

The Sociotechnical Factors Behind the Rising Tension Between Doctors and Patients in China

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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Introduction

For people who are medical workers, it is very likely to be insecure and uncomfortable to read papers with a title such as “Burnout is physicians who are exposed to workplace violence,” “Violence against doctors: A wake-up call,” and “Manifestations of verbal and physical violence towards doctors.” Documented experiences of workplace violence on physicians exist in both developing and developed countries. After decades of efforts in development, the quality of the medical treatment system in China has been advancing significantly. However, due to various reasons, the medical service in China in recent years has emerged a phenomenon known as the “Three Dissatisfactions,” where the “Three” includes the people, the medical professionals, and the government (Wei, 2015). This phenomenon and the evident issue have been bothering the Chinese society for years.

Improving the Doctor-Patient Relationship has become one of the main focuses in the development process of the medical system in China, as the problem has been growing and changing rapidly. Resulting from the existing number of problems in the doctor-patient relationship in China, the tension between medical professionals and patients is rising (Cong, 2021). The tension not only affects the development of the medical system in China, but also has a strong negative impact on the harmonious development of society. Thus, issues on the doctor-patient relationship must be taken seriously by the Chinese government, and proactively seeking solutions is very necessary. The main research topic of this paper is on the sociotechnical factors contributing to such an outcome of the Doctor-Patient Relationship in China. More specifically, what are the sociotechnical factors behind the rising tension between doctors and patients in China, and what are the potential ways to improve the relationship? The STS frameworks that will be used to perform this analysis is the Social Construction of Technology (SCOT).

Supportive Background Information

Reports conducted by researchers in this field are showing that in China, physicians are being harmed severely and even killed because of tensions in the doctor-patient relationship. In 2019, an incident of a doctor being killed grasped significant national attention, which has once become the topic of conversation for almost everyone in the country. After the incident, the top legislative body of China has implemented its first comprehensive and fundamental law towards the goal of protecting medical professionals (Chen, 2020). The act has taken effect on June 1, 2020. However, the creation of the law itself was not enough to solve the entire issue. It is very necessary to examine the current state of such unideal relationship between doctors and patients from the bottom and address the factors in detail that have caused this outcome of violence in the medical-related workplace and the pressing tension on the relationship between doctors and patients. For example, the inefficiency of hospital system, overpopulation, healthcare cost, regulation policies and more. It would be ideal then for a multi-faceted action to launch following the analysis to urgently alleviate the violence towards doctors in China and improve the relationship between doctors and patients.

STS Framework

In order to analyze the economic, political, and technological factors that have been driving the formation of the current state of the doctor-patient relationship in China, the Social Construction of Technology is being used, in which the relationship would also act as an agent of social change. The SCOT framework can take into account the sociotechnical processes which drive technological change through considering stakeholders of the system as well as influences as entities of interactions (Pinch and Bijker, 1984). Explorations are performed and will ultimately support the topic of this paper. Social constructions are very crucial since they are opinions and

beliefs held as a whole, collectively by the entire culture and society. The major idea for shaping technology is the interactive sociotechnical process and people's action. The healthcare system is the technology being formed in this case, and SCOT can provide a valuable perspective of view to identify the impact brought by sociotechnical factors within the Chinese society to the healthcare system, especially the current relationship between patients and doctors.

SCOT framework is made of four elements, and they are interpretive flexibility, closure and stabilization, relevant social groups, and wider context. "Technology design is an open process that can produce different outcomes depending on the social circumstances of development" (Klein & Kleinman, 2002), were used to summarize interpretive flexibility by STS scholars Klein and Kleinman. The resolution of conflicting interpretations in-between social group in order to have each relevant social groups agree upon is closure and stabilization. Everyone in a certain social group having the same belief of meanings to a type of technology or artifact is what relevant social groups relying on. Lastly, wider context is related to the development of technology in a large sociocultural environment (Pinch & Bijker, 1984). After the analysis presented by each four of the elements, different social groups' perspective on the Chinese doctors and patient relationship problem can be observed and put into a larger context.

It is crucial to recognize that there will not be a defined generalization about the current state of the doctor-patient relationship, nor a solution to change it immediately. A variety of complicated factors would affect the outcome of the doctor-patient relationship in China, including the ones that itself cannot control, such as historical and cultural factors, international affect from outside of the country, religions, etc. Even though the breakdown of the related factors behind the doctor-patient relationship in China such as governments regulations, economics, etc. would be able to add to the success of this research, a static and universal definition of being valid and

successful is impossible to define. With those given constraints and considerations, the initial SCOT framework is refined into the creation of a useful framework for the analysis of the influence of the sociotechnical factors behind the doctors and patients' relationship in China.

Methods

The research question is answered through comprehensive literature review of factors behind the current state of the doctor-patient relationship. Even though the factors contributing to the current state of the doctor-patient relationship in China can be on a very wide scale due to the complexity of the issue, such as the number of differing degrees of definitions of doctor-patient relationships itself, the following analysis is validated by case studies in the development of the medical system over the past decade. These case studies are used to highlight different considerations of factors including regulation policy of the government, cost of healthcare, overpopulation, patient visit time length, that are crucial to the matter and for future recommendations on changing, or in some cases creating regulations. Finally, the results from the case studies are organized and composed into a list of factors behind the formation of the current state of the doctor-patient relationship in China.

Results and Discussion

A healthy doctor-patient relationship can play the core role in achieving effective health care, "After all, it is within the interactions that constitute this relationship that information is shared, that choices get determined, that reassurances are provided, that decisions are made and, ultimately, that care is given." (Dunn, 2019). Researchers have found the correlation of healthier and higher satisfaction in the doctor-patient relationship is positive with the outcomes of the patient. On the other side, poor relationships are associated with negative outcomes, as per patients' reports documented on unsatisfied feelings such as being disrespected (Chipidza, 2015). Researchers also

found that patients who experience such poor relationships change their doctors more often. As the relationship between doctors and patients plays such a crucial role in the medical care system, physicians and other workers would be willing to obtain healthy relationships with patients.

The current relationship between patients and doctors appears more as a selling and buying relationship. The patient's family and patient are seeking to obtain better treatment with monetary purchase. Nevertheless, doctors tend to provide service to everyone on a similar and equal level of quality. Thus, when the services performed by the doctors do not meet the expectations or needs of the patient, the tension in the relationship between them emerges (Bouteiller, 2020). The Chinese government is obligated to take actions to eliminate the conflict, as health care treatment's first intention should not be making money. The media also should put effort into reporting practices in the medical field more positively. When someone is admitted into the hospital, a lot of money can be spent by his/her family, and when the patient dies although all efforts were put in by the hospital, the media implies that the interest of the health care providers was solely to make money. It is inevitable to admit that it cannot be changed immediately, and the tension between doctors and patients cannot be fixed overnight. Yet, efforts should be invested towards the change of image in the future immediately. Also, the Chinese government's spending on health care is a lot lower when compared to the U.S and other European countries, where the lack of investment appears obvious at all levels, and the amount of qualified doctors in China is inadequate (Chen, 2020).

Between 2002 and 2012, the Chinese Hospital Management Association found out that there was a 23% increase per year in violence against medical workers. In addition, hospitals in China had a statistic of 27 physical attacks per year on average (Rauhala, 2021). Incidents of attacks on medical workers are not only limited to China, and these occurrences usually act as a

symbol of the frustration on the medical care system from the society. However, not all countries have such a high frequency of assaults on medical workers as China, why is that?

The lack of one unified legal system of medical negligence has been pointed out as an important reason for such a high violence rate towards doctors in China by many experts. In comparison to China, the U.S. has a matured and well-established law system targeting illegal medical practices, and it is commonly used. In the U.S., a patient has to validate 4 things in order to show that the doctor has acted falsely or irresponsibly in rendering care, and such activities lead to injury (Bal, 2009). The four validations needed include a professional duty owed towards the patient, misconduct of the duty, harm or injury resulting from the misconduct, and lastly, resulting in damages. Damages and harm caused are usually compensatory due to factors such as suffering and pain (Bal, 2009). Even though the system of medical malpractice in the U.S. is not perfect, it is inevitable to admit that its medical negligence system provides a decent amount of release for those expressing grievances or dissatisfactions. It is less likely for patients who were injured to not feel protected by the law and would need to figure it out by their own hands instead.

In contrast, the legal system of medical negligence is a whole different story in China, where the laws are much less well-established and uniform. In 1987, the *Regulations on handling Medical Accidents* was announced by the State Council (Liebman, 2013). However, both agencies of the health administration and the government have enforced and written the medical negligence laws separately, which very often leads to contradictions. The system is seemingly in favor of the hand of medical care providers, it limits the medical negligence liability scope to medical accidents that are narrowly clarified, which leads to many events that are not actionable (Liebman, 2013). In addition, the regulations under such legal system also limited many damages as recoverable. The Supreme People's Court, the highest-level court in China, created a crucial reform in 2002, to

establish a different judicial medical regime of liability. However, the two regimes were bridged in 2010, when the Tort Liability Law passed. Recently, the Supreme People's Court created a few plaintiffs favored judicial rules in order to decrease the costs of plaintiffs in the process of proving negligence, through transferring the proof's burden to defendants, and expanding the liability scope, which is to cover negligence of nonmedical accident and increase recoverable of damages (Liebman, 2013). It was reported by the Supreme People's Court in 2010 that there was a 7.6 percent increase in medical malpractice claims in 2009, approximately 17,000 cases were heard in total. Overall, the Tort Liability Law was a major reform of the legal system in medical malpractice in China, even though the evolution and strengthening in legal institutions have been going on for a couple of decades (Liebman, 2013).

The legal system's development is another major factor behind the doctor-patient's tension. In 2015, an article written by a group of medical researchers pointed out that strengthening the patient rights' awareness, medical services' low quality, and legal consciousness are the most essential factors behind the severe societal situation on the raising violent cases against medical workers. The article also presented that while a patient gains more knowledge on their rights, he or she and the family of the patient would be less likely to remain silent on the medical malpractice or negligence's responsibility on medical workers (Yu et al., 2014).

Social factors may take more weight in contributing to the anger towards doctors from patients when compared to the legal system. The trust within the doctor and patient relationship are very weak in China, and a major reason behind this is the increasing costs of healthcare. The government decreased hospitals' compensations and permitted them to gain income on medicine and services at the same time in the 1980s (Meng et al., 2019). As the cash flow coming in decreased, hospitals answered by charging more on treatments, medicines, and tests that are

overprescribing. The percentage of the population that have medical insurance also dropped 50%, from 70% to 20%, over this same period from 1981 to 1993 (Meng et al., 2019). Moreover, out-of-pocket payments in 2008 were 18 times higher compared to 1990, and in 2006, difficulties on affordability were reported by 43 percent of rural and 35 percent of urban households (Ferranti et al., 2016).

In order to take on these issues, the Chinese government started to give health insurance to more people recently, and among the 1.3 billion population, it allows more than 95 percent to have fundamental health insurance (Hsiao et al., 2015). Yet, the coverage of the insurance is extremely limited, which still leaves approximately 50 percent of the cost of health treatments on patients. Many of the diseases are not affordable such as cancer (Yahoo, 2016).

Very high expectations on the quality of healthcare come naturally with the sky rocking price of going to the hospital. However, such expectations are rarely satisfied. The communication period between doctors and patients is usually extraordinarily short, and this makes the bond-building process between doctors and patients even harder. During my last semester in Beijing, I observed this phenomenon myself when I went to visit the hospital for my eyes and another small injury incident. I went to the TongRen Hospital and Beijing Hospital, respectively, and they have a reputation as the best hospitals in China. However, even hospitals with such a high ranking in the Chinese medical system made me feel like it was a shopping trip on Black Friday instead of a hospital. For instance, the elevators were crowded, and registration and the medicine pickup window's waiting line required at least 1-2 hours of wait. It was like the subway stations during rush hours in New York City the whole day, and people arriving at the outside of the hospital before it opens in the early morning in order to get screened before the hospital closes, is a common phenomenon.

The over-packed phenomenon in hospitals is mainly due to the high population density in China. These two hospitals were deeply affected by the overpopulation status quo since they were 2 of the major hospitals in Beijing City. People often come to Beijing from rural areas for better treatment of illness, regardless of the difficulty through travel process including expenses. On the other side, however, doctors are often in a hurry through the interaction with every person seeking treatment in order to get the most amount of people screened. As a result, patients must wait a couple of hours to see a physician to whom they may only talk to for five minutes.

YanRan Wu, a doctor in WenZhou City, offers more insight on these interactions. I visited her hospital on Dec. 9th, 2021. I arrived at 9:00am and learned that she has already consulted 37 patients since her shift started at 7am. When I was in her office for my ‘visit,’ she had three patients directly coming in for brief follow-up advice. While I was very impressed with how much of a workload it was, she told me that in China, doctors have to be extremely good with handling pressure. With that being said, efficiency is among the highest priorities, which leads to doctors having almost no time for building a closer and a more personal relationship with the patients. The whole process is succinct transaction. The doctor takes a look at test results for about 10 seconds, asks the patient to describe their symptoms, makes the diagnosis, and gives a prescription on the course of treatment. The next patient would often knock on the door or just come in to interrupt the conversation before this basic process is over, thus there is no physical time for any extra interaction between the doctor and the patient.

Dr. Wu’s experience approximates a typical day of work for Chinese doctors. Even the “COVID Hero” of China, Dr. Zhong NanShan, said that patients’ reality in China is to see a doctor for around three minutes, but typically wait for three hours during the National People’s Congress back in 2014. Also, a reporter named Chris Beam from The New Yorker has interviewed a famous

Chinese radiologist regarding the workload per day. The result turns out to be that the peak number of patients who got seen by him for one day is 314, which averages out of a two minutes per person over ten hours working period. Moreover, another fact is that even though the average time of a visit is seven minutes, doctors only spend one and a half minutes talking to the patient on average, according to a research done in ShanXi Province. On the contrary, this talking time amount is at least double in other geographic regions like the U.S and Europe.

Frustration among patients is more than obvious in China. Even though the inefficiency of the medical system cannot waive the patients' violence being negative, it is inevitable to feel sorry to the harmed ones in the system. Sometimes when the news about violence towards a doctor takes place, the media and the public opinions are destroying the patient. However, as more details on the case get into the public's eyes, the media and the public voice are being alleviated toward the patient. The patient sometimes turns out to not be a psychopath with no criminal record, and he/she is just a normal person that the society, more specifically the medical system, has failed and is being pushed to collapse. Chris Beam, the same New Yorker Reporter as previously mentioned, has in fact investigated in a case as such (Beam et al., 2014).

Mengnan Li, who was 17-year-old when the case took place, stabbed a doctor to death whose name is Wang Hao, while having three other people injured by slashing. Chris Beam, the New Yorker Reporter, wrote that Mengnan has been working in Beijing since 15-year-old after going through a tough childhood and has been having leg pain. He went to visit the hospital for help but was not able to afford the pre-diagnosis tests. Then he went back to his hometown, inner Mongolia, to seek cheaper treatment. However, bad luck continued to hit him as inner Mongolia does not have the resources including doctors and facilities for such diagnosis just like most other places outside of major cities in China. After a period of time, Mengnan went to Harbin, the closest

large city after a 10-hour train trip for a visit to the better hospital with his grandpa (Beam et al., 2014). The hospital was extremely packed and busy just like all other big hospitals, and the worse thing is, the doctor he saw diagnosed him incorrectly. Since he did not get better due to the wrong treatment, Mengnan's grandpa accompanied him back to the hospital after 6 months. This time Mengnan finally got the correct diagnosis, which is ankylosing spondylitis. Sadly, this could not be cured, but the doctors have advised him to reduce the symptoms with a treatment costing 39000 RMB (around more than 6000 dollars), named 'Remicade.' After the coverage of insurance, Mengnan still had to pay 8000 RMB (around 1200 dollars). Mengnan's family put all the effort to raise the money, including Mengnan's all savings and subsidies, grandpa's pension, and borrowing from people. Fortunately, in the beginning, the symptom got better. However, when it was about a month in, the doctors told Mengnan's family that the treatment had to stop due to him having tuberculosis, most likely resulting from the Remicade having weakened Mengnan's immune system. After that, Mengnan stayed in the hospital for 4 months back in his hometown for treating his tuberculosis. Then just like the beginning, Mengnan's grandpa accompanied him to travel back to Harbin hoping the Remicade treatment can be resumed (Beam et al., 2014).

After arriving at the hospital, the doctors sent him to do an Xray, and they told him that he should've kept the medical record (notes from the last visit) with him. Thus, Mengnan went back again to get it, and when he returned, the doctors said that he was unable to get treatment since tuberculosis was not entirely cured. He was informed that 3 extra months is needed to get treated and so he went back home again untreated. What happened worse was the doctor made him wait outside of the office standing when talking to his grandpa (Beam et al., 2014). And it was at this moment that Mengnan felt not being respected and started to doubt that "are those doctors playing and tricking with me?" According to Mengnan's attorney, all Mengnan acknowledged was that he

visited so many times and had only been receiving “no” as the answer. After all these, Mengnan has spent a large amount of money, time on both traveling and years of waiting for nothing.

Mengnan’s emotion had finally broken down at this point with barely any trust left for the hospital system and those doctors anymore. He went to a local grocery store and returned to the hospital with a fruit knife, and the tragedy happened (Beam et al., 2014). During the trial, Mengnan’s attorney discoursed that in fact, the hospital had already confirmed the existence of tuberculosis before applying the first set of the Remicade treatment, which indicated that doctors chose not to point it out due to the treatment being very profitable. The important point to make from the attorney was that the hospital took advantage of Mengnan as a person with illness seeking for help, placing money-making in front of his wellbeing, and thus the sentence deserved to be reduced. However, Mengnan still ended up in prison for the rest of his life (Beam et al., 2014).

Two years after the incident, Chris visited the father of Dr. Wang, who was killed by Mengnan. When talking about who he blames the most on the loss of his son’s life. Given the fact that he still hadn’t moved on from grieving, it was surprising that Wang’s father said that he instead thought it was the system’s fault. He believed that Mengnan was instead just one of many cases in which the system has failed (Beam et al., 2014).

The question then came to the repair of such failure of China, and there are no straight-up or clear identified ways to solve it while this problem is so complicated. However, one potential solution has been introduced by some scholars, which is to go back to community care, which had a big impact on many dynasties over Chinese history. During the 20th century, there was a profession known as the barefoot doctors. They were not professionally trained physicians; however, the barefoot doctors were capable of meeting fundamental health needs. The group mainly worked outside of the main city areas including those that were far below the standard level,

this enabled the improvement of the population they served as well as forming bonds between doctors and patients (Harvard, 2018). Due to the barefoot doctors, the mortality rate of infants in China has dropped from 20% to 3.4% over the course of 30 years (1952-1982) (GBH, 2016). The better relationship that these barefoot doctors can have with the patients would lead to a higher level of trust, which can reduce the odds of the violent tragedies.

The research has involved in considerations of several sociotechnical perspectives that impact the relationships between doctors and patients in China, but it is essential to note that limitations exist. One example of the limitation is that the influence of media such as online posters, journal articles, newspapers on the doctor-patient relationship in China were not specifically evaluated. Questions such as if the creation of another social group is needed to be included in the SCOT analysis would occur. In addition, the development of technologies on devices used in hospitals wasn't studied thoroughly. These new technologies would appeal to be more efficient, but they also lessen the interactions between doctors and patients even further. One drawback of SCOT is the selected social groups are very influential to the analysis as well as the answer to the entire research question, when adding or taking out a group, the result would change drastically. To continue the research, it is necessary to address every limitation in the SCOT analysis, then include them in the result. The research can be helpful if applying to educate the public who are all stakeholders under the health system, as well as to present to the policy makers for an advanced observation. If the research is continued, its impact would be valuable on the field of STS as well as the Chinese society.

Conclusion

The research's impact is based upon the notion of society shapes technology, which is the hospital and healthcare system. After taking a close look at the doctors-patients relationship

problem and cases in China, it is fair to say that the violent incidents on medical workers represent disappointment and frustration in general towards the medical care and hospital system. Major factors that are still problems resulting in the dilemma include sky rocking expenses on healthcare, insufficiency of a mature legal system on medical malpractice, and the inefficiency of the bond building between doctors and patients due to the overpacking phenomenon in hospital daily. Solutions should be aimed at building a larger range of reliable medical provider networks so that physicians and patients would have closer relationships. By doing so, the quality of health in those non-major city areas would improve, while the workload and pressure on medical workers in major cities would be alleviated as well. When the number of patients who seek help on small/minor sickness from the non-major city areas drops, medical workers in the major city areas would have more time for forming a better bond with each patient while reducing the number of patients from rural areas whose small illness turning into a major one due to unnecessary waiting, traveling, and misdiagnosing. When this stage is reached, the odds of an angry patient applying violence on doctors for revenge may be greatly reduced, and a society which possesses a higher living quality and well-being would be shaped.

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