysis, 65 people watched live sports weblebrities broadcasts 1-2 times per week on average, which is the highest percentage at 47.45%. The rest of the respondents watched less than once a week on average, accounting for 26.28%, and 3-4 times a week, accounting for 19.71%.

In terms of length of live viewing, 36.5% of respondents watched an average of 15-30 minutes of live sports weblebrities per week, 34.41% watched less than 15 minutes and a further 21.17% could watch 31-45 minutes. Only 2.92% could watch more than 60 minutes. This shows that the respondents in this study are not very attached to live sports weblebrities broadcasts.

4.3 Analysis of audience willingness to exercise and interaction behaviour

4.3.1 Statistics on pre-viewing and post-viewing exercise tendencies

In order to examine the impact of different types of interaction between viewers and sports broadcasters on viewers' willingness to exercise, it is first necessary to find out how viewers exercised before they got into the habit of watching live broadcasts. As shown below, 63.5% of the sample exercised occasionally, while another 20.44% of the respondents had no exercise habits.

Another survey was conducted to find out whether the respondents would follow the live online fitness activities and the result was that 70.8% of the respondents "occasionally follow the workout", while only 15.33% chose "no". This shows that the live streaming of sports webcams has indeed motivated some viewers to exercise online.

4.3.2 Frequency of interaction with presenters of live sports weblebrities

Unlike previous fitness videos, the accompanying and interactive nature of live fitness broadcasts is stronger and can provide viewers with a sense of companionship. Therefore, before examining the impact of different types of interaction between viewers and presenters, the

frequency of interaction with presenters was first statistically analysed.

According to the survey statistics, on average 51.09 respondents had 1-3 interactions per live programme, 36.5% had less than one and 23.36% had an average of 3-4 interactions per programme. This shows that the respondents in this study do not interact with sportscasters very frequently.

4.3.3 Statistical analysis of live streaming interaction behaviour and preferences

In the live broadcasts of sports netizens, there are interactive behaviours common to all types of live broadcasts, such as bullet chat interaction and discourse exchange, and there are also interactive contents and ways unique to sports netizens' live broadcasts, such as following practice companionship and fitness knowledge science. Therefore, this study investigated the types of interactions that audiences have participated in, as follows. Knowledge popularization was the highest, accounting for 59.85%, followed by accompanying with training at 59.12%; discourse encouragement and bullet chat interaction accounted for 48.91% respectively. The sharing of anchor experience is relatively low, accounting for 22.63%. This shows that the interactive nature of sports webcast is relatively distinct, with a high content of fitness-related interactive content.

In addition to investigating the frequency of various types of interactions, this study also investigated the preferences of respondents for these interactions. The chart below shows a summary of how all respondents scored their preferences for interactions with sports netizens. It is clear to see that respondents had the highest preference for two items: accompanying with practice and knowledgeable science, both at around 3.9, followed by words of encouragement (3.8) and sharing experiences (3.72).

It can be seen that the interaction provided by sports weblebrities in their live broadcasts differs from the form of interaction expected by the audience. bullet chat interaction is an inevitable form of interaction in live broadcasts, but the preference of the audience is very low; on the contrary, the experience sharing expected by the audience is less involved and reflected in the live broadcasts of sports weblebrities.

4.3.4 Statistical analysis of the impact of live interactive behaviour

After statistically analysing the interactive behaviour of sports netizens and the audience's preference for it, the study also examined the impact of these interactions. After the interactive behaviours, the audience's "desire to follow sports and fitness" was the most evident, with an average score of 4.01 out of 5, followed by "desire to gain knowledge about sports and fitness" (3.88) and "desire to work out with the presenter" (3.82). The bias towards interacting with the presenter and sharing with others is lower, which shows that the audience is more inclined to use live streaming as a personal information domain, less communicative and more resistant to interaction as other types of live streaming.

4.3.5 Focus on real-life impact of sports weblebrities' live

In terms of the real-life impact of live sports weblebrities, there is also the potential to motivate viewers to exercise, with "I pay more attention to my body data and health status and have improved" scoring the highest at 4.08 out of five, with attention to body indices being the most obvious impact of watching a live broadcast. This was followed by "my lifestyle is healthier and more effective" (3.96), which is likely to be a self-identity boost, and "increased motivation to participate in exercise and as an important source" (3.9), which was also the most visible impact. However, it is worth noting that the impact of "promoting communication among the same sports enthusiasts and inspiring a passion for life" is low, reflecting the low level of community operation currently achieved by live sports webcasters and one of the directions that could be worked on in the future when presenters interact with viewers.

Table 1 The real-life impact of sports weblebrities' live

Title/Options	Not at all	Not really	General	Might be	Very possible	Average score
I pay more attention to my physical data and health status and have improved	1(0.73%)	4(2.92%)	18(13.14%)	74(54.01%)	40(29.2%)	4.08
I have increased motivation to participate in sport	2(1.46%)	4(2.92%)	35(25.55%)	61(44.53%)	35(25.55%)	3.9
I am much happier with my body	1(0.73%)	6(4.38%)	46(33.58%)	56(40.88%)	28(20.44%)	3.76
I'm living a healthier lifestyle	1(0.73%)	5(3.65%)	27(19.71%)	70(51.09%)	34(24.82%)	3.96
I continue to use it even after a specific goal has been reached	1(0.73%)	8(5.84%)	29(21.17%)	74(54.01%)	25(18.25%)	3.83
Promote communication among fans of the same sport and inspire a passion for life	6(4.38%)	9(6.57%)	33(24.09%)	63(45.99%)	26(18.98%)	3.69
Total	12(1.46%)	36(4.38%)	188(22.87%)	398(48.42%)	188(22.87%)	3.87

4.3.6 Personalized opinion sorting for the interactions of sports weblebrities' live

As the communication effect of live sports weblebrities is more personalized, we also collected respondents' opinions and suggestions on the interaction of live sports weblebrities, and formed the following word cloud chart. The majority of viewers' opinions were about the professionalism of sports webcasters, such as "more professional", and the need for more detailed professional guidance from sports presenters, such as "action analysis", "strengthening standardised action", "explanation of movements", "more knowledge", "more explanation of power", "more supervision" and so on. Because fitness is so closely related to personal fitness, physical fitness and fitness fundamentals, there are even more contents that need to be refined for the audience, such as "targeted live" and "attention to detail demonstrations". "Authenticity" is also an element highly valued by viewers, who want the presenter to be "hands on".

In terms of direct interaction with sports personalities, viewers would prefer "more

continuous encouragement" and expect bullet chat interaction from presenters; however, they do not want too much noise or excessive interaction leading to too much noise and bullet chat screens; they refuse to carry merchandise but can recommend "suitable fitness equipment". In terms of live broadcast settings, they would like to see outdoor broadcasts, advance notice of exercise schedules, and better operation and maintenance.

5 Summary and Reflection

This study theorised the phenomenon of sports weblebrities-led health media campaigns generating better communication effects through a questionnaire method of interactive ritual chains, in an attempt to answer the question of why sports weblebrities' live broadcasts can increase the audience's willingness to exercise. The study found that the more the sports weblebrities interacted with the audience in the live broadcast, the more the audience paid attention to exercise and fitness; the more the sports weblebrities interacted with the audience in the live broadcast, the stronger the audience's willingness to gain knowledge about sports and fitness; the more the sports weblebrities interacted with the audience in the live broadcast, the stronger the audience's willingness to exercise with the live broadcast. This is mainly because viewers are more concerned about their own body index under the influence of sports weblebrities' knowledge and science, while sports weblebrities' words of encouragement in the live broadcast may promote the generation of viewers' self-identity, and viewers' motivation to participate in exercise is enhanced by their interaction with sports weblebrities in the live broadcast.

This study suggests that sports netizen-led health media campaigns can achieve better communication effects, reflecting the rapid development of the national fitness movement phenomenon in the new era. On the other hand, it also enables the continuous improvement of national physical literacy in the context of national fitness in modern China.

However, it is worth noting that this study has also found that the phenomenon of sports netizens being unprofessional, pseudo-science popularization, anxiety creation, viewers blindly following the practice and mechanical "silent" regulation of the platform will bring negative impact on health communication, serious homogenization of online fitness content, live fitness audience following the practice and injuries, commercial capital exploiting the heat for profit are all worthy of vigilance and reflection.

However, this study also has the problem of lack of universality, precision and depth of research results, because the participants of the questionnaire mainly focus on the middle-aged and young groups, and the participants are not very sticky to sports netizens. In the future research of sports netizen-led health media communication campaigns, researchers in the field of sociology may need to pay more attention to the phenomenon of fitness among older groups and the majority of sports fitness live streaming the phenomenon of low audience participation, as well as expand research and practice in the field of live sports and fitness ecology.

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