



Original Article

Research on sports health communication in Guangzhou, China in the context of "Healthy China 2030"

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ARTICLE INFO

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Keywords: Healthy China 2030; Health Communication in sports; New media; Guangzhou

Article history:

Received: 15/10/2023

Revised: 24/11/2023

Accepted: 25/12/2023

Available online: 29/12/2023

How to Cite:

Wei, C. Yossakrai, K. & Patananukit, N. (2023). Research on sports health communication in Guangzhou, China in the context of "Healthy China 2030" Journal of Dhamma for Life, 29(3), 382-403.

ABSTRACT

The research objectives were as follows: (1) To examine the state of communication regarding sport health policy based on "HEALTHY CHINA 2030" in China; (2) To investigate the health communication process in sports based on "HEALTHY CHINA 2030" in China; (3) To analyze the problems and obstacles in sports health communication based on "HEALTHY CHINA 2030" in China; and (4) To explore health communication guidelines in sports based on "HEALTHY CHINA 2030" in Guangzhou, China. The primary theoretical frameworks employed were sport health communication, uses and gratification, and Bourdieu's Habitus. This study adopted a mixed-methods approach. Quantitative analysis involved studying a sample of 18,734,100 individuals aged 18 to 60 in Guangzhou, China, with 410 samples collected through non-probability sampling. In-depth interviews were conducted with key informants, including representatives from public sports health organizations in Guangzhou, sports event marketing companies, media practitioners, and university professors. Data collection utilized online questionnaires, literature reviews, and in-depth interviews, with descriptive statistics and Pearson correlation analysis employed for data analysis.

Key findings included: (1) The communication of the "HEALTHY CHINA 2030" policy in 2023 faced initial challenges in gaining popularity; (2) The sport health communication process revealed varying levels of presentation of "Healthy China 2030" by both public and private organizations in Guangzhou. Messages predominantly emphasized the health benefits of sports in daily life, with mixed media usage, where online platforms proved more efficient. However, normative management was lacking; (3) Identified problems and obstacles included limited choices of communication channels and insufficient personalized information; and (4) To enhance communication effectiveness, recommendations included strengthening policy publicity, adopting multi-channel communication, customizing content, and promoting health concepts comprehensively.

Introduction

In the context of the "Healthy China 2030" strategy, this study delves into the evolution of sports health communication with the aim of enhancing the overall health of the population. With a growing societal focus on health issues, health communication centered around sports activities has progressively demonstrated its significance. The close association between sports and health, coupled with its role in disease prevention and health promotion, is gaining recognition in both academia and society.

Aligned with the "Healthy China 2030" initiative, China has devised policies and measures to advance national health with a core emphasis on national fitness. These policies underscore the widespread promotion of physical education and health activities, urging collective participation in adopting a healthy lifestyle, whether by the government, communities, or individuals. Consequently, sports and health communication has emerged as a pivotal component in education, services, and information, exerting a profound influence on public lifestyles and societal processes.

Despite the growing acceptance of the idea that exercise promotes health, there is a need to fortify the sports communication system to effectively disseminate knowledge in sports humanities and fitness science to the public. This study scrutinizes the communication platform, role, motivation, and impact of sports health communication in Guangzhou. It encompasses the classification of sports health communication content, the motivation, channels, and effects of receiving sports health information, as well as the modes of transmission. Leveraging theories such as the use and satisfaction theory and selective exposure theory, and considering public demand, national goals, and the advantages of new media, this paper illustrates the current practices and applications, challenges, and potential solutions for advancing sports health communication in China.

Objective

- 1) Status of sports health communication in Guangzhou, China, based on Healthy China 2030
- 2) Existing problems and obstacles of sports health communication in Guangzhou based on "Healthy China 2030".
- 3) Research on Sports Health Communication guidelines in Guangzhou, China under the background of "Healthy China 2030".

Literature Review and Research Framework

In the "Healthy China 2030," this paper undertakes a research investigation into sports health communication in Guangzhou, China. The study's purview encompasses an examination of the current state, challenges, and impediments within sports health communication, along with proposing countermeasures and developmental guidelines to address these issues. The research is specifically focused on the residents of Guangzhou.

The quantitative segment of the study involved 410 individuals drawn from outdoor sports and urban sports parks in Guangzhou. In parallel, the qualitative research component comprised interviews with 10 individuals representing various sectors, including Guangzhou government departments, traditional media, sports universities, sports enterprises, and new media. The study's timeframe spans from the release of the Healthy China 2030 Plan Outline to the present, while the geographical coverage centers primarily around outdoor sports parks and urban sports parks in downtown Mountain of Guangzhou, Guangdong Province, China.

Methodology

1) Literature Method

By consulting policy announcements, electronic journals, and conducting network searches, the author obtained relevant literature to analyze previous research results. This literature review provides a theoretical basis with reference value for the research, establishing a solid theoretical foundation. Synthesizing various literature materials enables a better understanding of the status quo, trends, and existing problems in the research field, offering comprehensive and accurate support.

2) Questionnaire Survey Method

In the quantitative research stage, a non-probability sampling method was used to collect 410 questionnaire data from outdoor sports and urban sports parks in Guangzhou. Detailed analysis and summarization of the collected data were performed.

3) Questionnaire Survey of the Research Group

Following the theory and research method of non-probability sampling, Guangzhou, a first-tier city in China, was chosen as a case study. Tianhe Sports Center and Baiyun Mountain Scenic Spot, representing sports parks in Guangzhou, were selected as the main collection points. A total of 410 valid questionnaires were collected, covering public understanding of the "Healthy China 2030" policy, media resources for obtaining sports health information, and sports health communication needs.

Guangzhou, the capital city of Guangdong Province, is characterized by a subtropical monsoon climate. With 35,335 sports venues covering an area of 38,988,500 square meters, Tianhe Sports Center and Baiyun Mountain Scenic Spot attract thousands of sports enthusiasts daily.

Survey Collection Point 1 - Tianhe Sports Center:

Established in 1984, Tianhe Sports Center, located in the financial and commercial center of Guangzhou, has played host to major events. Covering 520,000 square meters, it is the largest sports complex in Guangzhou and a standard venue for various sports events and public leisure activities.

Survey Collection Point 2 - Baiyun Mountain Scenic Spot:

Covering 21.8 square kilometers, Baiyun Mountain Scenic Spot is a national 5A tourist attraction with more than 30 peaks. It hosts numerous public fitness activities, attracting nearly 5 million visitors annually.

4) Questionnaire Research Design:

The questionnaire evaluates the situation of sports health communication in Guangzhou under the framework of the "Healthy China 2030" policy. Designed in the SMCR (Sender-Message-Channel-Receiver) mode, it analyzes information from the sender to the message. The questionnaire assesses the communication effect of the policy and evaluates the perception, trust, and behavioral response of the receivers.

1. Sender (S): Experts in policy makers, media, health, and sports communication. The questionnaire aims to identify the receiver's perception and trust of the sender, influencing message reception.

2. Message (M): Information about the "Healthy China 2030" policy, emphasizing physical activity and a healthy lifestyle. The questionnaire assesses the recipient's understanding, attitude, and behavioral response to these messages.

3. Channel (C): Evaluates the effectiveness of communication channels in reaching the target audience and audience engagement. The questionnaire explores popular channels and recipient satisfaction with the messages delivered.

4. Receiver (R): Guangzhou citizens, providing feedback, behavior change, acceptance, and satisfaction with health information. Parts of the questionnaire collect information about the receiver's background, behavior habits, cognition, attitude toward health information, and preferences for different communication channels.

Based on the SMCR theory, the questionnaire analyzes the effectiveness of information delivery, the most efficient channels, and how recipients handle the information. Feedback from 410 citizens informs strategies for improving health communication and adjusting policies to better serve public health.

5) Interview Method

In the qualitative research stage, 10 professionals from Guangzhou municipal government departments, traditional media, sports universities, sports enterprises, and new media fields were interviewed. Their insights and experiences in sports health communication enriched the research.

Comprehensive analysis of quantitative and qualitative research results, combined with policy literature and historical data, allowed the integration and summarization of the status quo and difficulties of sports health communication in Guangzhou. The research provides corresponding countermeasures and suggestions, offering guidance and reference for further development in sports health communication.

Result

1) The present situation of sports health communication in Guangzhou, China based on "Healthy China 2030" is studied

Table 1 Personal Understanding of "Healthy China 2030" Planning Outline

Serial Number	Personal knowledge of the Healthy China 2030 program outline	Quantity	Percentage
1	Very well understood, is a national strategy	73	17.8
2	A little bit, but I haven't read the details.	182	44.39
3	5. Heard about it, not sure about it	121	29.52
4	Not a clue	34	8.29
Total		410	100.00

Among them, 17.8 percent know very well that "Healthy China 2030" is a national strategy, 44.39 percent know a little about it but have not read the details in detail, 29.52 percent have heard of it but do not know much about it, and 8.29 percent do not know at all. It can be seen that most people have some understanding of "Healthy China 2030", but their understanding is not deep enough. It is suggested that publicity should be strengthened to improve the public's awareness and understanding of Healthy China 2030.

Table 2 Pearson's relevant analysis of respondents' knowledge of Healthy China 2030 policy.

Pearson's relevant analysis of respondents' knowledge of Healthy China 2030 policy					
	Age	Gender	Highest education (degree)	Occupation	Enjoys being involved in sports at outdoor parks
Knowledge of "Healthy China 2030".	0.158**	0.061	0.193**	0.109*	0.044

After correlation analysis, the data showed a negative correlation between age and knowledge of Healthy China 2030, with a correlation coefficient of -0.158 and a p value less than 0.002. This means that as people grow older, the likelihood of knowing about Healthy China 2030 decreases, and the national policy of sports promoting health has more influence on young people.

Table 3 Take the initiative to pay attention to the media and platforms of sports promoting health. (1 score lowest, 5 score highest)

Serial Number	Name	\bar{x}	S.D.	Opinion level	Rankings
1	Authoritative media: CCTV, People.com.cn, Xinhua News Agency, etc	3.768	1.007	4.000	3
2	Radio and television media: Guangdong TV Station, Guangzhou TV Station, etc	3.678	1.123	4.000	5

Serial Number	Name	\bar{x}	S.D.	Opinion level	Rankings
3	Print media: newspapers, magazines, books	3.100	1.118	3.000	9
4	Government departments we media: sports bureau, hospital and other government functional departments	3.512	1.095	4.000	6
5	New media platforms: Douyin, video number, Kuaishou, XiaoHongshu, etc	4.012	0.900	4.000	1
6	Sports APP: Yue Run circle, KEEP, Gu Dong, etc	3.798	0.992	4.000	2
7	Smart wearable system: watch, mobile phone, bracelet, etc	3.690	0.961	4.000	4
8	Work and life community: the publicity board of your own unit, school and community	3.337	1.074	3.000	7
9	Opinion leaders: Social media of celebrities, influencers	3.207	1.107	3.000	8
10	Other	2.571	1.072	3.000	10

An average measure the average of different media categories under specific metrics. As can be seen from the data, new media platforms (Douyin, Video number, Kuaishou, Xiaohongshu, etc.) received the highest average (4.012), which means that respondents have a higher evaluation of new media platforms under that specific indicator. This was followed by sports apps (3.798) and authoritative media (3.768).

Standard deviation measures how discrete the data distribution is for different media categories under a particular metric. A smaller standard deviation means that the data points are more clustered around the mean, indicating that respondents are more consistent in their evaluation of the media category. As can be seen from the data, the standard deviations of new media platform (0.900) and smart wearable system (0.961) are relatively small, and respondents' evaluations of these two types of media are more consistent.

Some conclusions can be drawn from the data that the new media platform gets the highest evaluation under this specific index, which means that the respondents have a high degree of recognition of new media platforms such as Douyin, video number, Kuaishou and Xiaohongshu in a certain aspect. This was followed by sports apps and authoritative media, which also received relatively high evaluations. Traditional media forms still have some influence in this regard. However, other media categories (such as print media, government-sector we-media, work-life community, etc.) have a relatively low evaluation and a large standard deviation under this specific index, indicating that respondents' evaluation of these media is more dispersed.

Table 4 Respondents actively pay attention to Pearson correlation analysis of the channels of sports promoting health-related information.

	Age	Gender	Highest Education (degree)	Occupation	Enjoy being involved in sports at outdoor parks
1 Authoritative media: CCTV, People.com.cn, Xinhua News Agency, etc.	0.155**	0.117*	0.077	0.019	0.069
2 Radio and television media: Guangdong TV Station, Guangzhou TV Station, etc.	0.193**	0.016	0.092	0.019	0.049
3 Print media: newspapers, magazines, books	0.160**	0.048	0.115*	0.021	0.103*
4 Government departments we media: sports bureau, hospital, and other government functional departments	0.224**	0.051	0.101*	0.017	0.007
5 New media platforms: Douyin, video number, Kuaishou, XiaoHongshu, etc	0.036	0.018	0.070	0.033	0.032
6 Sports APP: Yue Run circle, KEEP, Gu Dong, etc	0.052	0.056	0.036	0.159**	0.071
7 Smart wearable system: watch, mobile phone, bracelet, etc	0.091	0.041	0.038	0.046	0.062
8 Work and life community: the publicity board of your own unit, school, and community	0.250**	0.032	0.048	0.043	0.052
9 Opinion leaders: social media of celebrities, influencers	0.191**	0.016	0.124*	0.057	0.004
10 Create a good social atmosphere: support sports media, sports health opinion leaders	0.092	0.027	0.108*	0.006	0.030
11 Other	0.111*	0.022	0.061	0.029	0.020

After correlation analysis, research data show that gender and media platforms that actively pay attention to sports promotion health information (authoritative media) : There is a positive correlation between gender and actively pay attention to sports promotion health information on authoritative media, the correlation coefficient is 0.155, and the p value is less than 0.002. This indicates that on this media platform, men are more likely to actively pay attention to sports health information.

Highest education (degree) and active attention to sports health promotion information in print media: The data show that people with higher education (degree) are more likely to

actively follow sports health information in print media, with a correlation coefficient of 0.115 and a p value less than 0.05.

Occupation and active attention to sports health promotion information on government-affiliated we-media: There is a positive correlation between occupation and active attention to sports health information on government-affiliated we-media, the correlation coefficient is 0.101, and the P-value is less than 0.05. This means that people engaged in certain occupations are more likely to obtain relevant information on government-affiliated we-media.

1.3 Media that people think are suitable for sports and health communication.

Table 5 Media that people think are suitable for sports and health communication (1 score is the lowest, 5 score is the highest)

Serial Number	Name	\bar{x}	S.D.	Opinion Level	Rankings
1	Sports media: Promote the popularization of leisure sports	4.185	0.727	4.000	1
2	Mass media: life service media	3.924	0.872	4.000	3
3	Educational media: educational and popular science media	3.802	0.910	4.000	4
4	News media: Current political news media	3.527	1.106	4.000	6
5	Health communication: health care related media	3.939	0.838	4.000	2
6	Organizational communication: social media	3.763	0.904	4.000	5
7	Other additions	2.700	1.132	3.000	7

Average and median can be used to understand the audience evaluation of different media categories in terms of sports health communication. Among them, sports media (promoting the popularization of leisure sports) obtained the highest average (4.185) and median (4.000), which means that respondents generally believe that sports media is the most suitable for sports health communication.

Standard deviation: Standard deviation measures the dispersion of the data. A smaller standard deviation means that the data points are more clustered around the mean, indicating that respondents are more consistent in their evaluation of the media category. The standard deviation for sports media (which promotes popular recreational sports programs) is 0.727, indicating that respondents are relatively unanimous in their evaluation of this type of media.

It can be concluded from the data that sports media received the highest evaluation in sports health communication, and respondents believed that sports media was the most suitable for promoting popular leisure sports projects. Mass media, educational media, health communication and community media also received some degree of recognition, with ratings slightly lower than sports media. While news media (current political news media) and other complementary media categories received relatively low ratings in sports health communication.

Table 6 Individual evaluation of media suitable for sports health communication (1 score lowest, 5 score highest) by Pearson correlation analysis.

Serial Number	Name	Age	Gender	Highest education (degree)	Occupation	Enjoys being involved in sports at outdoor parks
1	Sports media: Promote and popularize leisure sports	0.132**	0.105*	0.036	0.021	0.029
2	Mass media: life service media	0.053	0.026	0.168**	0.014	0.120*
3	Educational media: educational and popular science media	0.106*	0.064	0.066	0.084	0.010
4	News media: Current political news media	0.227**	0.015	0.149**	0.019	0.034
5	Health communication: health related media	0.049	0.000	0.112*	0.083	0.102*
6	Organizational communication: social media	0.170**	0.061	0.128**	0.003	0.093

Actively following sports for health information on different types of media platforms: Relevant analysis data shows that there are certain positive and negative correlations between different media platforms, which vary from platform to platform. For example, there is a positive correlation between individuals' tendency to pay attention to government departments' self-media and their tendency to pay attention to radio and television media, while their attention to new media platforms is more dispersed. Personal evaluation of different media: The data shows that individuals evaluate different types of media, and the evaluation also varies according to the type of media. For example, sports media and news media received higher ratings, while educational media received lower ratings.

1.4 Ways to proactively obtain sports health-related information on new media platforms. (1 score lowest, 5 score highest)

Table 7 Ways to proactively obtain sports health-related information on new media platforms.

Serial Number	Name	\bar{x}	S.D.	Opinion Level	Rankings
1	Offer to participate in sporting events	3.724	0.996	4.000	5
2	Follow sports science information	3.773	0.938	4.000	4
3	Buy sporting goods that help with physical fitness	3.829	0.925	4.000	2
4	Choose your own interest preferences on the website or APP	3.871	0.871	4.000	3

Serial Number	Name	\bar{x}	S.D.	Opinion Level	Rankings
5	Offer to join the sports health community	3.595	0.955	4.000	6
6	Actively search or pay attention to sports health-related media platforms and bloggers, often browse relevant information, and media big data will push more	3.893	0.884	4.000	1
7	Purchase physical fitness classes, or consult a professional coach for guidance	3.537	1.067	4.000	7
8	Volunteer to publish relevant articles or share experiences on your own social media	3.349	1.196	4.000	8

Among different sports health behaviors, buying sports goods that are helpful to physical health (selective identification) and choosing their interest preferences on websites or apps (selective media exposure) received the highest average values (3.829 and 3.871, respectively). This means that respondents have a high degree of recognition for these two behaviors in terms of selective identification and selective media exposure.

Standard deviation measures how discrete the data distribution is for specific aspects of different sports health behaviors. As can be seen from the data, the standard deviation of voluntarily publishing relevant articles or sharing experiences on one's own social media (selective media exposure) was the largest (1.196), indicating that respondents' evaluation of this behavior was more scattered.

From the data, some conclusions can be drawn that buying sports goods that are good for health (selective identification) and choosing one's own interests and preferences on websites or apps (selective media exposure) receive the highest evaluation in certain aspects. At the same time, actively searching for or following sports health related media platforms and bloggers, often browsing relevant information, media big data will push more (selective media exposure) also received relatively high evaluation. On the other hand, actively publishing relevant articles or sharing experiences on one's own social media (selective media exposure) received more scattered evaluations in certain aspects.

1.5 1 Sports health information that one thinks can meet the public's health needs. (1 score lowest, 5 score highest)

Table 8 Analysis of standard deviation and average value of sports health information that individuals think can meet the public's demand for health.

Serial Number	Personal opinion can meet the public health needs of sports health information.	\bar{x}	S.D.	Median Ranking:
1	Focus: Popularize healthy lifestyle	4.144	0.682	4.000 1
2	Promote physical activity among key groups: strengthen health education in schools	3.990	0.845	4.000 3

Serial Number	Personal opinion can meet the public health needs of sports health information.	\bar{x}	S.D.	Median	Ranking:
3	National fitness: Carry out national fitness	4.041	0.816	4.000	2
4	Strengthen the integration of physical medicine and non-medical health intervention: promote national physical fitness monitoring	3.873	0.889	4.000	7
5	Physical and medical integration: Strengthen the integration of sports and medical care	3.883	0.910	4.000	6
6	Integration of sports and education: integration of sports and education	3.905	0.929	4.000	5
7	Sports and tourism integration: sports and cultural tourism integration	3.732	0.987	4.000	12
8	Improve the public service system for national fitness: Improve the construction and operation mode of public sports facilities such as stadiums and scenic spots	3.971	0.864	4.000	4
9	Promote health science and technology innovation: Promote sports to promote health science and technology innovation	3.839	0.937	4.000	8
10	Sports industry: Develop sports apparel, equipment, and other sports goods industry	3.759	0.998	4.000	10
11	Develop the fitness, leisure, and sports industry: Encourage the development of sports clubs and enrich amateur sports events	3.756	0.968	4.000	11
12	Create a good social atmosphere: support sports media, sports health opinion leaders	3.839	0.919	4.000	8
13	Other supplements (strengthening publicity, government policy guidance, holding large-scale events)	2.763	1.155	3.000	9

Among the different promotion measures, the focus on popularizing healthy lifestyle (4.144), national fitness: carrying out national fitness (4.041) and promoting physical activity of key groups: strengthening school health education (3.990) obtained a high average value, which means that respondents have a high degree of recognition of these measures.

It can be seen from the data that the standard deviation of other supplementary measures (such as strengthening publicity, issuing policy guidance by the government, holding large-scale events) is the largest (1.155), indicating that respondents' evaluation of these measures is relatively scattered.

Focusing on popularizing healthy lifestyle and national fitness: carrying out national fitness and promoting physical activities among key groups: Strengthening school health education received high recognition among respondents. In addition, creating a good social atmosphere: supporting sports media, sports health opinion leaders and promoting health

science and technology innovation: promoting sports to promote health science and technology innovation also received relatively high evaluation. However, other complementary measures received scattered evaluations among the respondents.

1.5.2 Relevant analysis of sports health information that individuals think can meet the public's health needs.

Table 9 In my opinion, such sports health communication information can satisfy the public's choice and identification of health needs through Pearson correlation analysis.

Serial Number	Opinion	Age	Gender	Highest education (degree)	Occupation	Enjoys being involved in sports at outdoor parks
1	Focus: Popularize healthy lifestyle	0.109*	0.028	0.050	0.050	0.023
2	Promote physical activity among key groups: strengthen health education in schools	0.000	0.013	0.085	0.017	0.015
3	National fitness: Carry out national fitness	0.030	0.027	0.073	0.084	0.117*
4	Strengthening physical and medical integration and non-medical health interventions: promoting national physical fitness monitoring	0.068	0.011	0.167**	0.131**	0.026
5	Physical and medical integration: Strengthen the integration of sports and medical care	0.091	0.023	0.085	0.041	0.029
6	Integration of physical education: integration of sports and education	0.172**	0.133**	0.120*	0.022	0.052
7	Sports and tourism integration: sports and cultural tourism integration	0.156**	0.003	0.048	0.045	0.008
8	Improve the public service system for national fitness: Improve the construction and operation mode of public sports facilities such as stadiums and scenic spots	0.076	0.047	0.088	0.026	0.077
9	Promote health science and technology innovation: Promote sports to promote health science and technology innovation	0.108*	0.037	0.106*	0.005	0.064

Serial Number	Opinion	Age	Gender	Highest education (degree)	Occupation	Enjoys being involved in sports at outdoor parks
10	Sports industry: Develop sports apparel, equipment, and other sports goods industry	0.198**	0.031	0.077	0.100*	0.042
11	Develop the fitness, leisure, and sports industry: Encourage the development of sports clubs and enrich amateur sports events	0.168**	0.077	0.095	0.036	0.025
12	Other supplements	0.145**	0.063	0.055	0.044	0.054

After correlation analysis, the data show that women are more likely to believe that strengthening health education in schools can meet health needs. In other aspects, the differences between gender, educational background and occupation are not obvious, and older people have higher recognition of each content.

1.6 Suggestions for optimizing sports health communication. (1 score lowest, 5 score highest)

Table 10 Respondents' suggestions on optimizing sports health communication in Guangzhou.

Serial number	Respondents' suggestions on optimizing sports health communication in Guangzhou	\bar{x}	S.D.	Median	Rankings
1	Add more content of sports for health in sports media, such as activities, knowledge, services, etc.	4.046	0.773	4.000	2
2	In the medical health media, increase the knowledge and services of sports for health promotion.	3.939	0.924	4.000	5
3	Strengthen physical health education: school education increases the knowledge that physical education promotes health.	4.056	0.876	4.000	1
4	In public facilities in specific areas, in leisure public facilities to increase the content of sports promotion of health.	3.888	0.877	4.000	6
5	Hold more mass sports events where sports promote health.	3.963	0.899	4.000	4
6	Build more recreational sports facilities.	4.029	0.884	4.000	3

Among the measures in different media and venues, "add more content of sports for health in sports media, such as activities, knowledge, services, etc." (4.046), "Strengthening physical health education: school education increases knowledge of physical education for

health." (4.056) and "Build more leisure and sports facilities." (4.029) received a high average, which means that respondents have a high degree of approval for these measures.

"Add more content of sports for health in sports media, such as activities, knowledge, services, etc." Has the smallest standard deviation (0.773), indicating that respondents' evaluation of this measure is more consistent.

Overall, "Add more content of sports to promote health in sports media, such as activities, knowledge, services, etc." , "Strengthening physical health education: School education increases knowledge of physical education for health." And "Build more recreational sports facilities." Received high marks. On the other hand, "Increase sports promotion knowledge and services in medical and health media" and "increase sports promotion content in leisure facilities in public facilities in certain areas" received relatively low evaluations.

1.7 Which sports space do people think is most beneficial to their health in Guangzhou?

Table 11 The beneficial of people health in Guangzhou

Serial number	Name	\bar{x}	S.D.	Median	Rankings
1	Outdoor scenic spots such as Baiyun Mountain	4.268	0.770	4.000	1
2	Downtown sports park: Tianhe Sports Center and other city comprehensive professional sports center	4.083	0.820	4.000	2
3	Community stadium: A sports field near a community	3.988	0.780	4.000	5
4	Gym: Indoor gym	3.646	0.966	4.000	6
5	Professional venues: tennis, football, badminton, swimming, and other professional sports venues	3.990	0.856	4.000	4
6	Sports Rehabilitation: Sports rehabilitation center	3.580	1.032	4.000	7
7	Outdoor: countryside, outdoor natural scenic spots	4.068	0.885	4.000	3
8	Other (Supplementary comments are: sports fields on various campuses)	2.785	1.091	3.000	8

Among different sports venues, outdoor scenic spots such as Baiyun Mountain (4.268) and downtown sports park: Tianhe Sports Center and other urban comprehensive professional sports centers (4.083) obtained the highest average value, which means that respondents have a high degree of recognition of these sports venues.

The standard deviations of sports rehabilitation (1.032) and other (1.091) were the highest, indicating that respondents' evaluation of these sports venues was more dispersed.

Some conclusions can be drawn from the data, such as outdoor scenic spots such as Baiyun Mountain and downtown sports parks: Tianhe Sports Center and other urban comprehensive professional sports centers received higher evaluations. Outdoor (pasturelands, outdoor natural scenic spots) and community stadiums also received relatively high evaluations. While gyms, professional venues and sports rehabilitation were more dispersed among respondents.

Discussion

Using the city of Guangzhou as an example, this study explores in depth the strategies and practices of sports health communication in the context of the Healthy China 2030 policy, and the findings reveal several key findings:

1) Low acceptance of the policy: In 2023, the dissemination of the "Healthy China 2030" policy was not widely accepted by the public at the initial stage, which may be caused by insufficient publicity, inadequate information transmission or weak identity of the target population.

2) The status quo of sports health communication:

Sports health communication organizations at all levels, whether public or private, present the theme of "Healthy China 2030" at different levels, especially at the top of public organizations and in the middle management of traditional media and new media. In daily life, whether through the media or daily communication, people generally emphasize the positive impact of sports on health. While there are many forms of media through which people are exposed to information, the Internet and digital platforms have shown greater efficiency in dissemination. Guangzhou citizens generally maintain a high awareness of sports, which indicates that basic education and popularization campaigns have been successful to a certain extent.

3) There are still obstacles in the implementation of the policy: the choice of communication channels is relatively limited, the diversified communication methods are not fully utilized to expand the coverage, the information conveyed to the public is not personalized, and the specific needs of different groups are not accurately matched, which limits the appeal and influence of information.

4) In order to effectively improve the communication effect, it is necessary to strengthen policy publicity, multi-channel communication, content customization and all-round promotion of health concepts.

In the context of "Healthy China 2030", sports health communication is not only a policy requirement, but also an indispensable part of every citizen's healthy life. We hope that our research and innovation can promote more cities and regions represented by Guangzhou to truly realize the grand goal of healthy China, so that more people can promote health and shape a better life through sports.

Conclusion

The current situation of sports health communication in Guangzhou, China under the background of "Healthy China 2030".

As one of the major cities in China, the process of sports health communication in Guangzhou shows its uniqueness and complexity under the policy background of "Healthy China 2030".

1. Sports health communication has entered the era of all-media communication.

According to the survey data, Guangzhou citizens generally believe that new media platforms such as Douyin, video number and Kuaishou are the main ways to obtain sports health information. With their unique form, interactivity and wide coverage, these platforms have become the leading force in modern sports and health communication. This is in line with the viewpoint of new media theory. Between the traditional media and the new media, the theory of sports communication has been fully reflected. Guangzhou citizens have shown strong trust in sports media when promoting leisure sports, which shows the authority and professionalism of sports media.

2. Sports health communication has social educational properties.

According to the survey data, the key is to popularize healthy lifestyle, strengthen national fitness and physical health education.

3. Sports health communication has the attribute of customization.

The motivation of Guangzhou citizens to obtain sports health information stems from their individual needs, and they choose different information sources based on this, such as buying health supplies or choosing specific websites and apps. The presentation of the use and satisfaction theory in the process of sports health communication in Guangzhou. They tend to actively choose information sources that are consistent with their own views and needs and avoid the information that is inconsistent with them. This phenomenon is also consistent with the selective exposure theory.

According to the research and analysis of the questionnaire survey, the current situation of sports and health communication in Guangzhou under the background of "Healthy China 2030" shows the characteristics of policy guidance and promotion, the integration of multiple media, the difference of communication channels, the influence of professional communication, and the popularization of healthy lifestyle.

1. Policy guidance and promotion: The "Healthy China 2030" policy has an obvious guiding effect on sports and health communication in Guangzhou. Combining the policy goal with the communication practice, it emphasizes the popularization of healthy lifestyle and the importance of national fitness. The influence of the policy has stimulated the active participation of the media and citizens and accelerated the promotion of healthy communication of sports.

2. Multi-media integration: Under the synergistic effect of new media and professional sports media, sports health communication in Guangzhou has shown the characteristics of multi-media integration. Emerging digital platforms such as Douyin, video number and other traditional sports media jointly build a broad and three-dimensional communication network, providing various forms of sports health information for the public. This kind of media integration not only improves the availability of information, but also promotes interaction and cooperation among different media, enriching the content and forms of communication.

3. Differences in communication channels: There are differences in the evaluation of sports and health communication in Guangzhou by different media channels. New media

platforms are highly recognized, while traditional media are still influential in certain aspects. Other media categories received lower ratings, reflecting the diversity of citizens' awareness and acceptance of different communication channels.

4. Influence of professional communication: Sports communication media play a key role of professionalism and authority in the process of sports and health communication in Guangzhou. Through in-depth reporting, professional analysis and authoritative opinions, these media build reliable information sources. Citizens tend to trust these professional communication channels, making it easier to accept and adopt health information such as a healthy lifestyle.

5. Popularization of healthy life: Sports and health communication actively advocates the popularization of healthy lifestyle in the process of Guangzhou. With the help of the health communication theory, citizens are guided to pay more attention to their personal health and encourage them to actively participate in leisure sports and national fitness activities. By emphasizing the benefits of healthy living and promoting health knowledge, communication channels have gradually changed citizens' behavior habits.

6. Extensive personalized demand: The market of sports and health communication in Guangzhou shows obvious personalized demand. Citizens' demand for sports health information varies according to their personal interests, lifestyle and health status. The communication channels provide diversified content according to these individual needs, so as to meet the citizens' health information needs and enhance the pertinence and practicability of information.

In view of these problems and obstacles, measures can be taken to promote the development of sports health communication in Guangzhou by strengthening policy publicity, expanding communication channels, providing personalized information, strengthening health education, and formulating targeted communication strategies, so as to better serve the development goals of "Healthy China 2030" policy and drive the general public to promote health through sports.

2. Existing problems and obstacles of sports health communication in Guangzhou under the background of "Healthy China 2030".

Aiming at the goal of this study, qualitative research was carried out and targeted interviews were conducted with 5 groups of experts, who were from the sports department under the Guangzhou Municipal Government, sports enterprises in Guangzhou, professors of sports college, traditional media in Guangzhou and new sports media in Guangzhou.

Interviewee	Problems and obstacles of sports health communication in Guangzhou, China in the context of "Healthy China 2030".
Mr.Y	Financial constraints and insufficient social resources are among the major challenges facing the Guangzhou Institute of Sports Science, which may limit its expansion and development in sports health communication. Guangzhou Institute of Sports Science can only provide standardized basic testing, unable to provide personalized services for the public, it needs professional

	organizations to carry out this part, resulting in a decline in the participation of some members of the public in sports testing services. The institutional system restricts the commercial development of social resources and limits the collaboration and innovation of diversified resources.
Mr.T	It is common for the public to have insufficient knowledge and awareness of health. Communication channels are not smooth: Although Guangzhou has adopted a diversified communication platform, there are still some people who cannot access this health communication information, resulting in limited communication. Uneven distribution of resources: Some communities or schools lack support and resources for related health communication activities, and the spread of health knowledge is unbalanced. Shortage of social sports instructors: In reality, there may be an insufficient team of instructors, which affects the coverage of sports guidance and health counseling. Cognitive bias and inaccurate communication: new media communication channels are scattered, and there may be inaccurate information, which affects the public's understanding and cognition.
Mr.P	Local government policy formulation is not specific enough and attention is insufficient: professional communication talents and operating funds do not match social needs. The broadcasting power of professional content on new media and Internet platforms is insufficient.
Mr.R	The popularity of sports health concept among the general public is not enough. Sports companies are faced with a lack of diversity in their activities and a lack of customized sports activities for different groups of people, which limits coverage and influence. Mainstream media tend to report competitive sports, and the publicity of national fitness and participatory sports is relatively insufficient, which limits the promotion of the concept of sports health.
Mr.Z	The sports channel lacks fixed sports health content in the daily program and lacks guidance on healthy lifestyle. The resource allocation of traditional media is relatively limited, and it is difficult to exert a strong influence. In the past, the content of sports channels tended to be entertainment, such as "Exercise Well" and "Sports and Health Lecture Hall", rather than scientific and professional. This may affect the audience's trust and participation in sports and health content. Lack of scientific sports health standards: Therefore, sports channels need to be careful when disseminating sports prescriptions and related health knowledge to avoid misleading and injuring.
Mr.B	The show faces the challenge of spreading across multiple platforms, how to maintain its appeal on different social media without losing its originality and value and needs to explore more effective communication strategies. Audience satisfaction: Although the content of the program focuses on healthy living, the audience may prefer lighter and more entertaining content, and how to maintain professionalism and authenticity while catering to the tastes of the audience is a problem. The fragmented communication mode limits the depth of content and the sustained attention of the audience, and how to deliver valuable information within a limited time is a challenge. Programs cover multiple fields, but in order to deepen content, more

	production costs need to be invested, and how to strike a balance between cost control and content innovation is a difficult challenge.
Mr.S	Information dissemination is fragmented and lacks systematism and depth. A large amount of information is difficult to integrate and deliver effectively, leading to misunderstandings and blind actions of the public. The concept of physical fitness is still not widely established, and some people neglect exercise and a healthy diet, leading to a bad lifestyle. There is a disconnect between expertise and scientific research and mass communication, making it difficult for scientific evidence to be communicated and influencing health decisions. New media is too commercialized and biased towards click-through rates and traffic, which may neglect in-depth health content.
Mr.W	Not uniform, not systematic, not authoritative. The opinions in the field of sports health communication are not uniform, including the inconsistent views among doctors on the safety of sports in different situations, as well as the influence of personal subjective opinions, which may lead to information fragmentation, inaccurate dissemination, and no authority. The lack of a scientific, common-sense normative system makes it difficult for people to make informed decisions when facing health problems. Sports health communication has not yet formed a systematic macro plan, and the cooperation and coordination at different levels are not sufficient, resulting in the dispersion and incomplete communication system.
Mr.L	Young users tend to pursue instant interaction, how to attract young users while maintaining professionalism and depth of content, maintaining the balance of content to convey the right concept of sports health, is a challenge. The cooperation between traditional media and new media needs to find a balance and give full play to their respective advantages. Lack of education and professionalism: some users lack correct knowledge of sports and health, and the communication content needs to pay more attention to education and professionalism. Coordination between traditional media and new media: how to create a more attractive form of sports and health communication based on the professional content of traditional media, combined with the interaction and real-time of new media, needs to be considered.
Mr.T	Censorship and policy restrictions: In the communication of sports and health in Guangzhou, the censorship system and policy restrictions have caused certain constraints on the dissemination and innovation of content. Since health communication involves medical treatment, nutrition and other fields, the content may be subject to strict censorship and supervision, which restricts the play of creativity. Changes in policies may also lead to adjustments in communication strategies, and breakthroughs need to be sought under the premise of compliance. Technical challenges and data issues: Technology application and data analysis are key. However, inconsistent data standards, interface changes due to equipment updates, etc., may affect the accuracy and integrity of data, which in turn affects the effectiveness of health information dissemination and user experience. Sports and health communication in Guangzhou involves cooperation in

<p>many fields, such as sports bureaus, enterprises, medical institutions, etc. Cooperation in different fields may face problems such as communication barriers and differences in goals and methods. Issues of user cognition and awareness: Health communication needs to guide citizens to correct health concepts and lifestyles, but users' cognition and awareness may be different. Some citizens may lack sufficient awareness of health information or hold wrong views on health issues. Balance between business model and public welfare goals. It is necessary to strike a balance between pursuing business development and achieving public welfare goals. Insufficient resources and talent reserves.</p>
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Based on the qualitative research of interviews with 10 experts, the problems, and obstacles of sports health communication in Guangzhou, China, under the background of "Healthy China 2030" plan.

2.1. Lack of cognition and obstacles in policy publicity.

The results of the survey indicate that the public's awareness of the "Healthy China 2030" policy is insufficient, which may be the result of inadequate policy publicity, and the main means of policy communication are concentrated in the organizational communication of government units, which affects the way the public understands the policy objectives and importance. Policy communication should be carried out through a variety of communication means, such as new media and traditional sports media to jointly strengthen policy publicity, improve public awareness and support for the policy, especially increase the participation of commercial media and sports apps with high traffic.

2.2. Insufficient choice and diversity of communication channels.

Although new media platforms have received high evaluations, sports and health communication still relies too much on traditional media channels. In order to meet the needs of different audiences, new media platforms should be used more actively while exploring diversified communication channels.

2.3. Insufficient personalization and satisfaction of information.

The use and satisfaction theory points out that audiences are more inclined to obtain information related to their own needs. Therefore, sports health communication needs to meet individual needs more accurately and provide practical health knowledge, activities, and services to improve the audience's satisfaction.

2.4. Gap between physical health education and cognition.

The survey found that although the public think that sports media is suitable for sports health communication, the popularity of knowledge about healthy lifestyle still needs to be improved. An emphasis on health promotion and lifestyle advocacy can help fill the perception gap.

2.5. Selectivity and limitation of media exposure.

The audience's selective exposure to media is consistent with the new media theory. However, there are differences in the choice and recognition of different media, so it is necessary to better understand the audience's media use preferences and formulate corresponding communication strategies.

In the context of "Healthy China 2030", the problems and obstacles in sports and health communication in Guangzhou include lack of awareness of policies, lack of choice of communication channels, lack of personalized information and satisfaction, cognitive gap of sports and health education, and selectivity and limitation of media exposure. In order to solve these problems, it is necessary to strengthen policy publicity, meet different needs through diversified communication channels, provide personalized information, emphasize the popularization of healthy lifestyle, and formulate targeted communication strategies. In this way, it can better serve the development goals of the "Healthy China 2030" policy and contribute to the development of sports health communication.

Study the Guangzhou Sports Health Communication guidelines based on "Healthy China 2030". Based on theoretical research, quantitative questionnaire analysis and qualitative interview research, this paper summarized the current situation, process and predicament of sports health communication in Guangzhou under the background of "Healthy China 2030" strategy. In order to optimize and promote the development of sports health communication in Guangzhou and promote the "Healthy China 2030" strategy, The classification of sports health communication will be set up from the aspects of policy and support, communication strategy, combination of scientific research and practice, scientific and technological innovation, specialization and audit mechanism. The guidelines for the development of China's Sports and Health Communication (Guangzhou) are drawn up from the aspects of scientific research and development, talent training mechanism, innovative communication activities that can be expanded under the background of the integration of sports and medical care, media platform strategy, media content setting, digital application, consumer market development, and think tank construction.

Developing multiple communication channels: Using the theory of new media and diversified communication channels such as social media, mobile applications and offline activities, to meet the needs of different groups and expand the coverage and influence of communication. Content customization: Based on the needs of the audience and the guidance of the use and satisfaction theory, the sports and health communication content is customized according to the characteristics and needs of the audience, and personalized health services are provided in cooperation with professional organizations to ensure accurate information delivery. Build a professional knowledge communication system: according to the health communication theory, cooperate with professional institutions to invite doctors and sports experts to participate in content creation and communication, to ensure that the communication content is scientific, accurate, authoritative, and reliable.

Introducing entertainment content to radiate audience groups: Combining sports communication theory, introducing entertainment elements such as star cooperation and social platforms to attract more people to participate in sports health communication, and convey health knowledge through entertainment. Promote the government to issue policy support and guide social cooperation: Based on the health communication theory, local governments formulate policies to support sports health communication, encourage enterprises, media, and institutions to participate, and cooperate across fields to promote innovative communication models. Supervision and review: Establish a review mechanism to ensure the accuracy and scientific of communication content and improve public trust in

communication content. With the help of new technology: Combining the theory of new media, explore emerging scientific and technological means such as virtual reality and online health platform to enhance the timeliness and interest of communication, and optimize communication strategies by using big data analysis.

Research and scientific discussion: Based on the theory of health communication, regular research and evaluation will be carried out to understand the public's cognition and behavior changes in health knowledge, and through scientific demonstration, communication strategies will be adjusted to ensure effective communication. Promote comprehensive health concept: emphasize comprehensive health concept, promote public attention to the combined impact of exercise, diet and mental health, and pass comprehensive health concept through publicity activities. National participation and community atmosphere: through holding competitions, volunteer services and other activities, encourage all sectors of society to actively participate in sports and health activities, and build an atmosphere for the participation of the whole society. The above comprehensive guidelines not only reflect the combination of theory and practice, but also emphasize the importance of cross-field cooperation, aiming to promote the comprehensive development of sports and health communication in Guangzhou and even the whole country under the framework of "Healthy China 2030", and provide strong support for enhancing public health awareness and behavior habits.

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