

Commentary

Exploration and Practice of Health Communication in Hospital Under the Background of the Healthy China Initiative

Feng Qiong^{1,*}, Wu Bin², Liu Yinyin³, Wu Lei⁴, Lin Xinyu⁵

Department of Publicity and United Front work, Hainan General Hospital, Haikou, China

*Correspondence: Feng Qiong (360597092@qq.com)

Abstract: Along with the increasing quality of human life, people pay more attention to healthcare. Public health and one's health have become daily issues. As a branch of communication, more and more scholars pay attention to health communication studies. Supported by the Healthy China Initiative, health communication study has ushered in a new development opportunity. This paper elaborates on the specific practices of health communication in a provincial hospital from three dimensions: (1) how to empower communication with the Healthy China Initiative; (2) the effects of health communication; (3) health communication strategy analysis.

Keywords: Health Communication; Popularization of Science; Branding

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1. Introduction

Health communication is an emerging branch in the specialty field of communication studies and has received much attention because of its relevance to personal health. Everett M Rogers, an American scholar, introduced the concept of health communication in 1994. He stated that health communication is an act of converting medical research results into public health knowledge and aims to reduce the mortality of the disease and improve the quality of life and health of a community or nation by changing people's attitudes and behavior [1]. Health communication is the activity of disseminating information and communicating about health issues in human society.

2. Healthy China Initiative Empowers Communication

With the development of the health industry, the medical industry sets new goals for health communication. According to Chinese Medicine's traditional concepts about the preventive treatment of disease, the medical industry in China will be based on public welfare and change the disease-oriented model, achieve early prevention and early diagnosis of diseases, and establish a health-oriented prevention model of disease.

In 2016, the government published *the Tutorial Outline of the Healthy China 2030* to indicate the development direction for public health careers. How to regulate the health communication market and take practical action to implement the concept of "from centering on the treatment of diseases to centering on people's health" proposed by President Xi has become a major research project in related fields.

On June 1, 2020, China released the Law of the People's Republic of China on Basic Medical and Health Care and the Promotion of Health, which wrote "health promotion" into law for the first time. This law required people's governments at all levels shall strengthen health education and the training of professional people. The government must establish an information release system for health knowledge and skill core information to provide the public with scientific and accurate health information [2]. In 2022, the National Health Commission of the People's Republic of China also highlighted that

the government would continuously promote the implementation of the Healthy China Initiative, creates a pure environment for the popularization of health science, establishes an effective mechanism for the publication and dissemination of the health knowledge in media, offers more high-quality popularization of health science to society, and meet the growing health needs of the citizen. Overall, the popularization of health science has risen to the national strategy.

Xu Jing, Vice President of the Health Communication Professional Committee of the Chinese Association for History of Journalism and Communication, Professor at the School of Journalism and Communication at Peking University, suggested that communication study has developed and grown in the process of constantly responding to the major issues of society in an academic forum [3, 4]. The cores of communication activities are people, messages, and media. Scholars need to have responsibility for health communication study and practice. They should respond to the needs of society and the public in the post-epidemic era, propelling Healthy China Initiative and contributing to global health governance.

3. Evaluation of Communication Effects Based on the Knowledge, Attitude, Practice (KAP) Model

In 1960s, Dr. G. Cust introduced the theoretical framework of the knowledge, attitude, and practice (KAP) model. It is a classic theory that was often used to explain how personal knowledge and attitude influence behavior. The KAP theory divides the process of human behavior change into three steps: acquiring knowledge, generating attitudes/beliefs, and forming practices/behaviors [5].

The theoretical model points out that information can help build positive and correct beliefs/attitudes rather than lead to behavior change. Belief/attitude empowers behavioral change. This paper measures the actual effects of health communication by investigating audience awareness of health information, health belief agreement status, and acceptance of health behaviors [6].

Current research on the health communication effect is dominated by qualitative strategy-based research, while questionnaires and in-depth interviews mainly measure quantitative research. In January 2021, the WeChat public account of Hainan General Hospital launched an original column called *Yi Xin Yi Yi* (医心医意), which means sharing medical care with the public. This column has published over 110 original articles covering 41 departments and has gotten over 510,000 views. The column promotes the concept of health promotion and initially forms a brand of health science popularization.

The author takes the original column as an example and selects a questionnaire survey, taking WeChat users as the target group of this survey study. According to the data obtained from the questionnaire, we further analyzed the communication effects of *Yi Xin Yi Yi* (医心医意) from the audience's knowledge, attitude, and behavior to conclude the study. A total of 385 valid questionnaires were collected.

3.1. Knowledge Level

"Knowledge" is the output platform for building a health education knowledge system and the first step of health information transmission. The questionnaire was designed to find out the communication effects of this health brand at the knowledge level by investigating whether people follow *Yi Xin Yi Yi* (医心医意) and their reading frequency and interested content.

The data reflects that among 385 valid questionnaires, 290 people said they had followed *Yi Xin Yi Yi* (医心医意), and the initial reason for following the column is "to get health information," which is 89%. From the audience reading habits, the reading frequency of "each tweet must see" accounted for 48%. These data show that people have a high awareness rate and strong self-selectivity of *Yi Xin Yi Yi* (医心医意).

From the analysis of the title, 45% of the audience was first attracted by the title and read the article in detail as a result. Since *Yi Xin Yi Yi* (医心医意) launched, the feature of the column has been straightaway. It creates new styles of titles to attract the audience, such as Is It Milk that Causes Diarrhea, Everyone Has to Experience This Pain in Whole Life, The Boy Love Wang Xinling Whose "Three High" Down, Beware of Suffering From "Long Covid-19".

From the analysis of content, 33% of the audience think that the editorial combination of graphics and text is easy to understand, which can also effectively improve their disease awareness. Graphic and detailed illustrations supplement most tweets to help raise awareness of the disease, such as One Article Teaches You to Understand the Examination of HBV-DNA, How to Keep Children Away from Scoliosis, Flu Season Is Coming, Please Take This Prevention and Treatment Guide.

3.2. Attitude / Belief Level

Based on establishing awareness, credibility is generated to change the audience's health behavior habits. Professionalism, originality, and orientation are the core competencies of the brand named *Yi Xin Yi Yi* (医心医意).

A rating scale measures the audience's acceptance of the column's content. Four items were designed in the questionnaire: 1) its articles broaden my health knowledge; 2) its articles are timely and helpful in answering my recent questions; 3) I would like to share these health articles; 4) its articles are memorable to me. Survey respondents were rated on a scale of 1-5 based on strongly disagree, disagree, average, agree, and strongly agree, respectively, with mean scores of 3.74, 3.5, 4.01, and 3.48 obtained in valid questionnaires.

From the data, the audience has a high degree of acceptance and credibility of the column's content, and the science content can help the audience to answer their questions and be further shared and spread. Further analysis shows that, firstly, *Yi Xin Yi Yi* (医心医意) is an official WeChat public account of Hainan General Hospital, which has certain social credibility. Secondly, the writers and reviewers are medical experts with professional medical backgrounds and solid discipline knowledge. Thirdly, the readability of the content improves the audience's reading and sharing interest, which contributes to a good communication effect.

3.3. Behavior Level

The effect of health communication can be divided into four levels in descending order of difficulty: awareness of health information, recognition of health beliefs, attitude change toward health, and adoption of healthy behaviors and lifestyles. Behavior level mainly focuses on the behavioral changes of users after they follow *Yi Xin Yi Yi* (医心医意). It includes communication behavior and health action.

After reading or watching health information, 78% of the users generated interactive behavior such as giving likes, leaving comments, clicking to watch, or reposting. The data shows that the audience reposted the column's article. The secondary dissemination of health information by the audience is due to the resonance of the information. The second is that people would like to repost what can reflect their views. The media nature of the WeChat public account is relational, and the health information forwarded by the audience will also influence the people around them.

In the scale section, the questionnaire set four items: 1) I have changed my lousy health behavior after following this column; 2) I have started to attach importance to health problems; 3) My health literacy has improved; 4) I will share the health knowledge with my family and friends. The mean scores of the above four items in the valid questionnaires were 3.2, 3.72, 3.58, and 3.12, respectively.

Behavior change is a more difficult index to assess in health communication effects. Although supported by research data, there is still a subjective assessment. The mean

value of the behavior level scale in this survey is between 3 to 4, indicating that the respondents have some behavior change after receiving health information. However, the degree of conversion is not apparent.

4. Analysis of the Hospital Health Communication Strategies

4.1. Mobile Scenes Have Better Communication Effects

The network has initially realized the technological democracy of “Everybody can share and disseminate information in social media,” and everybody has the right to set social agenda and express personal opinions in public [7].

According to the 2021 Insight Report for Medical Science Popularization Short Video and Live Stream, more than 90% of users have watched videos about health science popularization, and more than half are willing to pay for the health content. 77% of users will interact with doctors through different forms, such as following accounts, leaving comments, and consulting online. After watching videos, users have precise needs for medical information, expert consultation, hospital registration, and other medical services. In addition, 39% and 20% of users would go to hospitals or pharmacies to ask further questions after watching health science popularization videos, and 27% would take advice from doctors. Regarding content producers, more than 90% of doctors showed interest in producing health science videos to enhance their image. The data shows that short videos and live streams have become the latest industry and the best vehicle for content production in the mobile scene [8, 9].

It is critical to give full play to the advantages of “short video + live broadcast,” which can promote health information, improve the efficiency of consultation and advice, and close the relationship between doctors and patients. Sharing authoritative and scientific health content to the public via visual communication formats and communication operation linkage can empower medical workers and better serve the public.

In August 2022, it was the gravest time of the epidemic in Hainan Province, *Yi Xin Yi Yi* (医心医意) conducted a series of live lectures on the topic of epidemic prevention for seven consecutive days, with a total of over 40,000 views and more than 50,000 likes on the live platform and 142,000 views in the last seven days. Replays have been viewed more than 142,000 times. In addition, *Yi Xin Yi Yi* (医心医意) continued to launch special live stream themed Specialty Clinics, which aim to address the problem of how patients can seek medical treatment in the post-epidemic era. From 29 August to 3 September, the column invited seven experts to introduce medical technology and service of specialty clinics, specialized diseases, and disciplines.

The 14 live streams mentioned above got 150,000 viewers in total. The Hainan General Hospital is helping fight the epidemic with science live broadcasts, transforming the concept of “centering on the treatment of disease” to “centering on people’s health.”



Figure 1. This figure shows the live-broadcasting data of *Yi Xin Yi Yi* (医心医意) during Aug. To Sep. 2022

China announced that COVID-19 would be treated as a Category B disease (乙类乙管). This change was laid out in a circular, known as the "10 new measures" on 7 Dec. 2022. To help the public correctly understand the development of the epidemic, *Yi Xin Yi Yi* (医心医意) once again launched a series of live streams for seven consecutive days. The special live streams get more than 200,000 views and 94,000 likes in total.

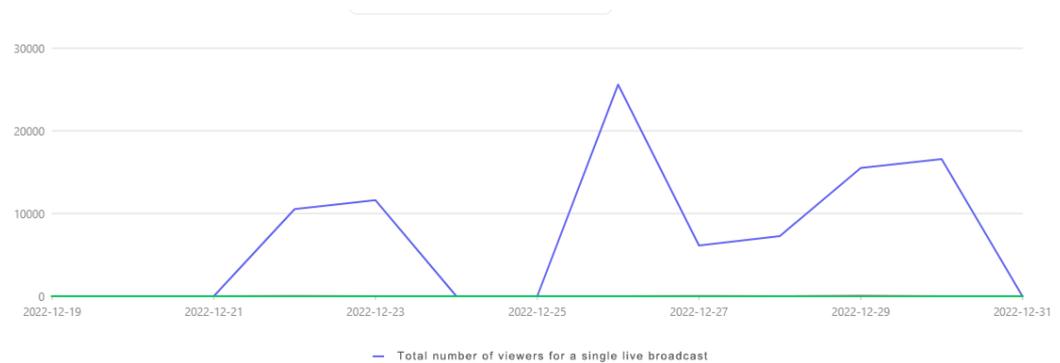


Figure 2. This figure shows the live-broadcasting data of *Yi Xin Yi Yi* (医心医意) during Dec. 2022

The survey data shows that about 55% of users made appointments to watch the special live broadcast of *Yi Xin Yi Yi* (医心医意), 39% of users watched for more than 20 minutes, and 52% of users interacted with experts online. Social public welfare and non-profit are the keys to the audience's recognition for live broadcasts. The communication effects of mobile scenes are obvious.

4.2. Continuous Output of Valuable Science Content

From the survey data about interactive influencing factors, we know that a timely and effective topic can strike a chord in users' hearts and has communicative value.

In June 2022, the temperature in many places in Hainan was erratic, and the flu hit. Oseltamivir was in short supply, and many local hospitals and pharmacies were out of stock. Facing this situation, an article titled *Does Oseltamivir Work Against Flu? Let Experts Tell You the Truth* was timely published on Hainan General Hospital's WeChat public account, which elaborated, "Dose oseltamivir work?" "Why is it so miraculous?" "How to use it?" "What are the precautions to take when using it?". The article is based on the health needs of the citizen, changing "what I want to say" to "what you want to hear" and responding to the public's concerns, which got over 10,000 views within an hour after launch.

Another example is that since June 2022, there have been high temperatures above 40°C in many cities, and the topic of #Deaths caused by thermoplegia has become a hot topic in social media. Hainan General Hospital's WeChat public account published a medical article to address hot issues, including "What is thermoplegia?" "How does the heat affect the human body?" "How to save yourself from heatstroke?". Another example is the timely health education for the public on "What is cholera?" "Is cholera dangerous?" and "How can cholera be treated and prevented?" When a cholera case was reported at Wuhan University. This series of articles has effectively moved the front line of disease prevention and control.

4.3. Focusing On the Communication Behavior Change in Post-Epidemic Era

The epidemic has given rise to the emergence of a community for health communication. However, the epidemic also reveals that citizens' level of health literacy is still far from the requirements of the Healthy China Initiative while fighting against the epidemic.

Science communication and popularization in life and health include public attention, awareness, understanding, and action on health science content.

Especially after entering the new stage of COVID-19 will be treated as a Category B disease (乙类乙管), the researchers need to pay more attention to the health communication literacy of the public, focus on whether health behavior changes occur, the degree of change, especially the effect of benefit.

In the post-pandemic era, information technology enables medical and health communication and has become a significant trend. Maintaining and ensuring human health requires medical researchers, modern technology, and media to face and think together to make outstanding contributions to building a community for human wellness.

5. Conclusions

China has issued a guideline on facilitating the popularization of science and technology. Released by the general offices of the Communist Party of China Central Committee and the State Council on 6 Sep. 2022, the document underscores the importance of giving equal importance to the popularization of science and scientific and technological innovation. The guideline also stressed strengthening the responsibility of the whole society to increase the public's scientific knowledge and build a new ecology of science popularization featuring social collaboration, digital dissemination, standardized construction, and international cooperation.

By 2025, science popularization can significantly promote innovation, the proportion of citizens with scientific literacy will exceed 15%, and the guideline indicates that society will create a vibrant atmosphere to disseminate scientific knowledge. By 2035, the proportion of citizens with scientific literacy will hit 25%.^[10]

Health communication also faces significant challenges in the mobile-first and social-first media ecological environment. False health information influences people's health concepts and behaviors and brings negative public opinion. In an era where everything is a media, the popularization of health science in hospitals has a long way to go, requiring continuous positive guidance. It is also necessary to continuously innovate mechanisms, optimize the health communication system and create a science popularization ecology in line with the characteristics of the times.

Data Availability Statement: Above data about articles and live broadcasts' views and likes of *Yi Xin Yi Yi* (医心医意) comes from the WeChat public account's backstage management system, and only the administrator has permission to get it.

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