

Analysis of Access to Medical Information of Residents of Different Ages in Guangzhou

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Abstract: We conducted a field investigation of 803 residents in Guangzhou through a self-designed questionnaire to analyze the ways in which residents of different ages obtained medical information and the differences in trust in medical information. The survey results show that residents of different ages have different access to medical information and their respective trust levels are also different. This is the reason why relevant units and departments should publish targeted information according to each age group, in order to enable residents to obtain medical information more efficiently. The survey results of this study also show that the new media had a large proportion in the current access to medical information, so the new media has great potential. Among these ways, the professional medical platform (non-hospital medical platform, official hospital platform) accounted for a small proportion, so it has not yet become the main channel for patients to obtain medical information. The We media (WeChat and Weibo) and other popular social software were very popular among the young people group (18 ~ 39 years old), which accounted for the largest proportion, and these kinds of media may be related to its huge number of basic users.

Keywords: Medical Information, Residents of Different Ages, WeChat, Weibo, Medical Platform

1. Introduction

In China, medical treatment has become a social focus, since Chinese medical care faces a lot of problems in medical treatment, including lack of medical resources, inadequate communication between doctors and patients, and difficulty in seeing a doctor [1]. Real and effective medical information and medical information are often not very easy to sought, which significantly reduces the efficiency of hospital management and medical work [2]. With the advent of the information age, the way for patients to obtain medical information has become diversified, partially solving the problem of difficult medical treatment caused by lack of information sources [3]. However, due to the professionalism of medical knowledge, it is often difficult for non-professionals to judge the authenticity of information, which leads to many problems for patients such as overwhelming fake medical advertisements on the Internet, informal and illegal medical institution websites, etc. The

diversified information channels often mislead patients to bad clinics, hospitals for treatment, resulting in patients not getting the right treatment, both wasting money and delaying the disease[3]. Based on this, this paper investigates and analyzes the distribution differences and trustworthiness of the access information channels of different age groups and provides reference for the medical department to carry out personalized propaganda for different age groups.

2. Method

2.1. Survey Object

Patients and accompanying patients who were admitted to the outpatient department of the First Affiliated Hospital of Jinan University from June 2017 to June 2018 were selected as subjects for investigation. The inclusion criteria were: (1) age ≥ 18 years old; (2) residents of Guangzhou; (3) no

communication disorder, no mental retardation, and history of mental illness; (4) voluntarily participated in the study and completed the questionnaire independently.

2.2. Research Methods

The research members designed the survey project according to the purpose of the survey by consulting the literature and they unified the opinions after participating in the discussion. Then the members of hospital statistics department reviewed and revised the first draft and managed to form a final draft questionnaire for investigation and research. The questionnaire contains: (1) general information: including gender, age, education level, occupation, income level, etc.; (2) the channels of accessing to medical information: traditional media (television, newspapers, books, radio broadcasts), self-media (non-hospital official WeChat Public number, Weibo, health software client, etc.), non-hospital medical platform (good doctor online, almond doctor, clove garden, etc.), hospital official platform (hospital official website, hospital or department official public number, etc.); (3) Investigator's trust in the above-mentioned access methods: Each research object ranked the above-mentioned ways of obtaining medical information by subjective trust.

All researchers were trained in the consistency of the questionnaire content and survey methods before the survey. The investigators first screened the subjects who met the inclusion criteria in the outpatient clinic, and then distributed the questionnaires for investigation. The researchers collected questionnaires on the spot and compiled them into the book after respondents completing the questionnaire.

2.3. Statistical Methods

Statistical analysis was performed using SPSS 18.0 software. The difference between the access to medical information of all

age groups was tested by chi-square test of row x list, and the difference was statistically significant at $P < 0.05$.

3. Results

3.1. General Information

The researchers distributed 843 questionnaires in total, and 811 questionnaires were returned, 803 questionnaires of which were valid. The effective recovery rate was 95.2%. Among the 803 subjects, 376 subjects were male (46.8%) and 427 subjects were female (53.2%), with an average age of 43.25 ± 5.61 years old; Moreover, 18-29 years old (94 subjects), 30-39 years old (115 subjects), 40~49 years old (121 subjects), 50-59 years old (130 subjects), 60-69 years old (161 subjects), 70 years old or older (182 subjects). In employment, there are 153 students (19.1%), 288 (35.9%) with fixed employment or on business, and 362 (45.0%) who have retired or unemployed.

3.2. The Ways of Getting the Information

The subjects were age-stratified. The results of the survey showed that the people who were 50-59 years old, 60-69 years old and over 70 years old obtained information from traditional media and these people accounted for the largest proportion; People who were among the 40-49-year old mainly obtained medical information from non-hospital medical care Professional websites such as platforms. Media platform was the main way for people who were in the 18-29-year old and 30-39-year old to get medical information; People who used the official platform of the hospital to get the information had the lowest proportion of all ages. It was a less used access to information (see Figure 1). The differences between the groups were statistically significant ($P < 0.05$).

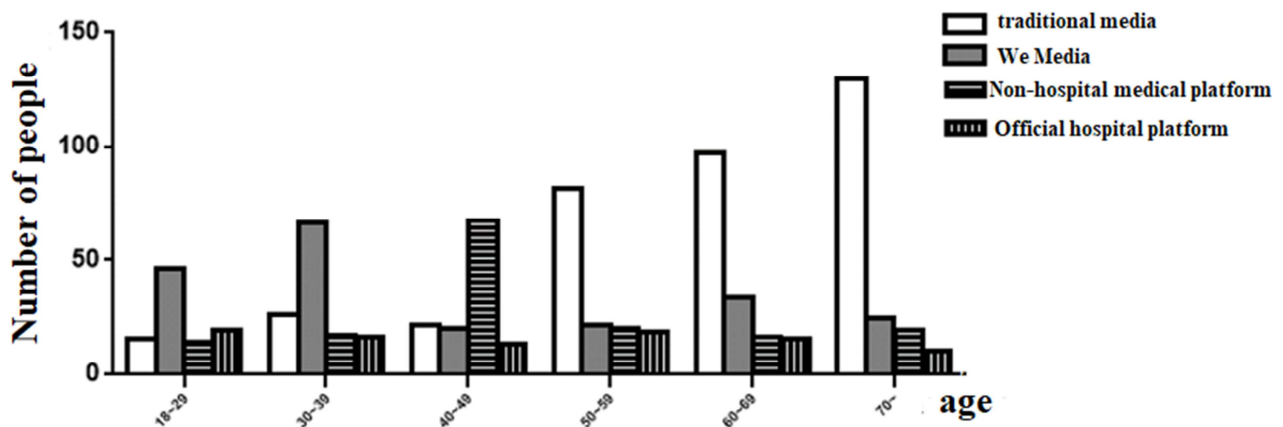


Figure 1. Ways to obtain medical information for people of different ages.

3.3. Respondents' Trust in Different Ways of Getting Medical Information

The most trusted information for patients who were among the 18-29-year-old and 30-39-year-olds was the official website of the hospital and this group accounted for the largest proportion. Among the 40-49 year-old population, the most

trusted medical information was obtained from a non-hospital medical platform; For the population who were aged 50-59, 60-69 and over 70, the trust in accessing information through traditional media was much higher than that obtained from new media (see figure 2). The differences between the groups were statistically significant ($P < 0.05$).

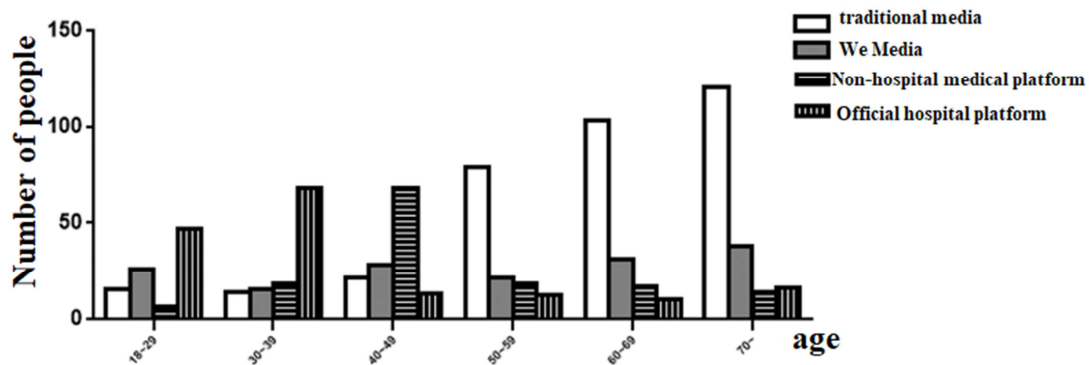


Figure 2. Trust in access to medical information at different ages.

4. Discussion

4.1. Analysis of the Ways for Residents to Obtain Medical Information

The survey results of this study show that the new media had a large proportion in the current access to medical information, so the new media has great potential. Among these ways, the professional medical platform (non-hospital medical platform, official hospital platform) accounted for a small proportion, so it has not yet become the main channel for patients to obtain medical information [4]. The We media (WeChat and Weibo) and other popular social software were very popular among the young people group (18 ~ 39 years old), which accounted for the largest proportion [5], and these kinds of media may be related to its huge number of basic users. Therefore, the effective dissemination of medical information is inseparable from the use of new media platforms. The role of traditional media in the young population (18-39 years old) is less important than that in the elderly people (50 years and older). It is worthwhile to consider that the professional non-hospital medical platform is more likely to be used among people who were the 40-49-year olds. This may indicate that patients are more likely to be convinced of information from professional channels rather than self-operating information channels after they are having certain discriminative ability. Young people (18-39 years old) used the new media more frequently than other information channels. The number of people who access medical information through the new media represented by WeChat and Weibo was the most. However, the trust was not very high, which indicated the information of WeChat dissemination and Medical information was more likely to have false information. The degree of trust of patients for the new media was not ideal and it is difficult to achieve the ideal medical information and the dissemination effect of medical information, since it had some randomness or entertainment. However, the young people's group has strong learning ability and receptive ability, and has a good ability to distinguish false information, so the young people's group could pay attention to its good guiding role in the family group. At the same time, we found that the new media channel for patients to obtain medical information was the official platform of the hospital, but the number of people who obtain medical

information through the official platform of the hospital was low. This shows that the hospital's dissemination of medical information through the official platform is not enough, since the official platform could not provide patients with clear guidance and assistance when they are seeking medical care. Therefore, the hospital should strengthen the construction and investment of the official platform to provide patients with correct and reliable medical information.

4.2. Strengthening the Publicity of the Hospital's Official Platform

In the past, the hospital's science education model was boring and obsolete, and it lacked individuality for different age groups. Since hospital's science education model required patients to spend more time to participate, and the time cost was high, which was less feasible for younger groups. The rise of new media is expected to change this phenomenon. Taken WeChat and Weibo as examples, WeChat has up to 1 billion active users at present and almost everyone, at least every family has WeChat or Weibo account [6]. Hospitals, departments and doctors can use these new media platforms to spread medical science and medical information [7]. The spread of the disease allows patients to obtain correct and reliable knowledge of disease prevention and health care without having to visit a hospital or clinic. It is also easier to find a suitable and reliable doctor for consultation when they are sick. However, the new media era also has its drawbacks [8, 9]. The requirements for publishing information on WeChat and Weibo are low. So, various medical information is mixed, and even contradicts itself are existed in new media. This phenomenon often causes trouble for the masses and many innocent patients suffer absorbing false medical information [10]. In order to avoid this situation, medical institutions should actively voice on the new media platform and strengthen the promotion of information on health science, disease prevention, treatment and medical treatment, and expand the way for patients to obtain official authority information.

4.3. Adhere to Professional Ethics and Attach Importance to the Reputation of Doctors

The reputation of doctors is influenced the informal

communication between consumers about a certain product or service [10], which has the characteristics of high credibility and great influence. Our research results have analyzed the access to medical information and the degree of trust in all age groups. Each age group has its own characteristics and differences. However, no matter how to obtain medical information [11-13], the key to the establishment is the establishment of doctor's reputation. The most reliable way to obtain patient trust is to treat each patient with care. Because each patient is behind a small group and the effect of "snowballing" could not be underestimated [14]. The research by Chen Xiaohong and other scholars confirmed that doctors' reputation has a great influence on the choice of patients' treatment. This is also the reason why medical institutions and individual physicians should spend their energy on their management of themselves [15], which can make patients have a sense of trust and security, and also improve the hospital's reputation and popularity. Therefore, hospitals should formulate appropriate rules and regulations and reward or punishment measures to encourage physicians to actively create good appraisal in daily medical treatment and in the construction of new media platforms.

5. Conclusion

The professional medical platform (non-hospital medical platform, official hospital platform) accounted for a small proportion, so it has not yet become the main channel for patients to obtain medical information. The We media (WeChat and Weibo) and other popular social software were very popular among the young people group (18 ~ 39 years old), which accounted for the largest proportion, and these kinds of media may be related to its huge number of basic users.

References

- [1] Antipov EA and Pokryshevskaya EB. The effects of adverse drug reactions on patients' satisfaction: Evidence from publicly available data on Tamiflu (oseltamivir). *Int J Med Inform* 2019; 125: 30-36.
- [2] McDonald S, Fabbri A, Parker L, Williams J and Bero L. Medical donations are not always free: an assessment of compliance of medicine and medical device donations with World Health Organization guidelines (2009-2017). *Int Health* 2019.
- [3] Pierce CE, de Vries ST, Bodin-Parssinen S, Harmark L, Tregunno P, Lewis DJ, Maskell S, Van Eemeren R, Ptaszynska-Neophytou A, Newbould V, Dasgupta N, Wisniewski AFZ, Gama S and Mol PGM. Recommendations on the Use of Mobile Applications for the Collection and Communication of Pharmaceutical Product Safety Information: Lessons from IMI WEB-RADR. *Drug Saf* 2019; 42: 477-489.
- [4] Zucker BE and Kontovounisios C. It is time to improve the quality of medical information distributed to students across social media. *Adv Med Educ Pract* 2018; 9: 203-205.
- [5] Slobodin O, Heffler KF and Davidovitch M. Screen Media and Autism Spectrum Disorder: A Systematic Literature Review. *J Dev Behav Pediatr* 2019;
- [6] Lin JA, Hsu AT, Huang JJ, Daniel BW, Lee CH, Kwon SH, Tang ET, Chu CF, Chien CT, Chuang DC, Lu JC, Koshima I, Wang ZT, Hao L, Chen C and Chang TN. Impact of Social Media on Current Medical Conferences. *J Reconstr Microsurg* 2019.
- [7] Scott T, Liddle J, Mitchell G, Beattie E and Pachana N. Implementation and evaluation of a driving cessation intervention to improve community mobility and wellbeing outcomes for people living with dementia: study protocol of the 'CarFreeMe' for people with dementia program. *BMC Geriatr* 2019; 19: 66.
- [8] Wu D, Tang W, Lu H, Zhang TP, Cao B, Ong JJ, Lee A, Liu C, Huang W, Fu R, Li K, Pan SW, Zhang Y, Fu H, Wei C and Tucker JD. Leading by Example: Web-Based Sexual Health Influencers Among Men Who Have Sex With Men Have Higher HIV and Syphilis Testing Rates in China. *J Med Internet Res* 2019; 21: e10171.
- [9] Drozd-Dabrowska M, Topczewska K, Korzen M, Salacka A and Ganczak M. Parental Knowledge about Meningococcal Disease and Vaccination Uptake among 0(-)5 years Old Polish Children. *Int J Environ Res Public Health* 2019; 16(2).
- [10] Anil OM, Yadav RS, Shrestha N, Koirala S, Shrestha S, Nikhil OM, Baidar M, Chaudhary N, Jaishwal C, Yadav NS, Mahara AB, Jha RK and Poudyal AK. Prevalence of Cardiovascular Risk Factors in Apparently Healthy Urban Adult Population of Kathmandu. *J Nepal Health Res Counc* 2019; 16: 438-445.
- [11] Lin GH, Huang YJ, Chou YT, Chiang HY and Hsieh CL. Computerized Adaptive Testing System of Functional Assessment of Stroke. *J Vis Exp* 2019.
- [12] Mueller SM, Jungo P, Cajacob L, Schwegler S, Itin P and Brandt O. The Absence of Evidence is Evidence of Non-Sense: Cross-Sectional Study on the Quality of Psoriasis-Related Videos on YouTube and Their Reception by Health Seekers. *J Med Internet Res* 2019; 21: e11935.
- [13] Qian Y, Piatkevich KD, Mc Larney B, Abdelfattah AS, Mehta S, Murdock MH, Gottschalk S, Molina RS, Zhang W, Chen Y, Wu J, Drobizhev M, Hughes TE, Zhang J, Schreiter ER, Shoham S, Razansky D, Boyden ES and Campbell RE. A genetically encoded near-infrared fluorescent calcium ion indicator. *Nat Methods* 2019; 16: 171-174.
- [14] Hill JA, Agewall S, Baranchuk A, Booz GW, Borer JS, Camici PG, Chen PS, Dominiczak AF, Erol C, Grines CL, Gropler R, Guzik TJ, Heinemann MK, Iskandrian AE, Knight BP, London B, Luscher TF, Metra M, Musunuru K, Nallamothu BK, Natale A, Saksena S, Picard MH, Rao SV, Remme WJ, Rosenson RS, Sweitzer NK, Timmis A and Vrints C. Medical Misinformation. *Circ Genom Precis Med* 2019; 12: e002439.
- [15] Kendal E. Public health crises in popular media: how viral outbreak films affect the public's health literacy. *Med Humanit* 2019.