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Abstract: Researchers in Languages for Specific Purposes (LSP) have suggested the importance and benefits of using authentic spoken workplace discourses as teaching materials to develop students’ communication skills in professional settings. However, LSP course designers are still facing the challenges of selecting and collecting authentic workplace conversations, as well as designing instruction to teach the occupational spoken discourses effectively. To address these challenges, this paper presents an innovative module for Chinese for Medical Purposes for pre-med college students at the intermediate-high level. The module uses authentic doctor-patient consultations and adopts the Patient-Centered Clinical Method (PCCM) of Stewart et al. (2014), a clinically validated model in healthcare communication research. The current module demonstrates the approach to determine the student learning objectives based on the PCCM model and the instruction design aiming at guiding students to notice and analyze the discourse features and communication strategies employed by physicians to achieve patient-centered care. The paper also examines learners’ pre- and post-instruction roleplay performances. The qualitative findings show that the learners improved in using patient-centered communication strategies after instruction.

Keywords: authentic workplace discourse, doctor-patient communication, LSP course design, medical Chinese, patient-centered care

Researchers in Language for Specific Purposes (LSP) have suggested the importance and benefits of using authentic spoken workplace discourses as teaching materials to develop students’ communication skills in professional settings (e.g., Ferguson, 2013; Hyland, 2002; Koester, 2010;). However, LSP practitioners in classrooms still face two challenges: 1) selecting and collecting naturally occurring conversations in workplaces; and 2) designing instructional approaches to teach authentic spoken workplace discourse effectively.

In the past decade, more authentic occupational conversations have been available for English for Specific Purposes (ESP) in various resources, such as textbooks (Simply Business B1 by A. Lloyd; see the textbook review by Frendo, 2019), corpora (Michigan Corpus of Academic Spoken English, MICASE; see Gollin-Kies et al., 2015 for available corpora resources for LSP), and medical education websites (Medscape; also see Vekemans, 2016). On the other hand, for languages other than English, such resources are rarely available, so the instructors often end up compiling materials for their courses.

The methods used to teach authentic spoken language include noticing and awareness-raising methods (e.g., Basturkmen, 2001; Gilmore, 2011; Jones, 2001; Timmis, 2005), and metacognitive activities (Filip & Barraja-Rohan, 2015; Goh, 1998). These instructional methods can be readily modified and adopted to teach workplace discourses in LSP courses. However, the studies mentioned here focus mainly on everyday conversations, not workplace discourses. The studies on professional spoken discourses in LSP have lagged behind written textual analysis (Bowles, 2012; Grosse & Voght, 2012), as Hyland (2002) described as “the relative paucity of work on spoken genres” (p. 117).
Conversation Analysis (CA) is one of the few approaches to analyze spoken interactions in workplaces. The studies in CA have revealed insightful sequences and patterns of doctor-patient conversation (Heritage & Maynard, 2006; Robinson 1999, 2003). Bowles and Seedhouse (2007) recommended using CA findings to design LSP courses and pedagogical procedures to develop learners’ “specific interactional competence” (p. 305). The module that is outlined in this current study has incorporated some of the CA findings to draw students to the linguistic features in medical interaction (Yeh & Fu, 2019). However, CA does not focus on the communication strategies employed by doctors to achieve patient-centered care. Therefore, we tapped into the studies in the field of healthcare communication research, which has been done to improve clinic practices. Ferguson (2013) commented that it is an area “adjacent to, and has been influential” for English for Medical Purposes (EMP) (p. 243). The design of the current module draws on the Patient-Centered Clinical Method (PCCM) (Stewart et al., 2014), a healthcare communication model that provides physicians communication strategies to attend to patients’ social, psychological and behavioral dimensions of illness, and moves away from narrowly focusing on gathering biomedical information.

In short, the current study presents a module that uses authentic doctor-patient conversations as teaching materials and designs instructional approaches by integrating research-informed language pedagogies with the clinically validated PCCM medical communication model. The goal of the module is to develop students’ patient-care communication skills. The essay first reviews the courses of languages for medical purposes in English and other languages, which use authentic workplace spoken discourse. The literature review also includes the discussion of the PCCM method, developed by Stewart et al. (2014), and the selected targeted communication strategies from PCCM as student learning objectives for the module. The section of pedagogical approaches presents the main components of the module that were designed to improve students’ patient-centered communication skills, and includes teaching materials, activities to practice communication strategies, and assessment tools and criteria to evaluate the learning outcomes. I will also demonstrate the key instructional approach to guide students to notice and analyze the communication strategies and discursive features employed by doctors to embrace patient-centered care. The discussion of the qualitative findings shows that learners improve in applying the learned communicative strategies in roleplays after the instruction.

Literature Review

Language for Medical Purposes and Authentic Spoken Discourses

Only a handful of LSP courses have been developed for teaching languages for medical purposes using authentic spoken communication data, and most of them are for EMP. Allwright & Allwright (1977) adopted clinical case conferences in English to train international doctors. Shi et al. (2001) developed a course for medical students for their clinical training, using the students’ English case reporting as teaching materials. Hoekje’s (2007) course guided international doctors to analyze the textual structures of English spoken reports in different medical areas. Three EMP studies focused on doctor-patient communication. Vekemans (2016) integrated authentic medical consultations from the Medscape website to prepare the fifth-year international medical students for clerkship rotations in hospitals. Medscape provides doctors and medical students with medical related resources, including patient cases with audiovisual materials. However, Vekemans (2016) did not discuss the instructional approaches or discourse
frameworks used to analyze the patient cases from Medscape. Wette & Hawken (2016) designed a course for international medical students to develop their clinic communication skills in English. One of the health care communication models they adopted is PCCM, but the course only focused on one phase of the medical consultation: the history-taking phase. Basturkmen (2010) reported an EMP course developed in New Zealand for international doctors. The instructor used authentic doctor-patient consultations and guided the learners to practice communication strategies and linguistic features to achieve patient-centered care, which is valued in the local community. Using this case study, Basturkmen (2010) showed the importance for ESP course designers to “investigate” how language is actually used in specialist discourses. Thus, the EMP instructor, as described by Basturkmen (2010), designed the course by observing the actual consultations and investigating the linguistic features. The aforementioned courses have demonstrated the progress in using authentic spoken discourse in medical workplaces. Especially relevant to the current module, the studies of Wette & Hawken (2016) and Basturkmen (2010) also emphasized the benefit of guiding students to understand and practice the patient-centered medicine. However, the above courses are all in EMP and for medical students and doctors who have in-depth medical knowledge and whose English are at or above advanced level.

There are very few published studies focusing on medical courses of languages other than English and for undergraduate pre-medical students. Hardin (2017) used doctor-patient consultations, collected in Ecuador, in her Spanish for medical purposes course for college students at the intermediate level. Hardin’s instructional approach was based on Cordella’s (2004) discourse model which analyzed the patterns of power distribution, gender and social roles in the doctor-patient communication data collected in Chile. Hardin guided the students to identify the doctor’s perspectives from three voices: the doctor, the educator, and fellow human. The concept of fellow human voice used by physicians to facilitate the patient’s story and to express empathy is also one of the key components to achieve patient-centeredness in the PCCM model. Fu (2018) and Yeh & Fu (2019), in the course Chinese for Medical Purposes, used authentic doctor-patient consultations and adopted conversation analytical approaches (e.g., Heritage & Maynard 2006; Robinson 1999, 2003) to guide students to investigate the interactional features, such as the interaction to open/close a medical interview, patient’s presentation of the medical problems, and the question types used by physician to gather information. However, in those studies the instructions were not designed to teach patient-centered communication strategies.

The Patient-Centered Clinical Method

Patient-centeredness, first coined by Balint (1957), is currently considered essential in medical school curricula (e.g., Drake et al., 2017; Vijn et al., 2018). Patient-centered approaches, as Mishler (1984) advocated, “give priority to patients’ lifeworld contexts of meaning as the basis for understanding, diagnosing and treating their problems” (p. 192). Various patient-centered models have been proposed in healthcare communication research (see Roter & Hall, 2006, for a review). The module outlined in this essay adopts PCCM (Stewart et al., 2014) for two reasons. First, since PCCM was first published in 1986, it has evolved and been improved considerably by Stewart and her colleagues (Brown et al., 1986; Stewart, 2005). The PCCM has been used in medical education and professions (Bedos & Loignon, 2011; Brown et al., 1992), and proven effective by the research studies focusing on patient-centered communication (e.g.,
Cegala & Post, 2009; Epstein et al., 2006). Second, the PCCM has developed a validated and reliable measure to evaluate physicians’ patient-centered communication skills (Brown et al., 2001). The measure is adopted and modified to assess students’ roleplay performances in this module.

The PCCM, a conceptual approach to patient-centered care, provides healthcare clinicians concrete means to implement a full exploration of the patient’s concerns within the context of their lives and to pursue mutual agreement on treatment management, through a strong relationship between patients and physicians. To achieve patient-centered care, the PCCM guides healthcare clinicians to practice four components (Stewart et al. 2014): 1) exploring health, disease, and illness experience; 2) understanding the whole person; 3) finding common ground; and 4) enhancing the patient-clinician relationship. The student learning objectives of the current module are determined based on the first three components. The fourth component is not adopted, since it requires doctors to gather patients’ perceptions and experiences in continuing and accumulated consultations. The authentic doctor-patient clinic interviews collected for this module, which are single encounters with patients, cannot demonstrate the patient-physician relationship evolving over time. In the following, each of the first three components in the PCCM are briefly explained.

**1) Exploring Health, Illness, and Disease Experience**

The first component involves the understanding of two conceptualizations of ill health: disease and illness. Disease refers to an abnormal condition affecting an organism which needs to be cured. Illness refers to the patient’s personal experience of non-disease factors. Doctors are recommended to explore the patient’s feeling about the disease, the impact on her daily function, and her expectation from the doctor.

**2) Understanding the Whole Person**

The second component encourages doctors to understand the patient’s disease and illness experiences in the context of their life settings and stages of personal development. Understanding patients’ contextual factors can provide both explanation and prediction about patient behaviors and responses to illness.

**3) Finding Common Ground**

To find common ground, while diagnosing patients’ medical problems and suggesting treatment, doctors should seek patients’ involvement and partnership to reach mutual understanding about the problems, and mutual agreement about the treatment plans.

**Targeted Communication Strategies in this Module**

The PCCM model suggests a set of communication strategies for doctors to achieve patient-centered care (Stewart et al., 2014). Moreover, as mentioned earlier, the PCCM model has developed reliable and valid criteria to evaluate doctors’ patient-centered care (Brown et al., 2001). Based on PCCM’s suggestions and the measurement criteria, the current module targets seven communication strategies as student learning objectives, which are listed below. Two
contextual factors are also taken into consideration to determine the learning objectives: 1) students’ proficiency level of intermediate high; and 2) available authentic conversation data collected.

**Explore Patients’ Illness Experience and Understand the Whole Person**
1. Explore and listen actively to patients’ illness experience.
2. Ask open-ended questions, giving patients opportunities to tell their stories.
3. Express empathy and support to patients’ experiences and concerns.

**Finding Common Ground**
4. Explain clearly medical problems and treatment plans.
5. Provide opportunities for patients to ask questions.
6. Create an environment for mutual discussion.
7. Check patients’ understanding and their agreement of treatments

**Pedagogical Approaches**

The current module was developed for the course titled Chinese for Healthcare Professions, which targets undergraduate pre-medical students at the level of intermediate high. Following West (1997), we conducted the needs analysis which reveals that the learners have internship opportunities in the nearby medical center and frequently encounter Chinese-speaking patients in medical consultations when shadowing doctors. Their primary goal of taking this course is to develop the communication skills to interact with the patients during the internships. They also think the skills will be beneficial for their future medical career when providing care for patients immigrating from Chinese-speaking regions. In this section, I explain the teaching materials, instructional steps, assessment designed in this module to develop and improve students’ patient-centered communication skills.

**Authentic Conversation as Teaching Materials**

The doctor-patient conversation data used in this module were collected in a primary-care clinic in the Chinatown neighborhood in Houston: 15 audio clips, totaling two hours and 40 minutes. The doctor in the clinic was originally from Shanxi, China. The patients were Chinese-speaking immigrants and visitors from China, Taiwan, and Hong Kong. The medical concerns of the visits included allergy, ear infection, coughing, dizziness, gout, diarrhea, headache, high-blood pressure, insomnia, excessive phlegm, shortness of breath, and etc. All of the conversations were audio-recorded at the clinic. Both the doctor and patients signed the consent forms and were aware that their exchanges were being recorded. The conversations were later transcribed.

The current module on spoken communication between doctors and patients amounts to 30% (twelve 50-minute classes) of the course. In addition to patient-centered communication skills, the module also focuses on the linguistic features in interactional organization and patterns, a topic discussed in another paper (Yeh & Fu, 2019). For the rest of the course, lessons from the textbook *Chinese for Western Medicine-Reading and Writing* (Wang, 2013) are used to reinforce students’ reading skills and to teach medical content knowledge and terminology, including medical news and pamphlets, medicine advertisements, the symptoms of various illnesses, and prescriptions.
Instructional Steps

The instruction includes four steps: 1) comprehension of the conversation; 2) analysis of the communication strategies; 3) practice and production; and 4) assessment. All of the instructional steps were conducted in Chinese.

**Step 1: Comprehension of the Conversation.** The authentic conversation data is not only used to study medical encounters, but also to increase students’ control in terms of vocabulary and grammar. Thus, before listening to a conversation, the students learn and practice the new words, medical terminology, and grammatical structures used in the consultations. Once students become familiar with the new words and sentence patterns, they are assigned, as homework, to listen to the conversation, and complete listening comprehension questions.

**Step 2: Analysis of the Communication Strategies.** The goal of this step is to guide students to notice and analyze the communication strategies and discourse features employed by the doctors to explore patients’ illness experience (e.g., symptoms, ideas, functions, and expectations), to understand the whole patient, and to find common ground. I will demonstrate this instructional step in detail in the next section, using the conversation excerpts from three medical visits to explain the approaches for leading students to examine the crucial strategies and expressions during the consultation process.

**Step 3: Practice and Production.** The step above raises students’ awareness of the communication strategies to achieve patient-centered care. Step 3 provides writing and speaking activities for students to incorporate the strategies and discourse features into their repertoire. For example, students are given a doctor-patient interview, one that they have not listened to as homework or analyzed in class. The medical interview is presented with some blanks in either the doctor’s or the patient’s turns, and the task for students is to fill in appropriate responses or questions in that context. Afterwards, they listen to the authentic recording of the conversation to confirm or modify their answers. To practice speaking communication skills, students in pairs are given scenarios to practice the focused communication strategies, either to explore patient’s illness experience or to establish mutually agreed goals of treatment.

**Step 4: Assessment.** To elicit the uses of communication strategies, we develop open-ended role-plays that allow students “to negotiate during interaction without fixed interactional outcomes” (Youn, 2015, p. 202). In other words, students in open-ended roleplay assessment do not know the information in each other’s cards, and have to cope with unexpected situations (see the roleplay scenarios in Appendix A). The summative assessment requires students to review their video recorded roleplay conversations, self-assess their performances based on rubrics, and write a reflective analysis in which they discuss both the well-performed and problematic exchanges and to substantiate their opinions with evidence from their conversations. Both Goh (1998) and Filip & Barraja-Rohan (2015), when teaching authentic materials, designed similar metacognitive tasks, such as self-assessment and reflective writing, to help students develop insight into their own strengths and weaknesses and use such insight to improve their learning. For roleplay assessment, we adopted and modified Measure of Patient-Centered Communication (MPCC, Brown at el., 2001) (see the patient-centered roleplay assessment checklist used in this module in Appendix B).
Noticing and Analyzing Communication Strategies

In the module, the authentic doctor-patient consultations are input for student learning. Instead of explicitly teaching students patient-centered communication strategies, the teaching methods used raise their awareness of the strategies through noticing (Schmidt, 1990) and analyzing the consultations prompted by the guiding questions. Through analyzing the discourse, students learn the strategies and linguistic features in an active and self-oriented discovery process (Ellis, 1999; Kumaravdivelu, 2003). For each consultation, students in small groups analyze the strategies and linguistic features, guided by a list of general questions, such as:

1) How does the doctor explore the patient’s illness experience? How does the doctor solicit her story? Does the doctor ask closed-ended or open-ended questions? Why?
2) How does the doctor present the medical problem and suggest the treatment?
3) How does the doctor create a trusting and caring environment?
4) What specific words and expressions are used by the doctor to find out the patient’s experience of illness and achieve the mutual understanding and agreement of treatment?

In addition to the general questions, students were guided to notice the doctor’s turns in the conversation and discuss what strategies and expressions were employed. Three clinical visits are selected to demonstrate the instruction (see below). Moreover, students are given the assessment checklist (shown in Appendix B) to evaluate the doctor’s communication style. After the small-group discussion, the whole class is convened to summarize their findings with the teacher’s facilitation.

Case 1: Insomnia

In Case 1, students are guided to analyze the doctor’s communication strategies and linguistic features to explore the patient’s illness experience, to deliver the diagnosis and to discuss the treatment. The students are provided with the complete medical consultations from the opening to closing without English translation, which is added here for this paper. Excerpts are selected from the consultations to illustrate the key strategies. In Excerpt (1), the patient suffered a stroke a month ago. She had been feeling lethargic, dizzy, and had headaches lately.

(1) Conversation between the doctor (D) and the patient (P)

1 D: 最近好吗？
   Doing okay recently?
2 P: 最近，就不太好
   Recently, not too good
3 D: 不太好了啊，哪里不好呢?
   not too good? Where is not feeling well?
4 P: 唉，不好啊，我就...一个很长的故事
   Sign, not good, I...it is a long story.
5 D: 好，你说说看。
   Okay. Tell me about it.
6 P: 我在3月24号 我中风了
   I got a stroke on March 24th.
7 D: 哦，当时怎么样呢？
   Oh, what happened on that day?
8 P: 我啊，在学校里上班。我就觉得自己有一点晕，
   I was working in the school. First I felt dizzy.
   然后就觉得自已没力了，首先是手，然后就是脚
   then felt weak, no strength, starting with my hands and then my feet
9 D: 哎哈
   Ah hah
10 P: 我...然后当时就倒了下来
   I...then, at that point, collapsed
11 D: 哦，后来呢?
   Oh, and then?

In (1), the doctor encourages the patient to tell her story by using an open-ended format, such as “Tell me about it” in Line 5, and “What happened that day?” Using open-ended questions, “patients can thus express themselves in an atmosphere of nonjudgmental acceptance, often providing valuable diagnostic information that they may not provide with closed-ended questions” (Hashim, 2017, p. 30). The doctor also uses the phrases “ah hah” in and “and then” so the patient can continue the story without interruption. These utterances, called continuers or reactive tokens, are employed by speakers to display their active listening and invite interlocutors to continue their conversation (Clancy et al., 1996; Schegloff, 1982). Thus, the guiding questions for the small group discussion draw their attention to strategies and language in the conversation between the doctor and the patient.

In excerpt (2), students are led to notice how the doctor’s responds to the patient’s symptoms and in what ways the doctor asks about the patient’s daily routine. The patient has recovered from the stroke, but her sleep disorder causes headaches and dizziness during the day. While gathering the information about her symptoms, the doctor also explores her work situation.

(2) Conversation between the doctor (D) and the patient (P)

1 D: 还每天去学校上班吗？
   Do you still go to work in the school every day?
2 P: 这两天晕得比较厉害，就在家里休息
   I felt very dizzy for the past two days, so I rested at home.
3 D: 哦，头晕到没法工作，是很麻烦。
   Oh, not able to go to work. That is indeed a problem.
   你中风之后，恢复得很好，现在血压、胆固醇都正常
   You have recovered well after the stroke. Your blood pressure and cholesterol are normal.
   就是睡不好，所以呢，我建议你做个睡眠检查，
   It's just that you do not sleep well. So, I suggest that you do a sleep study.
   检查一下睡眠质量，记录心跳、脑部波动
   Check your sleeping quality, your heart rate and brain waves.
4 P: 哦，有这样的检查啊？
   Oh, is there such a study?
D: 有啊，比如说有些人睡到半夜，呼吸不正常、缺氧，然后早上
Yes, for example, when sleeping, some people breath irregularly, short of oxygen. In the morning,
就会头晕，觉得很累。所以检查一下，看看为什么睡不好
they feel dizzy, exhausted. So, do a study, and find out why you do not sleep well.

P: 好的，好的。 就是我…我在害怕又回去中风的那段时间，很害怕
Okay, Okay. It is just I…I am afraid to have another stroke, very scared.

D: 对，你就是很害怕，担心又中风了，心里紧张，然后就睡不好觉，
Of course, you are scared, worrying about another stroke, very anxious, then do not sleep well.
所以说，做一个睡眠检查看一下
So, let's do a study and check your sleep.

In (2), the doctor alludes to the effects of the headaches and dizziness on the patient’s work by asking, “Do you still go to work in the school every day?” The doctor also explains the reasons for suggesting the treatment of “sleep study” and what the test includes. The interaction in lines 4–6 shows the mutual discussion during which the doctor responds to the patient’s question and explains why some people need a sleep study. With satisfaction, the patient agrees with the suggestion enthusiastically by repeating “okay, okay.” Thus, common ground is reached. The doctor continues to listen attentively to the patient’s concerns. The doctor expresses empathy by saying “of course” to agree that it is normal to worry about another stroke and by suggesting that maybe the concern has affected sleep quality.

In short, we used the consultation in Case 1 to illustrate the patient-centered care performed by the doctor to explore the patient’s experience of illness regarding her experiences and the effects on her work. Students can also see that in an inviting atmosphere, the patient was not inhibited to tell her story and ask questions. Because of the doctor’s clear explanation, the patient understood the diagnosis and agreed to take the sleep study. In the next case, students are guided to observe the communication strategies and linguistic features employed by the doctor to explore the patient’s ideas about his illness and his expectation from the medical visit, and finally to reach a mutual agreement on the treatment arrangement.

Case 2: An Allergy

In case 2, the patient has been vomiting and is dizzy. After a check of the patient’s history and a physical examination, the doctor identifies that the patient is suffering from an allergic reaction that has caused the symptoms. However, the patient expresses his own ideas about the illness. The exchanges in excerpt (3) occur after the doctor delivers the diagnosis of an allergy.

(3) Conversation between the doctor (D) and the patient (P)

P: 嗯，那胃呢？我昨天吐得很厉害，是不是胃也有问题？
  uhm, what about my stomach? I vomited terribly yesterday. Is there something wrong with it?

D: 胃不舒服呕吐，只是过敏头晕并发的症状。比如说，你还记得你小时候
  Your vomiting is caused by allergy and being dizzy. For instance, remember when you were little,
如果在地上一直不停的转，然后头晕的时候，就会想吐
if you kept spinning around, you became dizzy and then felt like vomiting.

3  P: 哦，所以是头晕让我想吐，不是胃的问题，可能刚好我晚上吃了红豆汤，
Oh, so dizziness causes the nausea, not a stomach problem. Probably after having a red-bean soup,

没有休息，然后又头晕，突然，哇，都吐出来了。
I did not rest, then I felt dizzy. All of a sudden, wah, I threw up the whole soup.

Line 1 shows that the patient is unsure about the doctor’s diagnosis of an allergy. The patient expresses that he believes that there is something wrong with his stomach because of the severe vomiting. The doctor is sensitive to the patient’s concern and provides an example using “for instance” to explain the connection between dizziness and vomiting. The patient agrees with the doctor’s explanation by describing his experience.

However, after the doctor prescribes the medicine for his allergy, the patient still worries about his stomach and expresses that concern that his symptoms are not allergic reactions, as can be read in excerpt (4).

(4) Conversation between the doctor (D) and the patient (P)
1  P: 但是像我这样需要做个胃镜检查吗？
But, in my case, do I need to do a gastroscopy?

2  D: 如果说过敏好了，头不晕了，你还是一直呕吐的话，就要去做胃镜看一下。
If your allergy gets better, no dizziness, but you still vomit, then you need to do a gastroscopy.

3  P: 我的意思是，像胃癌这种病，要早点做检查，
What I meant is, for disease like stomach cancer, one needs to do a check earlier.

等到发现不对，可能就太迟了
If we wait till it is diagnosed, it probably would be too late.

4  D: 不用担心，你并不是经常胃痛、呕吐，所以你先吃药
No need to worry. You do not have stomach ache or vomit frequently, so take the medicine first.

吃了药，如果你胃还是不舒服呢，再去做胃镜
If after taking the medicine, you still have stomach pain, then we will do a gastroscopy.

5  P: 好，对，平常胃都还好
Okay, yeah, my stomach usually is fine.

The patient’s questions in lines 1 and 3 show that he worries that his stomach issues may be due to cancer and expects the doctor to arrange a gastroscopy. To respond to the patient’s concern, the doctor expresses his understanding and does not reject the patient’s idea or treatment request. In line 2, the doctor uses the conditional statement, “if . . . then,” to assure the patient that he will arrange a gastroscopy if the medicine does not stop the vomiting. He comforts the patient by saying “No need to worry” and encourages him to take the medicine first. The patient accepts the doctor’s suggestion by confirming that he usually does not have trouble with his stomach.

The doctor in cases 1 and 2 does not let his medical authority silence the patient’s voice. By listening to and expressing empathy to the patient’s concerns, the doctor gains the acceptance of the treatments of both patients. As shown by Bosworth et al. (2017), patients’ agreement with treatment improves their compliance to the medical advice. The third case highlights the
importance of understanding the patient’s contextual factors, which may provide information for the disease symptoms.

**Case 3: Headache**

In case 3, the patient suffers from constant headaches and cannot sleep well. After the doctor realizes that the patient is from China and has been staying with her sister for a month in the United States, he starts to explore her sleeping routine in China, as is seen in excerpt (5).

(5) Conversation between the doctor (D) and the patient (P)

1. D: 你原来在中国的时候，睡几个小时啊？
   *Back in China, how many hours did you sleep?*

2. P: 在中国，我老公说都像睡猪一样，都十点钟就去睡，睡到早上都七点才起来。
   *In China, my husband said that I slept like a pig, going to bed at 10 pm, getting up at 7am.*

3. D: 哦，是吧？那你所以可能到美国来了，你觉得压力比较大？
   *Oh, is that right? Then, maybe staying in the US, you feel more stressed?*

4. P: 嗯，压力比较大
   *Uhm, more stressed.*

The patient’s reply in the second line indicates that she sleeps much better in China, so the doctor probes further and asks if she is feeling stressed in this new setting in the United States, a suggestion agreed to by the patient. The doctor continues to explore the contextual factors which may cause the stress in the following exchanges in excerpt (6).

(6) Conversation between the doctor (D) and the patient (P)

5. D: 那你在这边做什么呢？
   *Then, what are doing here?*

6. P: 在帮我妹妹带一下小孩嘛
   *helping my younger sister to babysit her kids*

7. D: 所以你在中国不带小孩
   *So, you do not babysit kids in China.*

8. P: 不带
   *no*

9. D: 还是在中国日子过得好啊
   *Life in China is more carefree.*

10. P: 就是嘛，在美国日子过得太苦了，
    *Exactly, life in the US is too hard.*

11. D: 就是啊 (laughing)
    *Indeed (laughing)*

12. P: 大家都是每天埋头做事情
    *Everyone is constantly working every day.*

13. D: 是啊，埋头做事情，太苦了，说得对了
    *yeah, working all the time, too hard. You are right.*

14. P: 中国嘛，打扮漂亮，麻将打一下，晚上舞跳一下
    *In China, we dress nicely, play mahjong, and go dancing at night.*
The responses from the patient in (6) reveal that she is not used to the new environment and lifestyle in the United States, taking care of the kids and working constantly, which is stressful for her. Based on this revelation, the doctor, in addition to making sure that she takes the prescribed medicine, suggests humorously that she play some mahjong, a common domestic game from China. The doctor’s idea is happily accepted by the patient. Humor, a communication strategy used by the doctor, is an effective way to respond to patient’s concerns (Greenberg, 2003; Scholl, 2007). Case 3 is also used to raise students’ awareness of the doctor’s intercultural knowledge regarding the differences of lifestyle and work culture between China and the United States. The doctor uses intercultural communication skills to tap into the contextual changes experienced by the patient, which is an important strategy for patient-centered care (Paternotte et al., 2016).

**Student Roleplay Assessment and Improvement**

The current module, part of the course Chinese for Healthcare Professions, contains twelve 50-minute classes. Eight authentic medical consultations were taught. The roleplay data were collected from twelve students who took this course (eight students were fourth-year undergraduate students, three were in the third year, and one was in the second year). Seven of the fourth-year students had already been accepted to medical school while enrolled in the course. All of them, at the level of intermediate high, were placed in this course via our university’s Chinese placement test. Before the patient-centered instruction started, the students were divided into six pairs and did roleplay. After twelve class sessions, the same pairs performed roleplay again (see Appendix A for the two roleplay scenarios). For the purposes of this current study, in both roleplays, one student always played the doctor role and the other patient. They had other opportunities in the rest of the course to act out different roles. The six pairs’ performances of roleplay were videotaped and transcribed.

Among the targeted seven communication strategies, the students who played the doctor role improved in four aspects:

1) exploring patient’s experience of illness, not simply focusing on the disease symptoms;
2) employing more open-ended questions to solicit patient’s stories;
3) explaining treatment plans more clearly;
4) pursuing mutual agreement regarding treatments.

In the following, the improvements of these aspects are described by comparing the pre- and post-instruction roleplays conducted by the same pair. Pseudonyms are used to protect the students’ privacy.
In the first roleplay, the patient visited the doctor for her severe headache. In excerpt (7), Bill, the student who played the doctor role, delivered the diagnosis and suggested treatment after gathering information about the disease symptoms.

(7) Headache roleplay between Bill (D) & Mary (P)

D: 就是头疼，嗯，我给你开一个头疼药

Just headache, uhm, I will prescribe a medicine for you.

The patient in the pair’s second roleplay sought medical help for her itchy hand. Excerpt (8) shows that Bill, the same student in the doctor’s role, continued to explore the possible causes for the allergic reaction on her hand after checking the symptoms.

(8) Itchy hand roleplay between Bill (D) and Mary (P)

1 D: 我认为你有可能是过敏，你再想一下有没有什么东西导致你这个问题？

I think probably it is allergy. Think about it. Anything may cause this allergic reaction?

2 P: 哦，我这个星期住在朋友家，因为我的房子在被修，她有只猫

Oh, I have stayed my friend’s house this week, because my house is under renovation. She has a cat.

3 D: 噢，然后呢？有什么影响？

Oh, and then? How does that affect you?

4 P: 到她家以后，就开始打喷嚏

After living at her house, I started sneezing.

5 D: 你的手也开始痒，是这样吗？

Your hands started itching at the same time. Is that right?

6 P: 好像是...

It seems like...

7 D: 好，我会给开一个验血，看看是不是对猫过敏，然后我也开一个防止手痒的药膏

Okay. I prescribe a blood test to check if you are allergic to cats. And then I will also prescribe an ointment to reduce the itchiness.

Bill first informed the patient his diagnosis, and then encouraged her, using the expression “Think about it,” to recall if anything might have resulted in this medical problem. Contrary to his performance in the first roleplay, Bill did not simply focus on the disease, but also paid attention to the patient’s illness experience. He also used “and then” and an open question “How does that affect you?” to invite the patient to tell her story. The revelation of the possible cause led Bill to prescribe not only an ointment to reduce the itchiness, but also an allergy test which might help the patient to prevent the same medical problem from recurring. Thus, Bill made progress in the second roleplay with respect to the strategies and linguistic expressions to explore and understand the patient’s illness experience.

In the next two excerpts, Jill, the student who played the doctor role, demonstrated that she improved her communication skills in second roleplay in addressing the patient’s concern regarding the treatment. In the first roleplay, the patient expressed her doubt about taking the medicine Bailikang prescribed, as demonstrated in line 1 of excerpt (9). Jill assured that the medicine will help her, but did not offer any explanation. The patient’s response, “uhm,” seemed to indicate that the patient was not fully convinced by the doctor’s assurance.

(9) Headache roleplay between Jill (D) & Kelly (P)

1 P: 医生，我吃过别的药，你觉得这个百利康可以帮忙我的头痛吗？
Doctor, I have taken other medicines. Do you think Bailikang can help my headache?

D: 对对，我觉得这个百利康可以
   Yes yes. I think this Bailikang can.

P: 嗯
   uhm

In contrast, when Jill was asked a similar question in the second roleplay, in line 1 of excerpt (10), regarding the effectiveness of the prescribed medicine, she showed her understanding of the patient’s doubt. She first provided an explanation about the medicine she prescribed, and then encouraged the patient to “give it a try.” Jill’s understanding and explanation led the patient to respond “okay,” an expression indicating acceptance of the treatment.

(10) Itchy hand roleplay between Jill (D) & Kelly (P)

1 P: 我吃过一些过敏药，可是没有效，你觉得这个药可以帮我吗？
   I took some allergy medicines, but none of them helped. Do you think this medicine can help?

2 D: 过敏药有很多种，有的人吃这个没用，但是对有的人有用。
   There are many types of allergy medicine. This medicine works for some people, but does not help some people.

3 因为你以前吃过的药都没有用，所以，你试试看这个
   Since none of the medicines you took previously has helped you, so give it a try.

4 P: 好
   Okay.

(11) Headache roleplay between Jane (D) and Mike (P)

P: 对不起，医生，我不喜欢吃药，一定要吃药吗？可不可以打针？
   Sorry, Doctor. I do not like taking medicine. Do I have to take medicine? Can I get a shot?

D: 这个药对你的头疼会有一些帮助，我还是开给你吧
   This medicine helps your headache. It is better that I prescribe this medicine for you.

In excerpt (12), Jane, the doctor, improved her communication skills by responding to the patient’s certain expectation from the doctor. In excerpt (11), from the first roleplay, after being informed about the prescribed medicine, the patient requested an alternative treatment, “Can I get a shot?” for his headache, giving the reason “I do not like taking medicine.” Jane simply responded that the medicines were helpful and did not address the patient’s suggestion.

In the second roleplay between Jane and Mike, as shown in excerpt (12), after Jane, the doctor, prescribed an ointment, the patient expressed his expectation of seeing a dermatologist because of the severity of itchiness and swelling of his hand. Jane encouraged him to try the ointment first, to which the patient responded “oh.” This indicated that the patient was still worried about his hand. Jane sensed the patient’s expectation, so she assured the patient that he did not need to see a dermatologist. Notice that Jane used a formal verb renwei "believe/think" to highlight her assurance. Jane then used the contrastive connective “but,” to add the information that she could recommend a dermatologist if the patient wanted to visit one. The patient thanked Jane, showing his satisfaction with Jane’s response, and responded that he did not need to see one at this point.
(12) Itchy hand roleplay between Jane (D) and Mike (P)

1 P: 你觉得我还要去看看皮肤科吗
   Do you think I still need to go to see a dermatologist?
2 D: 你先吃那个药，看看有没有效
   Take that medicine first. See if it helps.
3 P: 噢
   Oh.
4 D: 我认为你可以先不用看，
   I believe that you do not need to see a dermatologist.
5 但是你要想去看，我也可以给你推荐一个皮肤科医生
   but if you want, I can recommend one for you.
6 P: 嗯, 好的, 谢谢医生。我觉得现在不用
   Uhm. Okay. Thanks doctor. I think I do not need to see one now.

The qualitative findings discussed above suggest that the students improved patient-centered communication by employing targeted strategies in this module.¹ The performance in the post-instruction roleplay, the second roleplay, shows that the students became more sensitive to the patient’s experience of illness, and were not limited to gathering disease symptoms. They communicated more effectively to explain the treatment and pursue the patient’s agreement and acceptance. In summary, the patient-centered instructional approaches have not only raised their awareness of patient-centered practices, but also developed their communication and language skills to achieve the goal.

**Discussion and Conclusion**

This essay presented the design of a module for Chinese for Medical Purposes that uses authentic doctor-patient consultations to develop students’ communication skills to practice patient-centered medicine. The targeted learning objectives are based on the model of PCCM, which emphasizes the importance of exploring both patients’ disease symptoms and illness experience, providing patients opportunities to voice their concerns and inviting their involvement in the medical interview process. To achieve these learning objectives, it is critical to use naturally occurring doctor-patient conversations as teaching materials and systematically guide students to notice, analyze, reflect, and use patient-centered communication strategies in medical consultations. The module presented here also demonstrates that models developed in the field of healthcare communication research can be useful for LMP course design. The qualitative findings show the students’ improvement in roleplay performance after they received the instruction. The module has shifted the students’ view and practice of medical consultations from doctor-centered to patient-centered approach.

Now that the module has been implemented, moving forward, we plan to improve and expand three areas. First, we plan to incorporate doctor-patient conversation data from China. Our preliminary study of medical-encounter data collected in China reveals some differences from those collected in Houston, Texas, which is limited to the consultations from one single Chinese-American doctor. For instance, the doctors in China tend to ask more questions related

¹ We have also conducted a quantitative study by measuring the pre- and post-instruction paired-roleplay performances. The study is still ongoing, but the preliminary results also indicate the significant improvement in the post-instruction roleplays.
to the effect of daily functions and contextual factors. The doctors also offer more options and lifestyle advice for treatment plans. The patients seem to be more timid to voice their concerns when given the opportunities. Second, we plan to select some excerpts displaying doctor-centered consultations which students can use to pinpoint the exchanges where the doctors fail to explore the patients’ concerns, and to suggest strategies to improve the interviewing communication. Third, we plan to collect conversation in medical visits that present longitudinal care delivered over time within the context of a long-term relationship between patient and physician. This is the fourth component promoted in the model of PCCM, which is not focused on within the current module, due to the lack of teaching materials.

Incorporating patient-centered concepts has enriched the course Chinese for Healthcare Professions and improved students’ communication skills. We hope that the current module will inspire further pedagogical discussion and innovations in Chinese and other languages for medical purposes.

References


Michigan Corpus of Academic Spoken English, MICASE. https://quod.lib.umich.edu/m/micase/
Appendix A. Roleplay

First Roleplay

**Patient Card**

**Task:** Act out the scenario impromptu from the beginning when you meet the doctor to the end when you leave the examination room.

**Scenario:** You visit a primary-care physician because you have suffered severe headache for a while. It has happened before. The doctor suggests treatment, but you are not sure whether it would work.

**Doctor Card**

**Task:** Act out the scenario impromptu from the beginning when you meet the patient to the end when the patient leaves your room.

**Scenario:** You are a primary-care physician. Your patient visits you for a medical problem. You suggest physical therapy for the patient.

Second Roleplay

**Patient Card**

**Task:** Act out the scenario impromptu from the beginning when you meet the doctor to the end when you leave the examination room.

**Scenario:** You visit a primary-care physician because you have suffered severe itching and swelling on your hands for a while. You had this kind of itching and swelling before. The doctor suggests a treatment plan, but you are not sure whether it would work.

**Doctor Card**

**Task:** Act out the scenario impromptu from the beginning when you meet the patient to the end when the patient leaves your room.

**Scenario:** You are a primary-care physician. Your patient visits you for a medical problem. You suggest a medicine for the patient.
Appendix B. Patient-Centered Role-Play Assessment Checklist

*Note:* This is a modified version of MPCC (Brown et al., 2001)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Patient’s statement</th>
<th>Follow-up Exploration</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Exploring the patient’s symptoms</strong></td>
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<tr>
<td>1. Did the doctor explore the patient’s symptoms?</td>
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<tr>
<td><strong>B. Exploring the patient’s experience with the illness</strong></td>
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<tr>
<td>2. Did the doctor explore the patient’s physical and emotional experiences?</td>
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<td>3. Did the doctor explore the patient’s ideas?</td>
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<td>4. Did the doctor explore the patient’s functions?</td>
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<tr>
<td>5. Did the doctor explore the patient’s expectation?</td>
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<tr>
<td><strong>C. Understanding the whole person</strong></td>
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<td>6. Did the doctor explore the patient’s contextual factors?</td>
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<tr>
<td><strong>D. Finding common ground</strong></td>
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<tr>
<td><strong>Criteria</strong></td>
<td>Y/N</td>
<td>Points</td>
<td></td>
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<tr>
<td><strong>D.1 Problem identification</strong></td>
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<tr>
<td>7. Did the doctor clearly explain?</td>
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<td>8. Did the doctor provide opportunities to ask questions?</td>
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<tr>
<td>9. Did the doctor facilitate mutual discussion?</td>
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<tr>
<td>10. Did the doctor reach mutual agreement?</td>
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<tr>
<td><strong>D.2 Goals of treatment</strong></td>
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<tr>
<td>11. Did the doctor clearly explain?</td>
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<tr>
<td>12. Did the doctor provide opportunities to ask questions?</td>
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<tr>
<td>13. Did the doctor facilitate mutual discussion?</td>
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<tr>
<td>14. Did the doctor reach mutual agreement?</td>
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**Final score**