

A Study on the Influencing Factors of Deaf People's Medical Behavior and Attitude in Shanghai

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Abstract: During an emergency medical treatment experience, one of our team members saw a deaf person with heart discomfort who could not express his condition to the doctor and felt anxious and helpless and thus began to pay attention to the medical treatment of deaf people. In the preliminary research, the team found that the medical treatment process and experience of deaf people are inconvenient. Some deaf people show more negative medical treatment behavior and attitude. Therefore, on this basis, the research question of this paper is further proposed: what are the difficulties and obstacles existing in the current medical treatment of deaf people? What factors influence the medical treatment behavior and attitude of deaf people? Taking the deaf-dumb people in Shanghai as the research target, this paper conducts a relevant investigation utilizing a questionnaire, semi-structured interview, and participatory observation. A total of 148 questionnaires were collected, and ten deaf patients, volunteers, and professionals from deaf organizations were interviewed for interviewing method. The team members also launched a participatory observation by volunteering at the deaf and hard-of-hearing outpatient clinic. This study found that some deaf people in Shanghai have negative attitudes and behaviors toward medical treatment, mainly manifested as reluctance to see a doctor in time, fear of going to the hospital, and distrust of the medical system and doctors. The main reasons for this problem are as follows: poor communication quality, low self-confidence, poor financial conditions, doctors' negative attitudes, unavailability of voice services, and lack of volunteers. With the development of digital media in recent years, the difficulties in diagnosing and treating deaf patients have been alleviated.

Keywords: deaf people medical care service, deaf and hard of hearing outpatient clinical service, medical behavior

1. Introduction

1.1. Research Background

Accessing a deaf person to a doctor is inconvenient. Communication barriers make it challenging to communicate generally with doctors, nurses, and staff in various hospital procedures they do, which poses risks and obstacles to the experience, efficiency, and accuracy of diagnosis and treatment [1]. According to the sixth national census data, there are 20.54 million people with hearing disabilities in China, the most significant number of deaf people worldwide. However, in Shanghai, only eight

hospitals provide interpreter services for more than 250,000 people with hearing disabilities in Shanghai, from half to one day a week. This shows that many deaf people face communication barriers and ineffective medical treatment during the treatment process.

1.2. Purpose and Significance of the Study

This study aims to explore and sort out the obstacles existing in the process of medical treatment among the deaf people in Shanghai, and at the same time, conduct an in-depth analysis of their negative attitudes towards medical treatment and clarify and explain how various influencing factors have an impact on the deaf people's medical behavior and attitude.

From the perspective of research significance, through analyzing the attitude and behavior of deaf people seeking medical treatment and the relevant research on the current situation of deaf outpatient clinics in Shanghai, this paper will supplement the current research deficiencies in the field of deaf medical treatment. From a practical point of view, understanding the obstacles to deaf people seeking medical treatment and the current situation of deaf clinics can help us better design and carry out related deaf medical products or services and provide feasible solutions or this social problem with an audience of more than 20 million in the country.

1.3. Research Assumptions

Based on the findings of the pre-survey, this study puts forward the following assumptions: First, at present, most deaf people in Shanghai have difficulties in seeking medical treatment, and the main reason is communication difficulties; Second, there is a generally negative attitude and behavior of the deaf population to seek medical treatment; Third, the negative medical attitudes and behaviors of deaf people are related to the communication style, psychological reasons, and identity of deaf people themselves, as well as related to the hospital diagnosis and treatment system and the attitude of medical staff.

2. Literature Review

In recent years, online medical services such as medical apps, Internet hospitals launched by significant hospitals, online family doctors, etc., have the characteristics of not needing to go to the hospital and supporting text communication [2]. These characteristics coincide with the medical needs and pain points of deaf people so that deaf patients can seek medical treatment independently through text communication and do not need to go to the hospital, saving a lot of time. Such applications disprove the hypothesis of communication barriers for deaf people seeking medical care, and these ideas are also considered in subsequent studies.

3. Research Findings

3.1. Current Status of Medical Treatment for Deaf People

3.1.1. Medical Treatment Process and Medical Experience

According to the questionnaire survey data of this study, 54.05% of deaf people often choose "No, my family or friends will accompany me" and "I never go to the doctor" when answering "Do you often go to the hospital alone." The deaf group often needs someone to accompany them. The data shows that the deaf group tends to go to the hospital with relatives and friends. Still, many relatives and friends of the deaf population are also deaf, and their companionship does not play the role of an interpreter. Still, it brings a sense of security to the deaf psychologically. During the research interview, some deaf patients said they were still willing to choose the deaf clinic because they

could communicate with the doctor.

According to the ranking of the “inconvenience” of the deaf group in each link of medical treatment, the study found that “various examinations,” “registration,” and “medical treatment” are the most time-consuming and challenging to communicate links for the deaf group. In hospitals, there are many services that ordinary people are accustomed to, but are not designed for deaf people, such as the voice prompt of the diagnosis and treatment fee when registering charges, which should generally display the price receivable and broadcast it through voice. Still, to speed up registration and charging, many medical staff are tired of saying costs on the operating system, so deaf patients cannot know the amount of payment and are urged by medical staff and other patients behind them; For example, there is no visual screen for calling, and deaf people often miss the number without knowing the order in which it is their turn; Moreover, CT and other examination rooms do not allow family members or sign language interpreters to enter, but can only be directed by voice, resulting in deaf people cannot understand the instructions of medical staff, thus delaying too much time.

In addition, 30.28% of the deaf group has had the experience of being misdiagnosed, and many deaf groups have mentioned the medical expertise of “inconvenient communication and frequent misdiagnosis” in the questionnaire feedback. To a large extent, this has led to a decrease in the enthusiasm of the deaf community to seek medical treatment and trust in the medical system.

3.1.2. Attitude and Behavior Towards Medical Treatment

According to the questionnaire data, deaf people pay more attention to the pain of essential organs such as the heart. They will choose to go to the hospital for gastrointestinal, joint, and skin treatment as soon as possible. Facial features and other pains are more based on experience, diagnosis, or waiting for the disease to heal. For insomnia, 40.6% of deaf people said that even if the symptoms lasted for more than a year, they still would not go to the hospital for treatment, and similar symptoms such as poor mental state, loss of appetite, and tinnitus mainly chose to wait for self-healing.

According to the statistics of the interviewees, the general income of deaf people is low, and almost all deaf people choose public hospitals as their daily medical treatment. Like ordinary patients, deaf patients are more willing to select famous public hospitals, although the distance is farther and the traffic is more inconvenient. Fortunately, these hospitals provide “priority treatment” for deaf people to avoid queuing policy, which saves the time and cost of medical treatment to a certain extent. But there is also another group of deaf people who tend to choose hospitals nearby. Through interviews with the heads of deaf institutions, it was learned that deaf people who “delayed a major illness and endured a small illness” still existed in large numbers, especially among deaf people with poor economic conditions, low cultural levels, and poor interpersonal relations.

3.2. Analysis of Factors Influencing the Attitude and Behavior of Deaf People to Seek Medical Treatment

3.2.1. Communication Barriers

Middle-aged and elderly deaf people gradually decline in the function of the auditory organs, and their ability to receive external information is much worse. Compared to natural deafness disabilities, or limited hearing development from an early age, because of early interventions, and many compensatory measures developed while adapting to defects, hearing loss has little effect on them. Regarding communication, middle-aged and elderly deaf people have more difficulty understanding the doctor’s statements. But in people who have received a systematic education, deaf people and doctors can still communicate basically with doctors through paper and pencil. Therefore, although medical communication is limited, it can still be carried out.

But for lowly educated deaf people, seeking medical treatment is often more arduous. They may not know the written word, they don't know sign language, and they communicate only through rudimentary body language. At this time, the communication barrier is concentrated in them. They have no way to accurately express their symptoms and needs and cannot understand the meaning of doctors very well. Generally speaking, such patients must be accompanied by family members, and doctors can only understand the general situation of patients through their families. The family can only decide all decisions.

For deaf people with no medical experience, the registration and triage system of the hospital is a significant challenge for them. Because the demands cannot be clearly expressed, all information can only rely on its integration, and it isn't easy to get help from others. However, with the gradual improvement of the system of general hospitals, a complete security system has been established for all kinds of patients. Although these pathways still need to be strengthened, as more and more deaf and mute people enter the public eye, access to medical treatment for the disabled will become more and more convenient.

From the level of doctors, due to the different degrees of expertise in mastering knowledge, it is difficult not only for deaf and mute people but also for ordinary people to communicate. This is a problem that has always existed in the medical industry. In contrast, sharing with deaf people is undoubtedly more challenging. Doctor-patient communication relies on oral communication; when critical sensory organs are damaged, winning patient cooperation in the treatment process becomes a considerable problem.

3.2.2. Hospitals Lack Deaf Medical Services

In the modern medical system, assisting the medical treatment of the non-disabled person has been perfected. Establishing the guidance desk and the triage nurse position helps people who cannot figure out the medical process in time. However, because few professionals know the sign language of the workers in these positions, seeking medical treatment for the deaf remains difficult. Communication is the most fundamental issue [3]. The existence of general hospitals should serve all the people. Still, the current form in China is that the major public hospitals are overcrowded, the medical needs of ordinary people have made the hospitals run at total capacity, and the establishment of additional medical assistance systems is facing many difficulties [4]. Given the overcrowded situation, many hospitals pursue accuracy and efficiency. For the unique position of deaf patients, both are difficult to satisfy, so the hospital's resources are rarely tilted toward them.

3.2.3. Problems of the Deaf Person's Medical Conditions

Economic situation. Due to significant functional deficits in reception, most deaf people are vulnerable in society. Their financial situation is low, so medical treatment is a heavy burden. When seeing doctors, an average person can take the opportunity to communicate with the doctor, cooperate with the examination, and actively treat. But this is impossible for deaf people. Since deaf patients cannot accurately express their actual situation, doctors often must conduct more comprehensive and meticulous examinations to deepen their understanding of the course of the disease. This approach can maximize the protection of patients with appropriate medical care, but it is a heavier financial burden for deaf patients. Some of them even choose to delay the course of the disease until later stages for economic reasons.

Psychological reasons. Deaf people are often more sensitive because they belong to vulnerable groups in society, which leads them to respond significantly to external stimuli. In this case, the doctor should always calm the patient's emotions during diagnosis and treatment. Avoid the adverse consequences of the patient's emotional loss of control [5]. It also focuses on patients' emotional

experiences regarding invasive examination or treatment.

3.2.4. Attitude Issues of Healthcare Professionals

The attitude of a healthcare worker is critical to a patient's perfect experience. The dominance of a physician who has mastered the expertise in the treatment process is unquestionable. When treating deaf patients, the patience of the doctor is essential. Deaf patients have many problems with diagnosis, making them appear sensitive and inferior when facing doctors and often leaving both sides with a bad emotional experience. Deaf patients have poor presentation skills, and medical staff is more required to make judgments through their body language. In conclusion, the communication barrier makes the diagnosis and treatment process slow, so it is better to calm down, find a way to communicate clearly with the patient, and formulate a complete treatment plan.

4. Conclusion

By communicating with young deaf people, elderly deaf people, and deaf associations, the study found that the popularity of online medical services has greatly improved the medical experience of deaf people. Through the interview method, it was found that young deaf people have a high degree of use and acceptance of electronic products such as Internet hospitals and online medical apps and give quite positive feedback. Older deaf people are less aware of such online medical services than young deaf people and are not accustomed to using electronic products in most cases. However, it is gratifying that the Association for the Deaf gradually organizes courses on using electronic products to help deaf people better use them and enjoy electronic medical services.

Through questionnaires, interviews, and participatory observations, this paper finds that the current attitude and behavior of some deaf groups in Shanghai are more damaging, mainly manifested as unwillingness to seek medical treatment in time, dare not go to the hospital, and distrust of the medical system and medical staff. The main reason is that, in addition to the most acute communication barriers, deaf people are not confident in their own culture, poor economic conditions for medical treatment, biased medical staff, inadequate voice care systems, and a lack of sign language volunteers all contribute to negative attitudes and behaviors among the deaf community.

The above findings accept the research hypothesis of this paper and reject the objection hypothesis that "informatization and artificial intelligence technology can alleviate the communication problems of deaf people seeking medical treatment in recent years" and accept the anti-view hypothesis 1. This is due to the local and changeable nature of sign language itself. Effective communication between sign language speakers in different places cannot be formed, so realizing this science and technology will require an extended learning and debugging time. Although the rise of online medical care can help most young deaf people solve underlying diseases, for elderly deaf people, the difficulty of their medical treatment in the context of Covid-19 has increased significantly. Neighborhood committees and deaf associations should help them become proficient in using mobile phones as soon as possible and provide guidance for medical treatment.

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