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ANALYSIS ON INTERNET MEDICAL OPERATION MANAGEMENT IN CHINA

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ARTICLE DETAILS

ABSTRACT

Article History:

Received 12 April 2020
Accepted 23 May 2020
Available online 17 June 2020

Driven by favorable policies, Internet medical services have developed rapidly in China in recent years. Many Internet hospitals have emerged in China, ranging from traditional hospitals to online services, and to pure Internet gene hospitals. However, Internet hospitals still face problems such as profitability and market positioning, which need to be resolved urgently. This article will first analyze the policy, development, and current status of China's Internet healthcare. Next, analyze the operation and profit model of Internet healthcare, and finally put forward an improvement plan.

KEY WORDS

Internet Medical Operation, Profit Model, Online Services.

1. INTRODUCTION

China has a vast territory, and there are regional imbalances in medical resources resulting in poor medical infrastructure and the issue of being difficult and expensive to get medical treatment. Internet Medical Operation can provide diagnosis and treatment for patients through telemedicine, which solves the problem well [1]. The scope of Internet medical diagnosis and treatment involves common diseases and chronic diseases. A well-established Internet hospital can prescribe and distribution can be realized by contract drug company. Internet hospitals can take the forms of traditional hospitals carrying out network operations. The other form is hospitals led by Internet platforms by using doctor resources in traditional hospitals.

Internet hospitals have developed rapidly in the past five years. The number of Internet hospitals established in 2019 is five times the total of the previous years, and the number of consultations has also increased by a rapid rate [2]. China has successively launched favorable policies to promote the development of Internet hospitals. In 2018, the State Council of China issued the "Opinions on Promoting the Development of Internet + Medical Health" which clearly recognizes that Internet hospitals can provide online consultation, appointment referral, chronic disease follow-up, health management and extended prescription services.

The combination of Internet and medical care has many advantages. Firstly, the patient experience can be optimized. Online registration and report query can save transportation costs and queue time. Secondly, the recent controversial medical disputes are mainly due to the large number of people queuing resulting in too short service time per capita. The online method allows patients to upload more complex cases and describe the condition in more detail and doctors use their free time to reply, which can give patients better service. Innovations in medical technology have reduced the burden on medical institutions, and patients can have a good grasp and control of their own health.

The trend of aging in China is becoming more and more serious. There are a large number of patients above 60 years-old who are prone to chronic diseases such as hypertension and arthritis. These conditions are generally stable and not very severe, but the frequency of drug use is very high [3]. The hospital prescribes medicine with stricter dosage control which is often consumed after a period of use. Medicines are often prescription medicines which used to be prescribed in hospitals before they could be bought in pharmacies, which causes great trouble to elderly patients. Online prescription of Internet hospitals can solve this problem well, and some practical portable and easy-to-operate remote devices such as blood glucose meters and wearable devices have also realized the feasibility of remote diagnosis and treatment. Patients above 60 years-old are a huge market, but the population of this age is not familiar with the Internet, and some are even resistant to it. How to strengthen marketing to this group is very important.

2. EXAMPLES OF INTERNET HOSPITAL

Shanghai Xuhui District Central Hospital is the first public hospital in Shanghai to obtain an Internet hospital license (approved in 2020), which is very representative. The hospital's Internet hospital APP directory is very specific and clear, doctors' online scheduling is scientific and reasonable, and doctors online have high qualifications, and patients can directly consult online through the APP [4]. Patients can consult and make appointments online, and doctors conduct video consultations and consultations on difficult diseases. In addition, the hospital also launched a WeChat mini-program to carry out free consultation, which highly reflects the social responsibility of medical institutions and meets the special needs in the epidemic stage.

Public hospitals are opening Internet channels one after another, but unfortunately an Internet hospital that has been in operation for three years was closed in 2019 [5]. Teng-Ai Internet Hospital was invested by Tencent and was established in 2019. It generated high traffic and served tens of millions of patients, but it has not achieved profit for

three years since its opening. At present, the business of this hospital has been taken over by other sister medical institutions. The entire mobile medical industry has experienced turbulence, and hundreds of mobile medical companies have failed due to business models, positioning and monetization issues.

It is worth noting that the Internet Clinic of Shanghai Pengpu Xincun Community Health Service Center opened in April 2020 [6]. This is the first community Internet hospital in Shanghai. This indicates that Internet hospitals are officially covering resident community, and community hospitals are officially embracing the Internet. After the pilot, more community-level hospitals will spring up. The launch of Pengpu Community Hospital is very representative, most of the elderly in the community are not familiar with the Internet and the work is mainly done with the help of children. Shanghai's full coverage health plan has officially begun. There are also many community hospitals in Shanghai. The success of this pilot will play an important role in promoting Internet medical care in other regions. Some doctors in Pudong Community Hospital will provide WeChat information to patients and build WeChat groups. If the patient feels uncomfortable with medication or wants to determine which day the doctor is on duty, the patient can communicate with the doctor on WeChat. This is very convenient for patients, especially elderly patients who have trouble in travelling. Internet community hospitals have undoubtedly taken a substantial step forward in doctor-patient communication.

Currently in China, community hospitals and traditional hospitals are carrying out Internet medical treatment, and Internet medical institutions relying on hospitals are also carrying out these tasks. All the above work has made some progress and obtained the approval of patients. In the future, we can also consider the docking and jointing of different levels of hospitals, such as how to connect community hospitals with municipal hospitals, how to refer patients smoothly and most efficiently, and resources need to be well integrated.

3. INTERNET MEDICAL OPERATION AND PROFIT MODEL

The Internet medical policy has been proposed since 2014, and it first allows Internet drug operators to sell prescription drugs based on prescriptions [7]. In 2017, the State Council of China eliminated the restrictions on medical e-commerce license. In 2018, clients such as APP can be used to query electronic health records, Guangdong and other provinces allows Internet medical services to be reimbursed by medical insurance.

Since the outbreak of the novel coronavirus epidemic, the number of Internet hospitals and doctors and the number of patients on the Internet have shown a significant increase and more residents choose online consultation, which has greatly promoted the development of Internet medical treatment. Internet hospitals are operated under policy supervision, any type of Internet hospitals must be supported by physical medical institutions, hence Internet hospitals cannot exist independently. Internet hospitals need to carefully screen, optimize and integrate current medical resources.

There are two development models for Internet medical services, namely hospital model and region model. The hospital model is that the physical medical institution builds its own Internet hospital. This kind of Internet hospital is equivalent to doctors establishing online and offline channels which are complementary. For example, after the first doctors' office visiting for a chronic disease, follow-up visiting and prescribing can be done on the Internet. The region model is an Internet medical ecosystem after integrating regional physical medical institutions in cities and counties. In terms of operation mode, it can be divided into self-built self-operated mode and joint-built joint venture mode. The main difference is that medical institutions and third-party institutions such as IT institutions collaborate in cooperation mode or in entrusted agent mode, the former mode is self-built and self-operated, while the latter mode is joint-built joint venture. The cooperation mode is very similar to the form of outsourcing because traditional medical institutions lack strong capabilities in Internet operations and data processing. Outsourcing this kind of business to third-party IT companies is more cost-effective than traditional medical institutions' own research and development, which also solves the problem which is that few hospitals can develop such a powerful information system in a short time [6].

Internet medical care is in line with the current situation and has policy support, but there are still certain problems such as profit problems. The previous failure of Teng-Ai Hospital was mainly due to profitability issues. There are many forms of Internet hospitals including medical e-commerce transformation one, hospital information system transformation one, financing one and Internet-based one. Well-known online companies such as WEIYI, YILIAN, HAODAIFU and DINGXIANGYUAN are mostly B2B2C [8]. The profit model includes the distribution of income from online medical service cooperation, packaged management of health services, non-newly diagnosed chronic diseases such as hypertension, daily follow-up of patients, online consultation, comprehensive health management, etc.

At present, individual hospitals and individual specialties are profitable, and the successful profit of the hepatobiliary department has become a model of Internet profitability. How to get the recognition of doctors and patients is the most important thing when attracting doctors to the platform and attracting patients to pay for medical treatment. Shiliyun Hospital focuses on the business of subsequent visiting of chronic diseases, which attracts hundreds of thousands of doctors to the platform, and the doctor-patient relationship is more sticky. The platform uses the doctor's social circles such as classmates and conference circles to successfully implement the promotion, it took the lead in trying the doctor community and introduced the community fission commonly used by social e-commerce. It also joined forces with chain drugstore giants across the country to develop Internet services. The success of Shiliyun Internet Hospital is very representative. It has fully utilized the bridge role of the platform and innovated the form of marketing with Internet thinking, it also dared to try new things and constantly achieved breakthroughs, and eventually made quantitative and qualitative changes. In addition to community marketing, the emerging marketing model also needs to pay attention to where the target users gather. For example, in the past two years, some variety shows and short video platforms have been particularly popular and HAODAIFU invested one of these variety shows. In addition, the emerging marketing model also needs to cooperate with high-level hospitals with traffic to achieve high starting point.

Why are doctors at the other end of the platform keen to settle on various Internet hospital platforms? It is no longer a myth that the individual consultation of individual doctors on the Internet platform can profit millions. Although the income of doctors is generally good, it is not the highest level in the industry, and there is still a lot of demand. The uneven supply and demand relationship bring room for doctors to increase income [9].

The online doctor brand will also affect patient decision-making and doctor's income. The Internet medical service platform is a fair and just way to increase income for public hospital doctors. On Internet medical platforms, users are willing to pay for consultations with doctors they trust, which makes it feasible for doctors to realize additional income.

4. OUTLOOK AND CONCLUSION

Through the above analysis of the current status and operation mode of Internet medical care in China, the following conclusions can be obtained.

Firstly, based on the successful experience of foreign Internet institutions, the information construction and telemedicine investment should be strengthened. Internet + medical care can use doctor's mobile terminal to improve efficiency. Through the mobile phone application software, patients can query the dosage and price of various drugs. The software also has a powerful calculation function which greatly saves the doctor's time. Foreign retail pharmacies can even open small clinics, which is also very rare in China. Patient cases are electronic, and a small number of American adults and children have used this service. There are professional companies abroad to help hospitals improve efficiency, which can reduce equipment vacancy and meet the needs of scientific management. Online video collaboration platform can be introduced to allow patients and doctors to communicate directly. In China we should pay more attention to information issues in the early stage, and we can consider medical consultation later.

Secondly, according to the current situation, public hospitals are still in

a dominant position. If it is just a simple online model, it will not work. Internet medical treatment is not to abandon offline resources but to tap excellent offline medical resources and rely on offline resources. Internet medical care is inseparable from offline physical institutions, and the strong alliance is the way out in the future.

Thirdly, although Internet medical services conform to the needs of the times and the people, they are also facing complaints. The complaint mainly concerns the speed and quality of the doctor's response [8]. Patients generally upload various examination reports and only ask the doctor after editing a lot of information, but the doctor may be busy with the operation during the day, and it will take a long time to reply until late. Some doctors replied in just a few words, which was lower than the patient's expectations, and the patients felt that their expectations fell short. Some patients applied for refunds due to dissatisfied services. The contradiction between too high patient expectations and doctors' service quality should be solved to achieve synergy.

In addition, the profit model can be further explored and designed. Some research shows that the satisfaction of high-level doctors is often not high because of the high fees and the higher expectations of patients who are more likely to feel a gap. Some ordinary doctors have more patient support because of their timely response and serious attitude. At present, various types of pricing on the platform such as consultation and medical consultation can be more flexible, the design of some service packages can also be more flexible, and the intensity and form of discounts can be further strengthened. More room to make decisions should be given to doctors. With the continuous improvement of people's health awareness, Internet medical care + insurance is also a popular direction in the future. Recently, some insurance companies have reached cooperation with Internet medical platforms. This cross-border cooperation marks the entry and new stage of the domestic "Internet + medical + insurance" model. The giant Internet Hospital has more than 200,000 registered doctors, most of them from the top level hospitals. Giants work together to build a large health ecosystem. Customers of insurance companies will have the opportunity to enjoy medical consultation services such as telephone consultations provided by Haofu Online. At the same time, for users of Internet medical platforms, insurance companies will also provide comprehensive packaging services.

Finally, doctors can be encouraged to use patient-focused short video platforms such as Douyin and Bilibili. In addition to investing in this type of platforms and publicizing them, there is a need to further build up internet celebrity doctor images such as Dr. Zhang Wenhong who has been highly recognized by the public during this outbreak. On the Douyin platform, some ordinary doctors give scientific lectures on chronic diseases such as lung diseases. Although the video quality is average, it has gained tens of thousands of fans because the content is of concern to consumers and related to daily life. If doctors can be trained to do content planning, there will be more ideal results. How to promote the elderly population to accept Internet hospitals and operate smoothly? Many elderly people use WeChat, send friends, and have

their own WeChat group. How to promote the promotion of Internet hospitals to the elderly community, can there be elderly Internet celebrities to achieve community change? Of course, the operation of the elderly community is more complicated, because the behavior of the elderly in the WeChat social circle shows different characteristics from the younger ones. Old people like to send WeChat messages, and it is easy to promote information. But they are often unable to identify the authenticity of the news, and sometimes they are easily deceived. For example, there are many Internet health product scammers on the watermelon video, and many elderly people are fooled. This is particularly worthy of attention, and should be considered in the elderly community marketing and community changes. The above contents are worthy of further discussion in the future.

In conclusion, Internet medical challenges and opportunities coexist. Internet medical treatment can learn from foreign advanced forms. Although China and foreign medical genes are different, there are some commonalities that can be used for reference. Because health products have certain social responsibility attributes, from this perspective, global medical institutions should be consistent. The Internet medical market is a big cake. Traditional hospitals, Internet medical platforms with resource linking functions, and insurance institutions in the society all want to share this big cake. But how do you have a strategy and plan to eat these cakes? The alliance of giants is a obvious trend, so will there be opportunities for survival and development for small Internet platforms in the future? Will they be eliminated, or will they find their own market segment positioning and gain first-line vitality? Time will verify and reveal the answer.

REFERENCE

- [1] <https://zhuanlan.zhihu.com/p/104875646>
- [2] <http://ihealth.dxy.cn/article/672915?trace=hot>
- [3] <https://www.ofweek.com/medical/2015-07/ART-11106-8420-28980875.html>
- [4] https://www.thepaper.cn/newsDetail_forward_6191749
- [5] <http://finance.ifeng.com/c/7118fKvwzM3>
- [6] <https://baijiahao.baidu.com/s?id=1665210173081446452&wfr=spider&for=pc>
- [7] <http://www.chyxx.com/industry/202002/836127.html>
- [8] https://med.sina.com/article_detail_103_2_57642.html
- [9] <http://news.sina.com.cn/o/2018-01-21/doc-ifyqtxcx1399942.shtml>

