Effect of Patient's Perception about Physician's Communication Skills, Physician-Patient Concordance, Physician's Empathy on Patients' Satisfaction

By

MAHAM ARSHAD

Dr. Muhammad Ajmal's
NATIONAL INSTITUTE OF PSYCHOLOGY
Center of Excellence
QUAID-I-AZAM UNIVERSITY
Islamabad-Pakistan

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Maham Arshad

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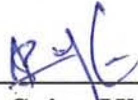

(Ms. Saira Khan)
Supervisor

(Dr. Asghar Ali Shah)
External Examiner

(Prof. Dr. Anila Kamal)
Director, NIP

Certificate

This is to certify that M.Sc. Research Report titled **"Effect of Patient's Perception about Physician's Communication Skills, Physician-Patient Concordance, Physician's Empathy on Patients' Satisfaction"** prepared by Ms. Maham Arshad has been approved for submission to Quaid-i-Azam University, Islamabad.

Saira Khan

Supervisor

Dedicated to my Parents and Teachers

All that I ever am and hope to be, I owe to my Parents and Teachers

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Abstract

Present study examined the impact of patient's perception of doctor's communication skills, empathy, and physician-patient concordance on patient's satisfaction. Moreover present research also aimed to study the relationship of different demographic variables with study variables. Communication Assessment Tool (CAT) developed by Makaoul, Krupat and Chang (2007), The Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPPE) developed by Hojat, Louis, Maxwel, Markham, Wender, and Gonnella (2010), Physician-Patient Concordance (PPC) scale developed by Kerse et al., (2004), Patient Satisfaction Scale developed by Hojat et al. (2011) were used to assess the study variables. Data was collected from different public (n = 106) and private sector hospitals (n = 132) of Rawalpindi and Islamabad. Using purposive convenience sampling technique data was collected from 238 individuals, in which 81 patients were from Psychiatric department, 84 from dermatology department and 73 from Cardiology department. The age range of the sample was 16-70 years. Cronbach alpha were computed to assess the internal consistency of instruments. Finding indicated that all study instruments had sound psychometric properties. Results indicated that physician's communication skills, empathy and physician-patient concordance had significant positive relationship with patient's satisfaction. Further-more results indicated significant means differences between public and private sector hospital where patients from private hospitals scored high on all study variables in comparison to patients from public sector hospitals. Significant mean differences were observed along patient's gender where female patients scored higher on empathy and patient's satisfaction. Non-significant differences were observed on the bases of doctor's gender on all study variables. There was significant mean difference across departments where patients from psychiatry department reported less patient satisfaction, poor doctor patient communication skills, lack of empathy and concordance in comparison to cardiology. Significant means differences were also observed between socioeconomic statuses. Finding of the present study will help health Psychologist and medical personnel's to devise interventions for improvement of Physician's communication skills, empathy and physician-patient concordance for enhancing patient's satisfaction.

Chapter 1

INTRODUCTION

Individuals go to the hospitals with different problems or complications. They go to hospital with certainty of getting better health treatment and want to get rid of their previous unhealthy condition. In hospital some medical issues (i.e. infection, wrong drug and flawed knowledge about disease) can lead to different problems for patients. Patients often ask questions from relevant specialist or physician to minimize these issues. Researchers, who are working on healthy interactions, focus on the fact that Patient should ask physician about their health queries without any hesitation. Patient must focus on the fact that it's his body, his health and his life so he must ask questions about his health, if he/she is suspicious about anything during his stay at the hospital (Koul, 2017).

Everyone face some health issues in his or her life for a certain period of time. Individuals report different health problems they face in their lives (Starfield, Shi, & Macinko, 2005). Patient emphasize that their doctor should understand their suffering and the problems related to their condition. Unfortunately, this fact which is essential for therapeutic relation between doctor and patient is being neglected by many physicians, particularly when there are checking disadvantage groups (patient in public hospitals). Responsiveness and full attention in numerous health services are given to selected people who belong to some high socioeconomic status or have some contacts with hospital authorities (Willems, Maesschalck, Deveugele, Derese, & Maeseneer, 2005).

Results of different researches from the past 30 years had shown the importance of person centeredness that minimizes the anxiety of patients and also improves the job satisfaction of provider (Lienard et al., 2008). Simply by asking patients about their problem and illness how they feel about it, how their lives are disturbed due to it, rather than just only dealing with disease, results in remarkable

increased trust and compliance both at the level of patient and doctor (Chandra, Mohammadnezhad, & Ward, 2018).

Literature indicates that Consultant should not ignore or neglect patient's feelings by only focusing on the "real" symptoms of patient. Doctors need to ask about the feelings and emotions of the patients. Satisfaction of patients is likely to be enhanced by physician who acknowledges expressed emotions of patients. Doctors who show care and empathy towards their patients are perceived as empathetic and caring by their patients (Lankton, Batchelder, & Ominsky, 1977).

Previous literature demonstrates, if communication skills of physician are good it has a therapeutic effect on patients. It brings betterment in physiological mechanisms of patient's satisfaction as well, it results in reduction of pain, improve the blood pressure readings and increase functioning. Patients, who perceive their doctor friendly, can easily explain their health concerns and issues, understand different treatment plans, alter their habits and obey medication schedules prescribed by doctors (Chandra, Mohammadnezhad, & Ward, 2018). It's a commonly held perception that during practice, clinicians mostly don't bother about the patients' belief, worry and feelings about illness, and hardly involves them in shared problem solving strategies (Epstein, Mauksch, Carroll, & Jaen, 2008). The clinicians only focus on simple technical prescriptions and pay no attention towards the complex nature of human beings that critically evaluate the effectiveness of the care provided by the clinician (Kravitz et al., 1993).

In previous studies distinctive characteristics of consultant's behavior that significantly point out patient satisfaction have been identified. These aspects include listening carefully, information taking, empathetic behavior towards patient, friendliness, clarification of medical treatment, emotional support and patient's respect (Imam et al., 2007). Based upon the emerging literature about doctor's communication skill, concordance and empathy have a great impact on patients' satisfaction level. The present study also aims to study the importance of concordance, empathy and doctor's communication skills on patient's satisfaction.

Communication

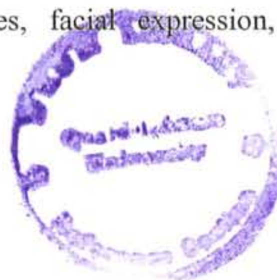
Communication is the procedure of sending and receiving information in order to generate meanings. Communication procedure involves two or more people interacting non-verbally and verbally in order to understand each other's emotions, attitudes and intention (Galvin & Terrell, 2001).

Communication is more than speaking and listening, which involves both verbal and nonverbal messages, to build better connection between people. Communication is transactional, which involves in the process both sender and receiver. Individual receives and send messages simultaneously. Communication is the transference of messages that have meaning with them. Messages are interpreted by the processes of coding and decoding. Usually languages serve the purposes of codes. Coding and decoding usually occurs in the same language (Galvin & Terrell, 2001).

Communication process is based on feedback process. Feedback which is negative indicates the presence of the problem. Positive feedback allows the person to carry on saying what he/she wants to convey. It makes an individual aware of need to change what you are saying or what you are doing. Communication can be effected by the mean of interference, for example, noise etc. Moreover External and internal distractions that may include lack of concentration and attention also make it difficult to understand the messages, which we are receiving through communication. There is always contextual background present for communication. Communication is not an easy process. It is a very complex process that requires careful attention in order to share meaning effectively (Galvin & Terrell, 2001). For sharing message and information communication process is used. And there are many ways of transmitting the information or message. These ways or types of communication are as follow.

Communication's types. There exist following types of communication.

Verbal communication versus non-verbal communication. It is the process in which exchange of information and expressions with the help of spoken or written word take place. In contracts to verbal communication, non-verbal is the use of nonlinguistic features of information and body gestures. Non-verbal communication heavily relies upon body movement, postures, facial expression, eye contact,



appearance and vocal tones (Galvin & Terrell, 2001). Research indicates that in the development of patient-physician relationship different thing i.e. Non-verbal communication, empathy, verbal communication, and care play a vital role. In medical settings communication is based on both non-verbal and verbal signs and if these non-verbal and verbal cues are different and opposite from each other, the messages generate ambiguous meaning and patient will not understand treatment plans. (Vogel, Meyer, & Harendza, 2018).

Oral versus written communication. In oral communication we use words in order to communicate with each other. Oral communication is commonly used across the world due to swift transference of information and rapid reply. There are two types of oral communication which are Direct and indirect. The purpose of direct communication is to exchange information between two or more people like face to face communication, lectures, seminars, meetings, conferences, group discussion etc. While in indirect communication a channel is used for exchange of information e.g. telephonic conversation, voice call, video call, etc. (Surbhi, 2015).

Written communication. The type of communication in which the message is conveyed in printed or written form is called Written Communication. It is the most authentic mode of communication, and it is most commonly used in the business world due to its delicate and formal nature. The various medium of written communication are letters, journals, e-mails, newspapers, magazines, reports, text messages, etc (Surbhi, 2015). In hospital setting the most frequently use of written communication is in the form of referral or discharge letter. Also written communication is used in history taking when patients consult a doctor (Surbhi, 2015)

Formal communication. The type of communication in which information and direction are given officially, is termed as Formal Communication. This type of communication which is set by organization peruses a vertical chain of command. Mostly, this type of communication is purely used in the offices and workplace, and it restricts the employees to follow it carefully while doing their tasks (Surbhi, 2015).

Informal communication. This type of communication in which any official rules are not followed or there is no system for the exchange of information is called as informal communication. Informal communication is very rapid and quick means of communication that moves freely in all directions. To know about the

professional life, personal life, and other matter of people, this type of communication is very natural and used in any organization (Surbhi, 2015). For common, effective and informative medical work, informal communication plays an important role in spite of an increasing use of formal health-care system such as communication devices and Electronic Media Record (Chen, Tang, Zhou, Sarcevic, & Lee, 2013).

Linear model of communication. It was first theoretical model which was proposed for Bell laboratories by Shannon and Weaver (1949). The model comprised of three parts that meant to record radio and television transmission actions. Later on the model was alter for communication of people and it because familiar than as a linear model of communication. Sender is the first part of this model. Sender is that person who is conveying message. Recent study have focused that sender may be doctor or patient. If doctor is talking than he is sender and if patient is asking something he is sender. Medium is the second part of this model. Air waves have been recognized as a medium as sound travels through air. Receiver on the other hand is the third part of the model who receives information. In resent research study if doctor is communicating than patient is a receiver and if a patient is asking something from doctor about the problem than doctor is a receiver. A doctor- patient interaction is explained by this model. But the exchange of information between a doctor and a patient is not as simple as explained in this model. Communication between a patient and doctor is a complex phenomenon which include more things like empathy, concordance, non-verbal cues etc.

Transactional model of communication. Shannon and weaver (1949) gave the first model of communication in 1949. After that a lot of models were proposed by different researchers. Another model which is effective in understanding communication was proposed by Barnlund. It is known as Barnlund's transactional model of communication. This model is useful for the understanding of public speaking. This model explains communication as a circular process. The model says that people is constantly affected by others or affect others through their communication. In recent studies patient satisfaction is affected by the doctor's communication. This model also report that many other process also effect the communication process. It is not as easy as a linear model of communication. Encoding and decoding process, noise, channel communicator, information privacy and also many other factors affect the process of communication. In patient and

physician communication empathy concordance, non-verbal cues and patient's perception about it affect the whole communication process.

Physician's Communication Skills

Physician's communication skills include the ability of physician to communicate with his patients in a friendly way which is an essential part of better health treatment. A successful Patient–physician relationship is based on physicians' ability to communicate effectively. The effective therapeutic physician-patient interpersonal relationship is based on the effective communication skills between physician and patient for clinical practice. It is known as the heart and art of medication. The treatment outcome of patients mostly depends upon the successful communication ability of a consultant. The doctor/Physician who communicates openly gets detailed information of problems. This aim then in making accurate diagnosis and facilitate in developing better understanding and counseling the patients (Bigule, Nateq, Ghojazadeh, & Asgharzadeh, 2017 ; Ha & Longnecker, 2010).

In a Doctor-Patient relationship the communication skills of a physician are very important. It plays an important role in patient's satisfaction, better prognosis and effective treatment outcome. The communication skills of a physician are based on his/her medical capability. In medical education system, there is a pragmatic shift towards developing communication skills. The investigation of scientific and literary work indicates the unique role of communication between patient and physician. In most cases the healing effect of patient's reliance on physician is more important than mere recommendation of drug. Patient's understanding of problem is limited. If the physician has sufficient ability to communicate with his/her patients, he/she could get necessary detailed information about mental and physical health of the patient. This can aid in choosing the best treatment. There are many problems in physician's communication skills in some societies like: the lack of time, lack of facilities, the doctors' high rate of visiting fee for patients and thousand numbers of patients, all these factors add to effects their ability to trust on physicians. For attracting the trustfulness and contentment of patients, communication skills of a doctor play very important role. That is why the health-caring managers put emphasis on indoctrination and encourage designing training for improving communication skills. The

communication skills of doctors are regarded as core skills of health-caring services (Berman & Chutka, 2016 ; Bigule, Nateq, Ghojazadeh, & Asgharzadeh, 2017).

Previous researches had explained that mostly 54% problems of patients and approximately 45% of their apprehensions have not been clearly addressed or shared with doctor. Physicians usually interrupt the patient in to the middle of their talk and then start talking to the patient fast enough, as a consequence the patient do not have an opportunity to fully express their problem because Physician heavily emphasize on symptoms to make accurate diagnosis. They do not focus much on educating patients about their problems where psycho-education i.e. educating the patient about his/her problem is important for developing concordance The results of a survey study which was conducted in Ottawa, Canada showed that the physicians after 18 seconds interrupt patient's talk and this led to poor treatment as patients did not share information. (Silverman, Kurtz, Draper, Dalen & Platt, 2005).

Unskilled physicians may fall in a wrong cycle in making communication with their patients may fall in a wrong cycle e.g. patient's disappointment, a lot of mistakes, misdiagnosis, high rates of health care services, directing unnecessary drugs, wasting the money and time of patient which leads to the wrong treatment. Research has found that in most cases, the prognosis was inaccurate due to failure of communication and lack of trust. Breakdowns in communication are strongly linked with the increased possibility that patients will indulged in malpractices actions or take legal actions (Epstein & Street, 2007 ; Katz, 1999).

Literature reported that unlike developed countries, in Pakistan the doctors can't understand the significance of communication skills and ethical practices during medical training. Physicians who work in public sector hospitals mostly deal with patients of a lower socio-economic class. These patients have minor poor hygiene conditions and minor health awareness. To understand the patients and make them to understand is the significant challenges which are faced by physicians in public sector emergency in Pakistan. According to a survey which is conducted by Gallop, in global doctor-patient communication assessment test which was held in 2011 Pakistan scored the lowest with only five points in comparison to the highest score which was 66 points recorded for Ireland (Jalil, Zakar, Zakar, & Fischer, 2017).

Patient-Physician Concordance

Patient-physician concordance is the process which is operationally defined as the degree to which two procedures will produce the same result, e.g. the doctor's record and the patient report the same health treatments and show agreement on treatment plan after an encounter (Liaw, Young, & Farish, 1996).

In literature Concordance has been considered as significant aspect of physician and patient relationship that may be associated to health care discrepancy. Agreement which is known as concordance is the significant facet of the physician-patient interaction. Remarkably, a significant body of previous literature has investigated patient–physician concordance with reference to health status of patients, physicians' understanding of their patients' hopes, cause of symptoms and treatment objectives. Patients' understanding of personal resemblance to their doctors was a powerful indicator of patients' satisfaction with care, belief in doctor, and purpose to stick to treatment suggestions and plans (Gross et al., 2013 ; Street, Malley, Cooper, Haidet, 2008).

The first step to reach active patient participation in reaching concordance or shared decision making is by making a relationship between a doctor and a patient. To aid patients to let them at comfort with involvement in decisions making about their health care is health professional's duty. However, a patient who is suffering from serious illness may not be at ease taking on extra culpability and he/ she may want the consultant to make treatment plan for him or her. Physician must be adjustable and careful to the beliefs and biases of individual patients. In shared decision making information giving consist of two ways (personal as well as medical) in between patient and consultant regarding all the available options. The ultimate decision is made cooperatively in total concordance with both parties. The clinical proof and view of clinician have to be communicated precisely and clearly to patient in the most suitable format. There is need for patients to understand the information given to him or her and to be heard and interpreted by the clinician, for a dialogue to take place. The clinician and the patient have to be ready to listen carefully to each other for understanding so that a concordance can be reached. Information based upon evidence must be helpful, sustainable and suitable for patient to allow him or her to make a complete informed commitment. In consultations this is necessary either for making

shared decision or for agreement between patient and consultant (Jordan, Ellis, & Chambers, 2002).

Concordance is important from both research and clinical aspects in doctor and patient. Researches that are related to medical field provide evidence that treatment adherence, patient contentment and results of care are higher when Patient and Consultant show agreement with each other. Patients' belief, contentment, services utilization, and participation in making any decision has been observed higher when nationality or race of physician and patient is same (Saha, Komaromy, Koepsell, & Bindman, 1999).

Relationship of patient with a doctor whom they perceive as similar in term of race and nationality to themselves may comprehend very little social distance. They perceive that the physician holds similar values and believes as them, and due to this they are more prepared to trust that doctor. The perceptual underpinnings of effects of concordance is important because, although demographic features of a person are fixed for the most part, perceptions of relationship between physician and patient may change and could be the center of conciliations to refine communication (Street, Malley, Cooper, & Haidet, 2008).

Creating a therapeutic association and shared decision making for concordance increases patient participation in making decision related to health care and permit a more open exchange between doctor and patient. Chambers, Jordan and Ellis (2002) proposed a model for doctor-patient concordance. The model suggests that concordance can be achieved through a negotiation and therapeutic association between a patient and a prescriber. The patient is persuaded to talk about the medication related problems that have been recommended and treatment preferences and involvement in making any decision. The physician gives authentic information to patient and asks his or her experience of clinical visit. The negotiation process consists of both sides and this leads to unanimous decision making. If the patient postpones the decision, the consultant or doctor makes it for the patient, taking consideration of his/her problems, trust and values (Jordan, Ellis & Chambers, 2002). In instance where patients are involved in decision making, perception of value and trust is higher as they perceive them an active participant. They report more

satisfaction and trust with treatment. This leads to better adherence. In such cases patients are more likely to trust physician.

Figure 1. Phases in both shared decision making and concordance deliberation

Research on concordance indicates that when doctor and patient negotiate and communicate with each other. It leads to development of understanding. Doctor's effective communication can develop a better understanding of problem. The patient and the doctor have a similar collaboration. When there is understanding between doctor and patient they can exchange information which can lead to collaboration decision making about patient's health (Jordan, Ellis & Chambers, 2002).

Physician's Empathy

Empathy is the humanistic element of patient care that promotes effective and patient-centered clinical experience (Bernado et al., 2018). Cognitive, moral, behavioral, interpretive, and emotional facets may be incorporated in the definition of empathy. By including all these facets empathy in medical term is defined as an apt apprehension and communication of the patient's experiences. The process which includes addressing both the emotional and cognitive domains of a person and validates a person's feelings is referred to as empathy. Empathy's cognitive feature

explains an individual's ability to understand another individual's inner experience, and the ability to understand the world from the other person's perspectives. Empathy's emotional explains the capacity to understand someone else's experiences and feelings. Switankowsky (2000) defined the sympathy as an emotional discerning with another individual, which may lead to emotional over-involvement, whereas empathy refers to understanding of another person's condition. Emotional involvement is necessary for empathy with the other without, however, supposing their emotional state or projecting owns emotions onto them. Empathy requires the capability to be aware to distinguish between one's and others' emotions (Kerasidou & Horn, 2016).

In context of Physician-Patient relationship empathy is considered as a critical construct. Wilmer (1968) stated, "Main point of the unhappy relationship between doctor-patient is failure to empathize." Researchers have recorded that there is a theoretical link between positive short and long-term patient consequences and empathy. The literature related to medical communication shows that satisfaction of patients can be improved by effective doctor-patient relationship, autonomy, empowerment of patient and compliance. Past researches indicate a strong relationship between psychotherapy and empathy. For example, a study indicated that low level of therapist empathy is "toxic" to patient consequences and has a link with "higher relapse rate and drop-out, less client change and weaker therapeutic association." A study indicated that if empathic understanding patient's suffering is good the relationship between patient and doctor gets better (Tariq, Rasheed, & Tavakol, 2017).

The self-aware and empathetic doctor can remain detached from emotion but on the other hand at the same time, engage with condition of their patients. The capability to empathize thus minimizes the risk of the doctor being immersed into the condition of patient. A lot of researches have explained the importance of empathy for patient care. It is related with increased patient contentment, minimal medical error, improved adherence to treatment, less malpractice claims, and better consequences (Kerasidou & Horn, 2016).

Empathy is a multifaceted construct with cognitive behavioral and emotive domains. Cognitive empathy deals with an individual's capacity to understand another

individual's point of view rather than being primarily self-oriented, whereas emotive empathy explains person's capacity to acknowledge to feelings experienced by others. A number of literatures on empathy of physician differentiate between these domains of "sympathetic emotions" and "detached concern." While this is commonly felt that the clinician's essential skill is the former, other educators emphasizes the importance of both the emotive and cognitive facets and emphasized the behavioral aspects, that includes the outward expression of these internal qualities to influence the experience of patient (Thomas et.al, 2007).

Empathy has great importance for any physician, and is very essential for the physician's understanding of individual patient's experiences and needs. Physicians who shows empathetic behavior can motivate a patient's trust and feelings of safety in the care giver, facilitate disclosure of key information and improve patient compliance and contentment (Eikeland ,Ornes ,Finset, & Pedersen, 2014).

The therapeutic effect and the patient's quality of life can also be improved by the use of empathy. The empathic physician may be more accurate in designing diagnostic precision, more can be involved in a meaningful work and can then increase the sense of well-being among patients by reduction in symptoms (Eikeland , Ornes, Finset, & Pedersen, 2014).

Empathy should specify all health care professions. In spite of development in medical technology, the healing relationship between patients and physicians remains essential to quality care. The researcher demonstrated that physicians who show a friendly, warm and reassuring pattern with their patients are more fruitful and effective (Larson & Yao 2005).

Empathic communication skills are linked with increased patient satisfaction, decreased medical delusions, improved compliance to therapy, fewer malpractice claims, better results, decreased tiredness and increased physician health. During medical education there is reduction in the use of empathy that persists beyond training. Different researches have explained that empathy is important for the care of patient. Increased satisfaction of patient, improved compliance to therapy, malpractice claims, less medical mistakes and better results are linked with empathy (Nunes, Williams & Stevenson, 2011 ; Riess, Kelley, Bailey, Dunn & Phillips, 2012).

Despite of the significant importance of empathy of physician and the obligation of medical trainer to promote the quality, past literature explain that empathy diminishes in medical school students during their study, and may also decline during their residency training (Thomas et al., 2007).

Patient's Satisfaction

The level of trust and contentment a patient experience during treatment is called Patient's Satisfaction. (Abri, 2014). The quality of health and therapeutic services is determined by patient's satisfaction. In the medical services, patient satisfaction is very important. If the patient is dissatisfied, it makes him unable to achieve his health goal. Patients are considered to be more satisfied with their health, if they have good communication with their doctor, and share relevant information of issue for correct prognosis, and compliance to recommended treatment. Patients who are contented with their treatment are less likely to have formal issues or imitate malpractices or objections. The advantage for doctors in terms of greater job satisfaction is when the patient is satisfied with the doctor and his/her treatment (Ha & Longnecker, 2010).

Patient satisfaction is a highly beneficial consequence of clinical care in the hospital and may even be a component of health status itself. The quality of hospital care is judged by patient's satisfaction and dissatisfaction in all of its facets. Whatever its strengths and limitations, patient satisfaction is an index that should be essential for accurate assessment of the quality of care in hospitals. The concept of patient satisfaction is not clear, although it is identified as an important quality outcome index to measure success of the services delivery system. Patient evaluation of care is important to provide a chance for betterment such as strategic framing of health plans, which sometimes exceed patient standard and supposition (Abri & Balushi, 2014).

Patient satisfaction is a subjective opinion. Though it does not confirm that the patient will remain faithful to the doctor or the hospital, it is still a strong provoking element. Patient satisfaction is only a proxy or an indirect proxy index of the quality of doctor or hospital performance (Tabbish, 2001).

The examination of formal and scientific studies has shown that patient will be satisfied if there is good communication between doctor and patient. In most cases, the therapeutic process of patients is influenced by the dependency on the doctor rather than the medics and/or prescribed drugs (Bigule, Nateq, Ghojazadeh, & Asgharzadeh, 2017).

Pragmatic model of patient satisfaction. Pragmatic model of patient's satisfaction is considered to be one of the most comprehensive model that incorporate both social and psychological aspects.

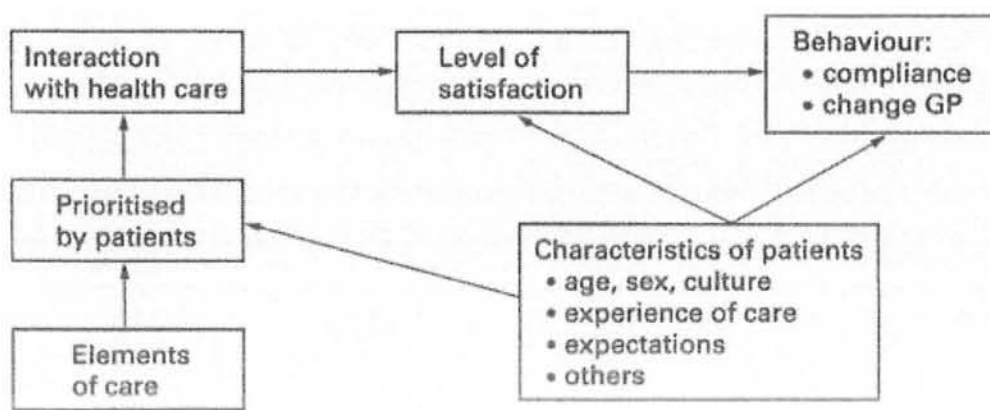


Figure 2. Pragmatic model of communication

In contrast with some impact on behavior the first component of the model involves the interaction between patient and doctor. In this relation doctor communicate with the patient. The doctor moves towards second level if he communicates proficiently with the patient. Secondly, in the model satisfaction is considered as a continuous rather than dichotomous variable. It means continuously patient is analyzing non identical facet of doctor's communication. Patient is analyzing non-verbal and verbal cues of doctors' communication gesture, way of taking etc. Thirdly, it is multidimensional, distinctive aspects of care causing differentiation in contentment. With these elements of care patient will perceive doctors communicating effectively and it can lead to empathy and concordance and this can ultimately enhance patient's satisfaction. A person may be contented with one aspect of treatment for example the appointment system-but dissatisfied with other type of aspect e.g. the medical examination. So it all is based upon patient's perception about doctor's communication. A measure which is used for checking

overall satisfaction of patient will be a synopsis of the competing evaluations of the ill person and it may not be diplomatic to change in satisfaction level with individual facets of care. Moreover, different aspects of care in different clinical settings may be less or more important. For example, in general practice progression which is viewed by patients is extremely valuable, Elements that predict care. But in an outpatient clinic that is surgical in nature the giving detailed information about choices of treatments may be more significant. It accompanies that satisfaction measure should evaluate all applicable aspects of care and be designed for particular clinical settings. Fourthly, patients' qualities may affect their attitudes towards care, and also the importance they give to different elements of care. In the model, patients' attributes are shown as influencing the preferences they assign to different elements of care and to their behavior or level of contentment after an interaction with the healthcare system. Past literature indicates that demographics also effect patient's satisfaction. Different characteristics like socioeconomic status (see table 9), gender of patient (see table 7) and other characteristics are like to effect the patient's satisfaction level. Finally, satisfaction can affect patients' future behavior like compliance with advice or whether they change doctors. Unsatisfied patients on the other hand help on switching the doctor which not only adds to the economic burden for patients but also leads to dissatisfaction (Baker, 1997).

Communication privacy management theory (CPM). Communication privacy management theory (CPM) deals with the disclosure of personal information. According to this theory we receive personal information of others or give personal information to other people. Personal information is the information which person beholds to disclose in front of some people and disclose in front of other trusted people. In general, CPM theory states that individuals mostly imagine that they own their private information and have the ability to control information they reveal. It is not necessary to manage private information until others people know about it. This theory does not restrict an understanding of exposure by shaping it as it is only about the self. Instead, CPM theory shows that when there is need for management of information, co-ownership status can be given to others, through this the theory explain the idea of exposing private or personal information. In this theory metaphor of privacy boundary is used to demonstrate about the personal information, where it is located and how wider the boundary of information shared needs to be. Thus,

individuals not only can reveal their personal information but also they can expose the private information of others which is collectively possessed such as information possessed by family members. Making any decisions about the private information, either to protect it or exhibit it often creates a tension in which individuals are not sure to conceal or share their private information. In health settings, these issues have an ability to decrease or increase risk factors. Exposing health related problem to a friend can enhance social support for a person to cope better with health problem. On the other hand, the individual may feel insecure that his or her friend might tell others about the health problem, thus it may cause more complications instead of reducing it. The tension of exposing and protecting person's personal health information is only one side of the coin as unveiling makes other authorized co-owners which are family members or friends of the person. These co-owners (e.g., families, friends, and partners) want to know about the health problems and treatment plans of the patient. In health related issues individuals have personal privacy boundaries around health related information and also have some authorized co-owners of this information. If co-owner try to reveal information than their relationship undergo some trust issues. Within the plan of health, unveiling risks and privacy issues are not experienced exclusively by the individual with an ailment. Rather, these risks influence a lot of other individuals who are related to a patient e.g. the family of patient, caring and empathetic friends. Each person who knows about information has a double role. For example, the doctor is also a co-owner of a patient's health information which is private as so information remains between doctor's and patient's own privacy boundary, such as worrying if doctor diagnosed the symptoms correctly (Lightsey, Martin, Thompon, Himes, & Clingerman, 2015).

Thus, a lot of situation can lead to health related risk where privacy management and decisions to hide or reveal information about health are concerned. In eleven countries this theory has been applied and in a lot of different contexts where is need of privacy management, such as offices, different organizations, health settings, in relationships, social media and families. This theory helps to understand the relationship between disclosure of information and privacy management. In healthy related issue privacy management plays an important role as it can reduce many risk factors related to a person's health. In different difficult situations where health related issues are big privacy management theory plays an important role e.g.

revealing information about HIV/AIDS and cancer. In these types of health issues privacy is necessary to protect the patient from any time of harm. So it is necessary for doctors to make sure that information of patient should be kept confidential. According to patient choices are made either to disclose information in front of his family or friends or not. Because it is necessary sometimes to reveal the information related to the health problem of patient. There are times when patients suppress problems from their doctors because they are not able to confront bad news about their health (Lightsey et al., 2015).

Nevertheless, not telling problem can carry dangers such as not willing to get treatment, experiencing pain and uneasiness, or taking tension about awkward feeling. Likewise, physician also feels uncomfortable to tell bad news to their patients. The withholding of private information on both sides can lead to jeopardizing the level of care. Privacy management intersection on the part of both the doctor to patient and privacy management on the part of the patient to the doctor have outcomes that can challenge giving and receiving better health care (Lightsey et al., 2015).

The communication skills of a physician are a useful step of making constructive relationship between Patient and doctor. It plays a vital role through satisfaction of patient, prognosis and process of treatment (Bigule, Nateq, Ghojazadeh, & Asgharzadeh, 2017).

The communication skills of a doctor manifest his/her medical competence. One of the most important issues is to learn the communication skills that should be regarded in medical education system. If the physician had great communication skills, he could get necessary information about physical and mental situation of patient. In medical services communication capability is regarded as an important skill of experts. On the basis of communication skills, a physician's medical competence is usually judged. In some societies a physician's communication skills are not regarded befitting because of the problems such as: imbalance number of patients, for visiting patients and the physicians' high rate of visiting fee for patients that may create patient's disappointment and possibly falling their trust on physicians. Unskilled physicians while making communication with their patients may fall in a wrong cycle e.g. patient's disappointment, a lot of mistakes, misdiagnosis, expensive

costs of health care services, recommending unnecessary drugs, wasting the money and time of patient which leads to the wrong treatment (Epstein & Street, 2007).

Concordance emerges when there is a good communication skill between doctor and patient. One of the important facets of the patient-physician bond is concordance which may be connected to health related discrepancies. Concordance is mostly defined as shared identity or similarity between consultant and patient which is mostly develop due to demographic attributes e.g. race, sex etc. The agreement between patient and doctor is known as patient doctor concordance. Patient's satisfaction, trust and involvement in decision making is high if the concordance is high (Street, Malley, Cooper, Haidet, 2008).

When there is concordance between doctor and patient than empathy also develops as concordance can't be developed without empathy. In term of patient care empathy is defined as an uppermost cognitive trait that deals with different concerns of patients which are experiences of patient about illness, perspectives and worries, these are than combined with a capacity to communicate with a purpose to help (Hojat et al., 2010).

Researchers has found that that physician are considered as the most important and significant source of psychological and emotional support by the patients. Empathy is considered as the strongest means of providing this type of support to lessen feelings of loneliness of patient and confirming their emotions and feelings as common (Baile, Walter, Aaron, & Joann, 2005).

Literature supports the relationship between study variables. There is a positive correlation between a doctor's communication skills and their patient's contentment. Communication skills of a physician play a vital role on patient's compliance; that's why there is a direct need to improve the communication skills of physicians by enhancing the communication skills through related training courses (Bigule et al., 2017).

Doctors who have better interpersonal and communication abilities are able to find symptoms earlier, can prevent expensive interventions and medical crisis, and are able to give better support and treatment to their patients. Due to this they achieve higher-quality results and satisfactory gratification, greater understanding of patient's

health problems, decrease costs of care, better compliance to treatment and best treatment outcomres (Ha & Longnecker, 2010). An agreement between doctor and patient may proves to be advantageous in foremost care. PDC is a suitable, applicable and beneficial measure of effective doctor-patient communication, which has valuable suggestions for the characteristics of care. During consultation agreement or concordance between the physician and patient on problem or need may leads to patient satisfaction (Kerse, Buetow, Mainous, Young, & Coster, 2004). The bond between physician-patient become stronger when patients perceive themselves as alike to their doctors in personal believes, merits and communication. Studies have revealed alarmingly low level of empathy in Pakistani medical students Due to Poor attitudes of doctors (lack of empathy and respect) patient perceive as if they are not being treated as human (Tariq, Tayyab, & Jaffery, 2017).

Comparison across government and private sector indicates that Patient's satisfaction level is higher in private hospitals as compared to public hospitals. Patient who went to private hospitals reports more comfort and ease as compared to the patients in public sector hospitals. Although both groups (patient in public and private sector hospitals) reported problems related to the time spent by doctor. They reported that doctors spent less time in checkup (Shah, 2010).

Rationale of the Study

The 3.1% of GDP is spent by Pakistan government on its economic, community services and social services. On debt services 43% is spent by government. From this all 0.8% GDP is only spent by the Pakistani government on health services of people. This is the lowest GDP if it is compared with Bangladesh (who has 1.2% GDP for its health service) and Sri Lanka (who has 1.4% GDP). Over the past thirty years the health status of Pakistani population has improved because of the immunization rate of children which is doubled now. The population which is living is living in rural area (approximately 66%) is illiterate. Women with low education system and also poor sanitation system of rural areas have great impact on health measures. In addition little understanding of hygiene and ailment, ethnic prescriptions, understanding of health service and its provider, and social barriers, profit has been a serious hindrance to deliver good health services. The physical and financial approachability of health service has been affected by this. Pakistani health

care system is comprises of public and private hospitals. Best criteria of judging a country is by seeing its health care system. Public and private hospitals provide health services to people of a country and through this promote health service quality of community (Nasreen, Zahidi, & Sheikh, 2012).

Literature support the fact that private hospitals are better than public hospitals, but still there is a need to improve both public and private hospitals to fill gaps. Researches also emphasize on improvements of health care systems and developing a modern health care system with modern and latest infrastructure and equipment through patient's feedback. A feedback can help to improve the physician's empathy, communication and responsiveness towards patients. The present study aims to see the different communication styles in public and private sectors of Pakistan as literature reported problems in doctor's behavior in public hospitals (Ghazanfar et al., 2016)

Doctor-patient communication is an essential for the mental health of patients. Present study aimed to explore the relationship between doctor's communication and its impact on patient's satisfaction. Physician must have understanding of human nature with scientific knowledge (Kaba, & Sooriakumaran, 2007). Patient feels worried about problem or disease and search for relief from pain. Physician can gain trustfulness and satisfaction of patient through his/her communication skills and these communication skills are considered important skill for health care services (Bigule, Nateq, Ghojazadeh, & Asgharzadeh, 2017).

Doctor-patient relations have undergone changes in last two decades. Patients want that doctor should make treatment plan according to them. And there must be agreement between doctors and patients about the diagnosis and treatment plan (Jordan, Ellis, & Chambers, 2002). Previous literature indicates that doctor make treatment without any participation of the patients. That's why present study aims to see the impact of concordance on patient's satisfaction (Davis et al., 2003).

Physician's communication and interpersonal skills are necessary to gather accurate information from patients. When doctor's show empathy, patients feel comfortable to disclose the information and this will help in better diagnosis of the problems. Previous literature suggested that medical student didn't show empathetic behaviors towards patients (Singh, 2005). So the present study aims to explore empathy in Pakistani context.

In Pakistan doctor needs to communicate with patient as well as with the family of patient. Literacy rate in Pakistan is very low. Due to this doctor face difficulty to communicate with patients and their families. This present will point out the current situation of patients due to the behavior of doctors and its impact on patient's satisfaction. Critical evaluation of the past literature indicates that patient's satisfaction has not been studied much. As a consequence the facts that lead to patient's satisfaction have been ignored. So the present research aims to fill in the gap in literature by studying communication in context of doctor patient relationship.

Inconsistent literature exists with respect to different socio-demographic variables. Some researches highlight that doctor's gender play a significant role in determining Patient's satisfaction. While other concludes that it has no role. In consistent findings exist with reference to time given to patients. So the present research aims to explore the variables within Pakistani context.

Chapter 2

Method

Objectives

The present research was conducted to

1. Study the relationship between physicians' communication skills, physician's empathy physician-patient concordance and patients' satisfaction among patients in Cardiology, Dermatology and Psychiatric departments.
2. Study the relationship between demographic variables (i.e. Patients' Gender, Doctor's Gender, socioeconomic Status, public and private hospitals, consulting departments) with study variables.

Hypotheses

1. There will be a positive relationship between physician's communication, patient-doctor concordance, empathy and patient's satisfaction.
2. Physician's communication, patient-doctor concordance, empathy will positively predict patient's satisfaction.
3. Female patients will score high on Patient's satisfaction level as compared to male patients.
4. Patients in private hospital will score higher on Patient's satisfaction as compared to the patients in public hospitals.

Operational Definition

Doctor's communication. Communication between doctor and patients is known as the information seeking behavior from the physicians. Some patients want very less information and other wants every detail of the procedure/treatment that they are getting from the doctor (John, Traveline, Robert, & Gilbert, 2005). Higher score on scale indicates good doctor's communication and low score indicates poor doctor's

communication. In present study doctor's communication is operationalized as the score obtained by the Communication Assessment Tool (CAT) where high score indicates good communication skills and low score indicates poor communication skills of doctor (Makaouol, Krupat, & Chang, 2007).

Doctor patient concordance. Doctor patient concordance is defined as the tendencies of two processes to yield same or similar result e.g. the patient and doctor record the same health problem and treatment after an encounter (Liaw, Young, & Farish, 1996). Doctor patient concordance is the agreement between physician-patient about patient's problem visit and decision making. In present study physician-patient concordance is operationalized as the score obtained by Physician-Patient Concordance scale on which high score indicates high concordance and low score indicates poor concordance (Kerse et al., 2004)

Empathy. Empathy has been described as the core component of professionalism. Physician empathy and good communication skills increase patients' satisfaction. Lack in empathy might have negative effect on clinical outcome. Patient feels dissatisfaction when physicians don't show empathetic behavior (Cane, Gotto, West, & Hojat, 2006). In present study empathy is operationalized as the score obtain through The Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPPE). High score on this scale indicates that doctor is more empathetic towards patients and low score indicates poor empathetic behavior of doctor (Hojat et al., 2010).

Patient's satisfaction. Patient's satisfaction can be regarded as the main criteria for finding the quality of therapeutic and health services. Patient satisfaction plays an important role in the medical services. If the patient is dissatisfied, it makes him unable to achieve his health goal (Ha & Longnecker, 2010). Patient satisfaction is an important indicator of quality of care because of its relevance to compliance and helps in recall of medical advice. In present study patient's satisfaction is operationalized as the score obtained through Patient Satisfaction Scale (PSS). High score on this scale indicates that patient is more satisfied from doctor and low score indicates poor satisfaction level of patient (Hojat et al., 2011).

Instruments

Following are the instruments of the study.

Demographic sheet. In order to explore variety of demographic variables e.g. gender, socioeconomic status, no of visit, marital status, age etc, and detailed demographic sheet was developed.

Communication Assessment Tools. Communication Assessment Tool (CAT) was developed by Makaoul, Krupat & Chang (2007). It is a self-report instrument which measures the doctor-patient communication. CAT was originally designed to access the patient's perception about the effectiveness of physician's communication. High score on CAT shows better communication skills of physician and if the values on CAT are low than it shows poor communication skills of physician.

The assessment tool has total 15 items. First 14 items access doctor-patient communication and 15th item indicates the doctor's staff communication with patient. This scale has no subscale. It is a 5 point Likert scale (1 = poor to 5 = excellent). This scale has no reverse item. The minimum score range is 15 and maximum score range is 75. The reliability coefficient is .96 (Makaouol, Krupat, & Chang, 2007).

Patient Perception of Physician Empathy. The Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPPE) is developed by Hojat, et al., in (2010). This scale is used to see the empathetic behavior of physician with patients. It has 5 items. There are no reverse items present. The items of the scale are scored on a 7-point Likert scale (1 is Strongly Disagree, 7 is Strongly Agree). This brief instrument consisting of 5-item was developed to measure patients' perceptions of their physician's empathy.

The reliability coefficient is .96 showing that the instrument is highly internally consistent. The minimum score range is 7 and the maximum score range is 35. If the scores on (JSPPPE) are high, it shows greater empathetic behavior of the physician and if the score are low than it shows low empathetic behavior of the physician (Hojat et al., 2010).

Physician Patient Concordance Scale. Physician-Patient Concordance (PPC) scale was developed by Kerse et al., (2004). This scale has 6 items and all items are rated on 4 point likert scale. 1= completely concordance and all other rating i.e slightly, uncertain and not at all are rated as 2, 3, and 4 according to the scale's scoring instructions provided by author. No item is reverse scored. Scores were dichotomized after collecting data in which 1 score was assign when patients rate on first option (completely) and 0 score was assign for all the other remaining responses. The results for the 6 questions were then summed up to give a cumulative score between 0 and 6, with higher scores indicating greater concordance. The reliability coefficient is .87 which indicates that the instrument is highly internally consistent (Kerse et al., 2004).

Patient Satisfaction Scale. Patient Satisfaction Scale was developed by Hojat et al. in 2011. It is used to measure the patient's satisfaction with physician. This scale has 10 items. The items of the scale are to be answered on a 7-point Likert scale ranging from 1 = Strongly Disagree to 7 indicates Strongly Agree). There is no reverse scoring present. The minimum score range is 7 and the maximum score range is 70. If scores on scale is high than it shows high satisfaction level of patient and if the score are low than it shows low satisfaction level of patient. Reliability coefficient for the scale was .98 which showed that scale in highly internally consistent (Hojat et al., 2011).

Research design

Recent study which is conducted is a correlational cross sectional study. In this study survey method is used for data collection and analyses are quantitative in nature. The study comprises of only one phase which is main study phase.

Main Study

Objectives. The objective of main study was to test the proposed hypotheses and study relationship between physician's communication skills, empathy, physician patient concordance and patients satisfaction in Psychiatric, Dermatology and Cardiology department of different private and public hospitals.

Sample. In recent research sample consist of 238 patients in which 79 patients were male and 159 were female with different problems related to psychiatry,

skin and heart. For data collection purposive and convenience sampling technique was used. Patients were approached from different public and private hospitals of Rawalpindi and Islamabad. Patients who were able to comprehend English language were included in this study with minimum education intermediate and maximum education level was postgraduation. Following the ethical protocol of research formal permission was taken from the hospital administration. From psychiatry departments 79 patients, from Dermatology department 86 patients and from Cardiology department 73 patients were approached and questionnaire related to research were given them.

Table1

Frequencies and percentages of demographic variables (N=238)

Demographic variable	*f* (%age)	Demographic variable	*f* (%age)
Gender		**Residency**	
Male	79 (33.2)	Native	214 (89.9)
Female	159 (66.8)	Non-native	24 (10.1)
Education		**Marital status**	
Intermediate	167 (70)	Unmarried	85 (35.7)
Graduate	47 (19.7)	Married	147 (61.8)
Postgraduate	24 (10.1)	Widow	4 (1.7)
		Divorced	2 (.8)
Problem or disease		**No of visit**	
Psychology related	79 (33.2)	1 visit	126 (52.9)
Skin related	86 (36.1)	2 visits	75 (31.5)
Heart related	73 (30.7)	3 visits	13 (5.5)
		More than 3	24 (10.1)
Socioeconomic status			
Lower class	65 (27.3)		
Middles class	106 (44.5)		
Upper class	67 (28.2)		

Table 1 indicates different variables and percentages. Table 1 indicates that male comprises 33.2% of the sample whereas female comprises of 66.8% of sample. 22.3% had matric level education. 47.9% had intermediate level, 19.7% had graduate level and 10.1 % sample had postgraduate level education. 32.2% were with Psychiatric related problem, 36.1% are with skin related problems and 30.7% are with heart related problems. Mostly patients were native as %age shows that 89.9% were native and only 10.1% patients were from other cities. Mostly patients were married. 61.8% patients were married, 35.7% patients were unmarried, 1.7% patients were widow and only .8 % patients were divorced. The patients who came first time to see

the doctor were 52.9%. The patients who visited 2nd time were 31.5% , the patients who visited 3rd time were 5.5% and the patients who came more than 3 times for the checkup were 10.1%.

Procedure. Permission from hospital authority was taken and they were briefed about the purpose of study. Patients from hospitals of Rawalpindi and Islamabad (Benazir Bhutto Hospital, Poly Clinic, PIMS, Ali Medical Center, MH, and Shifa International Hospital) were approached for data collection from Cardiology, Psychiatry and Dermatology departments. From Gastroenterology, Gynecology, Pediatric, Nephrology, Neurology, Cardiology, Psychiatry and Dermatology departments only above mentioned departments were selected as permission were granted to collect data only from these departments. The participants with minimum intermediate level education were included in this study because questionnaires were in English language. In this research data was collected through convenience sampling technique from public and private sector hospitals of Islamabad and Rawalpindi. Informed consent was taken from the patients and through this approval of patients was taken. Patients were briefed about the aim of the study. Patients were ensured that data would be kept confidential and would only use for research purpose. Questionnaires were given to the patients and they were requested to respond as honestly as possible. Their queries about the questionnaire were answered. At the completion of the questionnaire patients were thanked for their participation. In all it took 15 to 20 minutes to complete questionnaires.

Chapter 3

Results

The present research was conducted to study the physician's communication skills, empathy and patient-physician concordance on patient's satisfaction among different public and private hospitals of Rawalpindi and Islamabad. The impact of these variables was also computed across demographic variables. Appropriate statistic procedures were used to analyze the data.

The frequencies and percentages of the demographic profile of the sample were computed. Moreover Alpha reliability coefficient of the instrument was also compute. To check the normality of the present study descriptive statistics (mean, standard deviation, skewness, and kurtosis) were computed. Correlation was computed to explore relationship between physician's communication skills, empathy, patient physician concordance and patient's satisfaction. To explore the predicting effect of communication skills, empathy and patient-physician concordance multiple linear regression analysis was carried out. To explore difference along patient's gender, doctor's gender, socioeconomic status, consulting department, comparison between public and private hospital independent sample t-test and ANOVA wa computed. The results were displayed in tabular form.

Table 2

Descriptive Statistics and Alpha Reliabilities of Study Variables (N = 238)

Scales	Items	*α*	*M*	*SD*	Potential Range	Actual Range	Skew	Kurt
Doctor's CS	15	.98	48.29	17.81	15-75	15-60	-.286	-1.28
Empathy scale	5	.96	23.75	8.21	5-35	5-30	-.680	-.484
Concordance Scale	6	.89	2.79	2.42	0-6	0-6	-.017	-1.65
Patient's Satisfaction Scale	10	.98	50.61	15.53	10-70	10-60	-.817	-.290

Note. Doctor's CS = Doctor's Communication Scale, skew = skewness, kurt = kurtosis

Table 2 represents descriptive of all the scales. In the present study reliability of doctor's communication scale was .98. Reliability of empathy scale was .96, reliability of concordance scale was .89 and reliability of patient's satisfaction scale was found to be .98. This indicates that all scales had good psychometric properties. The value of skewness and kurtosis were between ±2 which indicates that data is normally distributed.

Table 3

Correlation Matrix for All the Study Variables (N = 238)

	Variables	1	2	3	4
1	CAT	–	.89**	.81**	.89**
2	Empathy Scale		–	.77**	.91**
3	Concordance Scale			–	.78**
4	Patient's Satisfaction scale				–

Note. **p<0.01. CAT = Communication Assessment Tool.

Table 2 illustrates correlation between Communication Assessment Tool, Empathy Scale, Concordance Scale and Patient's Satisfaction Scale. It shows that there is significant positive correlation between all of the scale. Table also shows that Empathy Scale has high correlation with Patient's Satisfaction Scale and CAT has same correlation (.89) with Empathy Scale and Patient's Satisfaction Scale.

Table 4

Multiple Linear regression showing the effect of Doctor's communication, empathy and concordance on Patient's Satisfaction (N=238)

				95%CI	
Variables	β	*S.E*		*LL*	*UL*
Constant		1.42		7.58	13.16
Doctor's C	.36***	.05		.20	.42
Empathy Scale	.53***	.11		.79	1.22
Concordance Scale	.07	.28		-.09	1.01
R^2			.85		
F			466.32***		

Note. Doctor's C= doctor's communication, CI= confidence interval, LL = Lower limit, UL = upper limit, S.E = Standard Error of measurement

Table 4 indicates Multiple Linear Regression. Result indicates that all of the independent variables (doctor's communication skills, doctor's empathy) predict the patient's satisfaction which is a dependent variable except concordance. All these variables collectively account for 85% variance.

Table 5

Mean difference in public and private hospital among study variable (N=238)

	Public (n = 106)		Private (n = 132)			95%CI		
Variables	*M*	*SD*	*M*	*SD*	$t_{(238)}$	*LL*	*UL*	*Cohen's d*
Doctor's C	35.17	15.34	58.82	11.57	13.54***	-27.08	-20.21	1.74
Empathy	17.79	7.76	28.54	4.67	13.21***	-12.34	-9.14	1.68
Concordance	1.07	2.02	4.18	1.71	12.87***	-3.59	-2.64	1.66
Patient's Satisfaction	39.36	14.76	59.65	8.76	13.17***	-23.33	-17.26	1.68

Note. Doctor's C= doctor's communication, CI= confidence interval, LL = Lower limit, UL = upper limit

Table illustrates the difference on study variables across private and public hospital. Significant mean differences were observed on all the study variables where patients from private hospital score high on study variables as compared to the patients from public hospital.

Table 6

Mean difference doctor's gender among study variables (N=238)

	Male (n = 145)		Female (n = 93)			95%CI		
Variables	*M*	*SD*	*M*	*SD*	$t_{(238)}$	*LL*	*UL*	*Cohen d*
Doctor's C	46.88	17.73	50.47	17.80	1.52	-8.24	1.06	
Empathy	23.21	8.33	24.60	7.98	1.28	-3.54	.75	
Concordance	2.70	2.41	2.94	2.44	.72	-.87	.40	
Patient's Satisfaction	49.32	16.08	52.62	14.48	1.60	-7.351	.75	
Time spent by Doc.	1.06	.23	1.54	.56	9.21***	-.58	-.36	1.12

Note. Doctor's C= doctor's communication, CI= confidence interval, LL = Lower limit, UL = upper limit, SD = standard deviation, Doc. = Doctor

Table illustrates the difference between communication skills, empathy and concordance across doctor's gender. In above table non-significant differences were observed for all study variables. But with demographic variable (time spent by doctor) significant results are obtained showing the impact of doctor's gender on total time spent with each patient.

Table 7

Mean difference across patient's gender on study variables (N=238)

	Male (n = 79)		Female (n = 157)			95%CI		
Variables	*M*	*SD*	*M*	*SD*	$t_{(238)}$	*LL*	*UL*	*Cohen's d*
Doctor's C	45.25	18.13	49.85	17.60	1.87	-9.34	.27	
Empathy	22.13	8.77	24.66	7.76	2.17*	-4.64	-.225	.31
Concordance	2.62	2.50	2.89	2.39	.78	-.92	.39	
Patient's Satisfaction	47.65	16.98	52.18	14.58	2.09*	-8.62	-.260	.35

Note. Doctor's C= doctor's communication, CI= confidence interval, LL = Lower limit, UL = upper limit, SD = standard deviation

Table illustrates the difference on study variables across patients' gender. Significant mean difference were observed only on empathy and patient's satisfaction where female patients scored high on empathy and patient's satisfaction as compared to the male. Non-significant difference was observed on other study variables.

Table 8

One- way ANOVA on Socio-Economic Status along Study Variables (N= 238)

Variable	Low (*n* = 65)		Middle (*n* = 106)		High (*n* = 67)					95% *CI*	
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*	*i-j*	*D(i-j)*	*LL*	*UL*
Doctor's C	34.66	16.33	50.68	15.66	57.72	14.41	38.73	1<2	16.02*	-21.78	-10.26
								2<3	7.04*	-12.75	-1.33
								3>1	23.05*	16.69	29.42
Empathy	17.72	8.16	24.61	7.47	28.24	5.56	36.60	1<2	6.89*	-9.56	-4.22
								2<3	3.63*	-6.27	-.98
								3>1	10.51*	7.56	13.47
Concordance	1.12	2.09	3.08	2.40	3.97	1.79	30.17	1<2	1.95*	-2.76	-1.15
								2<3	.89*	-1.69	-.10
								3>1	2.84*	1.96	3.74
Patient's Satisfaction	38.94	16.16	53.08	13.41	58.04	11.24	35.28	1<2	14.13*	-19.22	-9.05
								2<3		-10.00	.07
								3>1	19.11*	13.49	24.72

Note. Doctor's C = Doctor's Communication, Cl= confidence interval, LL = Lower limit, UL=upperlimit

Table 8 illustrates difference on the basis of socio-economic status. It shows significant mean differences across study variables to socioeconomic status that is people with high socio-economic status have high values on all the variables and people with low socio-economic status have low values on all the variables except for patient's satisfaction. Non-significant difference can be seen between middle class and upper class on patient's satisfaction.

Table 9

One- way ANOVA on demographic variable (Consulting Doctor's Department) along Study Variables (N= 237)

	Psychiatric (*n* = 81)		Dermatologist (*n* = 84)		Cardiologist (*n* = 72)					95% *CI*	
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	*i-j*	*D(i-j)*	*LL*	*UL*
Doctor's C	43.52	19.34	49.19	15.96	52.39	17.09	5.09*	3>1	-8.63*	-15.31	-1.96
Empathy	21.65	9.19	23.87	7.49	25.85	7.30	5.18*	3>1	-4.05*	-7.13	-.98
Concordance	2.10	2.54	3.04	2.40	3.26	2.25	5.32*	3>1	-1.13*	-2.03	-.22
								1<2	-.90*	-1.77	-.03
Patient's Satisfaction	46.21	18.13	51.46	13.74	54.42	13.21	5.75*	3>1	-8.01*	-13.82	-2.23

Note. Doctor's C = doctor's communication, M = mean, SD = Standard Deviation, Cl= confidence interval,

LL = Lower limit, UL = upper limit

Table 10 illustrates the difference between study variables on the bases on demographic variable (consulting doctor's department). It shows significant mean difference in Psychiatric department and cardiology department among all study variables. There is non-significant mean difference between dermatology and Psychiatric department and dermatology and cardiology department among all the study variables except in concordance there is a significant mean difference present between Psychiatric department and dermatology department.

Chapter 4

Discussion

Communication is the only way of transferring meaning. We can convey our emotions, information, different feelings and thoughts to others via communication. (Galvin & Terrell, 2001). In hospital set up the best way to convey one's message or issue is by the mean of communication between patient and a doctor. Doctor patient communication, if fruitful works as a healing action for the patients if not it aggravates the situation and add to the misery of patients (Saleem, 2017).

The present study aimed to explore the relationship between communication skills of the doctor, empathy, concordance between doctor and patient and patient's satisfaction. Additionally it aimed to explore the relationship of demographic variables (patients' gender, doctor's gender, consulting doctor's department, and difference between private and public hospitals etc.) with study variables. The major variables of the recent study were assessed through Communication Assessment Tool CAT, (Makaouol, Krupat, & Chang, 2007), The Jefferson Scale of Patient Perceptions of Physician Empathy JSPPPE, (Hojat et al., 2010), Physician-Patient Concordance PPC, (Kerse et al., 2004), and Patient Satisfaction Scale PSS, (Hojat et al., 2011).

Purposive convenience sampling technique has been used for data collection from patients of Psychiatric, Cardiology, and Dermatology departments of different public and private hospitals. The sample (N = 238) comprised of individuals who were able to understand English language. The age of the sample range from 16-70 years. To observe the relationship between study variables Pearson product moment correlation, multiple linear regression, t-test and ANOVA were used. To determine the psychometric properties of the scale alpha reliabilities were computed for all the scales (see table 2). Results indicated that the reliability of all scales Ranged from .89-.98. Alpha reliability for CAT was .98, alpha reliability for JSPPPE was .96, alpha reliability of PPC scale was .89 and for PSS it was .98. It can be inferred that all scale were internally consistent. The values of skewness and kurtosis lies between values of

± 2 therefore data is considered normally distributed (Cohen, Swerdlik, & Phillips, 1996).

Hypotheses were formulated on the bases of literature. The very first objective of recent study was to test the relationship between the study variables. It was hypothesized that there will be a positive relationship between doctor's communication skills, doctor's empathy, concordance and patient's satisfaction level. Pearson product moment correlation were computed and findings indicated that there was a significant positive relationship between these variables (see table 3). As communication is the best way to deal with patients, if doctors communicate skillfully they will understand the problem of patient and due to this there will be an agreement between them which is known as concordance. Moreover empathy will develop and patient will be satisfied with the doctor's treatment. These findings are consistent with previous literature (Zachariae et al., 2003). Furthermore, both the communication and interpersonal skills of physicians helps to gather correct information about patient's problem which would help them in accounting diagnosis, appropriate counseling sessions, instructing them the therapeutic plan, and establishment of appropriate rapport between patient and physician (Ha & Longnecker, 2010). Appropriate doctor-patient communication and empathy produces great therapeutic benefit for the patients and leads patients towards healthy life style and treatment compliances (Kim, Kaplowitz, & Johnston, 2004). Arts and tips of communication skill can help in changing the feelings of a patient forever. Developing the effective communication skills with patients is essential component in improving the patients' satisfaction and developing their trust in order to assure them to follow up the physicians' directions (Thom, Hall, & Pawlson, 2004).

Empathy also plays an important role in patient physician relationship. Previous researches also indicate positive relation between empathy and patient's satisfaction. According to finding physicians' orientation toward preventive measures can contribute to more positive perceptions of physician empathy, probably due to patients emotions that their physicians do understand and care about their future health (Larson & Yao, 2005). Positive relation has been observed between friendly behavior of physicians and satisfaction of patients. Past researches indicates that Patients who report high levels of concordance with the physician are more likely to be compliant in taking medications which was prescribed during their consultation (Stevenson, Cox, Britten, & Dundar, 2005). Previous literature indicates that there is a

significant positive relationship between patient's satisfaction and respectful behavior of physician. According to a study published in Singapore it was concluded that a better match between doctor and patient-oriented treatment resulted in a higher patient's satisfaction (Ghazanfar et al., 2016).

The second hypotheses claimed that doctor's communication skills, empathy and concordance will predict patients' satisfaction. For this purpose multiple linear regression was carried out. Finding indicated that physician's communication and empathy were significant predictors of patient's satisfaction as they have significant values whereas concordance was not a good predictor of patient's satisfaction (see table 4). Previous literature indicates that all these variables are good predictor of patient's satisfaction (Bigule et al., 2017; Hojat et al., 2010). Concordance develops when there is enough time spent by doctor. On November 14, 2017 in Express tribune Pakistan an article was published which indicate that doctors spend less than 2 minutes while attending their patients in Pakistan. The average time spent by each doctor in 1.79 which is less than 2 minutes. In present study average time spent by doctor was less than 2 minutes as reported by patients (see table 6) so it was difficult to develop concordance in less than 2 minutes. That's why in present study concordance showed non-significant value in predicting patient's satisfaction (Cousin, Schmid, Roter, & Hall, 2012).

Past literature indicated that some factors led to increase in patients' satisfaction such as gender of the patients. The third hypothesis stated that female patients will have more satisfaction level as compared to the male patients (see table 7). Table 7 it is indicates that the female patients scored high on empathy scale as well as on patients' satisfaction. Due to the empathetic touch in doctor's communication female patients felt satisfaction. The results are consistent with the previous literature which focuses on the fact that females report high satisfaction compared to male (Ghazanfar et al., 2016).

Hypothesis 4 stated that patients in private hospital will score high on patient's satisfaction as compared to the patients in public hospitals. t test was computed to see the results. Findings supported this hypothesis (see table 5). Patients of private hospitals perceive doctor's communication as more effective in comparison to the patients of public sector hospitals. Findings are consistent with the previous literature. Literature suggested that Patients admitted into a private hospital had more

expectations from their doctor because of the difference in the amount of payment made by private patient (Ghazanfar et al., 2016)

In addition t-test was computed to see the impact of doctor's gender on study variables (see table 6). The result in table 6 showed non-significant results. The results are not consistent with previous literature as previous literature reported that Female doctors seemed to be engaged in more rapport building behavior such as encouragement, concern, sympathy and empathy (Jefferson, Bloor, Birks, Hewitt & Bland, 2013). Moreover literature guided us that Female doctors spend on average 2 minutes more with patients in their consultations. In present study results are consistent (see table 6). Female doctors spent more time during their consultation as compare to male doctors (Bertakis, 2009).

Moreover ANOVA was also run to see the difference of doctor's department and its impact on patient's satisfaction (see table 9). Three selected departments included cardiology department, dermatology department and psychiatric department. Findings are not consistent with previous literature about cardiologist (Kayaniyil, Gravely-Witte, Sherry & Grace, 2009). In recent study Patients in cardiology departments scored high on satisfaction level as compared to the other three departments. Findings about dermatology department are consistent with previous literature which suggests that patient's satisfaction with their consultant is very high (Salins, Brenaut, Misery & Roguedas-Contion, 2016. Literature suggested that patient's satisfaction in psychiatric department is low. In present study patient's in psychiatric department reported significant satisfaction with their consultant but in comparison with other department patient's in psychiatric department reported low satisfaction. This can be attributed to the minimum time spent by doctor in educating the patient about problem (Muller, Schlosser, Steen, Schanz, & Benkert, 2002).

ANOVA was also run with socioeconomic status (see table 8) and it showed significant results. Results are consistent with previous literature. Because people with low socioeconomic status go to public hospitals mostly they can't afford fee of private hospitals that's why they scored low on all study variables as compared to middle class and upper class. Moreover literature reported that doctor's attitude with patients who belong to low socioeconomic status was not good (Willems, Maesschalck, Deveugele, Derese, & Maeseneer, 2005). Research indicates that socioeconomic status effect the patient's satisfaction level, doctor's communication, empathy and

concordance. Research findings identify a range of patients' perceptions regarding their SES and health care experiences. Most subjects perceived that the treatment provided by their physicians, access to health care, and the relationship they had with their provider were affected by their SES, though they often avoided saying so directly (Arpey, Gaglioti & Rosenbaum, 2017).

Conclusion

The present study was designed to see the impact of patient's perception of physician's communication skills, empathy and concordance on patient's satisfaction. Results hypothesized that there is positive relationship between all the variables. Findings also suggest that doctor's communication, empathy between doctor and patient are good predictor of Patient's Satisfaction. Moreover female patients are more satisfied with doctor's communication, empathy and concordance as compared to the male patients. Patients in private hospitals also showed significant high level of patient's satisfaction as compared to the patients in public hospitals. There was non-significant difference present in study variables on the base of doctor's gender. Moreover patient's satisfaction was low in psychiatrist department in comparison to Cardiology. Study also illustrated that socioeconomic status has also an impact on patient's satisfaction level where patient from high socioeconomic status scored higher on patient's satisfaction as compared to the patient from low socioeconomic

Limitations and suggestions

Each research has also some limitations which than leads to new researches. This study also has some limitation as well and these limitations may also cause problem for generalization.

1. In this study we approached patients through purposive and convenience sampling. People who were not educated were excluded from the study. Only those people who could understand English language were included in this study. Moreover only specific areas were targeted for the study so the results cannot be effectively generalized. Translation of these scales in Urdu can be helpful in future so that people with less education can also understand the questions.

2. Sample size of the recent study was not evenly distributed. The sample size is of 238 male and female patients from different public and private hospitals in which 79 patients were male and 157 patients were female. Also 132 patients were from private hospital and 106 patients were from public hospital. This also limits the generalization of the study. To gain more significant result inclusion of evenly distributed sample with more demographics would be helpful.
3. This study is based upon patient's perception, so in future longitudinal study and study in which doctors' perception about patient's satisfaction will be helpful for understanding all these variables.

Implication

The study established comprehensible relationship between doctor's communication skills, doctor's empathy, patient-physician concordance and patients' satisfaction. This study show implication in health setting where doctors can understand that due to their communication, empathy and concordance with patients, patients' satisfaction will increase that can lead to better treatment outcomes. The finding of this study may also be helpful for medical students and doctors to learn better communication skills. The present study will be of great help for doctors in improving the psychological well-being of patients through their communication skills, empathy and concordance.

REFERENCES

Arpey, N.C., Gaglioti, A. H., & Rosenbaum, M. E. (2017). How socioeconomic status affects patient perceptions of health care: a qualitative study. *Journal of Primary Care & Community Health*, *8*(3), 169-175.

Baile, W.F., & Aaron, J. (2005). Patient-physician communication in oncology: past, present, and future. *Current Opinion In Oncology*, *17*(4), 331-335.

Baker, R. (1997). Pragmatic model of patient satisfaction in general practice: progress towards a theory. *BMJ Quality & Safety*, *6*(4), 201-204.

Berman, A.C., & Chutka, D. S. (2016). Assessing effective physician-patient communication skills: Are you listening to me, doc?. *Korean Journal of Medical Education*, *28*(2), 243.

Bertakis, K.D. (2009). The influence of gender on the doctor–patient interaction. *Patient Education and Counseling*, *76*(3), 356-360.

Biglu, M.H., Nateq, F., Ghojazadeh, M., & Asgharzadeh, A. (2017). Communication skills of physicians and patients' satisfaction. *Materia socio-medica*, *29*(3), 192.

Chandra, S., Mohammadnezhad, M., & Ward, P. (2018). Trust and communication in a doctor patient relationship: a literature review. *J Health Commun*, *3*(3), 36.

Chen, Y., Tang, C., Zhou, X., Sarcevic, A., & Lee, S. (2013, February). Beyond formality: informal communication in health practices. In *Proceedings of the 2013 Conference on Computer Supported Cooperative Work Companion* (pp. 307-312). ACM.

Cohen, R.J., Swerdlik, M. E., & Phillips, S. M. (1996). *Psychological testing and assessment: An introduction to tests and measurement*. Mayfield Publishing Co.

Cousin, G., Mast, M. S., Roter, D. L., & Hall, J. A. (2012). Concordance between physician communication style and patient attitudes predicts patient satisfaction. *Patient Education and Counseling*, *87*(2), 193-197.

Davis, R.E., Dolan, G., Thomas, S., Atwell, C., Mead, D., Nehammer, S., & Elwyn, G. (2003). -Exploring doctor and patient views about risk communication and shared decision making in the consultation. *Health Expectations*, *6*(3), 198-207.

DiMatteo, M.R., Sherbourne, C. D., Hays, R. D., Ordway, L., Kravitz, R. L., McGlynn, E. A., & Rogers, W. H. (1993). Physicians' characteristics influence patients' adherence to medical treatment: results from the Medical Outcomes Study. *Health Psychology*, *12*(2), 93.

Eikeland, H.L., Ørnes, K., Finset, A., & Pedersen, R. (2014). The physician's role and empathy–a qualitative study of third year medical students. *BMC Medical Education*, *14*(1), 165.

Epstein, R.M., Mauksch, L., Carroll, J., & Jaen, C. R. (2008). Have you really addressed your patient's concerns?. *Family Practice Management*, *15*(3), 35.

Galvin, K.M., & Terrell, J. (2001). *Communication works! Communication application in the workplace* (1st Ed.) Illinois: National Textbook Company.

Ghazanfar, A., Idress, I.N., Zia, Z., Munir, N., & Maryam, S. (2017). Comparison of patients satisfaction levels in public and private tertiary care centres. *The Journal of the Pakistan Medical Association*, *67*(8), 1305-1308.

Gross, K., Schindler, C., Grize, L., Späth, A., Schwind, B., & Zemp, E. (2013). Patient– physician concordance and discordance in gynecology: Do physicians identify patients' reasons for visit and do patients understand physicians' actions?. *Patient Education and Counseling*, *92*(1), 45-52.

Ha, J.F., & Longnecker, N. (2010). Doctor-patient communication: a review. *The Ochsner Journal*, *10*(1), 38-43.

Hojat, M., Louis, D.Z., Maxwell, K., Markham, F., Wender, R., & Gonnella, J.S. (2010). Patient perceptions of physician empathy, satisfaction with physician, interpersonal trust, and compliance. *International Journal of Medical Education*, *1*, 83.

Imam, S.Z., Syed, K.S., Ali, S.A., Ali, S.U., Fatima, K., Gill, M., & Jameel, O.F. (2007). Patients' satisfaction and opinions of their experiences during admission in a tertiary care hospital in Pakistan–a cross sectional study. *BMC Health Services Research*, *7*(1), 161.

Jalil, A., Zakar, R., Zakar, M.Z., & Fischer, F. (2017). Patient satisfaction with doctor-patient interactions: a mixed methods study among diabetes mellitus patients in Pakistan. *BMC Health Services Research*, *17*(1), 155.

Janz, N.K., Wren, P.A., Copeland, L.A., Lowery, J.C., Goldfarb, S.L., & Wilkins, E. G. (2004). Patient-physician concordance: preferences, perceptions, and factors influencing the breast cancer surgical decision. *Journal of Clinical Oncology*, *22*(15), 3091-3098.

John, M., Travelin, M.D., Robert, R., & Gilbert, E.D. (2005). Patient-physician communication: why and how. *The Journal of the American Osteopathic Association*, *105*(2), 13-18.

Jordan, J.L., Ellis, S.J., & Chambers, R. (2002). Defining shared decision making and concordance: are they one and the same?. *Postgraduate Medical Journal*, *78*(921), 383-384.

Kaba, R., & Sooriakumaran, P. (2007). The evolution of the doctor-patient relationship. *International Journal of Surgery*, *5*(1), 57-65.

Kerse, N., Buetow, S., Mainous, A.G., Young, G., Coster, G., & Arroll, B. (2004). Physician-patient relationship and medication compliance: a primary care investigation. *The Annals of Family Medicine*, *2*(5), 455-461.

Khattak, A., Alvi, M.I., Yousaf, M.A., Shah, S.Z.U.A., Turial, D., & Akhter, S. (2012). Patient satisfaction–a comparison between public & private hospitals of Peshawar. *International Journal of Collaborative Research on Internal Medicine & Public Health*, *4*(5), 713-722.

Kim, S.S., Kaplowitz, S., & Johnston, M.V. (2004). The effects of physician empathy on patient satisfaction and compliance. *Evaluation & The Health Professions*, *27*(3), 237-251.

Korsch, B.M., & Negrete, V.F. (1972). Doctor-patient communication. *Scientific American, 227*(2), 66-75.

Koul, P.A. (2017). Effective communication, the heart of the art of medicine. *Lung India: Official Organ of Indian Chest Society, 34*(1), 95.

Kurtz, S.M., Silverman, J., Draper, J., van Dalen, J., & Platt, F.W. (2005). Teaching and learning communication skills in medicine: Radcliffe Pub.

Lankton, J.W., Batchelder, B.M., & Ominsky, A.J. (1977). Emotional responses to detailed risk disclosure for anesthesia, a prospective, randomized study. *Anesthesiology: The Journal of the American Society of Anesthesiologists, 46*(4), 294-295.

Larson, E.B., & Yao, X. (2005). Clinical empathy as emotional labor in the patient-physician relationship. *Jama, 293*(9), 1100-1106.

Liaw, S.T., Young, D., & Farish, S. (1996). Improving patient-doctor concordance: an intervention study in general practice. *Family Practice, 13*(5), 427-431.

Lienard, A., Merckaert, I., Libert, Y., Delvaux, N., Marchal, S., Boniver, J., & Slachmuylder, J. L. (2008). Factors that influence cancer patients' and relatives' anxiety following a three-person medical consultation: impact of a communication skills training program for physicians. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer, 17*(5), 488-496.

Lienard, A., Merckaert, I., Libert, Y., Delvaux, N., Marchal, S., Boniver, J., & Slachmuylder, J.L. -(2008). Factors that influence cancer patients' and relatives' anxiety following an impact of a communication skills training program for physicians. *Psycho Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer, 17*(5), 488-496.

Lightsey, C.D., Martin, M.M., Thompson, M., Himes, K.L., & Clingerman, B.Z. (2012). Communication privacy management theory: Exploring coordination and ownership between friends. *Communication Quarterly, 60*(5), 665-680.

Makoul, G., Krupat, E., & Chang, C. (2007). Measuring patient views of physician communication skill: development and testing of the communication assessment tool. *Patient Education and Counseling, 67*(1), 333-342.

Müller, M.J., Schlösser, R., Kapp-Steen, G., Schanz, B., & Benkert, O. (2002). Patients' satisfaction with psychiatric treatment: comparison between an open and a closed ward. *Psychiatric Quarterly*, *73*(2), 93-107.

Naseer, M., Zahidie, A., & Shaikh, B.T. (2012). Determinants of patient's satisfaction with health care system in Pakistan: a critical review. *Pakistan Journal of Public Health*, *2*(2), 52.

Shannon, C.E., & Weaver, W.A.R.R.E.N. (1949). The mathematical theory of communication–Univ. *Illinois Press, Urbana, I, 11*, 117.

Singh, S. (2005). Empathy: Lost or found in medical education?. *Medscape General Medicine*, *7*(3), 74.

Starfield, B., Shi, L., & Macinko, J. (2005). Contribution of primary care to health systems and health. *The Milbank Quarterly*, *83*(3), 457-50

Stevenson, F.A., Cox, K., Britten, N., & Dundar, Y. (2004). A systematic review of the research on communication between patients and health care professionals about medicines: the consequences for concordance. *Health Expectations*, *7*(3), 235-245.

Street, R.L., O'Malley, K.J., Cooper, L.A., & Haidet, P. (2008). Understanding concordance in patient-physician relationships: personal and ethnic dimensions of shared identity. *The Annals of Family Medicine*, *6*(3), 198-205.

Surbhi, S. (2015). Difference between oral communication and written communication. Retrieved from http://keydifferences.com/difference-between-oral-communication and-written-communication.html

Switankowsky, I. (2000). Sympathy and empathy. *Philosophy Today*, *44*(1), 86-92.

Tariq, N., Rasheed, T., & Tavakol, M. (2017). A quantitative study of empathy in Pakistani medical students: a multicentered approach. *Journal of Primary Care & Community Health*, *8*(4), 294-299.

Tariq, N., Tayyab, A., & Jaffery, T. (2018). Differences in Empathy levels of medical students based on gender, year of medical school and career choice. *Journal of the College of Physicians and Surgeons--Pakistan*, *28*(4), 310-313.

Thom, D.H., Hall, M.A., & Pawlson, L.G. (2004). Measuring patients' trust in physicians when assessing quality of care. *Health Affairs*, *23*(4), 124-132.

Vogel, D., Meyer, M., & Harendza, S. (2018).Verbal and non-verbal communication skills including empathy during history taking of undergraduate medical students. *BMC Medical Education*, *18*(1), 157.

Wagner, J.D., Bezuidenhout, M.C., & Roos, J.H. (2015). Communication satisfaction of professional nurses working in public hospitals. *Journal of Nursing Management*, *23*(8), 974-982.

Willems, S., De Maesschalck, S., Deveugele, M., Derese, A., & De Maeseneer, J. (2005). Socio-economic status of the patient and doctor–patient communication: does it make a difference?. *Patient Education and Counseling*, *56*(2), 139-146.

Wilmer, H.A. (1968). The doctor–patient relationship and the issues of pity, sympathy and empathy. *British Journal of Medical Psychology*, *41*(3), 243-248.

Zachariae, R., Pedersen, C.G., Jensen, A.B., Ehrnrooth, E., Rossen, P.B., & von der Maase, H. (2003). Association of perceived physician communication style with patient satisfaction, distress, cancer-related self-efficacy, and perceived control over the disease. *British Journal of Cancer*, *88*(5), 658

Appendic A

Informed Consent

I am Maham Arshad, MSc research student at National Institute of Psychology, Quaid-i-Azam University Islamabad. I am conducting a research as per degree requirement. The aim of my research is to see the effect of physician's communication skills, empathy and physician-patient concordance on patient's satisfaction. I request you to support my research by filling this questionnaire. Your participation and support will be highly appreciated. I assure you that information provided by you will be kept confidential and will only be used for research purpose. You have full right to quit at any stage. If you want to get information about the result then you can email on mahamarshad098@gmail.com

Participation in this research is completely based on your willingness to participate.

If you agree to participate then please sign below.

Thank you!

Signed ____________

Maham Arshad

mahamarshad098@gmail.com

Appendix B

Demographic sheet

Age ______________

Gender

Male Female

Education

Matric intermediate bachelor Masters

Problem or Disease ____________________________

Any previous checkup history

Yes No

Mention if any previous checkup history present ____

____

Economic status

Lower class middle class upper class

Martial status

Married Unmarried Widow Divorced

Residency

Native non-native

Hospital

Public private

Person consulting

My self mine child adult

relative

Occupation

____

Consulting doctor department

Cardiologist Psychiatric Dermatology

Doctor's gender

Male Female

Waiting time outside the doctor office

10-20 mins. 20-40 mins. 40mins. – 1 hour

Monthly income

Time spent by doctor

Appendix C

Communication Assessment Tool (CAT)

Please use this scale to rate the way doctor communicated with you. Tick your answer for each item below. Scores are given below

1=poor, 2=fair, 3=good, 4=very good, 5= excellent

No.	Items	Poor	fair	Good	Very good	Excellent
1	Greeted me in a way that made me feel comfort					
2	Treated me with respect					
3	Showed interest in my ideas about health					
4	Understood my main health concerns					
5	Paid attention to me (looked at me, listen carefully)					
6	Let me talk without interruptions					
7	Gave me as much information as I wanted					
8	Talked in terms I could understand					
9	Checked to be sure I understood everything					
10	Encouraged me to ask question					

11	Involved me in decision as much as I wanted					
12	Discussed next steps, including any follow-up plans					
13	Showed care and concerns					
14	Spent the right amount of time with me					
15	Treated me with respect (medical staff)					

Appendix D

Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPPE)

A number of statements are given below to see the doctor's empathetic behaviour with you. Read each statement and then tick the appropriate box to the right of the statement to indicate how you perceive doctor's behaviour with you. There is no right or wrong answer Please rate the following items according to your perception about doctor's empathetic behaviour with you. Scores are given below

1=strongly disagree, 2= disagree, 3= slightly disagree, 4=uncertain, 5=slightly agree, 6=agree, 7=strongly agree

No.	Items	Strongly disagree	Disagree	Slightly disagree	Uncertain	Slightly agree	Agree	Strongly agree
1	My doctor understands my emotions, feelings and concerns							
2	My doctor is an understanding doctor							
3	My doctor seems concerned about me and my family							
4	My doctor asks about what is happening in my daily life							
5	My doctor can view things from my perspective (see things as I see them)							

Appendix E

Physician Patient Concordance Scale (PPCS)

Read each statement and rate the given items which show your agreement with doctor. The answer will describe your present agreement with doctor. Scores are given below

1=completely, 2=slightly, 3=uncertain, 4=not at all

No.	Items	Completely	Slightly	Uncertain	Not at all
1	To what extent do you think the doctor understands why you came in today?"				
2	How well do you think the doctor understood you today				
3	To what extent did you and the doctor agree about the main problem or need today?"				
4	To what extent did you and the doctor agree about what to do about the problem or need?"				
5	To what extent do you and the doctor agree on what part you play in making decisions about health?				
6	"To what extent do you and the doctor agree on who is responsible for different aspects of care?				

Appendix F

Patient's Satisfaction Scale (PSS)

Please rate yourself the way you feel satisfied about the doctor's overall behavior with you. Answer for each item below. Tick the box in front of the statement you feel most suitable for your answer. Scores are given below

1=strongly disagree, 2= disagree, 3= slightly disagree, 4=uncertain, 5=slightly agree, 6=agree, 7=strongly agree

No.	Items	Strongly disagree	Disagree	Slightly disagree	Uncertain	Slightly agree	Agree	Strongly agree
1	I am satisfied that my doctor has been taking care of me							
2	My doctor explains the reason(s) for any medical test							
3	My doctor explains things in a way that is easy for me to understand.							
4	I am confident of my doctor's knowledge and skills.							

5	My doctor shows respect to what I have to say.							
6	My doctor listens carefully to me							
7	My doctor really cares about me as a person.							
8	My doctor encourages me to talk about all my health concerns.							
9	My doctor spends enough time with me.							
10	I would like my doctor to be present in any medical emergency situation							