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From the Heart to Heart; The Communicative Problems and Resources in the Cardiology Service

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Qualitative Study

Abstract

Background: Cardiovascular diseases (CVDs) are the main cause of death in Iran and the incidence of CVDs is observed during individuals' active ages. The quality of healthcare includes the doctor-patient relationship and, like other chronic conditions, it plays an important role in the treatment of CVDs. This relationship varies among health providers from different cultures. The purpose of this study was to demonstrate the variables effective on and perceived needs for building doctor-patient relationships from health providers' point of view which can help patients with CVDs in Iran.
Methods: The present qualitative study was performed in 2018 in Iran. We conducted a focus group with open-ended questions on the general study subject. Participants were selected using purposive sampling method based on their job experiences related to the subject of the study. We used the descriptive coding method for data analysis.
Results: Themes that affected the quality of the doctor-patient relationship include better communication among the health delivery system staff, patients having an active role in treatment decisions, physicians' interpersonal communicative skills, physicians' experiences, and the therapy setting in Iran.
Keywords: Psychocardiology, cardiology service; Decision making, empathy; doctor-patient relationship, doctor-patient communication

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Introduction

Non-communicable diseases (NCDs), including heart disease, stroke, cancer, diabetes, and chronic lung disease, are collectively responsible for almost 70% of all deaths worldwide (World Health Organization, 2018). Heart disease, stroke, diabetes, depression, and cancer are the main contributors. Cardiovascular diseases (CVDs) are the main cause of death in Iran and like other developing countries, the incidence of CVDs is observed during individuals' active ages. The burden of CVD will increase significantly in Iran over 2005–2025, mainly because of the aging population (Sadeghi, Haghdoost, Bahrampour, & Dehghani, 2017).

Although we have had scientific advances regarding the treatment of chronic disease (Schoen, Osborn, Huynh, Doty, Peugh, & Zapert, 2006) and improved the health outcomes of chronically ill patients, the quality of health care still lags behind (Coleman, Austin, Brach, & Wagner, 2009)

Multiple studies have shown that patients with chronic conditions do not receive the care they want or need (Schoen et al., 2006). One of the most important factors responsible for this situation is mutual trust in the doctor-patient relationship (Abel & Efird, 2013; Jin, Sklar, Min, & Chuen, 2008; Nguyen, LaVeist, Harris, Datta, Bayless, & Brant, 2009). It is through mutual trust that evidence-based recommendations are acceptable by patients. Patients' trust in their doctors is the key factor associated with their willingness to seek care and accept their doctor's therapeutic recommendations (Oprea, Braunack-Mayer, Rogers, & Stocks, 2010; Rogers & Braunack-Mayer, 2009)

The doctor-patient relationship has been defined as "a consensual relationship during which the patient knowingly seeks the physician's assistance and during which the physician knowingly accepts the person as a patient" (Honavar, 2018).

Some qualitative studies have shown the importance of trust in the doctor-patient relationship and the outcomes of the treatment procedure. For instance, patients associate trust with more effective care, and also the length of the relationship and longer form of trust are related to medical outcomes (Hillen, Onderwater, van Zwieten, de Haes, & Smets, 2012; Tarrant, Dixon-Woods, Colman, & Stokes, 2010).

Interpersonal skills of the doctor, caring behaviors, showing interest in the patient, and loyalty and communication style of the care providers are factors that create trust in a doctor-patient relationship (Cousin, Schmid, & Jaunin-Stalder, 2013; Gopichandran & Chetlapalli, 2013; Hillen et al., 2012)

Another part of the doctor-patient relationship is how they feel about each other as an individual. One study shows that the doctor's good feelings toward the patient is positively associated with better patient health and the patient's liking for the physician is positively associated with better self-reported health (Hall, Horgan, Stein, & Roter, 2002).

Another factor that affects treatment procedures is the patient's adherence to treatment. Adherence is most strongly related to outcomes in chronic diseases (particularly hypertension, hypercholesterolemia, intestinal disease, and sleep apnea) and the best predictor of the adherence-outcome relationship is methodological, the sensitivity/quality of the adherence assessment (DiMatteo, Giordani, Lepper, & Croghan, 2002).

Adherence is related to the physician-patient relationship. Another study shows that those patients reporting a better physician-patient relationship perceived their physician's treatment recommendation as more influential and they were more likely

to choose the recommended treatment. Prioritizing the quality of the physician-patient relationship may increase adherence (Orom, Underwood, Cheng, Homish, & Scott, 2018)

There are many clinical contexts in which patients, including individuals with a chronic disease like coronary artery disease (CAD), are likely to have better health or better clinical outcomes if they adhere to their physicians' recommendations. There is extensive evidence that non-adherence to medication, screening, and lifestyle recommendations results in poorer patient outcomes, and avoidable hospitalizations and medical costs (DiMatteo et al., 2002; Harmon, Lefante, & Krousel-Wood, 2006; Simpson, Eurich, Majumdar, Padwal, Tsuyuki, Varney, 2006; Sokol, McGuigan, Verbrugge, & Epstein, 2005). Improvements in health are possible if medication adherence can be improved (Bender, 2014)

Reviews have declared the important role that physicians play in promoting medication or screening adherence, and lifestyle changes (Lyznicki, Young, Riggs, & Davis, 2001; Stead, Buitrago, Preciado, Sanchez, Hartmann-Boyce, & Lancaster, 2013). A self-report survey of respondents from 17 countries shows that non-adherence tendencies were lower among patients who reported better quality relationships with their care providers or if their care providers were more patient-centered communicators (Camacho, De Jong, & Stremersch, 2014). Some studies have indicated that greater trust in physicians is associated with improved treatment adherence (Anhang et al., 2014; Bauer et al., 2014; Hillen, de Haes, & Smets, 2011; Nguyen et al., 2009; Piette, Heisler, Krein, & Kerr, 2005). There is plenty of evidence that the quality of the patient-physician relationship is an important factor in treatment adherence, and therefore, is likely to ultimately improve patient outcomes and health care efficiency.

Monitoring patients' clinical progress is a major component of care in chronic illnesses, including CVDs, which is shaped by the relationship between the doctor and patients (Glasziou, Irwig, & Mant, 2005). A study showed that the physician-patient relationship significantly influences patient's participation and is a risk factor of quality of life (QOL) of cardiac patients after rehabilitation (Farin & Meder, 2010), and a 5-year research after a coronary angiography showed that good doctor-patient communication was related to nutrition and encouraged patients to make informed decisions about how to change their lifestyle (Baumann, Tchicaya, Vanderpool, Lorentz, & Le, 2015). Therefore, the doctor-patient relationship plays an important role in CVDs.

The placebo effect, in its broader definition, refers to subjective and physiologic changes due to non-specific treatment components. These effects are not only substantial in patient-reported outcomes such as pain or depression, but are also demonstrated in biological parameters such as cardiovascular parameters. A meta-analysis of beta-blocker trials shows that the cardiovascular system is sensitive to placebo mechanisms. Blood pressure was lowered in placebo groups and placebo mechanisms need to be regarded as capable of improving antihypertensive treatment (Wilhelm, Winkler, Rief, & Doering, 2016). Placebo effects comprise a major part of treatment success in medical interventions (Petrie & Rief, 2019). Experts have confirmed the importance of informing patients about placebo and nocebo effects and training health professionals in patient-clinician communication to maximize placebo and minimize nocebo effects, which lead to better treatment outcomes with fewer side effects (Evers et al., 2018). Hence, the doctor-patient relationship affects placebo effects. The placebo effect is modulated by the context of the treatment, the expectations of the patients and the doctors, and the success of the

relationship between doctors and patients (Scriba, 2012).

Moreover, the doctor-patient communication appeared to be affected by cultural characteristics (Claramita, Nugraheni, van, & van, 2013)

Threfore, as previous researches have reported, the doctor plays an important role in shaping the doctor-patient relationship. However, there is a clear research gap regarding the mechanism of interaction between doctor and patient that contributes to the build-up and maintenance of the doctor-patient relationship in CVD. Moreover, no qualitative research has been conducted on this subject in Iran. Considering doctors as the main leader of the doctor-patient relationship, our aim in the current study was to know:

How much do Iranian doctors perceive such a need for CVDs?

What is the mechanism of interaction between doctor and patients and what are the factors affecting this relationship in CVD?

How does the doctor-patient relationship affect the treatment of CVDs in Iran?

Methods

Our focus group consisted of 8 participants including a psychiatrist (man), 3 cardiologists (2 men and 1 woman), an emergency physician who was also a database specialist (man), a nurse (woman), 2 interviewers – 1 of them was a physician and a fellow of psychotherapy and psychosomatic medicine (man) and the other was an MA in psychology who was experienced in qualitative researches in health psychology.

The participants were selected using purposive sampling method based on their job experiences related to the subject of the study. This 175 minute-session was held in the Heart Research Center of Chamran Hospital in Isfahan, Iran, on October 3, 2018.

All the interviews were first audiotaped, and then, transcribed. The questions were open-ended questions focused on general subject matters to prevent from any kind of bias. The participants were assured that their names and other personal information would be kept confidential. Due to the way the questions were sorted by researchers and the overlapping of the answers with each other, we will present the obtained codes in thematic form.

The data were initially coded by the 2 researchers independent of each other. Then, the researchers discussed the results on another session.

Results

4.1. Problems in the health delivery system

Participants explicitly pointed out that there are some basic problems in the services offered by general and private departments of the health delivery system that affect the way patients get access to therapeutic and health services as well as doctor-patient communication and its duration.

Not only the patients, but also physicians are affected by these problems. Patients face such problems before their contact with physicians, and thus, their attitude to the physician may be affected, which in turn may influence their trust in physicians and their adherence to physicians' therapeutic recommendations.

- It is a dead-end. The existing problems are so basic. You face so many undue difficulties and barriers, and much mismanagement.
- There are structural problems, and systematic problems. Clinical governance is not stuck to.

- It is often the fault of the system.

4.2. Medical errors

These medical errors are the result of the poor quality of the doctor-patient relationship.

Regarding the answers provided by the physicians during the focus group session, formation of a poor relationship between the physician and patient or the lack of formation of a relationship between the 2 parties may lead to medical errors with irreparable consequences. The harms caused by such errors affect patients, physicians, and the health delivery system. The patients are exposed to a great deal of physical and psychological harm. Physicians may be judged, sued, and may even lose their job, and thus, they prefer to avoid performing therapeutic interventions for patients with whom they have not established a good relationship.

4.3. Cultural factors

Physicians see some behavioral factors in the Iranian society that affect the doctor-patient relationship.

Physicians noted that there are some destructive behavioral patterns that affect the formation of the doctor-patient relationship due to general cultural communicative patterns in the Iranian society. These patterns are omnipresent and are seen in behaviors of both physicians and patients.

The behaviors were classified by the physicians into the 3 categories of "irresponsibility", "physician's sex", and "emotional repression and suppression".

4.3.1. Irresponsibility

Neither patients nor physicians take responsibility for the established relationship, and consequently, they feel no responsibility toward the treatment. If therapeutic outcomes do not correspond with their expectation, they search for the party who is at fault.

- Iranians are generally irresponsible.
- We Iranians, in particular, always have to find the one who is guilty or at fault.

4.3.2. Physician's sex

Unfortunately, there is a lack of confidence in the efficiency of female specialists and generally in women in other jobs. The higher the job is in terms of social status, the more this distrust manifests itself. This distrust may influence the formation of the doctor-patient relationship, and sometimes the quality of this relationship and the patient's adherence to treatment.

- Because I am a woman, I am not a good physician or the recommendation I give is not good.

4.3.3. Emotional repression and suppression

Failure in therapeutic process is inescapable for the physician. This profession is always accompanied with hard and difficult experiences. One common behavioral pattern in the Iranian society is repression of negative emotions in times of failure. Even physicians may repress their emerged negative emotions while interacting with the patient. Evidently, some of these emotions are associated with patients who are not in good physical health so that physicians are obliged to repress their emotions to maintain their highest efficiency in the relationship. Nevertheless, destructive conditions arise when physicians repress their emotions in many situations in which they are not able to release their negative emotions due to cultural considerations.

- We Iranian are always avoidant
- We usually do not disclose our emotions.

4.4. Disease type

The disease type is influential in the doctor-patient relationship in patients with CVDs.

In physicians' view, chronicity or acuteness of the disease, the rate of face to face meetings of the 2 parties and their engagement, and the time needed for treating the disease are influential in the doctor-patient relationship. The more patients need to be examined and cared for in the process of diagnosis and treatment, the more time the 2 parties will have to form a solid doctor-patient relationship.

In some cases, the risks of the disease are so high for the patient that the physician has to start medical interventions as soon as possible. In such cases, there is not much time for establishing a strong relationship and the physician prefers to spend time and energy on performing interventions rather than establishing a strong relationship.

- It depends on the disease type. Surgery is a technical intervention. I think the doctor-patient relationship is not as important in technical interventions. In both acute and chronic diseases, the doctor-patient relationship depends on the care they need or do not need after the intervention. Physician's care is more for patients with chronic diseases who establish a long relationship. The patient needs more care in such cases.

- A solid relationship is not formed in acute cases. Chronicity will lead to the establishment of a relationship.
- Under high-risk conditions, there is no time for building a relationship.

4.5. Communicative defect in the communicative network

The doctor-patient relationship is formed in a wider communicative network.

The communicative network responsible for the therapeutic process includes doctor-patient, doctor-doctor, and doctor-nurse relationships. Each of these multi-modal interactions affects a part of the diagnosis and treatment process. Often, the final diagnosis is made cooperatively with several physicians in the diagnosis process, and the patient's relationship with the physicians and the physicians' relationships with therapeutic personnel affect the formation of the final relationship.

The relationship between physicians mostly manifests itself in time of medical errors. Physicians need to have relationships with medical personnel that give them the opportunity to talk freely about their errors without being judged by other physicians. The more freely physicians are able to talk about the condition of the patient and the interventions conducted, the better the circumstances will be under which the treatment process takes place.

Physicians' communicative skills in the communicative network can be highly influential. Although affected by EQ, this skill can be achieved through training.

The administration of treatment phases after the main intervention is the responsibility of the nurses. Here, the doctor-nurse relationship affects the continuation of the treatment. If a good doctor-patient relationship is established and the patient begins to improve, the patient's trust and adherence to the treatment are enhanced and he/she experiences a more favorable relationship.

- Communicative shortcoming is a major factor in the doctor-patient/doctor-doctor/doctor-nurse relationship.
- And not to be judged – yes, not to be judged by others, by patients, or those in the communicative network
- The most important factor is to express whatever needs to be expressed in a way that the patient understands, or in a way that the patient can put himself/herself in the physician's shoes to prevent future complaints from the physician.

- His/her EQ is not high. Communicative skills do not follow a normal distribution. His/her education from the environment is not good.

4.6. View toward the patient (instrumental/VIP/face)

Physicians' mental background and their view toward the patient can influence the doctor-patient relationship.

Three general views toward the patient were pointed out by physicians while discussing this topic.

4.6.1. Instrumental view – patient as a threatening agent

In this view, the patient comes into the treatment process as an input and interventions are merely performed on a patient not on a human being "who is diseased". Label of instrument leads to decreased empathy, involvement of human emotions, and need for establishing a strong doctor-patient relationship. Stressful conditions in the therapeutic process have led to conditions in which the patient is deemed as a threatening agent by the doctor.

Consequently, physicians may tend to keep the most possible distance from the patient and want to restrict any talk about the patients to the therapy setting and work times. Evidently, patients recognize such a communication and instrumental view which ultimately leads to a poor doctor-patient relationship.

- Patient as the threatening agent He/she may explode like a mine at any time.
- Instrumental view
- To talk about the patient in our leisure time

4.6.2. VIP syndrome

Patients who undergo treatments with a familiar physician or are referred and recommended to a physician get more attention. In this state, the patient is not "the one who is suffering from a disease", rather, he/she is deemed as a tool whose improvement results in the satisfaction of others. Although a favorable communication may take place between the physician and patient superficially, this relationship has been first established by factors outside the treatment procedure and will not necessarily lead to the patient's improvement.

- VIP syndrome
- Familiar patient … Perhaps medical errors increase in such increase.

4.6.3. Face

It was discussed that addressing the patient as a face refers to the tendency to establish a communication with a "human being" who is "suffering from a disease". This increases mutual understanding and empathy. Such a view toward the patient along with the attempt to understand the physical and mental states of the patient may lead to a better understanding of the disease and increase the quality of the doctor-patient relationship. Furthermore, the physician will respond to the treatment process more positively, and his/her confidence and adherence will increase.

- When the physician views the patient as a face, empathy forms. Sometimes, when you see a patient, you feel that he/she improves.

4.7. Physician' experiences

Physicians' experiences are considerably influential in the formation of the doctor-patient relationship.

Physicians' experiences can affect the formation of the doctor-patient relationship in many different ways. These were discussed by physicians as the following.

8.1. Physicians' needs

Physicians also need to be cared for. Their stressful work environment and their anxiety affect them and put them in a stressful and burdensome mental state.

Increased stressful experiences over time cause physicians to feel this need more than before. Not attending to this need and its lack of consideration in our country's therapeutic system lead to physicians' burnout and decreased efficiency, which in turn lead to physicians' not being prepared psychologically for forming a favorable relationship with their subsequent patients.

Moreover, cultural issues in the society may lead to physicians' reluctance to receive help from counselors or psychotherapists. These factors lead to further burnout.

- There is a need for the development of therapeutic rapport and increased self-disclosure and self-consciousness. The physicians feel the need to be cared for and for self-care. We all undeniably need to be cared for.
- The physician himself/herself requires psychoanalysis. This is not accepted in the Iranian culture. Psychiatrist? Physicians themselves are defensive in this respect. I rely on self-therapy or consult with a psychologist or psychiatrist. Such therapy sessions you mentioned.

4.8. Physicians' emotions

Physicians experience different emotions in communication with patients. When physicians were asked to talk about their experiences in this respect, all their emotions were negative. None of the physicians reported a positive emotion in communication with their patients.

In the following sections, the emotions pointed out by physicians along with the experiences that have led to them are discussed.

4.8.1. Rejection

This category refers to being rejected by the patient when the patient decides to refer to another physician for continuing the treatment and not to accept the physician's therapeutic recommendation for interventions. Being rejected by the patient to whom the physician has an instrumental view or a patient who is under stressful conditions lead to the physician's satisfaction.

- I would definitely be happy to be rejected by a difficult patient.

4.8.2. Anxiety and rejection

Sometimes the physician refuses to continue the intervention due to absence of a favorable therapeutic rapport. Here, it is the physician who rejects the patient. The physician does not have the feeling of security in encountering the patient and the anxiety caused by this decreases his/her efficiency.

- When I do not feel psychologically secure and I become anxious, I do not continue. I quit.

4.8.3. Depression

Depression is usually experienced when physicians experience a patient's death or lack of adherence to medical recommendation that leads to harm to the patient.

- I feel depressed. At least a few days have to pass.

4.8.4. Anger

Anger was one of the emotions that physicians mentioned in their discussions. The anger that is the specific resulted of the way patients react to physicians and their responses to the therapeutic process considerably affect the doctor-patient relationship and the physician's feelings toward the patient. When the physician attempts to explain a fact for the patient and the patient insists on denying it and avoids therapeutic intervention, the physician feels angry with the patient. When the patient does not trust the physician due to the sex of the physician, this anger usually emerges.

Furthermore, the physician may sometimes feel angry with him/herself. For instance, the physician feels this way when he/she feels that he/she was not able to make the best possible therapeutic decision.

In some situations, anger does not originate from either the patient's behavior or the physician's decisions, but from high job pressure and responsibilities that reduce the irritability threshold of physicians or nurses and make them overreactive and angry.

- I feel angry. You tell them the truth, but they insist.
- I misdiagnosed the patient. The therapeutic approach could have caused less harm. When the patient's situation is acute, I become less angry.
- Since I am female woman, they think I am not a good physician or my recommendations are not good.
- Anger, sympathy, a lot of questions, answers, fatigue, and the burden of a high work load cause us to divide the patient between us. When we are rejected by the patient, we say someone else can take care of the patient.

Obviously, experiencing negative emotions and job burden to such an extent leads to passive aggression in physicians so that they welcome taking part in sessions for releasing these emotions; they call these sessions "insulting difficult patients".

- There should be sessions for us to gather and insult patients.
- Even if you are angry, do not tell the patient anything. You can talk and complain to their companions.

4.8.5. Emotional release

This includes approaches that physicians use experientially for releasing their negative emotions including:

4.8.6. Sublimation and compensation

Some physicians distance themselves from the therapy setting and get involved in learning or other activities to release the negative emotions experienced in their professional activities.

- I studied, I investigated the reason for my error, and finally, I programmed a software program.
- I left my work setting for some time and continued my education.

4.8.7. Emotional release proportionate to the disease type

In cases in which the condition of the patient is not demanding or critical, emotional release takes place through the instant feedback of the physician on the patient's behavior.

- When the patient is in a very bad state of health, I do not care how he/she behaves, but if his/her health status is good, I defend myself.

4.8.8. Disclosure in the group

In many cases, the releasing of negative emotions takes place through conversations between physicians or personnel during their resting time.

Among ourselves, among personnel.

- One talks about it, and by talking about it, one's stress decreases; it is also an experience for his/her colleagues. In rest time. It happens unconsciously.

4.8.9. Using humor

One of the experiential strategies used is having a sense of humor when one experiences the peak of emotion.

- I make jokes to laugh with them.

4.8.10. Transient leaving

In acute cases of experiencing negative emotions, the physician leaves the therapy setting and tries to calm himself/herself through distancing himself/herself from the situation.

- I leave the place. I do not stay.

4.8.11. Social recreation/going for a trip/going into nature

Physicians reported these as the most useful activities. The use of any of these strategies depends on physicians' personalities and their individual life experience.

- Gardening, and going into nature
- Taking part in gatherings and trips and having fun is the way to escape.
- It depends on the physician's personality.

4.9. Physicians' clinical intuition

This is the experience during which the physician reaches the initial diagnosis by observing the patient without being informed of disease signs and having examined the patient for diagnosis. The physician can even predict exactly the way the patient will answer the questions. This intuition is largely influenced by therapeutic experiences. Physician's experiences with a certain disease lead to increased clinical intuition about patients' suffering from that disease. The criteria for this diagnosis are not explainable or transferable to another physician. All physicians who were present in the session had had such an experience.

Of the factors that influence clinical intuition, mental and psychological state of the physician and the extent of his/her concentration can be pointed out. This intuition can influence patients in their first contact with the physician even before the complete formation of the doctor-patient relationship. This leads to a more positive view of the patient toward the physician.

This intuition is not exclusive to the therapy setting. Rather, physicians reported that they had experiences on the diagnosis of a disease in individuals present in a gathering. Moreover, disease type can affect the manifestation of this intuition. Of course, errors have been seen in some cases of diagnosis through intuition.

Furthermore, according to physicians' experiences, this intuition is also seen in patients themselves when they foretell their responses to the treatment as if they were aware of the future of their health condition.

- One diagnoses very easily. Looking at his/her face, the patient's condition is so clear. One time at a wedding, I saw someone and made the right diagnosis. I saw two people with the same condition. I said one of them would survive the other would die by looking at their faces. This feeling is with me. In another case, I felt that he/she would survive and he/she survived. I have to visit them to be able to diagnose them, otherwise I cannot.
- It depends on the kind of medication.
- Patients themselves have this intuition too.
- If one's mind is not busy somewhere else, he/she can easily concentrate. If one has presence and serenity in that situation, one will not be overwhelmed. Being peaceful, it happens.
- It happened because we had many experiences in this area.
- Sometimes the result is reverse.

4.10. Dilemma

In some cases, the physician must make a decision for a situation for which he/she has no sufficient evidences, and therefore, cannot predict the outcome of his/her decisions. However, the situation is so critical that the physician must decide.

Such decisions may benefit the patient in some respects and may be disadvantageous for the physician or patient and the existing evidences for advantages and disadvantages are equal.

Physicians present in the session reported that their behavior in such situations was avoidance. They used strategies to avoid such moral dilemmas to the most possible extent. There was some resistance to answering this question by physicians since reporting critical job experiences in the presence of their colleagues is accompanied by the fear of being judged.

Their avoidant strategies included consulting with other physicians, ignoring financial benefits, hospitalizing the patient to have more time for deciding.

In sum, this is the patient who becomes more involved than physician to pass from such dilemmas. Physicians attempt to avoid therapeutic rapport with the patient in such situations to the most possible extent.

In some cases, when the physician feels that he/she does not have enough information, he/she wants to meet the patient – even after his/her departure – in order to make the best decision.

- I have resolved my financial problem completely. I ignore financial issues and do my work. Of course, I look at the patient too. If they can afford it, I choose more expensive processes with low risk. If they cannot afford it, I ignore financial benefits. The patient has to spend money to end the dilemma.
- I consult another physician. I hospitalize the patient for a few days to decide.
- In some cases I have recurrently asked the patient to come back. It depends on the physician's personality.
- I will tell the patient the possible risks. Next, I refer the patient to my colleague. If it turns out that I have become obsessive, I do not do this.

4.11. Therapy setting

The place where doctor and patient meet, how they become familiar with the patient, and how he/she was selected as the patient affect the doctor-patient relationship. The kind of hospital in which the patient visits the physician – public or private – affects the doctor-patient relationship. Patients may have pre-judgments due to the kind of hospital. This may influence the extent of the patient's trust in the physician. Moreover, patients receive more support in private hospitals and this unrestricted support imposes more psychological pressure on the physician.

- It depends on the kind of the hospital.
- The atmosphere in which you encounter the patient is very important.
- Public and private hospitals are different. Patients think private hospitals commit fraud, and are all about money. We had a patient who needed an emergency surgery. It took 2 days to persuade him to agree to undergo surgery in the private hospital. I even told him to go to a public hospital. It was late for surgery when he agreed.

4.12. The context of the doctor-patient relationship

Personality traits, condition of the patient, and risk factors affect the doctor-patient relationship.

4.12.1 Personality of the patients (e.g., difficult patients) is one of the important and influential features in the doctor-patient relationship, and especially in physicians' tendency to establish and maintain a good relationship with the patient. Physicians tended to talk about this item much more than they did about other items. Communicative skills of the patient were an important factor in the initial encounter of the doctor and patient.

Difficult patients are patients with obsessive behaviors who ask excessively about details. These are the patients who do not trust easily and mostly have to refer to several physicians to be reassured.

When encountering difficult patients, physicians enter a defensive state and prefer to avoid continuing the treatment process if possible to prevent possible problems.

- If my first impression of the patient is negative and I do not like him/her, than no way, I do not perform angiography for him/her. If the patient uses certain words, pays too much attention to my words, his/her overall condition, if they do not improve and the outcome is not good, and quick communication, all of these factors influence the relationship.
- If the patient is obsessive, asks many questions, has many companions, is defensive toward treatment, and has referred to a dozen physicians I do not accept him/her.
- Their communication style, and the kind of trust they have in the physician are both influential.
- When he/she starts to talk, I understand.
- If he/she starts to think, I say: "please go and come back later". I speak more firmly. If referrals reach 3 times, he/she is not my patient.
- Characteristics of the patient affect the physician a 100%.
- I feel they are curious or they think I cannot diagnose their problem accurately. This is obsession. I do not accept them as my patients.

4.12.2. Personality of the physician/one-directional communication

The personality of the physician is a factor which can affect the way the doctor-patient relationship is formed. Personality traits of each physician can lead to selecting a certain method for communication and even in some cases the physician only selects patients who are compatible with their own personality traits.

This kind of communication can be named one-way communication. This is a communication method in which the physician feels he/she can manage and have complete control over the patient and is confident that the patient trusts him/her completely. Not much time is spent on establishing such a communication as if the patient has to enter such a relationship with pre-existing trust.

- The kind of my encounter is different. Here I have to be the authority not the patient. I want to do something for the patient. I want to put the patient into a category which I define. I have empathy with the patient. If I cannot establish a relationship with the patient, I refer him/her to my colleagues. It is not the patient who wants to do something for me.
- I have to have authority over the patient in the context I have defined for myself.
- Each individual's personality and my own personality affect the relationship.

4.12.3. The mental and psychological state of the physician

The mental and psychological state of the physician in the initial contact with the patient affects the doctor-patient relationship.

In addition to the personality of the physician, his/her mental and psychological state at the time of the meeting can affect the communication procedure; thus, irrespective of the personality of the patient, the physician may not attempt to establish a relationship due to his/her own low mood in that situation.

- I want to do it. It depends on my specific mental and psychological condition on that specific day. Whether I am in a low or high mood is influential.

4.12.4. Duration of communication

The span of time the doctor and patient communicate regarding the disease or other topics affects the formation of the relationship. In emergencies, the physician does not have much opportunity to establish a relationship. However, patients who have become familiar with the physician due to their disease or have become familiar with the physician in his/her private office have more opportunity for establishing a solid relationship. In addition, clients of private offices convey this feeling to the physician that he/she is selected and the relationship has not been established due to their working shifts in the hospital.

- Elective patient
- It makes a difference whether you have become familiar under emergency conditions or otherwise, when they have seen their physician and selected him/her.

4.13. Informing/reassuring

How the patient is informed about the diagnosis and intervention technique is a part of the formation of the doctor-patient relationship.

The way the patients are informed by the physician differs. Some physicians prefer to explain all the complications completely and explicitly to the patient; some others think that being informed of the intervention process may lead to an unrealistic fear that in turn leads to the rejection of the treatment. The physician's tone and the extent of the information he/she provides affect the continuation of the treatment by the patient.

The way the information is expressed can reassure the patient of the treatment process. Moreover, the physician may give unrealistic information and reassure the patient not based on scientific evidences, but in a way to encourage him/her to decide to undergo the treatment.

The personality of the patient is a determining factor in the way he/she is informed. In some cases that the physician thinks the patient is not able to decide, he/she gives the information in the presence of the patient's companions. This is done by physicians experientially since there is no guideline to follow. In addition to the patients themselves, their family conditions are also influential.

In some cases, despite the provision of sufficient information, the patient has low adherence to the treatment. In these cases, the physician uses the support of the patient's family and even exaggerates the complications and the necessity of the intervention.

Explaining the complications generates fear in the patient. We should not tell the patient the risks of the treatment in a way to make him/her decide not to come; providing wrong information is not good either.

- Some accept and some do not. I have to decide what to do. I tell them very explicitly and specifically that these are the risks. I do not leave anything unclear. I neither overestimate nor underestimate the risks. We should be comfortable with the patient to the extent that we can explain the worst complication which is death. In this case, we should tell them.
- There must be a protocol for this.
- It has affects. We can say that their problem is not very important. Some others explain everything completely, this may cause fear in the patient.
- Charlatans; some physicians say I will do it myself so that you will not experience any problem, they fear the patient to take his/her consent very soon. The tone and words they use conveys this message immediately. The patients themselves

understand it. Selection is charlatanism.

- If the patient asks more questions, they should be given more answers. It is optional, one decides on it individually.
- We will tell their companions. If there are conflicts of interests, we tell their family. Exaggeration is sometimes effective.
- Personality of the individual
- I asked the family: "Which one is more important for him; his wife or his disease?"
- I fight them friendly. I tell them as seriously as I can. Yes, in short time is possible.

4.14. Treatment selection

The treatment selection is affected by the doctor-patient relationship.

The quality of the relationship established between the doctor and patient may influence the intervention selected by the physician. In some cases, the physician even decides to consult other physicians because he/she could not receive sufficient information in his/her relationship with the patient. The personality of difficult patients plays an important role in this case.

These patients are usually recommended to undergo psychotherapy along with interventions on CVDs. Of course, in cases in which the patient does not cooperate, an option is to engage their families in the treatment procedure.

The influence of the personal characteristics of the patient is to the extent that some physicians use low risk interventions merely to satisfy the patient.

A good doctor-patient relationship is effective on the extent to which the patient informs the physician of the existing signs of the disease so that the physician can select a suitable treatment with more information and with higher confidence.

- Some other colleagues told you this and I tell you this, but it is your decision.
- Deciding according to the class of recommendation.
- If it is a non-organic disease, I send the patient to a psychiatrist.
- I would send the patient for a CT-angiography, if the patient asks for it, can afford it, and it has no complication for him/her.
- There is a need for cognitive-behavioral treatments. I encourage all of them to abandon cigars and such things.
- Some of them are afraid of the complications of smoking, but some others do not care. If I feel that the patient him/herself wants to abandon smoking, then yes.

5. Code analysis

The themes obtained from the interview with the physicians were classified into the 3 categories of themes with direct influence, themes with indirect influence, and outcome themes.

1. Themes with direct influence

These themes directly influence the way the doctor-patient relationship is formed and its quality from the physician's point of view. These include:

1.1. Disease type

If the disease is chronic, and its treatment or control takes a long time, the duration of the relationship is longer, and thus, the physician would have sufficient time for establishing a good relationship.

1.2. Communicative defect in the communicative network

Physicians' communicative skills in the health delivery system, especially with other physicians, lead to more constructive interactions and better decision-making and execution of treatment interventions. Better care provision causes the patient to

feel better about his/her relationship with the physician and to perceive the relationship as a high quality relationship.

1.3. Physician's view of the patient as a face

Looking at the patient as a face and perceiving the relationship as a relationship between 2 human beings results in the most possible comprehension and empathy level between the two parties in the relationship. Therefore, physicians believed that if the patients are understood in all dimensions, such as their emotions and feelings about their disease, the doctor-patient relationship is good.

1.4 Physicians' experiences

Physicians face negative emotions such as anger, fear, and anxiety during the therapeutic process. Therefore, these emotions need to be addressed, and the physician requires care in order to cope with and release these emotions. Approaches such as sublimation, humor, social recreations, and going on trips are used to cope with such emotions. The more these emotions are controlled and the physician can manage to respond to these experiences, the more effective he/she appears to the patient. Addressing this need and achieving mental peace lead to increased clinical intuition in the physician, which ultimately results in the doctor and patient experiencing a good relationship.

1.5. Context of the doctor-patient relationship

Factors such as the personality of the physician, personality of the patient, physician's mental and psychological state, the way the two parties have become familiar with each other, and the duration of the communication between the two prior to the intervention can be predictors of a good doctor-patient relationship in the sense that the more the physician is in a good mental condition and less obsessive characteristics the patient has, the better the doctor-patient relationship established.

1.6. Informing/reassuring

The extent of the information provided and the way it is expressed affect the doctor-patient relationship. The more the information provision is compatible with the personality of the patient, the better the relationship the patient experiences with the doctor.

2. Themes with indirect effect

These are the themes that are not directly related to the doctor or patient, but affect their relationship.

2.1. Problems in the health delivery system

There are basic problems in the health delivery system including not providing calm conditions for physicians to form a good relationship with the patient. Therefore, the two parties are affected by this mismanagement.

2.2. Cultural factors

Some cultural and behavioral patterns are seen in the Iranian community in the doctor-patient relationship including irresponsibility, sex discrimination, and emotional repression that are seen in the behavior of the two parties of the relationship. This factor affects the patient's trust in commitment and adherence to the treatment on the one hand. On the other hand, long-term emotional suppression decreases the doctor's tendency to care for patients.

2.3. Therapy setting

The more positive the doctor and patient's views are toward the therapy setting in terms of trust and addressing the problem, the more effective the relationship will be.

3. Outcome themes

Those themes that are influenced by the degree of the quality of the doctor-patient

relationship are outcome themes.

3.1. Medical error

The physicians believed that establishing a good relationship and its experience guarantee a decrease in their medical errors.

3.2. Treatment selection

A good doctor-patient relationship leads to the physician's accumulation of more complete information, and a higher sense of security in terms of intervention outcomes and treatment process selection.

Discussion

At the end, we deal with the relevance between themes obtained from the data in focus group.

Themes which directly affect the quality of the doctor-patient relationship including better communication in the health delivery system and the physician's experiences can be influential in patient-centered communication doctor-patient relationship. Previous researches have shown that this kind of doctor-patient relationship is an effective method of increasing the patient's trust in the physician (Gopichandran & Chetlapalli, 2013; Hillen et al., 2012).

Previous researches have reported that the patient's perception of having a role in treatment decisions leads to his/her increased sense of satisfaction. Patients were more likely to report a positive outcome when they were actively involved in the treatment, as indicated by satisfaction with opportunities to affect the treatment plans (Anderson et al., 2017).

That physicians see the patient as a "face" may indicate their tendency toward and interest in establishing a therapeutic rapport. The more this interest is felt by the patient, a stronger relationship between the two is reported by the patient. The physician's communicative skills in the communicative network, skills acquired during therapeutic experiences, and the personality of the physician can affect the quality of the doctor-patient relationship. Researches have shown that physicians' interpersonal communicative skills are among the factors that affect therapeutic rapport (Hillen et al., 2012; Gopichandran & Chetlapalli, 2013; Cousin et al., 2013).

The context of the doctor-patient relationship is effective on their mutual feelings toward each other. Hall et al. (2002) have shown that when these feelings are positive, a better relationship is established.

The way the physician informs and reassures the patient influences the patient's trust in the physician's decisions. The researches have shown that increased trust induced by a good therapeutic relationship will lead to efficacy of the therapeutic intervention and decreased medical errors in chronic patients the outcomes of which are decreased need for hospitalization and therapeutic expenses. The experience of a good therapeutic rapport increases the commitment of the patient, which results in increased commitment to the treatment process, increased satisfaction, and higher therapeutic experience (Dimatteo et al., 2002; Orum et al., 2016; Sokol et al., 2005; Bender, 2014).

The total effects of a better patient–doctor interaction and support for patient self-management are associated with higher satisfaction for patients of all levels of chronic illness (Carlin et al., 2012).

The strongest predictor of adherence to clinical advice is a strong doctor–patient relationship, which leads to an increase in patient satisfaction (Dubina et al., 2009).

Conflict of Interests

Authors have no conflict of interests.

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