

Improving the patient-physician relationships: Tips from a qualitative study

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Abstract

Background: Building an effective patient-physician relationship (PPR) is a vital component of successful health care; and educating and preparing students to communicate effectively with patients has always been critical. Such an education and important preparation needs to evaluate the current situation in which the communications are built. The aim of this study was to explore tips for improving PPRs in Tabriz University of Medical Sciences from the perspective of patients, students and faculty members.

Methods: In this qualitative content analysis study, data were gathered using focus groups, semi-structured interviews and participatory observations in the field, based on purposive and maximum variation sampling until the saturation was achieved. Content was analyzed through a thematic and manifest analysis. Standards for methodological rigor were enhanced through different strategies.

Findings: Content analysis resulted in 36 tips for improving PPRs. The tips were classified at three categories (physician, patient or health system- related factors) and ten sub-categories. Physician-related factors were divided into five sub-categories including personal characteristics; communication competencies; patient-centered practice; professional collaboration and time allotted for a visit. Patient-related factors were distributed into two sub-categories: personal attributes and trust-supported attitude. Health system related factors were alienated into three sub-categories including context-related, socio-cultural and organizational factors.

Conclusion: In this study, among the tips to improve the PPRs, the tips allied with physician-related factors were more frequently mentioned by participants. Given this important finding and considering the point that physician-related factors have been less studied in previous studies, interventions focused on physician-related factors are highly recommended.

Introduction

For many years, establishing an effective patient-physician relationship, which hereinafter will be referred to as EPPR for short, has been a vital component of successful health care [1] and EPPR has led to favorable health outcomes [2].

Considering the need for being an effective communicator in the community, medical students should receive continuous trans-disciplinary training to apply their learned skills in practice[3]. In this regard, teaching different principals and methods of building effective relationships with patients could be of great help [4].

The first attempts in communication skills training date back to the 1970s, when the physicians' desired competencies were categorized into technical medical knowledge acquisition, physical examination and problem-solving skills [5]. Although the introduction of physician-patient communication skills to the medical education curriculum was accompanied by resistance and even opposition, the physician-patient communication skills training received a lot of attention in many medical education institutions in the

last two decades. Today, it is accepted that communication is the cornerstone of clinical and medical education at all levels and areas of medical sciences [5].

In many medical schools in the world, medical students are taught that while having different behavioral and cultural characteristics, they have to exchange information about an abnormal physical or mental problem with their patients through a complex communication process. They are educated that physicians should behave in a standardized manner while visiting patients in very different situations. They are trained to respect patients' different ethnicities, religions and races. They are encouraged to avoid stereotypical perceptions. In all, medical students are requested to master proper communication skills and to provide a positive and supportive care environment for patients.

Despite the global emphasis on improving the clinical communication skills of physicians, communication skills training in many universities has not been integrated into medical curricula and has not achieved its true official position at most universities of medical sciences [6]. In some cases, efforts have failed to revise the curricula and to implement communication skills programs[7]. That is why maximum optimal therapeutic results and health outcomes have not been achieved in those cases and in all 70% of patients' complaints are still related to poor communication skills of physicians [8].

Concerns about effective patient-physician communication vary across societies depending on the educational context, norms, beliefs, cultures and governing social relations. Numerous worldwide studies, both quantitative and qualitative, have been conducted in this regard and each of them has shone a light from a different angle on the principles, components, barriers and facilitators of the EPPR. In our context in Tabriz University of Medical Sciences, based on the results of the assessment of communication skills of 198 medical residents by 488 patients in a cross-sectional study in 2016 in the largest teaching and academic center in the northwest of Iran in Tabriz, the patients' satisfaction with participating residents' communication skills was not acceptable (the mean of the patients' normalized total satisfaction score was 48.8 ± 18 out of 100)[9]. As the reasons for patients' unacceptable satisfaction with physicians' communication skills in our institution had not been previously investigated, and due to the importance of knowing the factors influencing the PPR from the physicians' perspectives and the considering the necessity of having all stakeholders' perceptions for quality improvement planning, it was necessary to examine the perspectives of physicians and other stakeholders on factors influencing the PPR through a qualitative study because a deeper understanding about the strengths, weaknesses, opportunities and challenges in every educational context can be provided by conducting a qualitative study.

Up to the time of the present study, no qualitative study had been conducted to explore the perceptions of faculty members, medical students and patients about EPPR at Tabriz University of Medical Sciences, where most of the patients in the northwest of the country receive the required medical services in teaching hospitals affiliated to it. Therefore, it was intended to analyze the status of patient-physician relationships at Tabriz University of Medical Sciences and explore the tips for improving PPRs from the viewpoint of faculty members, students (medical residents and interns) and patients through a qualitative

content analysis study. The results of the present study can be utilized in revising curricula, setting educational priorities, and planning for proper educational interventions.

Methods

Study design & method

In this qualitative content analysis study, the meanings from qualitative data were uncovered and organized to deeply explore the factors affecting patient- physician relationship and infer the tips for improving PPRS at teaching hospitals affiliated to Tabriz University of Medical Sciences-Iran. In this research, an in-depth description of performances and perspectives of participants and their behavior patterns within their actual context was provided by interviewing them, observing their behavior and gathering some relevant items. Data were gathered through face-to-face interviews, group discussions and field observations and conclusions were drawn through a manifest analysis[10].

Researchers' Characteristics And Roles

The interviewer researcher (MB), who was a medical doctor familiar with the study context, studying for a master degree of Medical Education at the time of this research, always tried to be an active listener. He adopted an open and emotionally neutral body language; looked interested; smiled; employed encouraging body languages whenever were necessary and avoided leading questions. He did not join and just moderated and facilitated the focus group discussions (FGDs). Group dynamics in FGDs were observed by a second researcher (SGH) to enhance analysis of interactions whether verbally or non-verbally. At the beginning of the research, bracketing was performed and the researchers wrote down all their assumptions, perspectives and hypotheses about the subject and put them aside so that they would not influence data collection and interpretation. Reflexivity was fully handled throughout both data collection and data analysis. Reflexivity journals were prepared by MB and SGH and were checked by peers against their desires to share their own experiences and perspectives. There was no previous relationship between researchers and the participants; except for the point that both researchers were working in the same university as the participating faculty members, residents and interns did.

Study Context

This study was conducted in 2018 at Tabriz University of Medical Sciences (TUoMS). TUoMS, is located in the northwest of Iran and its affiliated hospitals, as referral hospitals, provide diagnostic and treatment services to patients from all cities and villages in the region. In the teaching hospitals affiliated to TUoMS, as the largest and most equipped hospitals in northwestern Iran, patients from different cities in the northwestern region of the country with different ethnicities such as Fars, Turks, Kurds and sometimes Lurs or Arabs are admitted.

At the time of the present study, there was no formal communication skills' training for medical interns and residents at TUoMS. Most of the communication skills training at TUoMS were limited to vicarious learning (observing the communication behavior of faculty members in the wards and clinics). Residents also had an opportunity to attend a one-day educational workshop, which was held at the beginning of their first year of study.

Participants & Sampling Strategy

Participants in this study were patients, faculty members, medical interns and residents, who were selected based on their interest and willingness to express their experiences in EPPR, as key informants. The main researcher (MB) introduced himself and the second researcher (SGH). He stated the objectives of the research and invited the potential participants. Criteria for participation in the study were: inclination to participate and lack of any clinical condition or illness might disrupt the interview process between the researcher and the participant. Vulnerable groups such as patients with impaired consciousness, the elderly, pregnant women and children were excluded from participating.

MB started interviewing with patients, faculty members and medical students in clinical settings (in-patient or out-patient) at teaching hospitals affiliated to TUoMS. He simultaneously observed patient-physician interactions in those settings. Maximum variation sampling [11], in terms of participants' gender or their working/ presence setting at the time of the study, was used to warrant a broad range of participants' perceptions and experiences. Negative case sampling was considered to account for contradicting explanations and unanticipated answers in the data analysis process too [10].

Data Collection

Data collection methods included in-depth open face-to- face (F2F) individual narrative semi-structured interviews, focus group discussions, and field observations. By doing so, method triangulation [12] was employed to ensure credibility in data collection.

The interview guideline was piloted on three participants to ensure clarity of questions and it was developed further, throughout the interview process.

A total of 31 participants were interviewed. No one refused to continue participation and each interview lasted 40–60 minutes. When possible, the interviews were conducted at participants' preferred time and place, at clinics, wards or inpatient rooms, after prior coordination and without the presence of a third person. F2F individual interviews were started with an open-ended question as "Can you tell me your story about patient-physician relationships you have experienced?" After that, probing and progression upon the participants' initial response were done. The flexibility of semi-structured interviews made it possible for the interviewer researcher to discover or elaborate the important information to participants. During the interview, participants were encouraged to express their experiences easily, freely and in full detail.

Based on the participants' permission, the content of the interviews was audio-recorded and transcribed. No repeat interview was carried-out.

To make a rich understanding of participants' collective views and to obtain common contextual information about EPPR, five 90–120 minute FGDs were held with 8–12 participants in each group. The composition of the groups was homogenous in terms of the participants' background. MB moderated the discussions and facilitated the group dynamics in order to better understand some specific data gathered through f2f interviews. SGH took notes of participants' non-verbal communications and interactions.

Group discussions were stimulated by some clarification and non-leading questions. Immediately, after each FGD, debriefing of the content was done.

In order to have a deeper understanding of the influencing conditions and also to confirm the obtained data about EPPR, participants' actions and contextual realities were observed by MB in inpatient wards during twenty one sessions. The duration of the sessions varied between 15 and 90 minutes depending on the patient or ward conditions. Field notes were fully transcribed and they were checked with the previously transcribed data.

Data collection was continued until data and thematic saturation. Saturation was recognized when researchers were confident that no redundant code or categories emerged from the data and the emergent categories matched all the data.

Data analysis

The data from each interview, FGD or field observation was transcribed and coded for analysis immediately after it was collected (before conducting the next interview, FGD or observation). No software was used to manage the data. Analyzing transcripts were done through a thematic analysis.

MB and SGH read the transcripts of f2f interviews many times until complete understanding was achieved. They coded the data and compared various codes based on similarities and differences (constant comparison) in order to make sure that all perspectives were presented by thematic analysis. They discussed emerging codes and categories; resolved disagreements until an optimal level of inter-rater agreement was realized. A copy of the primary analysis was sent to participants to validate the emergent codes and categories. It was asked for their comments in order to achieve their agreement on the correctness of interpretations (member checks). Memos were used to track changes in the coding and recoding processes.

A deductive approach was applied to analyze the content of FGDs in order to support the predetermined coding structure. Where there was no consensus about some factors influencing the EPPR, the data was supplemented with observational ones. Similar deductive approach was used to analyze the field notes of the observer researcher (MB).

Standards For Methodological Rigor

Standards for methodological rigor were enhanced through different strategies. The credibility of the data was enhanced by data triangulation, methods triangulation; member checks; verbatim or direct quotations and negative case sampling. Data trustworthiness was improved by inter-rater and intra-rater agreements. Transferability was enhanced by maximum variation sampling, rich and thick description of the participants' perceptions and experiences, describing limitations and detailed description of methods.

All methods were performed in accordance with the relevant guidelines, regulations and ethical standards of the responsible committee approving the research at Tabriz University of Medical Sciences and with the Declaration of Helsinki, as revised in 2000.

Results

In the present study, data saturation was achieved after 31 F2F interviews; three FGDs with faculty members, interns and residents; and 21 sessions of field observation. Participants consisted of 13 patients, 32 faculty members, 27 medical interns and 21 residents, as key informants. Participants' baseline characteristics are revealed in Table 1.

All our findings were confirmed by participants' feedback and their member checking. Data analysis resulted in the emergence of three categories: 1- physician-related factors, 2- patient-related factors and 3- health system-related factors. The emergent categories, Semantic labels to define factors influencing PPRs and tips for improving PPRs based on supporting condensed meaning units are summarized in Table 2. Factors in each group are listed according to the frequency of repetition by participants. The most frequently cited factors by the participants are listed upper in the list.

1- Physician-related factors

Physician-related factors were divided into five sub-categories including personal characteristics; communication competencies; patient-centered practice; professional collaboration and time allotted for a visit.

All participants stated that spending enough time on the consultation process by physicians had been the main factor affecting the EPPR. A participant said that "a hasty examination of patients not only can induce stress but also may lead to a feeling of not understanding in patients" (Faculty member. 8). A patient said that "when I feel to have enough time, I do trust my physician and I disclose my history of disease completely" (Patient .3). According to a participating resident, other factors such as resident's rational working hours and the not being fatigued; not being forced to visit a high number of patients in each working shift; and not using medical terms unknown for patients, could significantly affect the physician-patient relationship (Resident.5).

Communicating effectively with other team members in care provision, i.e. optimal physician-physician, physician-nurse, and physician- medical staff communications was described as another important

factor affecting the EPPR by a participating faculty member (Faculty member .21). A resident believed that “When a treating physician forces a patient to go to a specific center that he or she recommends for taking paraclinical tests, the patient usually thinks that the treating physician has conflict of interest and only pays attention to the financial benefits of his colleagues”(Resident. 5). The majority of participating physicians in this study believed that requests for only necessary consultations and paraclinical tests, not only could cease any delay in fulfilling the diagnostic processes but also could prohibit wasting energy and decrease the workload of the consulting physicians, which ultimately could result in patient satisfaction and affect the EPPR (Faculty members .11, 12,21,26,28 and residents. 1, 5, 10, 15, 18, 20).

Coordination between a physician and a nurse could decrease delays or errors in the execution of physician orders. In one case which was mentioned by a faculty member, “failure to inject the prescribed anticoagulant to the patient prior to his surgery had resulted in deep vein thrombosis”. He declared that “the head nurse was present when ordering the injection of the anticoagulant but my order had been missed” (Faculty member.17).

According to many participants, pre-coordinated and supervised collaboration of the medical team has been crucial for engaging patients in an interactive relationship (Faculty member.4, residents 6, 12, 21, interns.1, 2,9,14 and patient.7, 11, 13). The positive outcome of such proper coordination could be realized when patients were needed to be physically examined by medical students, interns, residents, and faculty members at different stages. When this intended coordination was performed, it could decrease fatigue and dissatisfaction among patients (Patients. 1, 5, 8, 10, interns 3, 4, 6). From the participating patients' and faculty members' viewpoints, hierarchical supervision of residents', interns' and medical students' performance could inhibit repetitive physical examinations and consequently could increase patients' satisfaction and cooperation (Faculty members 1,7,10, patients 5,10,12).

Many patients believed that feeling a mutual respect and being in an environment supportive for constructive criticism made them satisfied and ultimately increased their trust to physicians (Patients. 1, 2, 8, 9, and 10). The punctuality of physicians was stated as one of the main factors by a few patients that could cause a sense of respect (Patients.3, 8). Many participating patients stated that paying attention to their requests and their feelings and concerns while they had been able to protest could have been easily overshadowed by the EPPR (Patients 1, 2, 4, 7, 8, 10, 13). According to both patients and faculty members as the emotional understanding was another reinforcer of making an EPPR, physicians should be trained about empathy and should apply it in their daily visits (Faculty members.7, 15, patients.3, 10). In addition, a patient believed that physicians' confidence and charisma could easily affect the EPPR (Patient.4). According to the participating patients, doubts and hesitations of physicians could be reflected in their tone of voice and even in their gazes (Patients 4, 13). Patients often could understand such hints and were very sensitive to even a minor reaction which may not be taken seriously by physicians (Faculty member.3).

Patients stated that they had increasingly wanted physicians to consider their role in making treatment decisions, while to show authority. According to those patients, when physicians had not prevented them

from being involved in decision making; and had respected their rights in this regard; and had not considered their involvement as interference with their own scientific position and capability to treat, they had enjoyed their relationship and were open to provide any details about their history of disease (Patients. 6, 9, 11). Another reinforcing factor of the EPPR, emphasized by most faculty members, were training medical students to be capable in initiating communication; in interviewing with patients; and in breaking bad news while being supervised (Faculty members. 4,9,14,18,22,25,30). In this regard, most interns and residents believed that communication skills of faculty members should be sharpened too (Interns.5, 8, residents.2, 19).

2- Patient-related factors

Patient- related factors were divided into two sub-categories including personal attributes and trust-supported attitude.

Patients' levels of education and health literacy were stated to be important factors in reinforcing patient-physician relationship from the viewpoint of many physicians and some patients. Patients' readiness to establish participatory communication was dependent on their levels of education and health literacy for the most part. Three of the patients participating in the study stated that when they sought, studied and understood useful and credible information about their medical problems before being visited by a physician and tried to use that information in practice, they adhered more to medical instructions because they trusted more in the abilities of their physicians in such conditions (Patients.5, 8, 11). In this regard, many faculty members believed that establishing relationships with patients with high health literacy, who did not attribute the reasons for the failure of the physicians' diagnostic and treatment plan to the poor competencies of their physicians, was easier. Those faculty members declared that they were willing to spend more time with patients with higher health literacy because communicating with those patients did not waste their energy and interest (Faculty members. 2, 6, 13, 24, 31).

Patients stated that when they had been visited by the physicians with the same gender and age group, they had shared more information with their physician. Gender difference was stated as an important factor influencing the physician-patient relationship. This factor was stated to be even more prominent in Iranian society. Gender- appropriateness was even more important in the case of female patients during urology and gynecology appointments. In this study, the need for patient-physician gender matching was raised by participating patients, interns and residents.

According to the participants, gender matching was true to the situations in which the treating physicians with the same gender had communicated with patients' own language and had paid attention to the patients' culture (Patients.7, 10, interns 2, 5, 6, 14, residents. 19). Some participating patients stated that they had not known how to describe some of their problems in a language other than their mother tongue. Therefore, when the treating physician had not spoken to them in their mother tongue, they had preferred to refrain from reporting some of their problems (Patients. 3, 9, 10). According to a participating faculty member, the familiarity of a physician with patient's language was more important when patients were not able to communicate with the national spoken language in the country (Faculty member.7).

A faculty member believed that in the setting of this study, a range of physicians and patients from Fars, Turkish, Kurdish and other ethnicities had to communicate with each other. In this regard, that faculty member said that he always had advised his students to spend enough time studying the cultural characteristics of patients and their team members. Otherwise, some of their advice in the absence of respect for beliefs and cultural values of the patients and other members of the medical team might cause serious problems in their relationships (Faculty member.26). One participating intern who lived in the university dormitory believed that she was able to communicate more well with patients than her other friends because she was roommate with students from different cultures and was familiar with different cultural values (Intern.19)

The age difference between the physician and patients could affect their relationship. Elderly patients, in particular, found it easier to communicate with physicians in the same age group (Patients.2, 10).

In addition to gender and age appropriateness and taking into account patients' culture and language, acceptable status of the patients' health and not having stress induced by the presence in a medical environment could affect the EPPR too (Patients. 7,11 intern 2). This outcome could be obvious in critically ill patients and traumatic cases that were in stressful situations. In such circumstances, the ability to manage such challenging conditions and paying attention to the reactions of patients and companions to even minor issues had resulted in an EPPR (Interns 2, 15). In this regard, one of the participating interns stated that in order to decrease his patients and their companions' concerns and stress about the hours and days the patients would be hospitalized, he had routinely asked his patients and their companions about their concerns and had tried to clearly explain hospitalization- related processes to them. He believed that when he had assured his patients and companions that he would always be there to hear their concerns and provide necessary information, they had reported less stress during hospitalization (Intern.15).

Moreover, according to participants, putting aside previous unpleasant experiences by the patients and not involving them in accepting the diagnosis and treatment of the treating physicians could significantly decrease the denial of diagnoses and refusal of medical treatments by patients. One participating patient in this study noted that after his father died, he was visited by the same physician as his father when he was hospitalized. He said he was very happy that he ignored the unpleasant memories of his father's hospitalization and also the doubts of his family members about that doctor's abilities, and trusted that doctor and his abilities, and got a very good result from his treatment (Patient.4).

3- The health system-related factors

Health system related factors were divided into three sub-categories including context-related, socio-cultural and organizational factors.

Participating residents highlighted the role of allocating sufficient time to consult with each patient in the success of a communication. According to them, not being forced to perform time-consuming administrative bureaucracies such as "getting patients' lab-tests results by interns and attaching them to

the patients' files or taking the radiology reports to other wards to show the faculty members", which could be easily completed by staff of the wards, could be of great help in this regard (Residents.9, 17).

Most interns stated that communicating with patients in an environment away from the hustle and bustle, where patients' companions and other patients were absent during the visit helped patients communicate more openly and with more trust (Interns. 5, 7, 10, 14, 20, 21, 25). Most of the participating patients believed that respecting their privacy, while they were consulted in a convenient and supportive environment had increased their motivation to provide a more complete history to physicians (Patients.1, 3, 4, 7, 9, 10, 12, 13).

According to the participants, if the process of stress management in urgent decision making conditions were defined and educated, working in stressful environments such as an emergency department would not induce stress and the PPR would not be easily impaired. In this regard, many interns stated that physicians visiting in the emergency department should have been aware of the specific needs of the patients who were directly discharged from the emergency department and not hospitalized later, because experiencing good communication and the needs being addressed would reinforce patients' later PPRs (Interns.3, 6, 7, 11, 15, 20, 21). In all, faculty members mentioned that they have had more effective relationships with patients in inpatient wards, compared to the patients in emergency or outpatient wards (Faculty members.3, 7, 24).

Another context-related reinforcing factor raised in the present study by faculty members was the power of the working environment to motivate the health care providers to analyze the existing strengths and weaknesses, to analyze the previously defined working processes or hidden patterns and bureaucracies in the working context; to find problems around; and to plan solutions to them. Indeed, planning for resolving the problems such as delayed admission; poor medical filings; errors in submitting documents for health insurance coverage, etc would decrease waste of patients' time and energy, their exhaustion and dissatisfaction, which would consequently affect their future relationships with physicians (Faculty members.1, 8, 20).

In this study, working or living in a context with appropriate social propaganda and favorable beliefs about physicians in which there are no provocations against the health system was stated as one of the most important socio-cultural factors influencing the PPR. Some participating patients in this study believed that physicians were affluent people who usually could not understand many of patients' socioeconomic problems. They clarified that they usually preferred not to talk to doctors about many of these problems (Patients. 4, 5, 9). Two participating faculty members defined this issue as a social propaganda about physicians in Iran. They attributed this propaganda to the differences in physicians' income levels and marked differences in their lifestyles with other people in Iranian society (Faculty members.5, 19).

Paying attention to specific religious do's and don'ts about illness and health in society was introduced as another reinforcing factor of the PPR (Patient.10, Faculty member.30).

Participants declared that reputation of a medical center of being a good caring center, not as a slaughterhouse, could significantly affect patients' and their companions' trust in the physicians' capability in improving their health status; otherwise, social misbeliefs would gradually grow and breaking them would be more difficult and their pertinent unpredictable consequences would be experienced. Some inpatients in this study believed that some hospitals had a bad reputation for being a place for certain death. Those patients thought that if they were admitted to those hospitals, they would surely die. For this reason, some patients believed that inpatients did not trust the treatment team in those hospitals and would not be motivated to communicate effectively with their physicians (Patients.1, 6, 11). A participating faculty member also referred to the notion of reputation of some hospitals as a slaughterhouse among people. He believed that those hospitals were mainly referral hospitals and mostly complicated cases were admitted in those hospitals (Faculty member.3).

All participating faculty members noted that not forcing physicians to visit a large number of patients per shift was a key to their EPPR. Some interns and residents emphasized the need to change the regulations regarding the visit of the high number of patients per shift (Interns.3. 8.19, residents.2, 17, 19). One of the participating residents stated that in a few departments, rules had been set so that junior residents were not forced to do all the work of the wards alone. He added that in those settings, one of the faculty members had supervised adherence to the rules and collaboration of the junior and senior residents in performing the ward works. He believed that in such wards he had more easily and effectively communicated with patients (Resident.21).

Many interns believed that if they had been supervised by well-trained supportive mentors and had received constructive feedback on their communication content and process, they would have been made more effective relationships with patients (Interns. 4, 7, 10, 15, 17, 18, 20, 24). In this regard, the role of supportiveness and flexibility of the working context against physicians' risk-takings was highlighted. In this regard, one of the interns mentioned that with the encouragement of one of the faculty members, he had volunteered to do an abdominal tapping for an inpatient as the first person in their group. He said he had not changed his mind about volunteering because he had been sure he would not have been held accountable for any possible errors due to his teacher's presence. In addition, due to the successful completion of the procedure under the auspices of that teacher, the next day he had communicated with his patient with more confidence (Intern.15).

Participating residents believed that paying special attention to the quality communications of health care providers and encouraging high quality communications could motivate all members of a treatment team to establish more interactive relationships with patients (Residents.1, 8, 15). According to them, in this regard, priorities should be given to building effective relationships, not earning just more money, by authorities in medical centers. Defining criteria for effective communication with patients in physicians' work evaluation checklists in order to distinguish between quality and non-quality communications of physicians in annual evaluations should be considered as a very important reinforcing factor of the PRR too.

Discussion

It was inferred by the results of the present study that the PPRs could be influenced by the factors relating to physicians, patients, or health systems. Being explored by content analysis, thirty three pieces of advice to improve the PPRs were inferred. They were classified into three categories and ten sub-categories.

Among the tips mentioned by the participants to improve PPRs fifteen out of the 36 tips were linked to physician-related factors. Indeed, the tips related to physicians were more frequently stated ones. This finding seems to be noteworthy according to the findings of a review, in which “the main conclusions from recent reviews and research” are summarized[13]. In this review, reinforcers of the quality of the PPR are discussed. It has been declared that physician factors, except for the physicians’ empathic abilities, have been studied very little in the previous studies. Among those studies which have taken physician-related factors into account, most studies have focused on just verbal communication behavior of physicians. Non-verbal dimension of communication has been “less prioritized” and has been less analyzed. In this review, the difficulties in analysis have been attributed to “the society and technological changes” [13]. While the participants of the present study attributed the success of the PPR mainly to the physicians' non-verbal communication, such as their facial expressions, type of clothing, body language, posture and gesture.

The importance and the necessity of analysis of physicians’ non-verbal communication has been well illustrated and published following a presentation at the American College of Surgeons

102nd Annual Clinical Congress in 2016. In this publication, reliance on the physicians’ character and professional competencies; their strengths and truth has been mentioned as the keystone of the PPR. In other words, integrity and stability of physicians’ relationships with patients, team members and themselves have been stated to be dependent on trust as the so-called keystone. Non-verbal communication has been declared as the most preferred relationship which could efficiently and effectively engender trust [14].

The two most frequently cited reinforcing factors of the PPR, from the viewpoints of participating physicians, students and patients in this study, were not forcing physicians to visit a large number of patients per shift and spending enough time for visiting each patient.

These findings are in line with those in the study by Rees and colleagues in which participating students stated that clinical mentors had not allowed them to build effective communication due to the created time constraints [15]. The findings of the study by Mora Claramita et al. (2011) are also consistent with ours. In their study, the high number of the patients had significantly delayed effective communication with physicians [16].

The results of the present study showed that paying attention to the patient's feelings and concerns and involving patients in decision making could have a considerable role in reinforcing the PPR. This finding

is similar to the findings of a study conducted in Turkey in 2020 in which the effect of the PPR on obedience of 399 adult patients to diagnosis and treatment plans and the mediating role of the shared decision making in that effect have been reported [17].

Our participants declared that patients with acceptable health literacy become more involved in building and maintaining participatory communication. Indeed, patients with higher levels of education and health literacy communicate more effectively with their physicians.

In a study by Mora Claramita et al. (2011), patient unpreparedness for participatory communication was introduced as one of the three main barriers to physician-patient communication. They noted that patients with higher education are more prepared to maintain a participatory communication [16].

According to the findings of a “survey of adults in the rural U.S. Southeast”, more than half of 3176 rural patients had seen the same physician for more than five years. Those patients’ satisfaction and their confidence in their physicians were higher compared to the satisfaction and confidence of the patients who had shorter continuity of care. Non-white and less educated patients with no health insurance and those with income lesser than \$25,000 had seen the same physicians for less than five years. These findings confirm that trust and confidence in physicians and consequently the effectiveness of the PPRs, in addition to some physician-related factors, depends on various patient-related factors too. That is why in order to enhance the outcomes of patients' satisfaction with care, trying to establish long-term PPRs is recommended [18].

Over the past decade, patients are more informed by social media and the internet and they are less reliant on physicians to acquire health-related information and necessary medical resources. This worldwide change has significantly influenced the PPR in a way that medical paternalism has been rejected in favor of admiration of patients’ autonomy [19]. This means that in line with the findings of our study, the PPR has been affected by patients’ health literacy. As if, in “the new age of patient autonomy”, rethinking of physicians’ role in the PPR is highly needed and physicians are still required to exercise their professional agency to provide counseling, procedural expertise and access to limited health services for patients [19].

Appropriateness of the patients’ age and gender and fitness of their language and culture with those of their treating physicians were mentioned as the most important patient-related factors influencing the PPR in this study. In a study at Johns Hopkins Bloomberg School of Public Health, physicians’ self-reported cultural competence was reported to be highly associated with the quality of the PPR and patients’ participation in care. In that study, physicians with “more “culturally competent attitudes and a greater frequency of self-reported culturally competent behaviors” had more reflected cultural competence in their clinical behaviors. They had developed more participative and higher quality relationships with their patients in “low-income to middle-class communities”. Their patients had been more satisfied, had perceived their physicians had been more facilitative, and had searched for and shared more information with their physicians [20].

As mentioned in previous studies, the gender difference between a patient and a physician could truly affect the quality of their relationship. Previous studies show that gender match between a patient and a physician could lead to a more successful relationship, especially when they both are females. In a study in China, some patients, who were referred to a male urologist, were asked to describe their experience in this regard. Most of them reported their experience unpleasant because of a feeling of a deep gap in their relationship induced by just gender difference. In that study, patients related their other unpleasant experiences to their induced stress, lack of physician seriousness in treatment, not respecting their autonomy, and the lack of their physicians' empathy skills [21]. The gender difference was even more noteworthy from the viewpoints of the participants of the present study, considering the Iranian socio-cultural context.

In our study, paying attention to specific religious do's and don'ts about illness and health in society was stated as one of the most important socio-cultural factors influencing the PPR. This finding is in line with those of a study in Japan, in which communication styles were declared to be different in western countries and Japan. In that study, Japanese patients preferred the model of mutual participation as the ideal model of the PPR and four cultural characteristics, including "collectivism, high context, masculinity and Confucianism" were strongly related to the characteristics of the PPR in Japan. It was contended that in order to achieve fruitful relationships, "the mutual participation model of PPR should be pursued within Japanese social and cultural context" and patient autonomy should be advocated and appreciated. For these reasons, the researchers concluded that socially culturally tailored communication models, not exactly the same western models, are needed in contemporary Japan [22].

As reported by previous studies, today's socio-cultural expectations require physicians to understand patients' feelings and show empathy [23]. This issue would be a challenge for physicians believing that they should maintain a professional distance with their patients in terms of emotions [24].

Most participating medical students and residents in this study stated that if they had received any practical or theoretical training in a form of a predefined formal program, they would have made better relationships with patients and other members of the treatment team. In all, according to the participants of this study, the current situation of the PPR at TUoMS was not satisfying. Taking into account all reinforcing factors identified in this research could help designing comprehensive educational interventions in this regard.

Limitations

As with other qualitative studies, it was not possible to investigate any causal relationship between the PPR and the factors explored in this study; however, as the factors influencing the PPR have been explored in our context, researchers can focus on the factors explored in this study in their future experimental studies.

In our study, about half of the factors influencing the PPR (15 out of 36 factors) were related to physicians. As previously mentioned, according to the results of a review study, physician-related factors

have been less explored in the previous studies. Therefore, we had limitations in comparing the results of this study on some physician-related factors with the results of other studies. Therefore, it is recommended that similar studies be conducted in other countries in the future, especially in countries with different contextual and socio-cultural factors, in order to be able to compare and synthesize the findings of qualitative studies.

Patients admitted to the wards and students participating in the study were repeatedly reassured that the content of their individual interviews would not be made available to their care providers or the people in charge of education at TUoMS in any way; however, considering some of their nonverbal behaviors, such as pausing or changing the course of their speech when they decided to refer to the existing weaknesses, one could have noticed that they were probably concerned about the possible reactions of their care providers or the people in charge of education to some of their statements. So, the possibility of such a bias in the participants' answers has been present in this qualitative study, like other qualitative studies, albeit to a small extent.

Conclusion

According to findings of this study, PPRs could be influenced by the factors relating to physicians, patients, or health systems. Among the 36 tips to improve the PPRs, the tips allied with physician-related factors were more frequently mentioned by participants. Given this important finding and considering the point that physician-related factors have been less studied in previous studies, interventions focused on physician-related factors are highly recommended.

Abbreviations

EPPR: Effective Patient-Physician Relationship

FGDs: Focus Group Discussions

TUoMS: Tabriz University of Medical Sciences

F2F: Face to Face

Declarations

Ethics approval and consent to participate

The ethical committee board at Tabriz University of Medical Sciences approved conducting this study (The approval code number: IR.TBZMED.REC.1395.1129). All methods were performed in accordance with the relevant guidelines, regulations and ethical standards of the responsible committee approving the research at Tabriz University of Medical Sciences and with the Declaration of Helsinki, as revised in 2000. Permission to attend in and out-patient settings was given by heads of departments. All

participants provided written informed consent to participate. The aim and learning objectives of the study were clearly shared with participants. A unique code was assigned to each participant. The participants were told that all the research data would be saved confidential. They were granted the right to withdraw from the study whenever they wanted.

Consent for publication

Not applicable.

Availability of data and materials

All the data generated and analyzed in this study, will be available from the corresponding author upon any reasonable request.

Competing interests

The authors declare that they have no competing interests, except for the point that the corresponding author, SGH, is an editorial board member of BMC Medical Education.

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Authors' contributions

SGH and MHS conceived the study. MB collected the data. All authors analyzed data and interpreted the findings. MB wrote the first draft of the manuscript. All authors read and critically revised the first draft and confirmed the final version of the manuscript.

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Tables

Tables 1 to 2 are available in the Supplementary Files section

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