Barriers to improve physician–patient communication in a primary care setting: perspectives of Chinese physicians

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ABSTRACT
This study aims to evaluate Chinese physicians’ performance of communicating with patients in a primary care setting, and to discuss barriers to improving physician–patient communication from physicians’ perspectives. Physicians’ performance in communicating with patients during primary care consultations were evaluated using a self-developed communication assessment checklist. Field observations of 7 primary care providers were conducted and their performance in 182 consultations was observed and assessed. In-depth interviews were carried out with each physician after the observations. The results of observations indicated that Chinese physicians generally performed poorly in interacting with patients and their communication style relied mainly on their personality and experience. The results of interviews revealed four barriers to improving physician–patient communication, which were the low medical literacy of patients, the high workload for physicians, the low awareness of communication skills and the adoption of defensive behaviors among physicians.

1. Introduction
Violent events taking place in healthcare facilities and against working employees have become a common phenomenon all over the world. Taking China as an example, data from National Health Commission of the PRC (People’s Republic of China) showed that in 2006, there were 9831 severely violent incidents in the hospital of mainland China, and among these events, 5519 health workers were hurt during the conflicts and over 200 million RMB worth of hospital property was damaged (Chen, 2009). In 2007, more than 73.33% hospitals in mainland China had experienced medical disputes such as beating, threatening or insulting health workers (Lv et al., 2008). The relationship between patients and healthcare providers has deteriorated over the past years, and the number of medical disputes increases every year (Wang & Li, 2012). The number of violent incidents in hospitals increased from about 10,000 in 2005 to more than 17,000 in 2010 according to data from National Ministry of Health. From 2008 to 2012, the proportion of hospital with the occurrence of serious doctor–patient conflict increased from 47.7% to 63.7%, as reported by the
Chinese Hospital Association (Burkitt, 2013). Almost 60% of medical staff in China had experienced verbal abuse, and around one in seven had been physically assaulted according to a Chinese Medical Doctor Association report in 2015 (Chi, 2016).

A major cause of tension in the relationship between physicians and patients is the poor quality of communication during consultations (Li, 2014; Liang, Li, Liu, & Liu, 2016). Physician–patient communication influences patients’ satisfaction with health services (Bensing, 1991), and may further impact the trust between physicians and patients (Li, 2014). When a patient does not believe in the physician, he/she may question the physician’s motives and have doubts about the physician’s decisions, which leads to medical complaints (Rau & Guo, 2014). Studies have been conducted to explore factors that influenced physician–patient communication from patients’ perspectives. First, physicians’ attitude perceived by patients during the consultation plays an important role in gaining patients’ satisfaction (Feng, Li, Han, Xu, & Duan, 2013). It has been reported that 15% of patients regarded doctors’ poor attitude during medical service to be the major reason for medical disputes (Chen & Kuang, 2011). Second, communication skills of the physicians are universally believed to be important in improving physician–patient relationship (Liu et al., 2015). And when patients received certain behaviors, such as caring, explaining, encouraging and demonstrating competency from doctors, they tend to trust the doctors better (Li, 2014). Third, asymmetric information during communication is another major cause of distrust (Liang et al., 2016), especially when patients have little healthcare background or knowledge (Xu & Zhu, 2004). Lastly, building and maintaining a long-term relationship with physicians helps patients to understand physicians better and to gain more trust in physicians (Mainous, Baker, Love, Gray, & Gill, 2001; Ridd, Shaw, Lewis, & Salisbury, 2009).

The physician–patient relationship affects physicians’ job satisfaction (Dong, 2012), which probably influences their attitude and behaviors during consultations. When physicians perceive that they are not trusted by their patients, they are under more psychological pressure and tend to be more cautious with patients (Chen, 2012). As a result, physicians may adopt defensive behaviors when providing medical services (He, 2014). Typical defensive behaviors include the prescription of unnecessary drugs or clinical tests and the scheduling of unnecessary therapeutic procedures. Defensive behaviors increase medical expenses and may expose patients to unnecessary risks, even death, in some cases (Li, Ma, & Liang, 2004). Furthermore, physicians’ defensive behaviors impair patients’ trust, which leads to more defensive behaviors in turn (Hu, Gao, Zhao, & Li, 2013).

This study aims to evaluate Chinese physicians’ performance in communicating with patients during primary care consultations by the means of checklist, subjective assessment and interview, and to explore the barriers to improving physician–patient communication from the perspectives of physicians. The results will imply strategies to improve physician–patient communication and relationship in primary care settings.

2. Method

2.1. Development of the observation checklist

Several communication assessment tools have been developed to evaluate communication performance of medical professionals and medical students (Burt et al., 2014; Lundberg,
Some of these tools have been translated into Chinese (Chen et al., 2013) and some studies used self-designed questionnaires and scales to evaluate Chinese physicians’ performance (Wu, Dong, Hu, & Jiang, 2010; Zhang et al., 2010). However, these tools are not suitable for assessing the performance of Chinese primary care providers because the consultations are provided in a relative open space and in a very short period of time (usually within 10 minutes), which may lead to the rise of new problems.

The checklist in this study based its design on previous assessment tools with high reliability and was modified after putting through a 4-hour initial observation of primary care consultations. Items in the checklist assess physicians’ performance in 4 aspects: data gathering (7 items), treatment plan (6 items), patient education (4 items), and communication skills (9 items). Each item represents one type of physicians’ behavior. Items of data gathering are like ‘Did the physician gather the following data: medical history’ (Roter & Larson, 2002; Sennekamp et al., 2012). Items of treatment plan are like ‘carry out physical test/examination’ (Abdulhadi, Al-Shafaee, Östenson, Vernby, & Wahlström, 2006). Items of patient education are like ‘provide education materials’ (Abdulhadi et al., 2006; Teresi, Ramírez, Ocepek-Welikson, & Cook, 2005). Items of communication skills are like ‘have social talk with patients’ (Roter & Larson, 2002). Items are rated ‘yes’, ‘no’ or ‘not applicable (n/a)’ by the observer. ‘Not applicable’ is included as a choice because items might have not been applicable for certain encounters. For example, items in data gathering are not applicable when patients returned to the office after physical examinations for explanation or further treatment.

### 2.2. Observation sampling and procedure

In addition to the checklist, the observer (a Ph.D. candidate well trained in human factor and ergonomic) observed physicians’ verbal communication and behaviors, such as inspection and eye contact, and provided a subjective assessment for each physician’s performance along the following four aspects: data gathering, patient education, attitude, and communication skills. The performance was rated by a 5-point Likert scale from ‘terrible performance’ (1 point) to ‘perfect performance’ (5 point).

The observations were conducted in a Chinese tertiary referral hospital in Liaoning province. Since primary health care is delivered by outpatient specialists in China, 7 medical specialists from 6 outpatient divisions (representing gastroenterology, respiration, gynecology, neurology, circulation and endocrine) were invited to participate in the study. The age of the 7 physicians ranged from 33 to 58 years, including 5 females and 2 males.

During the consultations, an observer was seated in the same room with physicians and patients and observed without interrupting their communication. In case that the observation would interfere with the patient–physician communication, the following measures were taken. First, the consultations were carried out in a relatively open room, so the presence of an observer would not influence the interaction between physicians and patients. Second, no audio or video was recorded so that the privacy and anonymity of patients and physicians were well protected. Third, another physician (not one of the interviewees) validated that the interviewees performed naturally and the communications stayed the same with or without observations. In addition, physicians were urged to behave as naturally as
possible during the instruction before observations. Data from a total of 182 encounters were collected. Physicians were informed that the observer would observe their interaction with patients, the data would be used only for this study, and their privacy and anonymity would be protected. Observation of each physician lasted for 4–6 hours.

After the observation, each physician was interviewed for about an hour. The interview protocol was developed by a panel consisting of an expert in psychology, an expert in ergonomics and a doctor. The topics of the interview included: (1) how they thought about their patients; (2) how they evaluated the communication with patients; (3) reasons for medical disputes; (4) how they could improve the relationship with patients and gain their trust; and (5) how they thought about defensive medicine. The interview was recorded with a digital voice recorder.

3. Results
3.1. Checklist analysis

The overall evaluation of physicians’ performance was 2.19 for information gathering, 2.02 for patient education, 2.10 for attitude toward patients and 1.97 for communication skills, as shown in Table 1. Physicians generally performed poorly in every aspect: They did not gather enough data, failed to educate patients, expressed bad attitudes toward patients, and had few communication skills. A total of 182 encounters were observed. Among those, 58 encounters are patients returning from examination, so the items about data gathering and some items about treatment plan are not applicable for them. Besides, 76 patients were not assigned to any diagnostic procedures, so the item ‘explain rationale for diagnostic procedures’ was not applicable.

3.1.1. Data gathering

Health data were not fully gathered from patients during consultations. The most commonly gathered data were physical/physiological factors (97%), medical history (79%) and antecedent treatment (60%). Medical records were available in only 20% of the encounters; they were brought to the consultation by patients in paper form. Medical records are important for physicians to make diagnosis and prescribe treatment plan, but Chinese patients do not have sustainable digital health records, but instead, they are sometimes provided with a paper medical record. However, most patients forgot to bring the document to their consultations and physicians had to ask about their medical history and perform physical examinations all over again. Lifestyle issues were mentioned in 31% of the encounters, but in only 2% of the encounters did physicians ask about the influence of health problems on patients’ lives.

3.1.2. Treatment plan

Before making treatment plan, physicians conducted on-spot body inspections for 58% of patients and asked patients to go through specific physical test or comprehensive examinations in 72% of the encounters. In half of the encounters when patients were asked to accept physical examinations, the physician explained the rationale for the diagnostic procedures. Patients were involved in making treatment plan in 53% of the encounters.
And in 30% of the encounters, physicians summarized and affirmed treatment plan with patients to enhance their understanding.

### 3.1.3. Patient education

Physicians taught patients about their own body and situation (for instance, explaining anatomy or the test/examination results) in 62% of the encounters. But not once did physicians provide printed education materials for patients. In only 7% of the encounters did physicians check for patients’ understanding, and in only 1% did physicians encourage patients to ask questions.
3.1.4. Communication skills
Physicians made eye contact with patients in 88% of the encounters, had social talk with patients in 16% of the encounters, and expressed personal feelings (such as caring, concern and empathy) in 19% of the encounters. But only a few physicians maintained a long-term relationship with patients (3%). Several improper behaviors were observed: interrupting while patient is speaking (16% of the encounters), chatting with irrelevant people (7% of the encounters), using jargon without explanation (6% of the encounters), and ignoring patients’ questions (6% of the encounters).

3.2. Interview of physicians
Interviews of physicians aimed to explore the barriers to improving physician–patient communication. The recorded data were transcribed verbatim, followed by a series of cutting and categorizing of the transcripts. Clips reflecting the same item were pasted together. Four barriers were abstracted: high workload for physicians, low medical literacy of patients, low awareness of communication skills and the adoption of defensive behaviors among physicians.

3.2.1. High workload
Primary care physicians are sometimes under great time pressure, and this phenomenon is especially common in developing countries like China. Patients in China do not make appointments with physicians in advance; instead, they go directly to the hospital and wait for hours to meet the physician. To minimize the waiting time, physicians have to shorten the time spent on each patient, which makes it harder to communicate properly. In the interview, physicians expressed that they were under great pressure during work, because they were expected to deliver proper medical service in a very small time frame. One physician said:

Normally I have to meet 40 to 70 patients in a single day. I cannot spend too much time on one patient because the others are waiting just outside of my office impatiently. It is a lot of pressure on me.

Therefore, they put most of their efforts into making the right decisions instead of serving patients with a nice attitude. But for patients, their trust in physicians may be impaired by insufficient communication and physicians’ unfriendly attitudes.

3.2.2. Low medical literacy of patients
Most physicians expressed disappointment in patients’ ability to express themselves and to understand physicians. For example, some patients tend to introduce their symptoms by telling a story, but sometimes the physician does not have time for the whole story, so they just interrupt and ask specific questions. The interruption may upset the patients and impair the trust in physicians. One physician explained:

A large number of patients come from rural areas, and they have very little medical knowledge. When talking with these patients, they give me no feedback and I do not know whether or not they understand me. I have to explain again and again. It costs a lot of time and makes me very frustrated.
Physicians’ low expectation of patients’ medical literacy leads to less education for patients. In the interview, most physicians expressed little expectation that patients could understand medical knowledge, so they chose to focus on solving patients’ problem instead of educating them. But an experienced physician argued that patients had different requirements, for instance, some hoped to learn more, while some others just wanted to have their problem solved. Therefore, he chose to educate those who were eager to understand the full picture and provided solutions for those who only wanted to be treated.

### 3.2.3. Low awareness of communication skills

Physicians expressed little awareness of the importance of communication skills and their skill sophistication depended mostly on their experience. Even though they had taken courses in school about how to communicate with patients and completed training in professional ethics every two or three years after employment, their communication skills had little improvement. Some physicians believed that communication skills are innate abilities and cannot be gained by any kind of training, but some other physicians thought that such training was as important as talent. Physicians said:

- Communication skills can hardly be learnt in class. You have to learn from your own experience with patients and keep thinking about how to communicate with them.

- I think some of the communication skills could be learnt in class, but some others are innate and cannot be learnt.

High workload was given as another reason for poor communication skills. Some physicians complained that they had barely enough time to treat all the patients, so they had no time and spent no effort on improving their communication skills.

### 3.2.4. The adoption of defensive behaviors

Physicians adopt defensive behaviors to protect themselves from disputes with patients. Some physicians admitted that they tended to approve unnecessary tests or examinations to reduce the chance of misdiagnosis, even though they knew that misdiagnosis is highly unlikely. They had their reasons:

- Some patients came all along from far away to the hospital. If I did not approve any examination for them, they would be upset and regard me as an irresponsible doctor.

- I will not take the risk of misdiagnosis. The examination will cost patients more money, but at least now I am one hundred percent sure about my judgment and I have no responsibility for any possible medical accident or conflict in the future.

Patients’ distrust in physicians increases physicians’ defensive behaviors. One physician admitted that sometimes she chose to speak less and to have less interaction with patients, because she was afraid of being questioned or complained of something she said.

### 4. Discussion

The reasons for the poor performance of physicians in communication are complex. Possible reasons include the high workload for physicians, lack of medical training in communication skills and a poor healthcare system. Physicians generally failed to realize
the importance of communication skills or the relationship between physicians and patients to improving physician–patient communication. And they tended to attribute medical conflicts to their high workload or to patients’ low medical literacy. High workload was a major reason for poor communication skills. Physicians have limited time for each patient and sometimes it is impossible to deliver a satisfactory service in the short time scheduled for consultations. The low medical literacy of patients worsens the condition and it requires more skills of physicians to communicate with the patients.

To improve the quality of communication during primary care services, medical resources should be well distributed and more service time should be assigned for each patient. Currently, patients are crowded into large comprehensive hospitals with a good reputation, while community health resources are idle and wasted. The healthcare reform in China is going to increase the number of general practitioners (GPs) in communities. GPs provide primary care services and maintain long-term relationships with patients, while medical specialists are more focusing on dealing with specific cases. Therefore, healthcare resources are better distributed and physicians will have more time with their patients. Physicians can improve their communication skills in health communication courses in medical school, by learning from social workers in hospitals whose communication skills are much better, and by taking part in workshops focusing on physician–patient communication. To improve patients’ health and medical literacy, hospitals could use posters in corridors for patients to read when waiting for encounter, and elementary school could provide formal courses about health, medicine and disease.

The application of information communication technology in health services could also improve the quality of physician–patient communication. An e-health system could create and maintain a sustainable medical record for patients and facilitate the information exchange between patients and physicians. Not only biomedical but also socio-psychological data can be accessed by physicians from the e-health system. Physicians could also get patients’ information from personal health device. Patients’ socio-psychological information may help physicians to communicate better with the patients. Besides, the system could provide patients with medical knowledge and health tips to improve their medical literacy. Learning before encounters helps patients to communicate with physicians more efficiently and learning after encounters enhances patients’ understanding and adherence to treatment plans. On the other hand, the system could also provide practical tips to physicians on improving their communication skills.

Future study can focus on the gap between physicians’ original prescription and patients’ understanding. Visible demonstration of patients’ health condition and treatment plan should be designed to help patients with limited medical literacy to understand their physicians better.

5. Conclusion

This study assessed the communication performance of Chinese primary care providers and conducted interviews with each provider to explore the barriers to improving physician–patient communication. The results indicated that the physicians failed to fully collect information from patients, to express a friendly attitude toward patients, or to involve patients in decision-making, which leads to heightened distrust of patients for physicians and extra defensive behaviors on the part of physicians. Interviews with
physicians revealed several reasons for their poor performance: the low medical literacy of 
patients, the high workload for physicians, the low awareness of communication skills and 
the adoption of defensive behaviors among physicians. The results of this study may help 
researchers to better understand communication issues in primary care services and to 
imagine and propose strategies to improve physician–patient communication and to 
decrease physician–patient disputes.

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