

Construction of Trust Relationship between Doctors and Patients: A Social Psychological Analysis

Liangyue Li*, Fangming Zhai, Hailan Liu, Chonghua Wan, Jianfeng Tan, Libin Zeng

School of Humanities and Management, Guangdong Medical University, Dongguan 523808, China

* Corresponding Author: Liangyue Li; 344318479@qq.com

Abstract: Doctor-patient trust is the basis of harmonious doctor-patient relationship. Social psychology plays a unique role in interpreting the connotation and construction of doctor-patient trust relationship. From the two levels of doctor-patient interpersonal trust and intergroup trust, this paper summarizes the relevant theoretical viewpoints of social psychology on the construction of doctor-patient trust relationship, and analyzes the key factors affecting doctor-patient interpersonal trust and intergroup trust. On this basis, this paper puts forward the construction path of doctor-patient trust of “interpersonal interaction-emotional communication-interpersonal trust” and “intergroup interaction-social knowledge-intergroup trust”, reveals the interaction mechanism of interpersonal trust and intergroup trust and the circular feedback mechanism between them to promote the formation of doctor-patient trust relationship, and establishes a social psychology model of the formation mechanism of doctor-patient trust relationship.

Keywords: Doctor-patient trust; Interpersonal relationship; Intergroup relationship; Social psychology

1. “Trust Deficit” and Doctor-Patient Trust Crisis

At present, China is in the period of economic and social transformation, and various contradictions are frequent. The traditional clan society has been disintegrated, and the “atomized” stranger society is taking shape. Social members generally lack trust, and the “trust deficit” has become a social hot issue. This “trust deficit” exists not only in the field of economic production activities, but also in the field of medical services. The commercialization of medical services, asymmetric information in the medical market, poor communication between doctors and patients and other factors further weaken the foundation of doctor-patient trust, and adversely affect the doctor-patient trust relationship which is difficult to build and rebuild^[1]. To a large extent, “trust deficit” is the root cause of the trust crisis between doctors and patients and the “tension and conflict” between doctors and patients.

Doctor patient trust crisis has existed in Chinese society for many years. According to the survey issued by the Hospital Management Office of Shanghai Medical University in 2001, 24.23% of the public think that the

Copyright © 2021 Liangyue Li, *et al.*

doi: 10.18063/esp.v6.i2.1395

This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received: Oct 13, 2021; Accepted: Nov 28, 2021; Published online: Dec 6, 2021.

doctor-patient relationship is harmonious, and 29.72% believe that the doctor-patient relationship is tense^[2]. From 2006 to 2016, the number of medical dispute cases accepted by national courts doubled^[3], and most medical staff believe that the current doctor-patient relationship is still not optimistic^[4]. According to the data report of dingxiang.com in 2020, more than 80% of the medical staff surveyed said they had suffered from patient violence, and about 70% of the medical staff who suffered from patient violence said they had suffered mental injury^[5].

The rapid spread of doctor-patient relationship has attracted extensive attention from the modern media. In case of doctor-patient conflict, some media use the advantage of “voice” to fuel the flames and deliberately magnify the problem, which not only aggravates the tearing of doctor-patient relationship, but also makes the resulting doctor-patient trust crisis exceed the individual doctor-patient, spill over to the doctor-patient group, and even have an impact on the whole social psychology. Therefore, exploring the formation mechanism of doctor-patient trust relationship and its reconstruction path will help the doctor-patient relationship get rid of the negative cycle of “lack of trust-doctor-patient tension-doctor-patient conflict-doctor-patient tension-lack of trust”, and realize the construction goal of harmonious doctor-patient relationship.

2. Doctor-Patient Trust Relationship from the Perspective of Social Psychology

2.1. Connotation of doctor-patient relationship and doctor-patient trust relationship

Doctor-patient relationship is a specific treatment relationship between medical staff and patients in the medical process, and it is an important part of medical interpersonal relationship. The main body of modern doctor-patient relationship refers to the personnel of medical institutions participating in the medical process, including medical workers such as medical staff and administrative personnel. The subject of the patient refers not only to the patient, but also to his relatives and other stakeholders. The interpersonal relationship between doctors and patients is manifested in the emotional communication and interaction between doctors and patients in the process of diagnosis and treatment. This interpersonal relationship is temporary and unstable. The intergroup relationship between doctors and patients is reflected in the intergroup interaction process between doctors and patients under the social background. Once formed, the intergroup relationship has long-term and stability^[6].

The interpersonal and intergroup characteristics of doctor-patient relationship reflect the conflict and complexity in the construction of doctor-patient trust relationship. The doctor-patient trust relationship refers to the relationship between the individual or group of doctors and patients who believe that the other party is trustworthy and have stable psychological expectations and positive social evaluation^[7], which is the basis for resolving doctor-patient contradictions and establishing a harmonious doctor-patient relationship. The doctor-patient trust relationship can be considered as composed of interpersonal trust relationship and intergroup trust relationship. The interpersonal trust between doctors and patients comes from the rational identification and perceptual dependence generated by the individual interaction between doctors and patients. The trust between doctors and patients comes from the mutual social identity between doctors and patients.

2.2. Social psychology perspective of doctor-patient trust relationship

Social psychology studies the occurrence mechanism and behavior changes of individual and group psychology under the social and cultural background, and describes the impact of some social facts on individual or group psychology^[8]. Analyzing the influencing factors and formation mechanism of doctor-patient interpersonal trust and intergroup trust from the perspective of social psychology is of great significance to build a harmonious doctor-patient relationship.

In terms of doctor-patient relationship, western scholars have a long-term upsurge of research on trust mechanism. From the perspective of interpersonal relationship, Steven pointed out that trust is the decisive factor in interpersonal relationship, and patients pay more attention to emotional communication with medical staff in doctor-patient relationship^[9]. Stewart *et al.*^[10] analyzed 299 cases of chronic diseases and found that doctors, as a special profession, not only need to have professional technical knowledge, but also need to understand the psychological feelings of patients in time during diagnosis and treatment.

From the perspective of intergroup, Luhmann proposed in *Trust-A Simplified Mechanism of Social Complexity* that trust is divided into interpersonal trust and systematic trust, and interpersonal trust based on emotional connection will eventually be replaced by stable systematic trust. Capozza *et al.*^[11] believe that group trust can be increased through group contact, and there is a two-way relationship between contact and group evaluation. The contact, interaction and feedback between doctors and patients will also change the trust of doctors and patients.

Most Chinese scholars start from the doctor-patient contradiction to study the doctor-patient trust relationship. Gong *et al.*^[12] believe that the doctor-patient relationship is the most basic unit in the medical industry. Improving the doctor-patient relationship not only needs to vigorously promote the reform of the medical system, but also through various measures to improve the communication between doctors and patients and cultivate doctor-patient trust. From an interpersonal perspective, Yang *et al.*^[13] believe that patients will give priority to hospitals they are familiar with or have acquaintances because patients trust such hospitals and doctors more, which is interpersonal trust. Huang^[14] believes that the doctor-patient relationship is an interpersonal relationship between people who don't know each other but have interests. Patients will secretly give gifts or ask someone to take care of them when seeing a doctor, hoping to establish a special interpersonal trust between doctors and patients.

From the perspective of intergroup, Ning^[15] proposed that the social trust crisis has had an impact on the medical field, and this relationship which is difficult to "adjust" has exposed the general distrust of patients towards doctors in the real situation. Wang *et al.*^[16] believe that the media are tendentious and selective. When the media conduct moral judgment in advance and misguide public opinion, the public is easy to be controlled by public opinion.

Generally speaking, scholars at home and abroad believe that doctor-patient trust relationship is an important part of doctor-patient relationship, and interpersonal trust and intergroup trust relationship are important components of doctor-patient trust relationship. At the same time, it can also be found that the current research on doctor-patient trust relationship is studied separately from the interpersonal or intergroup level, the research on integrity or integration is insufficient, and the discussion on the formation mechanism and model construction of doctor-patient trust relationship is not comprehensive and in-depth enough. This paper will make an integrated analysis of doctor-patient interpersonal and intergroup factors, reveal the formation and interaction mechanism of doctor-patient trust relationship, and provide a theoretical model tool of social psychology for the construction of doctor-patient trust relationship.

3. Doctor-Patient Trust Relationship and Its Influencing Factors

The doctor-patient trust relationship is the premise of building a harmonious doctor-patient society. By combing the influencing factors of doctor-patient interpersonal trust and intergroup trust, it lays the foundation for constructing the formation mechanism model of doctor-patient trust relationship from the perspective of social psychology. Because interpersonal relationship and intergroup relationship are interactive, each factor has a certain impact on doctor-patient interpersonal trust and intergroup trust.

3.1. Interpersonal trust between doctors and patients and its influencing factors

Doctor patient interpersonal relationship is a social relationship established and developed in the process of doctor-patient interaction. The formation of this trust mechanism comes from the cognitive behavior characteristics, communication content and interaction mode of doctors and patients, and finally produces rational identification and emotional dependence.

First, the lack of medical humanistic quality. From the point of view of Du *et al.*'s continuous development of medical personnel's humanistic ability and technology, it refers to the continuous development of medical personnel's humanistic ability. At present, with the continuous development of new medical technology, doctors tend to pay more attention to technology than communication in diagnosis and treatment services. The development of medical terms has exacerbated the barriers of dialogue between doctors and patients^[1], greatly reducing the interaction between doctors and patients. Due to the uneven distribution of medical resources in China, higher grade hospitals usually have greater demand for consultation. In this case, doctors have to greatly reduce the consultation time of each patient. Due to the short communication time between doctors and patients, often after the diagnosis and treatment activities, patients only remember what medicine to take and when to take medicine, and do not know much about their own etiology or condition, which makes the trust level of patients in doctors unable to be developed or even reduced. In this case, it is particularly important for doctors to improve communication quality, clearly convey disease diagnosis and treatment information in a short time and contain humanistic care, so as to improve patients' trust in doctors. As the cradle of training doctors, colleges and universities often do not pay enough attention to the humanistic quality of medical students. The impression of most medical students is limited to professional ethics, and the neglect of humanistic quality will often become an important reason for the contradiction between doctors and patients in the future. Science and technology make patients have material trust in doctors, while humanistic quality can make patients have emotional trust in doctors. Therefore, doctors should actively improve their medical humanistic quality and actively increase humanistic care in the interaction with patients, so as to effectively help build doctor-patient interpersonal trust and reduce the generation of doctor-patient contradictions.

Second, individual factor differences. The differences of individual factors can be divided into individual differences of doctors and patients from the perspective of subjects. Due to the high threshold for doctors to enter the industry, there is no great difference in education level or economic ability. Therefore, the differences of individual factors of doctors are mainly reflected in three aspects: technology, professional ethics and service awareness^[18]. Technology refers to doctors' mastery of medical knowledge. Having exquisite technology can make patients feel professional. Professional ethics refers to doctors' sense of responsibility and moral standards. The higher the professional ethics, the greater tolerance and patience will be shown to patients. Service awareness is the doctor's service desire in the process of seeing a doctor, and a good service awareness will

often get higher evaluation from patients. As the main body of the relationship, patients have the most direct impact on the interpersonal relationship between doctors and patients. The differences are mainly divided into age, education level, life satisfaction and other factors. The older the patients are, the less educated they are, the earlier they inherit the doctor-patient respect and have a good understanding of doctor-patient mutual trust, the higher their trust in doctors^[19]. Patients who are highly satisfied with life have a higher level of interpersonal trust due to their positive and optimistic attitude towards life^[20]. However, due to the differences in patients' cognitive level and communication and understanding ability, the difficulty of establishing trust between doctors and patients in different fields needs to be defined and analyzed in detail.

Third, there are differences in medical situations^[21]. Based on different medical environments, patients will have different feelings in the treatment process, and generate different degrees of trust according to them. Generally speaking, large hospitals have more advanced technology, equipment and talents, but they are also faced with the problems of large number of people and limited energy. Although the equipment conditions of small clinics are limited, they have the advantages of convenient treatment. Due to the small number of patients and long communication time between doctors and patients, they can effectively help patients solve their doubts and establish interpersonal trust. The differences caused by the factors of medical treatment situation also include the difficulty of building trust in different departments. For example, most of the doctor-patient trust established in the outpatient department has the characteristics of "one-off". Most of the diagnosis and treatment activities are a single contact between patients and doctors. After the course of the disease is over, the trust between patients and doctors is over, and both sides don't even have enough time to establish trust. The doctor-patient communication in the inpatient department is repetitive. Under the meeting and communication between doctors and patients, the level of trust between them is rising. Therefore, the longer-term doctor-patient relationship is more conducive to the establishment of interpersonal trust.

Fourth, doctor-patient rights protection factors. At present, there are defects in the channel of doctor-patient rights protection in China, and it is difficult to protect the rights and interests of doctors and patients. After the occurrence of a medical accident, the patient only has two ways to identify the medical responsibility: medical appraisal and judicial appraisal. If the responsibility is identified, legal litigation has basically become the only choice for patients according to the enforceability of the solution^[22]. The dilemma of medical identification and rights protection has brought secondary harm to the patients and their families. The patients themselves are in a negative and irritable mood of pain. If legal measures need to be taken to protect their rights and interests after the determination of responsibility, it is another round of energy-consuming process for the patients. Therefore, it is necessary to simplify the rights protection channel of patients and establish a systematic and effective medical accident assistance mechanism for patients. After medical disputes, the public often sympathizes with and pays attention to patients and ignores the protection of medical workers. In recent years, medical workers have been injured frequently in conflicts. As a sacred profession for treating patients, their rights and interests should be respected and valued as well. Safeguarding the rights and interests of medical workers is not only to protect the physical and mental health of medical workers, but also the fundamental requirement for the sustainable development of harmonious doctor-patient relationship. With the enhancement of public awareness and demand for rights protection, it will be of great significance in practice to improve the medical liability insurance system and relevant health laws and implement the protection policies for the rights and interests of both doctors and patients.

3.2. Intergroup trust relationship between doctors and patients and its influencing factors

Intergroup trust between doctors and patients is the basis of diagnosis and treatment activities between doctors and patients. It is the behavior that internal groups have expectations for external groups, actively reduce group bias and generate trust in the process of interaction^[6]. Intergroup relationship is different from interpersonal relationship. Once formed, intergroup relationship has stability.

First, group identity factors. Group identity is the primary condition of intergroup trust between doctors and patients, which has an important impact on the construction and development of doctor-patient trust. Social identity theory holds that in social relations, individuals attribute themselves to a specific group based on self-awareness, and generate pride within the group and prejudice outside the group^[23]. Due to their different identities, doctors and patients classify themselves as a part of the patient group or the doctor group, and have a stronger sense of tolerance and pride for the internal group. When conflicts occur, the higher the recognition of the inner group, the more likely it is to produce hostility to the outer group. Therefore, in case of doctor-patient conflict, the inner group will experience anxiety and resistance to the outer group, increase the antipathy between groups, and make the inner group automatically reduce the willingness to communicate with the outer group^[24]. This is also the reason why the public opinion belonging to both sides often quarrels constantly and it is difficult to calm down and communicate after the doctor-patient contradiction occurs. Therefore, it is particularly important to strengthen group communication, improve group identity, establish inclusive organizations and carry out inclusive communication in daily life.

Second, the lack of social trust. The lack of social trust in China stems from various influences, such as cultural, political and economic macro factors, which can not be ignored. Based on the Confucian culture, China stresses the relationship of blood community, but this relationship is gradually being eroded or replaced by the relationship of market economy. China is in the transition period of national governance, and the governance system and laws related to doctor-patient relationship are not perfect. In addition, dishonesty and breach of contract occur from time to time in the economic field. Social trust is the crystallization of group consciousness under the joint action of these macro factors, reflecting the overall attitude and emotional psychological state of social groups. Therefore, when the overall trust level of the society is not high, the doctor-patient relationship bears the brunt, and the tension between the two sides continues to deepen. Due to the marketization of medical system reform, both doctors and patients act as suppliers and consumers in the market, further increasing the patient's distrust of the doctor. Moreover, the medical group has been working under high pressure and high risk for a long time, but the salary is generally low compared with other countries, and the workload is not directly proportional to the salary^[25], so it is difficult for doctors to feel their real value through the salary level. In many situations, the social trust crisis increases the fragility and instability of doctor-patient trust, increases the group psychological distance between the two sides, and increases the cost and difficulty of establishing doctor-patient trust.

Third, public opinion factors. Public opinion can promote the doctor-patient trust relationship. Positive public opinion will have a positive impact on the doctor-patient trust relationship, while negative public opinion will increase the emotional distrust between doctors and patients. For the patient, the media's supervision of medical accidents is conducive to the realization of the patient's rights, and will also strengthen the patient's self behavior management. For the doctors, while the media carries out social supervision on them, they are also constantly improving the influence of the doctors. With the development of science and technology, more and more people use network media to obtain information, so the news media carries the important task of

disseminating information. If this channel is used well, it will play a positive role in the doctor-patient trust relationship. In order to enlarge the conflict between doctors and patients' professional interests, most journalists deliberately exaggerate the conflict between doctors and patients in order to obtain a large number of professional interests. Since the main source of information for most people is the news media, in this case, the public incited by emotion can not obtain accurate cognition of the event and make rational response, and the comments on the medical prescription are often full of negative emotions. These negative reports virtually put doctors and patients on the opposite side of the relationship, so that the safety and respect need of doctors can not be met, and the level of trust between doctors and patients is reduced. The doctor-patient trust relationship needs a lot of energy to maintain. If the news media only focus on short-term interests and violate social morality, they will lose their self reputation in the long run. Therefore, the news media should assume social responsibility, guide the public to correctly treat contradictions and promote the long-term development of doctor-patient trust relationship.

Based on the above factors affecting doctor-patient interpersonal and intergroup relations, see **Table 1**, a social psychology model of doctor-patient trust formation mechanism will be established to further clarify the process and interaction of doctor-patient trust establishment.

Table 1. Analysis of influencing factors of doctor-patient trust relationship

Factor		Positive effect	Negative effect
	Interpersonal factors		
Medical humanistic quality factors		Pay attention to image and etiquette and improve communication skills	Medical humanistic quality education has not been paid attention to
Individual factors		Their own quality has been improved	Personal quality gap widened
Situational factors of medical treatment		Homogenization and high quality of medical services	Heterogeneity and low quality of medical services
Doctor-patient rights protection factors		Smooth channels for safeguarding rights	Rights protection channels blocked
	Intergroup factors		
Group identity factors		High recognition among doctors and patients	Low recognition among doctors and patients
Social trust factors		Improve health laws and regulations and strengthen the construction of trust system	The trust of the whole society remains at a low level
Public opinion factors		Fair report and correct guidance	Exaggerated reports and negative guidance

4. Social Psychology Model of Doctor-Patient Trust Relationship

Exploring the formation mechanism of doctor-patient trust relationship is an important content of studying doctor-patient relationship. Chen *et al.*^[27] put forward the conceptual model of doctor-patient trust relationship, which provides an idea for the modeling of doctor-patient trust relationship, but it is too limited in the scope of trust, ignoring the trust construction among social groups. Lvet *al.*^[28] constructed the framework of doctor-patient social mentality in combination with interpersonal, intergroup and cultural aspects, which provided a psychological model for the formation of doctor-patient relationship, but preferred to summarize the regularity of doctor-patient relationship and did not involve the discussion of specific topics such as doctor-patient trust relationship. This paper summarize and analyze the existing research results, and put forward a social psychology model of the formation mechanism of doctor-patient trust relationship, as shown in **Figure 1**, explain the formation mechanism of doctor-patient interpersonal trust and inter group trust, and make a “panoramic” analysis of the interaction of doctor-patient trust relationship.

In a narrow sense, doctor-patient trust is the product of the establishment of emotion between doctors and patients. In a broad sense, the essence of doctor-patient trust relationship is a kind of social psychology, and its basic field is cultural mentality^[28]. As a basis for the existence of doctor-patient trust relationship, cultural mentality is divided into economic, social system, laws and regulations, culture and medical technology. In short, the interaction of diagnosis and treatment occurs under the cultural mentality, and the trust relationship between doctors and patients is formed in the process of interaction between diagnosis and treatment, and the doctor-patient interpersonal trust and doctor-patient intergroup trust plays a direct role in the doctor-patient trust relationship.

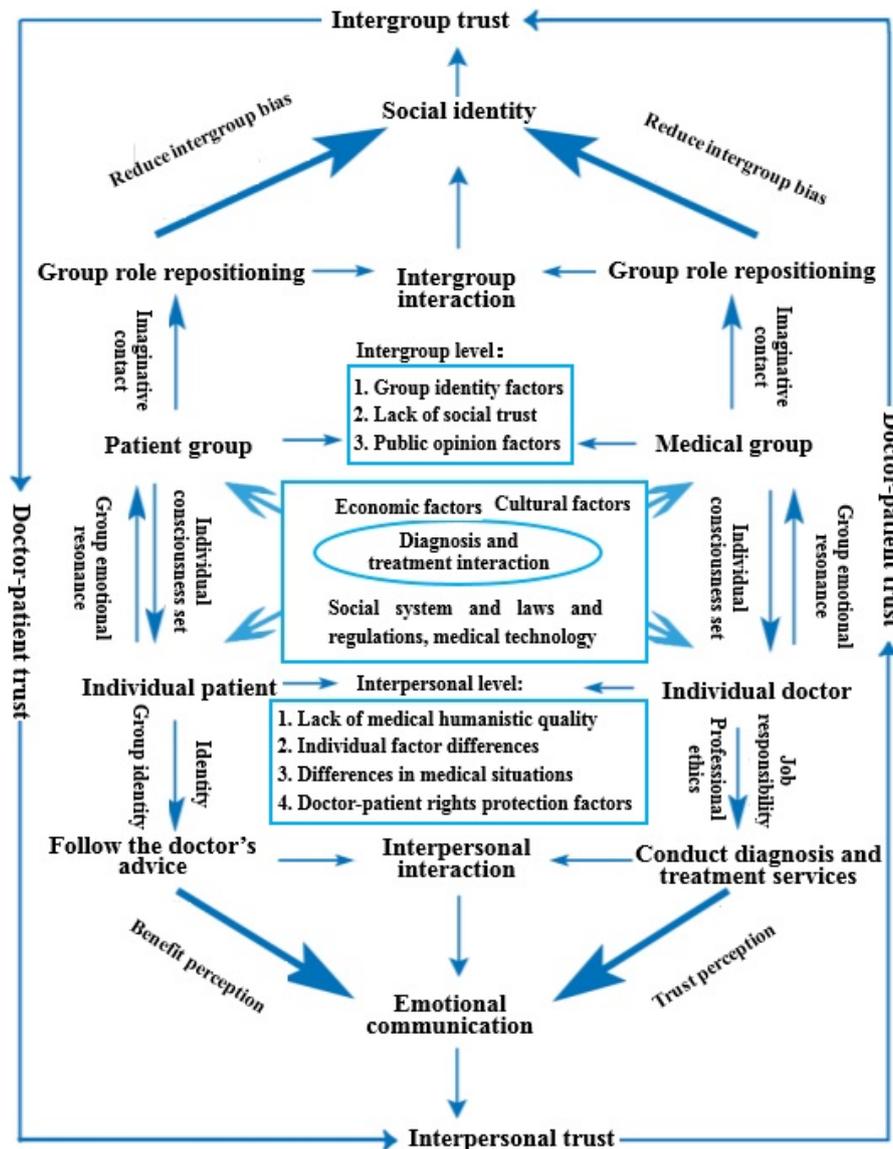


Figure 1. Social psychology model of the formation mechanism of doctor-patient trust relationship.

4.1. Construction of doctor-patient interpersonal trust

Doctor-patient interpersonal relationship, as a direct contact relationship between doctors and patients, its establishment of trust has the most direct impact on the doctor-patient trust relationship in the real situation. In terms of the establishment of interpersonal trust relationship, in the early stage of medical treatment, both doctors and patients have a certain degree of trust in each other. The trust of patients comes from the recognition of the medical group and the identity of doctors. The trust of doctors is based on work responsibility and

professional ethics, which is the direct cause of diagnosis and treatment interaction. When the diagnosis and treatment interaction occur, the two sides begin to carry out interpersonal interaction, and the factors affecting the interpersonal trust relationship between doctors and patients begin to take effect. It is divided into four parts: medical humanistic quality, individual factor differences, medical situation differences and doctor-patient rights protection factors. When doctors have higher medical humanistic quality, they will communicate with patients more actively and pay attention to patients' emotions to meet patients' expectations. Generally speaking, when patients are older, have higher life satisfaction, and doctors have higher technology, professional ethics and service awareness, the difficulty of establishing doctor-patient trust is lower. The doctor-patient trust relationship is also limited by the difference of medical situation. The better the medical environment and the more opportunities for doctor-patient communication, the more conducive it is to the development of doctor-patient interpersonal trust relationship. When both doctors and patients perceive the threat of rights and interests and have anxiety, improving the channels for safeguarding rights of doctors and patients can effectively reduce the vigilance of both sides and maintain the basic trust between doctors and patients even in the case of contradiction. Due to the differences of influencing factors, doctors and patients began to have varying degrees of trust. Patients check and take medicine on time according to the doctor's advice. When the condition improves, they feel the benefits and are more willing to open their hearts to the doctor and express their feelings. In the diagnosis and treatment service, doctors feel their identity trust and emotional trust from the patient's compliance with the doctor's advice, and are willing to help the patient analyze the condition and alleviate the distress more sincerely. The two sides have emotional exchanges, and the feelings are constantly sublimated, so as to finally achieve the interdependence of interpersonal trust between doctors and patients.

4.2. Construction of intergroup trust between doctors and patients

The premise of interpersonal diagnosis and treatment interaction between doctors and patients includes the group identity of doctors, which involves the mutual recognition and trust between patients and doctors. Only when there is a certain trust relationship between groups, the social status of doctors will be better recognized by the society, and patients will seek medical services as social individuals. When the doctor-patient interaction occurs, the doctor or the individual patient has a basic impression on each other. The group gradually forms a unified basic consciousness through the individual feedback on the diagnosis and treatment interaction, and the trust relationship between the doctor-patient group begins from then on. Because the doctor-patient intergroup relationship can not have substantive contact and face-to-face communication, the communication between the two sides needs the participation of the whole society, so the doctor-patient intergroup relationship is greatly affected by the society. The influencing factors of doctor-patient intergroup trust are divided into three aspects: group identity factors, lack of social trust factors and social public opinion factors. Due to the different groups and interests of doctors and patients, even if the two sides are in normal communication, the interests of the internal group are the first. Only when both sides have a higher tolerance for the external group and take into account the interests of each other, can it be conducive to the improvement of group trust. In today's society full of trust crisis, the society needs to constantly improve relevant systems, laws and regulations in order to effectively help the establishment of doctor-patient trust relationship. The news media should clearly and fairly present the facts to the public, so that the public can receive accurate information and make correct evaluation. Today, with the continuous development of the medical service industry, doctors and patients continue to make imaginary contact with foreign groups through network platforms, organization and association representatives and other channels. The inner group obtains feedback by collecting external information. When both parties realize that the outside world has different understanding and group positioning, they will jump out of the

original impression and reposition the group role, so that the relationship between the doctor and the patient group can be reexamined. Under the continuous renewal cycle of the role orientation of the doctor-patient group, the inter group interaction has been strengthened, the inter group prejudice has been reduced, and the mutual social connection and sense of identity have been improved. In the long run, the inter group trust has been strengthened to promote the final formation of the doctor-patient inter group trust.

4.3. Interaction process of doctor-patient interpersonal trust and intergroup trust

In the establishment of doctor-patient trust mechanism, Sun *et al.*^[29] believed that doctor-patient interpersonal and doctor-patient intergroup relationship are a progressive relation, and the two interact to form a phased and stable doctor-patient relationship. Group consciousness is the universality of individual consciousness. When an individual generally has a certain impression of the external group, the impression will continue to spread within the group, obtain centralized recognition, and finally form the group impression of the external group. In the same group, because everyone has the same identity and personal experience, it can usually make other people in the group feel the same feelings and cause emotional resonance among groups. With the development of doctor-patient interpersonal relationship, the impression of external groups is also changing. When the group understanding of both sides is improved, the inter group trust increases, the basic trust of doctor-patient individuals is also improved, and the cost and difficulty of establishing interpersonal trust are greatly reduced.

From the perspective of interpersonal communication, interpersonal psychology is easy to change under the influence of the situation. Individuals establish contact between others and corresponding groups according to their own experience, and substitute their understanding of others into the basic impression of the whole group. For example, when a patient has a quarrel with a medical worker during the treatment service, resulting in negative emotions, the doctor will be automatically substituted into the whole medical group, so as to have a negative impression on the whole group. Some people with the same experience will resonate with this, exaggerate this negative emotion and label the medical group as “irresponsible”^[28]. This group impression affected by interpersonal relationship has a great impact on the construction of doctor-patient group trust.

From the perspective of intergroup, when recognizing new individuals, they will be classified into a group according to their occupation and identity, and subconsciously “secure” the characteristics of the group on each other based on their cognition of the group. Since the two sides belong to different groups, when group conflicts occur, emotional exposure will also appear in interpersonal contact, promoting the two sides to form a mutually antagonistic situation. Due to the professional particularity of the doctor, hundreds of patients need to be faced every day in daily work, so the impression of the patient group is more objective. However, when the medical group feels the prejudice and slander of the external group against itself in the social evaluation, it will quickly form an emotional unity within the group and produce negative emotions such as anxiety and disgust^[24]. These negative emotions among the groups will also be fed back to the doctor-patient interpersonal relationship and affect the establishment of the doctor-patient interpersonal trust relationship.

Through the research mechanism of social psychology, combined with the influencing factors of doctor-patient trust, this paper puts forward a mechanism model of doctor-patient trust relationship, which provides a reference for the establishment and development of doctor-patient trust relationship. However, due to various factors involved, if this model needs to be applied to the real doctor-patient relationship research, it is necessary to analyze specific situations.

5. The Approach of Rebuilding Doctor-Patient Trust Relationship

Through the analysis of the model, the doctor-patient trust relationship needs to be constructed from two levels: interpersonal and intergroup

5.1. Construction ideas of doctor-patient interpersonal trust

First of all, from the interpersonal level, doctors bear the responsibility of leading patients. They should take a proactive attitude, make the doctor-patient communication routine, analyze the patient's condition, understand the needs and give appropriate comfort to the patients, reduce the information asymmetry of both sides by strengthening their communication skills and emotional communication ability, and adjust themselves to deal with different diagnosis and treatment situations. This is not only helpful to relieve the patient's nervous and anxious mood, but also help the patient feel the particularity of the doctor's profession more intuitively. Even in case of conflict, it is easier to understand the doctor.

While paying attention to the study of medical knowledge, medical colleges should also pay attention to the construction of medical humanistic quality and medical ethics, respect the rights and interests of patients, establish the concept of "people-oriented", and control the education quality of medical personnel, so as to cultivate qualified medical workers with high technology, high medical ethics and high responsibility.

Medical treatment is risky, and no doctor can provide absolute guarantee. Patients should constantly improve their moral quality from their daily life, understand the characteristics of medical services and treat the contradiction between doctors and patients rationally. After seeing a doctor, you should take the initiative to understand your own situation and make certain psychological preparations. Don't unilaterally attribute the responsibility to the doctor after the contradiction occurs. If patients are really skeptical about the medical results, they should solve the problems by means allowed by law, rather than exaggerating their negative emotions and dealing with doctors by violent and radical means.

The health administrative department can set up a medical accident research institution to analyze and summarize medical accidents, provide reference opinions for the hospital, and strengthen the quality management of the hospital, so as to improve the medical experience of patients^[30]. A "patient complaint management system" can be established among hospitals in various regions to provide early warning for hospitals and prevent confusion of medical work order. When there are contradictions between doctors and patients that are difficult to ease, social workers, medical institutions and other relevant departments should also actively deal with them, put forward specific solutions to specific problems, implement the solutions, fundamentally alleviate the anxiety of both sides, so as to improve the people's satisfaction and sense of gain, promote the positive development of the industry and reach a consensus on the content of satisfaction between doctors and patients.

5.2. Construction ideas of intergroup trust between doctors and patients

From the perspective of intergroup, the construction of group organizations should be strengthened between doctors and patients, more stable and direct communication channels should be established, and an inclusive platform for equal communication between doctors and patients should be provided, so that both sides can express their attitudes and views in time, understand each other's positions and needs, strengthen intergroup interaction, reduce intergroup distance, and help the group have a clearer self-positioning.

The problem of doctor-patient trust is essentially a problem of social trust. Therefore, efforts should be made to improve social citizen credit, strengthen social trust education, improve citizens' sense of responsibility, and form a good atmosphere of mutual trust among societies, which plays an important role in strengthening social identity among groups and promoting doctor-patient trust relationship.

As a channel of information dissemination, network media should shoulder social responsibility, report doctor-patient conflicts fairly and impartially, so that the public can more clearly understand the truth and make rational judgments. At the same time, we can take advantage of the dissemination of media to vigorously publicize medical knowledge, jump out of medical institutions and community streets, popularize medical knowledge through mobile phones, computers, television and other channels, expand the scope and intensity of publicity, so that the public can have access to medical knowledge everywhere in their daily life.

The government should play a leading role, increase investment in public hospitals, promote the standardized construction of public hospitals, strengthen the supervision of medical institutions, improve the professional ethics standards of the medical and health industry^[30], reduce the medical expenses caused by the behavior of doctors, and return public hospitals to public welfare^[31].

The ultimate goal of social psychology research on doctor-patient relationship is to achieve a harmonious doctor-patient relationship in the whole society and form mutual trust between doctors and patients. At present, the efforts made by the society are far from enough. From a political point of view, laws and regulations related to the medical system, medical and health system and other related supporting measures need to be continuously developed and improved. From the perspective of economy, the development of social security lags behind the economic development, and the proportion of health expenditure in the total national health expenditure is still at a low level. From the perspective of culture, the current social medical publicity ignores the trust education between doctors and patients, and trust education is very important to the establishment of doctor-patient trust relationship. In a word, both doctors and patients are united when dealing with disease. In the face of disease, both the diagnosis and treatment services of the doctor and the active cooperation of the patient are needed, which can not be achieved by one party's efforts. Therefore, building a harmonious doctor-patient relationship requires the concerted efforts, perseverance, continuous development and improvement of the whole society, so that a harmonious, equal and trusting doctor-patient relationship can be built.

Conflict of interest

The authors believe that there is no economic interest or other relationship with individuals and organizations.

References

1. Wang X. Yihuanxinren Xiufu de Shehuixinlixue Lujing (A Social Psychological Approach to the Restoration of Doctor-Patient Trust). *Guang Ming Daily*. 2016-0720(14).
2. Lu X, Liu S. Qiantan Yihuanguanxi de Xianzhuang (On the Current Situation, Causes and Improvement Measures of Doctor-Patient Relationship). *Chinese Journal of Social Medicine* 2007; 24(2): 101-102.
3. Zhang Q. Beidayisheng Beida, Shouhaide Shi Meiyige Zhongguoren (The Doctor of Peking University was Beaten, and the Victims were Every Chinese. Available from: <https://zhuanlan.zhihu.com/p/47602990>.
4. Li C, Li Y, Piao Y. Qiantan Erke Zhuyuan yishi Yihuangoutongnengli de Peiyang ji Pingjiafangfa (On the cultivation and Evaluation Methods of Doctor-Patient Communication Ability of Pediatrician). *Continuing Medical Education* 2016; 30(11): 6-7.

5. Anonymity. Jiucheng Yihu Biaoshi Suozaiyiyuan Meiyou Anjian, Chaobacheng Zaoshouguo Huanzhebaoli (90% of the Medical Staff Said that There was No Security Check in Their Hospital, and More Than 80% Had Suffered from Patient Violence). Available from: <https://new.qq.com/rain/a/20200718A0RUMP00>.
6. Cheng S, Li X, Han Y. Qunjijiechu Dui Waiqunti de Yingxiang: Neiquntirentong de Zhongjiexiaoying (The Impact of Intergroup Contact on External Group Trust: Mediating Effect of Intra-Group Identity). *Psychological Exploration* 2017; 37(1): 54-58.
7. Liu X, Gou R. Cong Getixinren dao Zhiduxinren: Yihuanxinren de Zhidushenshi he Chonggou (From Individual Trust to Institutional Trust: Institutional Review and Reconstruction of Doctor-Patient Trust). *Journal of Shanxi Normal University (Social Sciences Edition)* 2017; 44(2): 9-15.
8. Lv X. Yihuan “Huodeganbeilun” Jiqi Poju: Jianlun Zuowei Shehuixinlixue Yiti de Yihuanguanxi Yanjiu (Doctor-Patient “Sense of Gain Paradox” and Its Breaking Situation: on the Study of Doctor-Patient Relationship as a Topic of Social Psychology). *Journal of Nanjing Normal University (Social Sciences Edition)* 2019; (1): 76-86.
9. Pearson SD, Raeke LH. Patients’ Trust in Physicians: Many Theories, Few Measures, and Little Data. *Journal of General Internal Medicine* 2000; 15(7): 509-513.
10. Stewart MA, McWhinney IR, Buck C. The Doctor/Patient Relationship and its Effect Upon Outcome. *The Journal of the Royal College of General Practitioners* 1979; 29(199): 77-82.
11. Capozza D, Di Bernardo GA, Falvo R. Intergroup Contact and Outgroup Humanization: Is the Causal Relationship Uni-or Bidirectional? *PloS One* 2017; 12(1): e0170554.
12. Gong F, Zhang B. Zhongjian Yihuanjian de Xinren (Rebuilding Trust Between Doctors and Patients). *Chinese Medical Ethics* 2006; 19(2): 65-67.
13. Yang T, Su Y. Huanzhe Duiyu Yisheng Zhi Xinren Chansheng de Jili: Guanxiyilai yu Lixingxuanze (The Mechanism of Patients’ Trust in Doctors: Relationship Dependence and Rational Choice). *Medicine and Philosophy* 2012; 33(2a): 19-20.
14. Huang X. “Guanxixinren” he Yihuanxinrenguanxi de Chongjian (“Relationship Trust” and Reconstruction of Doctor-Patient Trust Relationship). *Chinese Medical Ethics* 2013; 26(3): 300-302.
15. Ning L. Huanzhe Xinren Yisheng de Yingxiangyinsu Jiqi Gaishantujing (Study on Influencing Factors and Improvement ways of Patients’ Trust in Doctors) [PhD thesis]. Jinan: Shandong University; 2013.
16. Wang Q, Hao A. Yihuan Xinrenweiji: Meiti Yingdang Fansi (The Media should Reflect on the Crisis of Doctor-Patient Trust). *Youth Journalist* 2013; (4): 47-48.
17. Du X, Mao Z. Jiyu Yixuerenwensuyang Tisheng Yihuangoutong Manyiduyanjiu (Research on Improving Doctor-Patient Communication Satisfaction based on Medical Humanistic Quality). *Jiangxi Social Sciences* 2020; 40(4): 222-228.
18. Xu Y. Renjiguanxiyunzuo dui Jianli Yihuanhuxinzuoyong de Sikao (Reflections on the Role of Interpersonal Relationship Operation in Establishing Mutual Trust Between Doctors and Patients). *Jiangsu Healthcare Administration* 2003; 14(5): 7-11.
19. Sun J, Zhang L, Mu P *et al.* Yifang he Huanfang dui Yihuanguanxipingjia de Renzhichayi (Cognitive Differences Between Doctors and Patients in the Evaluation of Doctor-Patient Relationship). *Chinese Mental Health Journal* 2016; 30(7): 486-491.
20. Wang W, Jiang S, Yu Y, *et al.* Huanzhe de Yibanrenjixinrenfenxi Jiqi dui Yishengxinren de Yingxiangyanjiu (Analysis of Patients’ General Interpersonal Trust and Its Impact on doctors’ Trust: Measurement based on ITS and WFPTS). *Chinese Health Service Management* 2019; 36(1): 63-65.
21. Wang X, Wang C, Lu X. Renjiyihuanxinren de Gainianneihan, Zhengxiangyanbian yu Yingxiangyinsu (Conceptual Connotation, Positive Evolution and Influencing Factors of Interpersonal Doctor-Patient Trust). *Psychological Science* 2016; 39(5): 1093-1097.
22. Zhang J, Chen Y. Renwenshijiaoxia Qianxi Zhongmei Yihuanguanxi de Chayi ji Fazhan (Analysis on the Differences and Development of Doctor-Patient Relationship Between China and the United States from

- the Humanistic Perspective). *Chinese Medical Ethics* 2018; 31(8): 1030-1034.
23. Zhang Y, Zuo B. Shehüirentonglilun Jiqi Fazhan (Social Identity Theory and its Development). *Advances in Psychological Science* 2006; 14(3): 475-480.
 24. Su M, Jiang J. “Wo Buxihuan Ni” Suoyi “Ni Yekeneng Buxihuan Wo”: Maodunxingbiepianjian yu Qunjijiaolv de Guanxi (“I Don’t Like You” so “You May Not Like Me”: the Relationship between Contradictory Gender Bias and Intergroup Anxiety). *Studies of Psychology and Behavior* 2019; 17(2): 274-281.
 25. Dang W, Wang Z. OCED Guojia yu Zhongguo de Yisheng Shouruchaju Bijiaoyanjiu (A Comparative Study on the Income Gap between Doctors in OECD Countries and China). *Chinese Health Economics* 2020; 39(3): 24-30.
 26. Ming C. Wangluomeiti Jieruxi Beijingxia Yihuanhongtu Yanhuaboyi ji Zhilicelve Yanjiu (Research on Evolutionary Game and governance Strategy of Doctor-Patient Conflict Under the Background of Network Media Intervention). *Journal of Zhengzhou University (Philosophy and Social Sciences Edition)* 2019; 52(5): 30-36.
 27. Chen z, Zhao M. Yihuanxinrenguanxi de Jiegou Jiqi Zhenghemoxing (Structure and Measurement of Doctor-Patient Trust Relationship and Its Integration Model). *Psychological Science* 2018; 41(1): 167-173.
 28. Lu X, Zhu Z. Yihuan Shehuixintajianshe de Shehuixinlixueshijiao (Social Psychology Perspective on the Construction of Doctor-Patient Social Mentality). *Social Sciences Digest* 2016; (6): 60-61.
 29. Sun L, Wang P. Hexie Yihuanguanxi de Xinlijizhi jiqi Cujinjishu (Psychological Mechanism of Harmonious Doctor-Patient Relationship and Its Promotion Technology). *Advances in Psychological Science* 2019; 27(6): 951-964.
 30. Xie X Lu C. Wanshan Yiliaozhidu, Huanhe Yihuanguanxi (Improve the Medical System and Ease the Relationship between Doctors and Patients). *China Health Law* 2009; 17(1): 44-45.
 31. Dong Z, Zhang L, Chen B, *et al.* Shehüirenqun Yingxiang Yihuanguanxi de Chubutanxi (A Preliminary Study on the Influence of Social Groups on Doctor-Patient Relationship). *Jiangsu Healthcare Administration* 2019; 30(6): 718-722.