

MEDICAL STUDENTS' VIEWS REGARDING THE ROLE OF
EMPATHY IN PATIENT-PHYSICIAN INTERACTIONS

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Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
May, 2007

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EMPATHY IN PATIENT-PHYSICIAN INTERACTIONS

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ACKNOWLEDGMENTS

I would like to begin by thanking all my committee members for their guidance and insight. I'd like to thank Dr. Sue Jacobs for her work on my committee and encouragement through PFF. I also wish to thank Dr. Steve Harrist who so graciously provided insight and support during this process. His input was much appreciated. A special thanks goes to Dr. Mike Pollak who has patiently joined in many discussions that challenged and encouraged me throughout my dissertation. Finally, I would especially like to thank my committee chair and advisor, Dr. Diane Montgomery. Her dedication to her students, and to the principles of creative teaching, fostered a relationship that allowed the right (and best) path to emerge during all the critical junctures of my recent educational journey.

I am very grateful to all of my family and friends for their love and support during this entire process. I owe a very special thanks to Dr. Denna Wheeler and Jan Clayton, members of our Dissertation Accountability Group (DAnG). You were both a true gift from God. I cannot imagine going through this process without you!! Another of God's great gifts is my best friend, Gila Brandenberger. There just aren't words to describe how much her friendship affects every area of my life...dissertation included.

Above all, I would like to dedicate my dissertation to the memory of my Dad, Dale L. Lindon. His warmth and compassion touched all who were fortunate to know him. His presence is still felt by many, especially his family. He was (and still is) one of the most empathic human beings I have every known.

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CHAPTER I

INTRODUCTION

Empathy has long been considered a significant attribute of the patient-physician relationship. In fact, after clinical competence, empathy may be the characteristic most valued by patients. Empathy is the key underlying quality of humanistic physicians and the foundation of the skills of all healthcare professionals (Halpern, 2001; Peabody, 1927; Spiro, Curnen, Peschel, & St. James, 1993). Many medical students may indeed begin their education with great empathy and genuine concern to help others. However, rather than medical education acting as an experience that strengthens the empathy potential of the students, empathy appears to decrease during the educational process (Halpern, 2001; Hojat et al., 2004; Spiro et al., 1993).

The decline in empathy may be caused by the lack of importance some physicians and medical educators place on empathy. While students may begin their medical education with empathy, professionals at medical schools often emphasize that students are to view themselves as experts and to fix what is damaged (Spiro et al., 1993). A focus on science, or biomedical issues, in education may be what leads to emotional detachment and a lack of empathy in students (Halpern, 2001). According to Engle (1977), an imbalanced focus on biomedicine may stem from the inference that disease is defined in terms of somatic parameters and students do not need to be concerned with psychological or social issues which lie outside medicine's responsibility and authority.

The perception that psychological and social issues are not included in the scope of the physician's responsibility produces a restricted biomedical approach to medicine and a limited view of patient care.

A radical biomedical orientation to medical care follows a dualistic methodology that separates mind and body. With this view, diagnosis and treatment of the disease are isolated from other aspects of the patients' emotional, mental, spiritual, and social life. The scientific study of disease tends to promote a biomedical orientation. According to Cooper and Tauber (2005), the foundation of medical knowledge lies in the natural sciences. The reductionism underlying the foundation in natural sciences seeks to reduce the complexity of medical care into simple terms and individual elements. While the long-established biomedical aspects of health sciences have contributed many medical advances, a strict biomedical focus in the curriculum may lead to the dehumanization of medicine. Cooper and Tauber corroborate this professional concern by stating:

The void that is created by disregard for the social sciences is not simply one of content. It has as much to do with how such disciplines equip students to evaluate and integrate knowledge. Clinical facts are just the beginning; solutions lie beyond in a sea of values and ambiguity. Medicine is, by its very character, holistic in orientation, and the curriculum must reflect this reality. Unfortunately, the reductionist approach offers little opportunity to nurture these skills, cultivate empathy, or assist students in gaining comfort with the vicissitudes of their own emotions. (p. 1087)

Few medical conditions can be isolated to a single cause; rather, most medical issues are complex and usually the result of multiple interacting causes and contributing

factors. Therefore, a rigid biomedical orientation often excludes psychosocial factors, and can distort or interfere with total patient care. If medical education continues to exclude the complexities of emotional and spiritual aspects of the patient, an unbalanced patient-care perspective may be fostered. An overly narrow, biomedical view of medicine perceives the patient merely as a human being who needs to be fixed rather than as a person who needs care. The exclusion of psychosocial factors creates a significant limitation to both diagnosis and treatment (Engel, 1977).

The Biopsychosocial Orientation

A biopsychosocial (BPS) orientation considers disease or illness in context of the whole person. Rather than isolate illness from the person, the BPS approach regards the whole patient within the context of family, work, community, and culture, as a necessary framework to investigate healthcare issues (Suchman & Matthews, 1988). Because each patient experiences illness in a unique way, an ideal approach to medical care should include attention to the patient's values, desires, thoughts, feelings, and the way they are experiencing the illness (Platt et al., 2001). The scientific model framed with a BPS view to healthcare contends that every level of an organism affects every other level, whether the level is molecular, cellular, organic, personal, social, or interpersonal (Borrell-Carrio, Suchman, & Epstein, 2004; Engel, 1980). Therefore, a BPS orientation captures the missing elements in the biomedical orientation, and provides an alternative view to medical care by emphasizing psychological and social factors as key determinants of health.

The challenge for medical professionals is to identify and understand the many factors contributing to an illness. Inattention to the humanity of the patient or their

concerns can lead to inadequate clinical data-gathering, incomplete patient history, and lack of patient adherence to treatment plans (Platt et al., 2001; Suchman, 2000). By allowing patients time and space to articulate their concerns, expectations, emotions, and reveal issues about their lives, the physician is able to obtain data to formulate a more accurate diagnosis and treatment plan (Borrell-Carrio et al., 2004). The patient-physician relationship may be deprived of an important source of healing and meaning if the physician disregards the patients' emotionality (Suchman, 2000).

Attention to the emotionality of the patient develops a sense of relatedness. According to Suchman and Matthews (1988), a feeling of connectedness with the doctor, of being deeply heard and understood, reduces the feeling of isolation and eases despair. This empathic connection has been associated with establishing a relationship that is therapeutic (Kirsner, 2002; Matthews, Suchman, & Branch, 1993; Suchman & Matthews, 1988). Researchers have identified several positive health outcomes that support the notion that empathy provides a therapeutic quality to patient-physician relationships.

Positive Health Outcomes

Empathy has been repeatedly identified as a key component that leads to positive outcomes of healthcare relationships (Keefe, 1976). Research has provided evidence that demonstrates a link between empathy and positive healthcare outcomes, including greater patient satisfaction, reduced malpractice claims, greater patient adherence to treatment plans, and lower medical expenses (Cooper & Tauber, 2005; Engel, 1977; Engel, 1997; Hojat et al., 2002e; Hojat et al., 2005; Suchman, Markakis, Beckman, & Frankel, 1997; Williams, Frankel, Campbell, & Deci, 2000; Williams, Gagne, Ryan, & Deci, 2002; Williams, Grow, Freedman, Ryan, & Deci, 1996). It is the identification of these positive

outcomes that have made empathy a desired trait in the medical profession, as well as a desired competency to be taught in medical education (Suchman, 2003).

Empathy in Medical School

The positive health outcomes found in evidence-based research reinforce the need for medical curriculum to promote a greater value in the relational aspect of the patient-physician encounter (Winefield & Chur-Hansen, 2000). The core skills and traits needed to develop a positive rapport require effectiveness in inquiring about the patients' feelings and emotions, and then communicating care and respect in return. These attributes have been directly identified with empathy (Suchman et al., 1997).

With the positive results that have emerged from research involving empathy in medical care, few medical educators question the importance of incorporating a more humanistic model into their medical training. However, even with the positive outcomes connected to the relationship process, there is still a tendency for medical education to emphasize technical and biological aspects of medicine. Biological, pharmacological, and other hard science courses still occupy much of the focus in medical curricula. Medical educators face a challenge of compressing substantial amounts of knowledge into a limited timeframe. According to Cooper and Tauber (2005), medical educators often resolve the issue surrounding limited curriculum space by precluding other contemporary subjects such as anthropology, sociology, ethics, and global health. Thus, a strong science-based curriculum may sacrifice the social science courses that might provide a more balanced approach to medical care.

Obviously, biology of disease and anatomic details must be taught in medical school, but attention to biology does not need to be at the expense of the psychological

and social aspects of patient care. The methods of assessment of students' competencies in the biological knowledge may decrease the importance on psychosocial factors. Students are assessed with emphasis on finding the correct biological diagnosis. Less emphasis may be placed on the humanistic aspects of medicine and how students interact empathically with their patients. Without explicit attention to assessing and developing empathic care, the value of such care can be often neglected or subtly devalued (Markakis, Beckman, Suchman, & Frankel, 2000).

Problem Statement

In January 1996, the Association of American Medical Colleges (AAMC) began a new initiative in an effort to respond to the concerns surrounding what might be seen as neglect in student preparedness for empathic patient interactions. The initiative is known as the Medical School Objectives Project (MSOP) and the goal for phase one of the MSOP was to set forth learning objectives for medical school curriculum. According to the first report issued from the MSOP (1998), "physicians must be compassionate and empathetic in caring for patients...in all their interactions with patients they must seek to understand the meaning of patients' stories in the context of the patients' beliefs, and family and cultural values" (p. 4). Many medical education programs are in the process of implementing new teaching designs to prepare their students to meet the MSOP objectives. However, empathy studies, teaching methods and assessment tools designed specifically to develop empathy in medical students are limited and many are still subject to effectiveness reviews (Branch, Pels, & Hafler, 1998; Branch, Pels, Lawrence, & Arky, 1993; Shapiro, Morrison, & Boker, 2004; Spiro, 1992).

In order to evaluate the effectiveness of educational programs aimed at promoting empathy, medical educators need to understand the types of perceptions students hold regarding empathy and its role in patient interactions (Hojat et al., 2002). According to Shapiro, Morrison, and Boker (2004), teaching methods may influence different dimensions of empathy in different ways. Many researchers agree that there are multiple dimensions of empathy, but will often disagree as to which dimensions are important in the healthcare field (Hojat et al., 2002e; La Monica, 1981; Larson & Yao, 2005). There are few instruments that measure empathy, and even fewer that measure empathy in medical students (Hojat et al., 2001b; Stepien & Baernstein, 2006). Existing instruments that produce a composite score measuring a level of empathy may not provide educators with adequate insight needed to develop teaching programs that target a specific dimension of empathy in need of development. If medical educators intend to develop a curriculum that will promote empathy and produce more empathic medical school graduates, it would be beneficial for researchers to investigate empathy using a multidimensional approach based on student subjective views.

Theoretical Framework

The four components of empathy identified by Morse et al. (1992) provided the theoretical framework for this study. Morse et al. found four key components or dimensions of empathy that had been included in healthcare research—moral, emotional, cognitive, and behavioral. Utilizing all the dimensions was a preferred in order to investigate empathy using an optimal strategy that would assure a vast range of options for medical student to express their subjective views. Morse et al. contributes a

comprehensive theory that aids in a holistic investigation of medical students' perceptions regarding the role of empathy in patient-physician interactions.

The construct of empathy is complex and difficult to define, especially in the patient-physician interactions. Empathy is multifaceted in its meaning and consists of multiple components. The confusion about the different meanings and components of empathy arises due to its subjective nature, the complexity of the empathic process, and the inadequate conceptualization of empathy in the literature (Morse et al., 1992). In their 1992 study, Morse et al. surveyed the literature, medical and psychological, to identify a comprehensive model of empathy. Their review revealed four key components of empathy: moral, cognitive, behavioral, and emotive. Other theoretical frames were considered, but appeared incomplete or limited since they often only included one or two components. The theoretical frame of four empathy components provided the best fit for this study due to its comprehensive nature.

The moral component of empathy consists of a broad outlook or perspective that may be understood as a person's empathic disposition. The moral aspect of empathy places an emphasis on an unconditional acceptance of humanistic relationships or a humanitarian philosophy of life. The moral component is an altruistic force, which provides intrinsic motivation to practice empathy in interpersonal relationships. Morse et al. (1992) state that the philosophical belief that human beings are interrelated fostered the notion that empathy involves a universalistic moral principle. The construct of relatedness has been identified as one of the conditions that must be met for humans to experience optimum growth and well-being (Deci & Ryan, 2002). In the medical setting, relatedness refers to the patient's need to feel compassion from the physician, and that the

physician cares about their needs. The relatedness aspect of the moral component confirms the human need to feel connected to others, to be cared for and to care for others.

The moral component of empathy affirms that the natural desire to care for others and help those in need of assistance is the root of empathy. According to Morse et al. (1992), the moral component of empathy is triggered each time a person encounters another's pain or suffering. Once the moral component is triggered, one must make a cognitive decision to participate in the emotional state of another, or distance themselves from the other's emotions.

Before the cognitive decision of whether or not to participate in another's emotional state is made, the emotion must first be recognized. Therefore, the cognitive component is the intellectual ability to perceive another person's emotions and to consider the other person's perspective. Several researchers refer to the cognitive domain as perspective-taking (Davis, 1996; Hojat et al., 2001b; Morse et al., 1992). The cognitive domain of empathy includes the ability to comprehend, analyze, and critically think about another person's circumstances (Morse et al).

The accuracy of the cognitive aspect of empathy is a critical element of this component. If a physician fails to understand the patient's feelings or perspective correctly, communication problems can emerge. An inaccurate assessment of what a patient is experiencing, or fear of an inaccurate assessment, may lead to an inappropriate empathy response which may result in patient dissatisfaction, feelings of mistrust from the patient, and an increased likelihood of legal action (Hojat et al., 2002a). Whether the

cognitive understanding is accurate or not, the ability to communicate the cognitive aspect of empathy provides the basis for the behavioral component of empathy.

The behavioral component of empathy focuses on the ability to convey understanding and concern. Empathy can be communicated through both verbal and nonverbal processes. In the healthcare environment, the behavioral aspect of empathy is associated with a physician's ability to effectively express empathy so that the patient feels understood (Bylund & Makoul, 2002). While the communication skills associated with the behavioral component have been closely associated with the cognitive domain, many researchers view behavior as a separate component. It is through the behavioral component that empathic responses are observed and measured (Bylund & Makoul, 2002; 2005; Morse et al., 1992). Because the cognitive and behavioral components are closely connected with how empathy is communicated, they are often considered the two primary therapeutic components of empathy (Morse et al., 1992; Suchman et al., 1997). Others argue that affect, or an emotive component, is central to both experiencing empathy and the therapeutic qualities of an empathic relationship (Halpern, 2001; Morse et al., 1992; Peabody, 1927; Spiro, 1993). The emotive or affective component involves a person's vicarious emotional response to the perceived emotional response of another. It refers to the capacity to perceive and share another person's feelings (Hojat et al., 2002e; Morse et al., 1992).

In medical studies, it has been argued that both the moral and emotive components pertain to the preconditions of empathy. It has been stated that morality and emotion influence the physician's intrinsic capacity and motivation rather than the conveyance of empathy (Suchman et al., 1997). Although the moral and emotive

components may be subjective and difficult to research, there is a need to understand how they interact with behavioral and cognitive components (Reynolds, 2006a).

Investigating the interaction of all the components of empathy, especially the moral and emotive components, is essential to investigate fundamental views of empathy.

The four components of empathy as identified by Morse et al. (1992) relation to the students' orientation to medical care, biomedical or biopsychosocial provided the framework for this study. The self-reference of a student's orientation to medical care in relation to the components of empathy, especially the internal nature of the moral and emotive components, may be less researched due to the difficulty in observing and documenting subjectivity. However, by utilizing Q methodology in this current study, the self-referent subjectivity of the students was observed and interpreted.

Purpose of the Study

The purpose of this study was to describe the perspectives of medical students regarding the role of empathy in the patient-physician interaction. Q methodology was used to examine the subjectivity of current medical students to provide insight into the various ways they differ in their views regarding the importance of empathy and how empathy might influence healthcare outcomes.

The research question guiding this study was:

1. What perspectives do current medical students have about the role of empathy in patient-physician medical interaction?

Significance of the Study

Understanding the underlying structure of the students' perspectives of empathy will be beneficial in curriculum development. If educators are able to discern differences

in how students view the role of empathy, then they may be able to develop teaching methods that would be compatible for diverse views. Information gained by examining students' subjectivity may provide better direction for medical educators seeking to explore new approaches to emphasize the importance and benefits of empathic care. Q methodology is the preferred research method to investigate individual viewpoints since it provides a systematic approach to examine human subjectivity. This method combines qualitative and quantitative techniques to describe the participants' subjective viewpoints. Therefore, Q methodology was employed in this study as a means to identify the underlying structure of the types of views students hold regarding the role of empathy in patient-physician interactions.

Preparing students for successful patient-physician relationships and interactions is paramount to the ultimate long-term success of our future medical practitioners. If medical educators are going to promote empathic care in medical education, it is necessary that they first understand the different ways in which medical students might perceive the role of empathy in patient care. Once the underlying structure is investigated and reveals how the different components of empathy are reflected in students' perceptions, a more effective teaching program can be designed. According to Hojat et al. (2001a):

Training of empathetic physicians has always been a concern of medical education. With the rise of technology-based diagnosis that limits the opportunity for patient-physician interaction and the waning of bedside interaction straining the patient-physician relationship, it is timely and important to continue studying the influence of

medical education in the development of empathy among medical students and physicians. (p. 669)

Summary

Empathy in medical interaction has been linked to positive healthcare outcomes, including reduced malpractice claims, improved diagnosis, and increased patient satisfaction. The AAMC began a new initiative in 1996 to encourage medical school curricula to develop learning objectives directed toward increasing empathy in students. In order to meet the learning objectives developed by the AAMC, medical educators are in the process of implementing new teaching designs and seeking new methods to develop empathy in their students. However, in order to evaluate the effectiveness of new programs, or identify specific areas in need of development, educators would benefit from insight into the types of perceptions medical students hold regarding the role of empathy in patient-physician interactions.

The four empathic components (moral, emotive, cognitive, and behavioral) identified by Morse et al. (1992) were used to investigate the viewpoints of medical students due to the comprehensive nature of this framework. Since Q methodology was developed to provide researchers a systematic way to investigate human subjectivity, I used Q method research design to identify the underlying structure of the students' views.

CHAPTER II

REVIEW OF LITERATURE

In this review, I explore the historical healthcare perspectives that have enlightened the medical field regarding the importance of empathy in patient-physician interactions. I begin with a brief history detailing the importance of empathy in healthcare, various definitions and components to aid in understanding the construct, and review research studies that have explored empathy in healthcare settings. I conclude the discussion with a review of research instruments used to measure empathy, and various teaching methods used to develop empathy in medical students.

Care of the Patient

In 1927, Dr. Francis Peabody addressed Harvard Medical School and cautioned students that they must accept that the years allotted to medical education are not sufficient to expect to be a skillful practitioner of medicine. Instead, medicine is a profession to be entered rather than a trade to be learned. Peabody commented that rather than focusing on how to be caring toward their patients, medical students often focus too much attention on the scientific aspect of medicine. Peabody was concerned that the medical school curricula of that era was teaching a great deal about the mechanism of disease, but neglecting instruction regarding the humanity of medical care. His concern is still echoed today.

The practice of medicine includes the whole patient and the patient-physician relationship. Peabody argued that medicine is an art that comprises much skill that remains outside the realm of any science. If medical students are going to gain insight into the practice of medicine, they must be given opportunities to build personal

relationships with their patients. Once the relationship with the patient has been established, the student must nurture it by every means available (Peabody).

Biopsychosocial Approach

Engle's (1977) approach to medicine supported the perspective that the optimum approach to healthcare involves caring for the whole patient rather than merely focusing on biological symptoms. Engle (1980) developed the biopsychosocial (BPS) model of medicine by contending that every level of an organism affects every other level including molecular, cellular, organic, personal, social, or interpersonal. BPS provides a different view of medical care by contending that psychological and social factors are also key determinants of health.

The BPS model considers the whole person when caring for a patient, and asserts that understanding all aspects of the patient is an essential contributor to accurate diagnosis, positive health outcomes, and humane care. According to Engle (1980), clinicians must attend simultaneously to the biological, psychological, and social dimensions of illness. The challenge for medical professionals is to identify and understand the many factors that may be contributing to an illness. By developing and nurturing patient-physician relationships, physicians allow the patient the time and space to articulate their concerns, expectations, emotions, and to reveal issues about their life. The physician is then able to obtain more data to formulate a diagnosis and treatment plan (Borrell-Carrio et al., 2004; Margalit, Glick, Benbassat, & Cohen, 2004).

Medical Education Objectives

The physician's ability to attend to the multiple dimensions of an illness and consider all aspects of the patient should be fostered while in medical school. Suchman

et al. (1997) claimed the most influential factors contributing to empathic care are the attitudes and behaviors acquired during medical education. In January 1996, the Association of American Medical Colleges (AAMC) began a new initiative in an effort to respond to the concerns surrounding student preparedness. The initiative is known as the Medical School Objectives Project (MSOP). The goal for phase one of the MSOP was to set forth learning objectives for medical school curriculum. These objectives were derived from consensus attributes identified by the medical education community. Medical educators acknowledged altruism as a desired attribute in medical school graduates. According to the first report issued from the MSOP (1998), “physicians must be compassionate and empathetic in caring for patients...in all their interactions with patients they must seek to understand the meaning of patients’ stories in the context of the patients’ beliefs, and family and cultural values” (p. 4). Medical programs that place a greater value on biomedical perspectives over the biopsychosocial view and the cultivation of relationships may actually diminish the empathy medical students need in order to meet the MSOP educational objectives. To understand how medical schools can develop a curriculum that fosters empathic care in students, it is beneficial to review the definition and constructs of empathy.

Empathy

“Empathy” is a translation from the German word *Eifuhlung* that refers to the process of projecting feeling into perceptions. The English word “empathy” stems from the Greek word, *empathia*, which refers to an appreciation of another’s feelings (Hojat, 2007). The term was later used to identify the perceptive awareness of another person’s affect and the sharing of feelings (Duan & Hill, 1996). Conceptualizations of empathy

have been examined primarily in a population of those who engage in one-to-one therapeutic relationships (Keefe, 1976). According to some researchers, empathy is one of the most therapeutic interventions and it is necessary for true healing. Empathy allows one person to join with another person and construct a shared understanding of experiences (Duan & Hill, 1996; Frankel, 1995).

Some researchers consider empathy to be a warm, supportive, reassuring, or friendly manner (Larson & Yao, 2005). But, it is unclear whether this empathic behavior must also include the sharing of feelings. Spiro (1993) insists that true empathy must be accompanied by feelings, otherwise it is not empathy. The belief, however, that empathy involves reciprocity is not universally accepted (Bennett, 2001). In response to the debate regarding the complexities in defining empathy, researchers have focused on investigating different dimensions or components of empathy (Bylund & Makoul, 2002).

Components of Empathy

The construct of empathy may be better understood in terms of various components. Morse et al. (1992) identified four components of empathy in their review of empathy in psychological and clinical settings. The study revealed a moral component, an emotive component, a cognitive component, and a behavioral component. Various researchers have described and investigated empathy within the construct of one or more of these components.

The Moral Component of Empathy

This aspect is often considered a precondition of the other three components (Morse et al., 1992; Suchman et al., 1997). The moral component is often omitted in the literature because it has not been clearly identified as a separate concept. Rather, the

moral aspect is considered a concept that is implied as a prerequisite for humanistic relationships. It involves a philosophical receptiveness or attitude regarding the acceptance of others (Morse et al.). Stepien and Baernstein (2006) referred to the moral component as a motivational aspect of empathy since it pertains to one's internal motivation to empathize.

Empathic morality is important to consider since it is not clear what relationship it has with the other components that have been specifically identified. Perhaps it is the absence of this internal motivation that is the source of non-empathic behavior or qualities found in the research. It might be argued that if the cognitive and behavioral components of empathy are not morally driven, then the empathic process is merely rote behavior and genuine empathy does not exist (Morse et al., 1992).

The Emotive Component of Empathy

This component refers to the ability to share in another's feelings or emotions. The emotive component involves the subjective experience of another person's psychological state. Researchers have referred to this component as emotional empathy or an affective dimension of empathy. This single aspect of empathy has been the focus of previous studies (Campbell & Kagan, 1971; Mehrabian & Epstein, 1972). Davis (1996) referred to the emotional aspect of empathy as *empathic concern*. Davis viewed empathic concern as a necessary but an insufficient determinate of empathic traits. The literature reveals disagreements in whether the nature of empathy is exclusively emotive, or if the emotive aspect must be combined with other components. Bennett (2001) uses the following definition to describe empathy in a clinical setting:

Empathy refers to a mode of relating in which one person comes to know the mental content of another, both affectively and cognitively, at a particular moment in time and as a product of the relationship that exists between them. (p. 7)

Some researchers consider emotions to represent a basic aspect of empathy as it may make all other aspects of empathy possible and that emotion is a necessary element for empathy to be authentic (Keefe, 1976; Suchman et al., 1997). Other researchers oppose this view arguing that empathy can be communicated without the emotive component being present thus asserting that the cognitive and behavior components are all that are necessary for empathic interactions (Britton & Fuendeling, 2005; Bylund & Makoul, 2005; Duan & Hill, 1996; Hojat et al., 2002b).

The Cognitive Component of Empathy

This component is the ability to identify and intellectually understand another's feelings. The cognitive aspect differs from the emotional component since it involves the ability to objectively understand another person's perspective rather than experiencing emotion or sharing another person's feelings. The term Cognitive Empathy has been used in the literature to create a clear distinction between the affective nature of empathy and the intellectual aspect of being able to understand the perspective of another (Duan & Hill, 1996). The cognitive ability to take another person's perspective into consideration is also referred to as *perspective-taking* (Davis, 1996; Hojat et al., 2002e; 2001b; Morse et al., 1992; Suchman et al., 1997). The cognitive process to understand emotions encompasses the ability to be sensitive to slight variations between emotions. It includes the capacity to recognize and describe emotions. The cognitive component of empathy focuses on the ability to comprehend emotional language and appreciate complicated

relationships among emotions (Salovey & Grewal, 2005). Once another's emotion is recognized and comprehended, the emotional understanding needs to be effectively communicated back to the other person in order to nurture the relationship (Bylund & Makoul, 2005; Hojat et al., 2002e; Suchman et al., 1997).

The Behavioral Component of Empathy

The behavioral component of empathy is the ability to convey understanding and concern. Empathy can be communicated through both verbal and nonverbal means. The behavioral component of empathy is closely connected to the cognitive component since one must first recognize the emotional state of another. The behavioral aspect, however, is what conveys understanding of the other person's perspective or emotional state. How the acknowledgement of another's emotions is conveyed can vary, and can often be the central issue in whether or not the other person feels understood (Spiro, 1993; Suchman et al., 1997; Suchman & Matthews, 1988).

Because empathic understanding can vary in both depth and accuracy, the behavior component provides a forum to observe and evaluate empathy. According to Morse et al. (1992), the behavioral component of empathy has frequently been aligned with communication skills. In the medical literature, studies have investigated empathy in patient-physician interactions by observing empathic responses and other interpersonal communications skills (Beckman, Markakis, Suchman, & Frankel, 1994; Makoul, 2001, 2003; Roter et al., 2004).

Observational Studies

In order to investigate various empathic responses, researchers have used various methods to observe and rate interactions with patients. Relevant studies have utilized

videotapes, audiotapes, and transcripts to document interactions with patients. Studies have observed interactions between physicians and patients, as well as medical students and standardized patient models in order to analyze empathic responses and behaviors.

Observational Studies with Physicians

Suchman et al (1997) reviewed eleven transcripts and seven videotapes of primary care office visits in order to create a model of empathic communication. The research team observed physician responses to emotional comments or cues expressed by the patients. The study found some patients provided direct comments that revealed emotional concerns. The researchers referred to interaction involving direct comments about emotions as *empathic opportunities*. Other patients only hinted at the presence of emotional issues with indirect comments. The interactions involving indirect comments were described as *potential empathic opportunities*. The physicians' responses to the various opportunities revealed three primary patterns that occurred during medical interactions—missed empathic opportunities, empathic opportunity continuers, and empathic opportunity terminators.

Physicians that missed empathic opportunities did not adequately acknowledge the emotion expressed by the patients. Empathic opportunity continuers acknowledged the emotion expressed by the patient and included behavior that allowed for continued exploration of the emotion. Empathic opportunity terminators acknowledged the emotion but terminated the emotional discussion by re-directing the conversation back to biomedical issues. Researchers concluded that interactions involving empathic opportunity terminators missed an opportunity to investigate and understand the context of the patients' feelings. This missed opportunity prevented the physician from gaining

valuable information about the patient, as well as leaving the patient feeling unacknowledged, unimportant, and untrusting. While Suchman et al. did not discuss what percent of physicians missed empathic opportunities, the researchers commented on how frequently physicians allowed empathic opportunities to pass without acknowledgement by remaining focused on diagnostic discussion.

Similar findings were noted in a study by Levinson, Gorawara-Bhat and Lamb (2000). The study reviewed audiotape transcriptions of 232 office visits. The participants of the study were either primary care physicians or surgeons who had at least two malpractice claims filed against them during their career. The results showed that only 38% of surgeons and 21% of primary care physicians responded empathically to the emotions presented by their patients. According to the researchers, the participants more frequently missed opportunities to adequately acknowledge patients' emotional concerns. In addition, physicians who missed empathic opportunities experienced longer office visits than the physicians who provided empathic responses. The finding that empathic care does not require more time during office visits was also supported by the research of Branch and Malick (1993).

Branch and Malick purposefully selected skilled physician participants known to utilize empathic opportunities. The study analyzed patient-physician interactions of five seasoned clinicians who were held in esteemed regard by their colleagues. All of the research participants had a minimum of 15 years of professional medical experience. The findings noted that the physicians increased office efficiency by exploring psychosocial issues. Four of the five doctors averaged only 11 to 12 minutes per patient interview. The skilled practitioners in the Branch and Malik study addressed patients'

psychological and social concerns as soon as they were presented during the interview process.

These previous studies indicate that the basic skills of a physician need to include the ability to recognize emotions as soon as they are presented, know how to explore the emotional concerns of their patients, and effectively acknowledge the patients' perspectives. Physicians need to be aware of an empathic moment by listening for statements that reveal feelings. Otherwise, there will be missed opportunities to understand the patient (Platt & Keller, 1994).

Observational Studies of Medical Students

Colliver, Willis, Robbs, Cohen, and Swartz (1998) utilized an observational method in order to develop empathy in medical students through feedback received from standardized-patient models. The purpose of the study was to see whether clinical exam performance was related to patients' views of empathy. The study used data collected from 4th-year medical students' standardized-patient examinations. The 1,048 student participants were assessed on seven cases representing common medical problems related to the fields of internal medicine, surgery, pediatrics, gynecology, and psychiatry. The standardized-patient models were trained in assessing student performance and were asked to complete a 26-item checklist that included one item asking whether the student was empathic. The remaining 25 items were questions relating to other interpersonal and communication skills. The researchers correlated the empathy scores with the other items on the checklist and with the clinical examination scores. The results found that on average, more than 200 students per case were not rated as empathic, more than 200 were rated empathic on four or less of the seven cases, and 90 were rated empathic on three or

less cases. While there were limitations of the study, the researchers concluded that standardized-patient examination format provides a valuable means to capture feedback concerning empathy in students. The study did not indicate how this feedback was used for student development, nor did the study report on the students' perspective of the exam performance or empathic behavior.

Coutts-van Dijk, Bray, Moore, and Rogers (1997) conducted a similar study that investigated a broader concept of humanism and psychosocial beliefs with 405 students at Baylor College of Medicine. The purpose of the study was to examine the different humanistic behaviors and attitudes in relation to specialty preferences of the students. The design used the Physician Belief Scale (measuring psychosocial beliefs) that was completed by the student prior to the clinical examination, and an abbreviated version of the Humanism Scale that was completed by the standardized-patient after the examination. The results showed that students who preferred to specialize in primary care had a higher average mean score on both the humanism scale and the belief scale. The study was designed to explore the relationship between specialty preference and psychosocial beliefs. The researchers did not include a developmental implication in their study, nor did the design gather data regarding the students' perspective of the interaction or their behavior during the examination

Without necessarily focusing on empathy, other studies have also investigated communication between medical students and standardized-patients (Gallagher, Hartung, Gerzina, Gregory, & Merolla, 2005; Gallagher, Hartung, & Gregory, 2001; Sloane et al., 2004; van Zanten, Boulet, Norcini, & McKinley, 2005). None of the studies located for this literature review included the student perspective of the interaction with the patient-

model. This missing element may be important given the limitations of the clinical examination forum. According to Williams (2004), student performance may be diminished due to the test-like conditions of a standardized-patient examination. Williams states that students frequently try to determine what is expected from the test designer and adjust their behavior accordingly. The article suggests that researchers would gain insight into the students' beliefs about the interaction if they would interview the students after the exam. Williams found no evidence that a post-exam interview design had been done.

A limitation of observational studies is that the data is restricted to the behavioral aspect of empathy. Observational studies do not provide insight into the meaning of the behavior patterns. Several factors may contribute to the lack of empathic responses from physicians and students, but observational studies found for this literature review did not report an explanation of the behavior. Future research methods that provide an understanding into the observed behavior patterns would be beneficial.

Empathy Scales and Assessments

To measure empathy, the cognitive and emotional dimensions in particular, a number of instruments have been developed. A review of empathy literature in the psychology and social psychology fields reveals a variety of validated scales created to measure empathy in the general population. The Interpersonal Reactivity Index (IRI) (Davis, 1996), the Empathy (EM) Scale (Hogan, 1969), the Questionnaire Measure of Emotional Empathy (QMEE) (Mehrabian & Epstein, 1972), and the Empathy Quotient (EQ) (Baron-Cohen & Wheelwright, 2004) are among those discovered in the literature review. While these instruments do share a commonality of investigating empathy, the

instruments differ in definitions of empathy and the role it plays in attitudes and personalities.

Empathy Scales in Medicine

According to Hojat et al.(2002c), one of the reasons for the limited amount of empathy research in medical literature is the lack of operational measures of empathy that are developed specifically for the patient-physician relationship. Many of the existing empathy assessment instruments are designed for the general population and do not account for the specific relational dynamics of healthcare.

In response to this limitation, Hojat et al. developed the Jefferson Scale of Physician Empathy, an instrument designed to measure physician attitudes towards empathy. They later adapted that scale for the medical student population because there were no other psychometrically sound tools available for measuring empathy in medical students. The Jefferson Scale of Physician Empathy (S-Version) is a self-report scale designed as an attitudinal scale to investigate differences in students' attitudes toward empathy.

A limitation of self-report scales may be whether students are sufficiently aware of their own emotional abilities to report them accurately, and whether students answer the scales in a truthful manner or provide socially desirable responses (Salovey & Grewal, 2005). The existing scales have been validated to provide a single empathy score, or level of empathy. Current scales have incorporated the components of empathy in the overall measurement, but do not provide information on how students score on the components separately. Future scales that provide rating on each component of empathy would be beneficial to educators responsible for the development of empathy in medical

students. The additional information would allow educators to know which components needed more development. Programs could be designed to foster all the components of empathy or target a specific area that is geared for students' developmental needs.

Development of Empathy in Medical Students

Medical educators have used a variety of teaching methods in order to try to increase empathy in students. Teaching designs often target a specific component of empathy. Experiential designs help students develop the cognitive or perspective-taking components of empathy. In some cases, experiential designs are utilized to develop the emotional or moral components of empathy, such as arts-based programs and narrative writing. Feedback measures, focus groups and communication skills training focus on both the cognitive and behavioral components of empathy. Although several teaching methods may cover more than one component, the learning objective is normally focused on a specific aspect of empathy.

Experiential Teaching Designs

Shapiro et al. (2004), investigated whether humanities, particularly literature, would provide an effective tool for developing empathy in medical students. Twenty-two first-year medical student volunteers were divided into two groups. One group received the teaching intervention immediately while the other group was assigned to a wait-list or control group. All participants received pre-post assessments to determine if teaching objectives were obtained. The teaching intervention consisted of eight small-group reading and discussion sessions (eight total hours of teaching). The participants read poetry, short stories, and skits that addressed relevant medical topics, such as patient relationships, pain, and cross-cultural issues. Based on significant improvements in

empathy ratings of the group receiving the teaching intervention, the researchers concluded a literature-based teaching design might be more effective at developing empathy than traditional lecture methods. The conclusions of the researchers were supported by qualitative comments of the participants. The researchers noted that the intervention appeared to be more successful at developing the emotional component of empathy. According to Shapiro et al., this finding suggests that teaching methods may influence the different dimensions of empathy in different ways. Other studies have found similar results by using movies, art, and dance to develop empathy in medical students (Shapiro & Rucker, 2004; Shapiro, Rucker, & Beck, 2006).

Shapiro and Rucker (2004) proposed that physicians and medical students may develop empathy and altruism by attending movies that produce a form of emotional idealism. The article claims that while the learner is watching a movie, they are released from any clinical responsibility and are allowed the luxury of experiencing a full range of emotions. In contrast, emotions in clinical settings might be viewed as distracting, dangerous, and needing to be controlled. Shapiro and Rucker conclude that movies provide a positive stimulus because they provide a coherent healing narrative that can promote quality reflective discussion. The combination of the movie and reflective discussion might help medical students transfer the meaning and emotion experienced while watching movies to real clinical situations requiring empathic care.

Other studies have been designed to expose medical students to experiences that will foster empathy in future patient interactions. Wilkes, Milgrom, and Hoffman (2002) developed a voluntary experiential learning exercise that involved nine second-year medical students being admitted to a hospital for three consecutive days. The students

were admitted with bogus diagnosis at staggered intervals to avoid raising suspicion from the hospital staff. The students were subjected to all standard practices of inpatient care, including wearing hospital attire and eating only hospital food. Immediately following their hospital experience, the students completed a questionnaire and met with faculty members for a debriefing and program evaluation. The students were also invited to participate in a formal discussion with the remaining members of their class. Although the study was not able to report on the long-term impact of the exercise, the experience did seem to promote a heightened sensitivity to what real patients encounter. The participants asserted that the hospitalization experience gave them valuable insight that was likely to make them far more empathetic in the future. The researchers also report that the word-of-mouth conversations and the formal discussion may have also had a substantial impact on the entire second-year class. While this intervention seemed to increase empathy for the participants, there were limitations to the design, including cost, limited number of participants, and additional burdens placed on hospital employees. The researchers concluded that it would be worth exploring less expensive ways to accomplish similar teaching objectives.

Branch et al. (1993) had medical students write short narratives, critical-incident reports, combined with weekly, small-group discussions to foster the development of empathy. Third-year medical students were asked to select meaningful events experienced in their clinical rotations and write a short account of the incident. This learning activity allowed the students to openly discuss the struggles they had about trying to sustain empathy as they assumed the role of the physician. One student wrote that after encountering a comatose victim of a bicycling accident, she felt sad yet

maintained her distance. She concluded that she felt genuine grief from both the loss of the patient, as well as her inability to console the family. Like many other comments reported in the study, students expressed concerns about how they would maintain their compassion, empathy, and even remorse as they continued to become doctors. Discussion facilitators were able to offer emotional support, as well as allowing students to clarify their feelings while trying to accept the perspectives of their clinical experiences.

Feedback Measures

Mercer, Maxwell, Heaney, and Watt (2004) developed an instrument to measure empathy in physicians from the patient perspective. The purpose of their instrument was to be able to provide physicians with a valid and reliable tool for gathering patient feedback on clinical interactions. The instrument was named the Consultation and Relational Empathy (CARE) measure. The researchers found that there was a lack of patient-assessed empathy measures that would work in a clinical setting. Although the study did not focus on the medical student population, the CARE instrument is one of the few measures designed to gather feedback from a real patient rather than a patient-model. The researchers concluded that the measure was successful in providing physicians with direct feedback on their strengths and weaknesses in terms of empathy, and that the measure would be useful in teaching and assessing medical students.

Roter et al. (2004) developed an innovative video feedback technique to be used for enhancing communications skills training. Although the study did not focus specifically on empathy, it was one of the components of analysis. One of the objectives of the study was to rate student-patient interactions that would combine teaching and

feedback interventions for medical students. The researchers embedded the Roter Interaction Analysis System (RIAS) rating system with a software program that would rate the student-patient interaction without the need for transcription. The software provided timely feedback for a pre/post teaching intervention. Twenty-eight first-year residents participated in the study. The residents were videotaped during simulated patient interviews prior to a four-hour teaching intervention spread over a four-week timeframe. The residents were provided coded feedback from the first interview during week three. A second videotaped interview was completed during week four, after a two-week intervention that used a one-hour didactic and role-playing practice. The results showed a significant increase in the expression of empathy in both male and female residents in the post-intervention interviews. The feedback was deemed helpful by 86% of the study participants in improving their skills. The study only provided feedback to the participants one time, during week three. There was no feedback provided after the second interview nor did the study gather data from the students' perspective of the actual interview interaction.

A Phenomenological Perspective

The various forms of meaning and components have established the subjectivity of the empathy phenomenon. The definition and meaning of the empathy may differ based on a particular situation or context. Therefore, researchers who employ a positivist approach may inhibit the participants' viewpoint by developing a design structure that limits empathy to a fixed definition or limited number of components. In a conventional quantitative study, the researchers' pre-defined definitions impose an external frame of reference on the participant since the participant can only respond according to the

researcher's structure and meaning. A subjective construct such as empathy might better be investigated in a manner that allows the participant to assign meaning from his or her own frame of reference (McKeown & Thomas, 1988).

The phenomenological perspective explores how humans interpret and transform experiences into meaning. According to Patton (2002), "This requires methodologically, carefully, and thoroughly capturing and describing how people experience some phenomenon—how they perceive it, describe it, feel about it, judge it, remember it, make sense of it, and talk about it with others" (p.104). One such available methodology is Q methodology. Q-method is a hybrid qualitative-quantitative method that provides a means to explore a phenomenon by allowing meaning to emerge from the participants' perspective (McKeown & Thomas, 1988; van Exel, de Graaf, & Brouwer, 2006). McKeown and Thomas (1988) explain that Q methodology is concerned with why and how people believe what they do. The central issue is determining which perspective will provide the best observation of the participants' subjectivity. Because Q methodology develops a construct based on the self-referent perspective, it was determined to be the preferred method to answer the research question in this study.

Summary

Researchers and medical practitioners have reported a concern regarding a lack of empathy in patient care for many years. George Engle's work to develop a biopsychosocial model of medicine that fosters a holistic approach to healthcare has promoted a field of study dedicated to the nurturing of the patient-physician relationship. In 1996 the AAMC officially established a teaching objective that would encourage empathic care in medical students.

The difficulty in research and teaching is complicated due to the complex nature of the empathy construct. Researchers have used multiple definitions and components to identify and describe empathy. Morse (1992) conducted a comprehensive review of empathy in healthcare literature and identified four key components: a moral or motivational component, an emotive component, a cognitive component, and a behavioral component. However, it is not known what function, if any each of these components has in the perspectives of medical students.

Research involving empathy in medical students is limited. Researchers have conducted studies involving self-assessment surveys, observational designs, and experiential teaching methods. While researchers have acknowledged that different teaching methods may influence the components of empathy in different ways, I located no studies regarding how students' view empathy in relation to the different dimensions of empathy. In addition, I found no studies that sought students' views regarding the general role empathy plays in patient-physician interactions.

CHAPTER III

METHODOLOGY

The purpose of this study was to describe the view medical students have regarding the role of empathy in medical interactions. I employed Q methodology as the means of accessing the perspectives of medical students who participated in this study. In this chapter, I describe the rationale underlying the use of Q methodology and present information regarding the development of the concourse and the research instrument. In addition, I provide details regarding the research procedures, the research participants, and the method used for data analyses.

Q Methodology

Q methodology provides a scientific approach to investigate the perspectives and beliefs of research participants. Developed by William Stephenson (1953), Q methodology offers a means of systematic examination of human subjectivity, or internal frame of reference. With Q methodology the researcher allows participants to model their viewpoint through the Q-sorting process. The action of sorting statements, or other stimuli, reveals the individual subjective importance of each participant (McKeown & Thomas, 1988). The Q-sort process has each participant rank order a sampled set of stimuli (statements in the current study) according to condition of instruction. A condition of instruction may include a request such as, “sort the items that are most like your perspective from those that are most unlike your perspective.” Therefore, the resulting location of the items after the Q-sort represents the internal frame of reference, or subjectivity, operant for the participant at sorting.

McKeown and Thomas (1988) explain that Q methodology is concerned with why and how people believe what they do. The central issue is determining which perspective will provide the best observation of the participants' subjectivity, rather than how much one person might relate to one scale of many items that measure the same perspective. Q methodology consistently maintains the self-referent perspective of the subjects and provides insight to understanding the underlying constructs of the research topic. Because Q methodology develops a construct based on the self-referent perspective, Q provides a potentially useful alternative to the questionnaires and attitudinal scales currently used for understanding empathy in the patient-physician interaction.

In Likert-type rating scales the researcher defines a construct, often according to theory, and then represents that construct with items that embody specific meaning according to the researcher's perception. In order to test a theoretical construct or hypothesis, the items that characterize the construct are then associated with a continuum that ranges from one extreme to another. The participant then answers each specific item within the fixed range, or chooses from preset options assigned by the researcher. A mean score is then calculated for each item in isolation from all other items. These mean scores are what determine which traits or attitudes exist within the participant. Because the researcher defines the items that represent the construct, and how each item should be scored, rating scales are not free from subjectivity. It is, however, the researcher's subjectivity that is imposed on the participant. Thus, the participant's individual perspective is actually contingent upon the prior meaning of the scale. According to Smith (2000):

Rating scales and other test items come with meaning and interpret responses to them according to population norms on those items. To expect an item to have fixed meaning (a) gives the item too much responsibility, (b) gives the response to it too little, (c) ignores the interactions between the item and the person, and (d) ignores the changes that occur with changing situations. (p. 325)

In contrast, Q does not predetermine what is considered an appropriate response, since there is not a right or wrong way for the participants to express their perspectives. With Q methodology, the interpretation of the participants' responses emerges based on how the participants sort the items placed before them. An illustration may help to demonstrate this point.

Suppose that two participants (A and B) complete a simple yes-no rating scale regarding the importance of different aspects of empathy. In this conventional process the results appear identical.

Table 1

<i>Example of convention rating scale process</i>		
COMPONENT	YES	NO
Moral responsibility	A, B	
Emotional Values	A, B	
Biomedical Priority		A, B
Professional Image		A, B

In the previous example, the researcher would conclude that the two participants share similar attitudes toward empathy. However, if we change the conditions of instruction and ask the participants to rank-order the same items against each other, as in

the Q-sort process, the results provide a different insight. By making a slight, but significant methodological change, the researcher is able to take a closer look into the underlying structure of the subjective views of each participant. The Q-sort process captures the internal frame of reference of each participant. The table revealing the Q-sort results is below:

Table 2

Example of a Q-Sort Process

Condition	A	B
(Most Like My Views)	Moral Responsibility	Emotional values
	Emotional Values	Moral Responsibility
	Biomedical Priority	Professional Image
(Most Unlike My Views)	Professional Image	Biomedical Priority

Because Q methodology postpones interpretations until after the sort process, or operant event, has occurred, the Q statement has no meaning apart from that given by the participants (Smith, 2000). Therefore, any bias or interpretive measures that may have been imposed by the researcher are subservient to the participants' frame of reference. According to McKeown and Thomas (1998), the only constraint on the stimuli, or statements, is the subjective communication in the domain of the research topic, or concourse.

Concourse Development

Developing the Q-sort instrument, or Q-sample, begins with the construction of a concourse. The concourse consists of items, or statements in this case, which comprise a full range of subjective viewpoints regarding the research topic. According to Brown (1993), the concourse refers to the flow of communicability surrounding any given topic.

It is the ordinary language used in communicating thoughts, ideas, opinions, and other meanings regarding the research topic. These everyday expressions, or statements, are the basis for the science used in Q methodology to investigate subjectivity.

The collection of statements reflecting the language of the research topic can be derived through a variety of strategies ranging from formal interviews to combining items from conventional rating scales. McKeown and Thomas (1988) identify and discuss several processes commonly used to develop a concourse. None of the methods discussed are necessarily recognized as being of better quality than the others. Rather, the researcher employs the approach that will best develop the concourse suited for the research at hand. The different methods the researcher should consider are a naturalistic method or a ready-made method, which also includes several subtypes.

The naturalistic method uses information obtained directly from the participants, or similar population. Frequently, this information is obtained via formal interviews or review of written narratives or essays. In addition, the naturalistic method may supplement the information gathered from primary sources with that gathered from secondary sources. According to McKeown and Thomas (1988), secondary sources may include television or radio interviews, newspaper editorials, and the like. While the advantage of building a concourse using the naturalistic method is that statements are gathered from real-world communication contexts, it may not be feasible since it may require more time than research participants are willing to invest.

The ready-made method, however, uses statement items that are acquired from sources other than direct communication from the participants. Often there is a vast amount of information available regarding the research topic being studied. The

concourse may be developed based on how well the existing information represents the communication of the research topic. Within the ready-made method there are several subtype approaches for concourse development. The quasi-naturalistic type is similar to the naturalistic method except that the statements are drawn from sources outside of the study. The concourse may also be developed using items from standardized rating scales, existing standardized Q-sorts, and a hybrid type, which combines the naturalistic method with the ready-made method.

According to McKeown and Thomas (1988), standardized scales and conventional rating scales may be utilized in the process of constructing a concourse. The statements borrowed from attitudinal scales can be incorporated into the concourse to examine personal meanings held by participants instead of simply the meanings the scale is designed to measure. With the operation of the Q-sort, no pre-existing scale definition or measurement is assumed. Rather, meaning emerges based on how the participant places or sorts the statements along the Q-sort continuum. Therefore, using statements from an established standardized scale does not prohibit the discovery of meaning other than those incorporated into the original scale (McKeown & Thomas).

I constructed the concourse for this study by using adaptations from standardized scales and supplementing with additional statements from a review of the literature. Hojat et al. used preliminary data to develop a standardized empathy scale, the Jefferson Scale of Physician Empathy (2002c; 2002e; 2001b). The large number of preliminary items provided the foundation for the concourse of this study. Statements were adapted from an unpublished version of the Jefferson Scale of Physician Empathy consisting of

45-items before psychometric studies narrowed the scale to 20 items. Dr.

Mohammadreza Hojat provided this preliminary version to me via electronic mail.

Hojat et al, (2001) first developed a preliminary questionnaire, which included 90 items gathered from survey responses, physician interviews and a review of the literature regarding empathy among healthcare providers. The initial empathy questionnaire included items reflecting specific subscales from other existing empathy scales, including the Davis Interpersonal Reactivity Index (Davis IRI), the NEO PI-R, and Rosenberg's Faith-in People scale. The preliminary 90-item questionnaire was sent to 100 physicians in 1999 requesting that the participants eliminate items they considered irrelevant and make editorial comments. After analyzing and reviewing the information received from the 55 physicians who responded, the modified 45-item empathy scale emerged. Hojat et al. (2001) finalized a 20-item attitudinal scale, the Jefferson Scale of Physician Empathy (JSPE), by factor analyzing responses to the modified 45-item scale. Hojat et al. (2005) continued their work on the JSPE scale to create two separate versions, the original version designed for health professionals and a customized version designed for medical students. In order to obtain the broadest representation of the communication possibilities surrounding the research, the concourse for this study was best served by utilizing statements from both finalized versions of the JSPE scales, as well as the 45-item modified scale.

The scales created by Hojat et al. (2001, 2005) were supplemented with additional statements gathered from the literature in order to demonstrate a range of opinion and a fair representation of the perspectives related to the research topic. Other significant sources of statements were Davis's (1996) Interpersonal Reactivity Index, Ashworth,

Williamson, and Montano's (1984) Physician Belief Scale, Mehrabian and Epstein's (1972) Questionnaire Measure of Empathic Tendency, and Baron-Cohen and Wheelwright's (2004) Empathy Quotient. Although the concourse does not perfectly exemplify a particular dimension by including all possible communications, it was considered to represent most of the key facets pertaining to the subject.

Research Instrument

The concourse frequently includes too many statements to put before research participants. So a subset of the items, the Q-sample, needs to be derived from the larger population of statements collected in the concourse. Sampling is the process that is used for selecting which items from the concourse will be put before the participants for sorting. There are two basic techniques to choose from for the sampling process: unstructured sampling or structured sampling. Unstructured sampling provides a survey approach to the topic without necessarily considering any sub-issues. The items are simply chosen based on the presumption that they are relevant to the research topic. In contrast, a structured sampling assimilates theory testing into the sample by incorporating hypothetical considerations in the process. It is customary to use design principles within the structured sampling approach. These designs can either be deductive or inductive. A deductive design selects the items from the concourse a priori according to a theoretical framework. An inductive design, however, allows patterns to emerge as statements are being sampled from the concourse (McKeown & Thomas, 1988).

For this study, I conducted a structured sampling primarily through a deductive design in order to organize statements according to the theoretical framework developed by Morse et al. Much of the confusion that surrounds the construct of empathy in the

healthcare setting seems to arise due to the subjective nature of empathy and the complexity of the process of conveying empathy. Morse et al (1992) conducted a review of literature from both a healthcare perspective and a psychological perspective and identified four components of empathy: moral, emotive, cognitive, and behavioral. These four components provided the theoretical structure for the deductive sampling process used in the current study.

Once the theoretical frame was well represented, I applied an inductive design to the remaining statements to determine if any patterns of additional sub-issues emerged. Many of the statements in the concourse were considered non-empathic responses and would be reverse scored when included in conventional rating scales. There were two distinct components that emerged from the reverse scored items: a biomedical orientation and a concern regarding professionalism.

The first component to emerge was a pattern of statements that had a biomedical orientation. In this pattern there was a priority given to the importance of understanding organic causes of disease and objective medical treatment options. The statements in this component reveal a preference for focusing on the biomedical issues during patient-physician interactions. The second emergent theme involved statements that had content focused on maintaining a professional image. The statements within this component emphasized the appropriateness for the profession role of a physician. Many of the statements reflected concrete, rules-based thought. Some statements expressed a concern that emotion might compromise the professional image of a physician. In order for the researcher to better represent a full range of communicable views regarding the topic, the statements that represented the two additional sub-issues were added to the Q-sample. It

is important to note that regardless of method used to construct the framework, the aim with Q methodology is always to ensure a reasonably comprehensive and expressive selection of the language of a particular population (McKeown & Thomas, 1988).

It is necessary to understand that the theoretical framework serves only as a guide to ensure a fair representation of the communicability of the research topic at hand. The framework is not to be considered to be a precise and objective structure; but rather, the framework serves to facilitate selection and improve the quality of the Q-sample. The structure provided by the frame merely provides potential explanations of the resulting factors, but does not impose a fixed, outside criterion. With Q methodology, the individual items are assigned meaning and significance through the Q-sort process completed by the participant, and then by the factor interpretation conducted once the data has been collected (McKeown & Thomas, 1988).

After all the statements were organized according to the framework, the language of the items was then adapted to ensure variation within each component and eliminate repetitive statements and obvious consensus items. From the original set of over 250 concourse statements, I selected six statements to represent each of the six components in the design. This resulted in a 36-item Q-sample. A list of the 36 statements in the Q-sample is in Appendix A.

Procedure

Q method provides a procedure that allows the subjective perspectives of the participants to be observed. The procedure is referred to as the Q-sort. In the Q-sort task, the participant is provided with a scale and a suggested distribution (Brown, 1993). Table 3 the scale, Q-Sort distribution template, used in this study. Table 4 is a

number of Q-sort items, similar to Table 3. The participants are asked to read through all the statements carefully. Then the participant is asked to read the statements once more, but this time sorting them in three piles as they relate to the condition of instruction. One pile contains the statements experienced as agreeable (most like), another pile contains statements experienced as disagreeable (most unlike), and the last pile has statements experienced as neutral. Participants are asked to alternate between the piles experienced as agreeable then disagreeable, distributing the statements along a continuum from Most Agreeable or Most Like to Most Disagreeable or Most Unlike. The statements experienced as most agreeable are placed in the far right column (11). The statements experienced as most disagreeable are placed in the far left column (1). This continues until all statements, including the neutral pile, are placed along the continuum. The participants are provided the opportunity to make changes to their sort in order to ensure the distribution accurately reflects their perspectives. Once the participant is satisfied that the sort is organized as they believe is appropriate, they record their results, by card number, on a record sheet that is a small replica of the form board. An example of the record sheet is available in Appendix B.

In the current study, I provided the participants with one condition of instruction for the sort process. I asked the participants to consider their thoughts about interactions with patients. Then I asked the participants to sort the items to the items to distinguish those that were “most like” from those that were “most unlike” their thoughts. The full instructions are provided in the “Researcher’s Script” in Appendix C. After the Q-sort process was completed and recorded, participants were asked to complete a demographic survey. The survey aided the researcher in understanding the perspectives and factors

that emerge during analysis. Appendix D contains a copy of the demographic survey and Appendix E is an example of the Participant Consent form.

Research Participants

The set or sample of persons who participate in a Q study is referred to as a P-set. The sorting process in Q method is more involved than traditional survey or rating scales. The purpose is to intensively study the self-referent behavior perspectives of individuals in order to better understand the underlying structure of the research topic. According to McKeown and Thomas (1988), the principles of Q method favor research that is focused on studying fewer subjects at a deeper level, rather than more subjects at a lesser level. Smaller sample sizes, therefore, are preferred in Q method. Consequently, study participants are not selected in the same manner as other empirical studies. Rather than use large, random sampling techniques, subject selection in a Q study can best be administered through either theoretical (subjects chosen due to special relevance) or pragmatic (any person will suffice) considerations (McKeown & Thomas, 1988).

For the current study, I selected the P-set based on theoretical considerations. Thus, a convenience sample of 56 medical student volunteers from Oklahoma State University's Center for Health Sciences comprised the P-set. My research goal was to investigate the perspectives of medical students regarding the role of empathy in patient-physician interactions. The theoretical frame did not require any gender, specialty preference, or age range, although that information was collected via the demographic survey.

Each participant was asked to complete a demographic survey. Demographic information was available for 53 participants since 3 demographic surveys were left

blank. According to the information provided, 32 of the participants were male and 21 were female. Participants included 23 first year students, 21 second year students, and 9 third year students.

Data Analysis

The data were analyzed by using PQ Method 2.10 (Schmolck, 2002) software application, which is available as a free download at www.qmethod.org. This computer software was specifically developed to accommodate data from a Q distribution. The initial factor extraction was done by a centroid factor analysis to gain a view of the relationships between the sorts in an unrotated state. This analysis was followed by a principal components factor analysis. Upon researcher judgment, various rotations, including a varimax rotation, were attempted to determine ways that the data may be differentiated. The resulting factor solution represented a pattern of viewpoints of the students' sorts who defined the factors by achieving statistical significance.

It is important to note that in Q-analysis, individual statement rankings are correlated as a means to identify common themes and similar viewpoints. Therefore, the results of the data analysis describe a population of viewpoints rather than a population of people (van Exel et al., 2006). It is essential to understand that it is the subjective arrangement of the Q-sort items that is of interest rather than the value of any single statement (Brown, 1993). The factor analysis revealed Q-sorts that were correlated. Thus, the Q-sorts were similarly arranged and demonstrated some form of commonality. Factor scores, or factor loadings, were calculated for each identified factor to aid in the examination of variance among the factors, and provide greater explanation into the commonalities of each factor. Then a z-score was calculated for each statement on each

factor leading to an interpretation of the theoretical array when statements are aligned according to the sorting pattern.

The resulting factors may be related to demographic data, the theoretical frame, or may stand alone to reveal unique findings or attributes of the research question.

Understanding and interpretation of the factors were aided by analyzing each of the factors for distinguishing statements, consensus statements, positive and negative loadings, and post-sort reflections of participant recordings.

Summary

In this study, I used Q methodology to examine the underlying structure of medical students' views regarding the role of empathy in patient-physician interactions. I preferred the approach of Q methodology because it provides a means of accessing participants' subjectivity. Fifty-six research participants were asked to sort statements that were extracted from the existing literature to represent the theoretical frame provided in the previous chapters. Participants completed demographic surveys to serve as a possible guide during interpretation. I examined Q-sorts for correlation and defining characteristics. My interpretation of the data resulted in a three-factor solution that I believed best illuminated the students' underlying viewpoints regarding the role of empathy in patient-physician interactions.

CHAPTER IV

FINDINGS

The purpose of this study was to investigate and describe the views medical students have regarding the role of empathy in patient-physician interactions. It was determined that Q methodology was the most appropriate research strategy to use for this study since Q methodology describes a phenomenon through the participants' subjective ideas, opinions, or views. As part of the Q-method process, I extracted thirty-six statements utilizing diverse sources found in the literature, along with adaptations of existing scale items. The statements used in the sort represent the four components of empathy (moral, emotional, cognitive, and behavioral) according to the theoretical frame presented in detail in Chapters I and II. The Q-sort statements represent an additional perspective that considers empathic behavior in light of professional or occupational constraints. The research participants sorted these statements onto a form board resembling a quasi-normal distribution.

Fifty-six medical students from Oklahoma State University's Center for Health Sciences participated in the study. The participants sorted the statements under the condition of instruction: "What are your thoughts about interactions with patients?" The participants completed a demographic questionnaire and responded to two post-sort questions, (1) What else would you like to say about patient-physician interactions? and (2) What are your reasons for wanting to become a physician? The data collection

yielded 56 sorts for data analysis and provided accompanying qualitative information to aid in interpretation of the data. This chapter describes the demographics of the participants and the results of the data analysis.

Participant Demographics

The volunteer participants in this study were asked to complete a brief demographic survey. Demographic information was available for 53 participants since 3 demographic surveys were not completed. According to the information provided in the surveys, 32 of the participants were male, 21 were female. Participants included 23 first year students, 21 second year students, and 9 third year students. There were 33 students who indicated they grew up in an urban area, 15 indicated a rural area, and 4 indicated they grew up in a mix of urban and rural areas. Table 5 outlines the characteristics of the demographics by gender.

Table 5

<i>Demographics by Gender</i>	
Male Students	Female Students
32 Total	21 Total
Year 1 = 18	Year 1 = 5
Year 2 = 11	Year 2 = 10
Year 3 = 3	Year 3 = 6
Urban = 20	Urban = 13
Rural = 10	Rural = 5
Mixed = 2	Mixed = 2

The students were asked when they knew they wanted to attend medical school. Eighteen students indicated that they knew they wanted to attend medical school while in elementary school or younger, nine made the decision during their high school years, and 22 selected a career in medicine during college or later. The remaining 7 responses were

either not completed or provided no age indicators. Another demographic question asked the students to identify any specialty interests they were considering. The students were asked to circle any that applied or to specify another area of interest if it was not provided on the survey. The top six responses are provided in the table below.

Table 6

<i>Specialty Areas of Interest</i>	
Top 6 Specialty Areas of Interest	Total
Surgery	21
Family Medicine	20
Emergency Medicine	20
Internist	15
Pediatrics	12
Sports Medicine	11

Data Analysis

The data from the 56 sorts collected from study participants were entered into the program PQ Method 2.10 (Schmolck, 2002) software application, available as a free download from the Q-method website. First, a centroid factor analysis was performed to view the relationships between the sorts in an unrotated state. This analysis was followed by a principal components factor analysis. Both methods of factor analysis indicated a single dominating factor without performing any factor rotations. Upon researcher judgment, various rotations were attempted to determine ways that the data may be differentiated. A varimax rotation allowed a perspective to emerge and a two-factor solution was initially considered since all 56 sorts loaded and achieved statistical significance on one factor or the other. Forty-eight of the total sorts loaded on the first factor, 8 on the second. The large number of loadings on the first factor continued to indicate a common viewpoint for the majority of participants. Yet, differences in the

views were evident. Therefore, a three-factor solution using varimax rotation on the centroid factor analysis was conducted. This solution distinguished further differences between the viewpoints of the original two factors plus illuminated a possible third factor. With the three-factor solution, 44 of the 56 sorts achieved statistical significance on one of the factors. The remaining twelve sorts were confounded, or achieved significance on more than one of the factors, demonstrating similarities among all views.

For the solution chosen as the best fit, a total of 24 sorts loaded on the first factor, 4 on the second factor, and 16 on the third. Although one factor had only four defining sorts, a review of the defining statements and the post-sort interview responses indicated that the three-factor solution brought greater clarification to all factor interpretations and better represented any diversity in the views of the participants. Although Factors 1 and 3 are highly correlated (0.861), the researcher identified several consensus statements that were ranked as *most unlike* their thoughts. Consensus items are those that are common among participants and do not distinguish different views between factors. Three consensus statements (#3, #7 and #11) were placed in the three extreme *most unlike* array positions across all factors. This strong consensus with the *most unlike* statements accounts for some of the high levels of correlation among the factors. (A complete correlation matrix is provided in Table 7). It was in the three-factor solution that differences were revealed in the statements the research participants ranked as *most like* their thoughts. It was determined that the previous two-factor solution resulted in common generalizations about the participants and concealed two theoretically important viewpoints that were exposed with a three-factor solution. Additional solutions were considered, including multiple judgmental rotations, but each failed to offer any greater

clarity or definition of the factors. When additional sorts were rotated to the second or third factors, the perspectives of the original factor sorts were diminished. Therefore, the centroid factor analysis with a varimax rotation was determined to provide the best representation of the data and the three-factor solution was retained for interpretation.

Table 7

Correlation Matrix

Factors	1	2	3
1	1.00		
2	0.4415	1.00	
3	0.8610	.4459	1.00

A Q-sort ID was assigned to each sort. The numeric digits at the beginning of the ID represent the numeric order in which the sort was entered into the database. An alpha character follows the first numeric digits and is either an F or an M, which identifies the gender of the participant who completed that sort. The next field represents the school year, 1 = first year student, 2 = second year student, and 3 = third year student. The next alpha character identifies the environment in which the participant grew up, u = urban, r = rural, b = both, and n = no response. The last digit of the ID represents the number of clerkship rotations the student stated they had completed at the time of the sort. If the participant did not indicate the number of rotations completed, the last numeric field was left empty. Three students did not complete any portion of the demographic survey. Those sorts are identified only by the numeric order in which they were entered.

The factor loadings that define each sort are identified with an “X” and are in bold print. The defining sorts are calculated by PQ Method 2.11 according to the condition that the sort explains more than half of the common variance and is significant at $p > .05$ (Schmolck, 2002). The factor matrix is presented below in Table 8.

Table 8

Factor Matrix for Three-Factor Solution

Q Sort ID	FACTOR 1	FACTOR 2	FACTOR 3
1M2u0	0.2191	0.6200X	0.4529
2M1u0	0.6258X	0.2903	0.4051
3F1b0	0.6776X	0.2676	0.5791
4F2u0	0.7020X	0.2134	0.5669
5M1r0	0.3229	0.3112	0.6697X
6M2u0	0.8047X	0.1562	0.3039
7M2u0	0.6040X	0.2118	0.5289
8M2u0	0.6378	0.1563	0.6385
9M1r0	0.3291	0.0686	0.7401X
10M1n0	0.4933	0.3389	0.4886
11M2u	0.6244X	0.3956	0.4257
12M2u0	0.4383	0.0515	0.6472X
13M2b0	0.6039	0.0738	0.6699X
14M1u	0.6854X	0.1933	0.4336
15F2u1	0.5437	0.1668	0.5790X
16M3r1	0.4850	0.0669	0.6478X
17M1r0	0.7841X	0.3183	0.3096
18F2r0	0.6660X	0.3552	0.2903
19F2r0	0.6419X	0.2218	0.2154
20M1r0	0.6871X	0.0639	0.3013
21M2u	0.4231X	0.1364	0.2947
22F1u0	0.6024X	0.2520	0.3510
23M1u0	0.4810	0.3693	0.5367
24M1u0	0.2564	0.2902	0.4311X
25M1u	0.6766X	0.0711	0.5084
26F2u0	0.5371	0.2478	0.6126X
27M1r0	0.1199	0.4967X	-0.0975
28M2u1	0.1972	0.3865	0.5713X
29M1r0	0.4530	0.1220	0.7106X
30M1r0	0.7904X	0.1335	0.3080
31M1u0	0.1518	0.3629X	0.1809
32F2u0	0.4674	0.5326	0.4432
33F1r0	0.4992	0.3772	0.7021X
34M1u0	0.5960	0.2654	0.6021
35M1u0	0.2077	0.5671	0.5977
36F2u0	0.5901X	0.4471	0.3730
37F1u0	0.3943	0.4316	0.3999
38F2b0	0.5688	0.3720	0.5805
39F1u0	0.7280X	0.3204	0.2851
40F2u0	0.4702	0.1757	0.6294X
41M1u0	0.5822X	0.2494	0.3168
42M1r0	0.4451X	0.3037	0.1661
43M2r0	0.7298X	0.2881	0.3384
44F1r0	0.2345	0.3157	0.7815X
45M2u0	0.5638	0.1441	0.5942X
46	0.5730	0.3478	0.4780
47	0.5992X	0.1953	0.5228
48	0.4976	0.3403	0.5793
49F3b1	0.3036	0.3447	0.5652X
50F3u1	0.5331	0.0834	0.6834X
51F3r1	0.6247	0.3834	0.5766
52M3u1	0.0043	0.7412X	0.0828
53M3u1	0.4357	0.4458	0.5309
54F3u1	0.6074X	0.0056	0.5501
55F3u1	0.7732X	0.1854	0.3025
56F3u1	0.6741X	0.1476	0.4323
% of explained variance	30	10	25
# of defining sorts	24	4	16

Response to the Research Question

What views do medical students hold regarding empathy in patient-physician interactions?

Descriptive profiles were interpreted for each of the three factors using various data analyses. By using the Q-sort items with the highest and lowest z-scores, items that distinguished one factor from the other two, and post-sort comments provided by the participants, the researcher identified viewpoints to interpret the factors and describe the characteristics of the factor profiles. Therefore, each of the three factors can be understood to represent a shared view regarding the role of empathy in patient-physician interactions. The factors were named (Factor 1) Empathic Connection, (Factor 2) Empathic Support, and (Factor 3) Empathic Communication. Before a detailed description of the unique characteristics of each factor is presented, it is essential to present a discussion of the consensus statements (non-defining items which sorted similarly across all three factors) to provide foundational information regarding the common view shared by all three factors.

Consensus Items

There were eight consensus items identified during data analysis. Table 9 provides a summary of all consensus items. Five of the consensus items were recognized as those that are *most unlike* the thoughts of all three viewpoints. One of the most revealing findings was with statements 3, 7, and 11. All three Q-sort statements were placed in one of the top three *most unlike* array positions for each of the three factors. There was such strong consensus regarding *most unlike* views among all research participants that all but two participants had two or more of the *most unlike* consensus

items sorted in similar array positions. The description of top three *most unlike* consensus items is provided below (Array positions, -5 to +5, in order of each factor appear in parentheses following each Q-sort statement):

- #3 It's really not necessary for physicians to ask patients about what is happening in their lives in order to understand their physical complaints. (-4, -5, -5)
- #7 The ability to establish rapport with the patient is often over-emphasized. (-3, -4, -4)
- #11 Illnesses are cured by medical treatment—emotional understanding of patients is not really part of my responsibility. (-4, -3, -3)

This finding indicates that all three factors share the biopsychosocial view that it is necessary for physicians to facilitate discussions regarding patients' emotional concerns and other areas of their lives in order to provide the best patient care. There is agreement that the physician is responsible for establishing a good rapport with patients, which will ultimately foster open communication indicative of emotional understanding. Thus, an essential perspective shared by all three factors is that physicians need explore psychosocial issues, as well as biomedical issues in order to provide optimum patient care. Post-sort comments made by the research participants regarding patient-physician interactions provide additional insight into the placement of the consensus statements, and support the interpretation of the findings. For example, Participant 2, a first-year male student whose sort defined factor 1, states:

We (physicians) are not auto mechanics; we do not work on discrete machines. We are artists of health and we work to improve/enhance/restore full function to human life. Human life consists of a tangible body and those darn, chronically-unempirical,

emotions. Genuine treatment involves thorough mechanical knowledge and the willingness to address the psycho-social (intangible) aspects of humanity.

A second-year male student (#11) loaded on factor 1 commented that, “Doctors can heal through more things than prescriptions.” Participant #1, a second-year male student whose sort defined factor 2, stated, “While you’re with your patient you must seek to relate to them & show that you care.” A second-year female student (#26) whose sort helped define factor 3 stated her reason for wanting to become a physician was because she experienced illness as a small child and felt helpless. Therefore, she wants to be the doctor her family didn’t have; “one who is caring & empathic.” A second-year female student (#38) whose sort was confounded between factors 1 and 3 stated about the patient-physician interaction, “it is much like any other interpersonal interaction that is one event on many levels.” A first-year female student (#37) whose sort was confounded across all three factors stated, “In the past I think the medical profession has overlooked the importance of empathy and personal interaction in healthcare but I believe this to be changing.”

Table 9

<i>Consensus Items for All Factors</i>				
<u>Item Number</u>	<u>Statement</u>	<u>Factor 1 Array Position</u>	<u>Factor 2 Array Position</u>	<u>Factor 3 Array Position</u>
“Most Like” Consensus Items				
33	Exploring psychosocial factors is a major part of good “bedside manner”.	+1	+2	+2
“Neutral” Consensus Items				
23	Because patients may misinterpret my intentions, I should be cautious when discussing emotional issues.	0	+1	+1
26	I want to rule out organic disease before I explore psychosocial concerns.	0	0	0
“Most Unlike” Consensus Items				
3	It’s really not necessary for physicians to ask patients about what is happening in their lives in order to understand their physical complaints.	-4	-5	-5
7	The ability to establish rapport with the patient is often over-emphasized.	-3	-4	-4
11	Illnesses are cured by medical treatment—emotional understanding is not really part of my responsibility.	-4	-3	-3
1	Understanding the subjective experience of patients is important for treating mental disorders, but not physical diseases.	-2	-2	-2
29	There are so many issues to be investigated when seeing patients; emotional concerns need to be discussed last.	-2	-1	-1

Factor Interpretation

Using both the defining sorts and participant post-sort comments descriptive profiles were generated for each of the three factors extracted from the data analysis. Defining Q-sorts statements were those statements that were positioned uniquely for a particular factor and thus distinguished one factor from the others. The post-sort qualitative comments provided by the participants are critical data needed for insight into understanding the patterns of views represented by the sorts. According to Dr. Michael

Stricklin, a guest speaker at a Q-Method seminar in Tulsa, Oklahoma in October of 2005, the post-sort comments provided by the participants are one of the key pieces of information the researcher needs in order to understand the meaning behind the placement of the Q-sort statements. The three factors are described below and identified as Factor 1, Empathic Connection; Factor 2, Empathic Support; and Factor 3, Empathic Communication.

Factor 1—Empathic Connection

The Q-sorts for 24 of the 56 participants loaded significantly and defined the typical array for Factor 1 and account for 30% of the variance. The demographic data available for Factor 1 sorts revealed that 13 participants were male, 10 female and 1 was left blank. There were 12 first-year students who defined this factor, 10 second-year students, and 3 third-year students. There was a wide range of specialty areas of interest represented with Factor 1. Family Medicine was the highest overall, combined area of interest. The male students indicated a high interest in Family Medicine and Emergency Medicine while female students indicated a high interest in Internal Medicine and Pediatrics. A subset of the demographic data in Table 10 shows a breakdown of the specialty areas of interest sorted by gender for Factor 1.

Table 10

<i>Factor 1 Areas of Interest</i>			
Top 6 Specialty Areas of Interest: Factor 1	Male	Female	Total
Surgery	5	2	7
Family Medicine	6	3	9
Emergency Medicine	6	1	7
Internist	2	5	7
Pediatrics	1	5	6
Sports Medicine	3	1	4

Factor 1 was named *Empathic Connection* because there was a prevailing identification with the emotional aspect of empathy. While the viewpoints across all factors recognize that establishing a good rapport and understanding the patient's emotional needs are essential responsibilities of the physician, the Empathic Connectors prefer to go beyond basic cognitive understanding of the emotions. Empathic Connectors reflect a degree of shared emotional experience with their patients. The Empathic Connectors perceive an association between providing compassionate care and the ability to gain patient trust. Participants whose sorts defined this factor identified with statements that contained emotional themes and, in some cases, revealed a physical display of emotion. The asterisk (*) identifies the item numbers that were unique to this factor and aided in the interpretation of the Empathic Connectors. Table 11 shows the positioning of the six most like and six most unlike statements for Factor 1.

Table 11

*Factor 1, Empathic Connection:
Highest (Most Like) and Lowest (Most Unlike) Ranked Statements*

Array Position	Z-Score	Item #	Statements
Six Most Like Statements			
11 (+5)	1.914	24	I like to offer encouraging words or maybe a kind touch to convey compassion when patients have emotional concerns.
10 (+4)	1.354	13	Patients can gain a therapeutic sense of validation when their feelings are understood.
10 (+4)	1.336	19*	It is natural for me to be touched by the situations of my patients.
9 (+3)	1.255	31*	If I explore the feelings expressed by my patients, I will actually be a more efficient and effective physician.
9 (+3)	1.242	16	An important component to my relationships with patients is my ability to understand their emotional concerns.
9 (+3)	1.197	27	I pay close attention to patient's body language when communicating with patients.
Six Most Unlike Statements			
1 (-5)	-1.712	6	I do not feel bad when encountering the misfortunes of a patient.
2 (-4)	-1.602	11	Illnesses are cured by medical treatment--emotional understanding is not really part of my responsibility.
2 (-4)	-1.488	3	It's really not necessary for physicians to ask patients about what is happening in their lives in order to understand their physical complaints.
3 (-3)	-1.277	28*	My attentiveness to the emotional concerns of patients is a minor factor in overall medical treatment.
3 (-3)	-1.204	7	The ability to establish rapport with the patient is often over-emphasized.
3 (-3)	-1.123	12*	My understanding of the patient's emotional concerns is irrelevant to an accurate diagnosis of medical illnesses.

The emotionality of the Empathic Connectors is evident in the positioning of statements 24, 6, and 19 (array position, z-score are provided in parentheses):

- #24 I like to offer encouraging words, or maybe a kind touch, to convey compassion when patients have emotional concerns. (+5, 1.914)
- #6 I do not feel bad when encountering the misfortunes of a patient. (-5, -1.712)
- #19 It is natural for me to be touched by the situations of my patients. (+4, 1.336)

It is apparent that all three of the distinguishing statements for Factor 1 indicate a form of emotional experience on the part of the physician during an emotional patient interaction.

Being emotionally moved by unfortunate patient circumstances is natural for Empathic Connectors. Empathic Connectors seem likely to reveal their shared emotion with patients and are apt to convey their compassion with a physical element. The experienced emotion of Empathic Connectors appears to motivate a behavioral component of empathy. Distinguishing statement 24 indicates that those participants who load on Factor 1 are likely to offer their patients an empathic touch or voice a caring expression. This was the only factor that positioned statement 20 in a most like array.

- #20 It is acceptable to show tears in the presence of patients who are suffering.
(+2, 0.764)

While Empathic Connectors still desire to maintain an emotional balance and be supportive in their professional role, they recognize that an emotional connection is a benefit to their patients. Participant 17 affirms this view,

A component of the patient/physician interaction that is often overlooked is that good outcomes are always more likely when a physician really “connects” to the patient.

There is a perceived benefit just from being listened to and touched.

Other post-sort comments supported the Empathic Connector’s preference to relate with patients on an emotional level. Several participant comments reflected emotion both with the message and the utilization of emotional language, such as use of the words “feel,” “care,” and “love.” For instance, Participant 47 relates, “Patients need to not only be helped physically but also need emotional contact & understanding.” Participant 3, a second-year female student, comments that patient-physician interactions are very important, and stated, “The patient will feel more satisfied, hopeful, and trusting if they feel their physician has addressed all aspects of their health.” Her reason for

wanting to become a physician exposed an understanding regarding the rare dynamic that can occur during medical encounters:

Doctors have the rare opportunity of expecting a patient's compliance and vulnerabilities to be exposed. In that moment, the physician has a unique opportunity to give help, care (physically and psychosocially) and support for people."

Participant 39 refers to the responsibility of physicians to be "safe houses" for their patients. Participant 36 acknowledges that in some cases both the patient and the physician might experience emotion when she commented that it is difficult for the physician not to become emotionally involved. A second-year male student notes that the patient-physician interaction creates a circumstance in which the patient must entrust all his or her problems to the care of the physician therefore, the physician must be empathic. Participant 4, a second-year female student, states:

The relationship one has with their doctor is critical. So many feelings & needs have to be met on behalf of the patient so that they feel well taken care of. This relationship is a delicate one & both sides must work together to achieve a happy balance.

A male second-year student, Participant 11, writes that patients need someone they can trust. Another second-year male student, Participant 21, explains, "I believe it is important for the patient to feel secure in the knowledge that after him, I am the next person who cares most about his physical wellbeing."

Factor 2— Empathic Support

The Q-sorts for 4 out of 56 research participants defined Factor 2. Factor 2 accounts for 10% of the variance and has a correlation of .4415 with Factor 1 and .4459

with Factor 2. This factor has a limited number of sorts to define its differences from the other views. A close interpretation of its unique distinguishing statements and the consistent post-sort comments indicated that this was a distinctive view that needed to be retained for further interpretation. All participants associated with the defining sorts were male, and all indicated that they knew they wanted to become a physician before they were in college; two knew as young children. There were 2 first-year students, 1 second-year student, and 1 third-year student included in this factor. A subset of the demographic data indicated that Emergency Medicine, Surgery, and Sports Medicine were primary areas of interest for specialty. Table 12 shows a breakdown of the areas of interest for Factor 2.

Table 12

<i>Factor 2 Areas of Interest</i>		
Top 6 Specialty Areas of Interest: Factor 2	Male	Female
Surgery	2	0
Family Medicine	0	0
Emergency Medicine	3	0
Internist	1	0
Pediatrics	1	0
Sports Medicine	2	0

Factor 2 was named *Empathic Support* because the focus of the defining sorts indicate that there is a desire to care for the emotional needs of their patients and offer personal support, but with a caution that too much emotionality might compromise professionalism and the ability to provide objective healthcare. Empathic Supporters agree with the view of all factors that establishing a good rapport with patients and understanding the emotions of the patients is an important responsibility of the physician. Empathic Supporters share with Factor 1 the view that patients gain a therapeutic sense of validation when their feelings are understood. Empathic Supporters like to convey

compassion through encouraging words or a kind touch, which is common with Factor 1. Empathic Supporters and Factor 3 both believe the information gained from the social sciences helps increase understanding between psychosocial issues and physical illness. However, Empathic Supporters differ from the other two factors in their concern to maintain emotional distance and emotional control while still offering personal support. Table 13 provides a subset of the data that shows the positioning of the six most like and six most unlike statements for Factor 2. The asterisk (*) identifies the item numbers that were unique to this factor and aided in the interpretation of the Empathic Supporters. Item numbers with an asterisk denote those statements that were ordered differently by Factor 2 sorters.

Table 13

*Factor 2, Empathic Support:
Highest (Most Like) and Lowest (Most Unlike) Ranked Statements*

Array Position	Z-Score	Item #	Statements
Six Most Like Statements			
11 (+5)	1.727	10*	To deliver the highest quality care, I must not become too involved with the emotional state of patients.
10 (+4)	1.539	36*	My patients will feel better if I offer personal support and reassurance.
10 (+4)	1.485	18*	My ability to apply information from the social sciences will help me understand the relationship between psychosocial issues and physical illness.
9 (+3)	1.457	24	I like to offer encouraging words or maybe a kind touch to convey compassion when patients have emotional concerns.
9 (+3)	1.298	13	Patients can gain a therapeutic sense of validation when their feelings are understood.
9 (+3)	1.001	32*	Due to my expertise, I am expected to maintain control of the dialogue during medical interviews
Six Most Unlike Statements			
1 (-5)	-2.439	3	It's really not necessary for physicians to ask patients about what is happening in their lives in order to understand their physical complaints.
2 (-4)	-1.742	20*	It is acceptable to show tears in the presence of patients who are suffering
2 (-4)	-1.393	7	The ability to establish rapport with the patient is often over-emphasized.
3 (-3)	-1.211	17*	The average office patient is mainly interested in alleviation of illness, so it is often best to remain focused on biomedical issues.
3 (-3)	-1.08	19*	It is natural for me to be touched by the situations of my patients.
3 (-3)	-1.037	11	Illnesses are cured by medical treatment—emotional understanding of patients is not really part of my responsibility.

Empathic Supporters are cautious when it comes to connecting emotionally with patients. Empathic Supporters agree that there is a need to respond to and understand the patient's emotions, but they have a fundamental perception that physicians should guard against becoming overly emotional. The underlying concern for Empathic Supporters may be that too much emotion on the part of the physician might diminish professional effectiveness and may actually be unhealthy for the physician, leading to job burnout. To Empathic Supporters, maintaining a professional emotional distance and remaining in control of their emotions during patient interactions is essential. The participants'

positioning of distinguishing statements 10, 34, and 19 reiterate the view regarding the importance of emotional distance. (Array position and z-score are provided in parentheses).

- #10 To deliver the highest quality care, I must not become too involved with the emotional state of patients. (+5, 1.727)
- #34 Clinical neutrality requires me to maintain an emotional distance with my patients. (+2, 0.740)
- #19 It is natural for me to be touched by the situations of my patients. (-3, -1.08)

Distinguishing statements 32, 5, and 20 emphasize the perspective that Empathic Supporters attach importance to emotional control during patient-physician interactions.

- #20 It is acceptable to show tears in the presence of patients who are suffering. (-4, 1.742)
- #32 Due to my expertise, I am expected to maintain control of the dialogue during medical interviews. (+3, 1.001)
- #5 I try to remain unemotional when witnessing the emotional experiences of my patients. (+2, 0.601)

The post-sort comments written by the participants provide important insight into understanding why emotional distance and emotional control are desirable to Empathic Supporters. Participant 27 elaborates about patient-physician interactions, “I think some interactions are needed. However, when you are emotionally involved you could do an injustice.” Participant 31 states that it is nice to be empathic, “but have to have balance, no crying.” When considering physician effectiveness, Participant 52, a third-year student, expressed that it was important for physicians to avoid becoming too emotionally

involved with their patients. Yet, participant 52 continued, stating that it was still important for physicians to establish a good rapport with patients. A second-year student, Participant 1, articulated his concern about a physician expressing too much emotion:

It is important to express empathy, but not extreme emotion. You can't bring your patient's heartbreaking situations home with you & let it weigh you down, but while you're with a patient you must seek to relate to them & show that you care. The gray area between emotionlessness & hyper-emotionality is where it is healthiest to be.

Although Empathic Supporters prefer to limit the emotionality during interactions with patients, they have a desire to support their patients and help them holistically. In addition to the consensus items that reveal a shared view that patient care involves emotional understanding and considering issues beyond the physical complaints, Empathic Supporters placed two additional statements in arrays that distinguish their views from the other factors (array position, z-score):

- #36 My patients will feel better if I offer personal support and reassurance. (+4, 1.539)
- #17 The average office patient is mainly interested in alleviation of illness, so it is often best to remain focused on biomedical concerns. (-3, -1.211)

The post-sort comments regarding the participant's reasons for wanting to become a physician reveal possible underlying reasons behind their views regarding their sorting preferences. Participant 1 stated he wanted to become a physician "to help my patients & bring them to health, body, mind, & spirit." Participant 27 wants to be able to help people who are not able to help themselves. Participant 52 comments that he wanted to

become a physician because of an “interest in emergencies, medicine, and drive to ‘save’ people who need help. I call it my ‘super-hero complex’.”

Factor 3— Empathic Communication

The Q-sorts for 16 of the 56 research participants defined Factor 3. This factor accounts for 25% of the variance. There were 9 male students and 7 female students who defined this factor. The Q-sorts for 6 of the sorts that defined Factor 3 were first-year medical students, 7 were second-year students, and 3 were third-year students. A subset of the demographic data revealed that the primary specialty area of interest for all Factor 3 sorts was Emergency Medicine. When considered by gender, the male participants who loaded on this factor were interested in areas of Surgery and Emergency Medicine while the female participants were interested in Emergency Medicine and Family Medicine. Table 14 shows the top six specialty areas of interest broken down by gender.

Table 14

<i>Factor 3 Areas of Interest</i>			
Top 6 Specialty Areas of Interest: Factor 3	Male	Female	Total
Surgery	6	1	7
Family Medicine	1	4	5
Emergency Medicine	5	3	8
Internist	1	0	1
Pediatrics	1	2	3
Sports Medicine	1	1	2

Factor 3 was named *Empathic Communication* because the focus of the defining sorts appears to lie in the ability to gain critical information, primarily through listening, which will ultimately improve overall health outcomes. Like Factors 1 and 2, Empathic Communicators acknowledge that it is necessary to build a rapport with patients and seek to understand other life issues in the lives of their patients. Empathic Communicators also share with Factor 2 the view that information from the social sciences helps to increase the ability to understand the relationship between psychosocial issues and physical illness.

However, Empathic Communicators share more views in common with Factor 1, Empathic Compassion. Both views are concerned for the emotional needs of the patient and the importance of trust in the patient-physician relationship. Empathic Communicators recognize that there is a potential for them to personally experience emotions when encountering the misfortunes of the patient; and they acknowledge that the ability to understand the patient's emotional concerns is an important component in their relationships with patients. To the Empathic Communicators, the emotional connection is paramount in developing trust that is necessary for open communication. Table 15 shows the positioning of the six most like and six most unlike statements for

Factor 3. The asterisk (*) identifies the item numbers that were unique to this factor and aided in the interpretation of the Empathic Communicators.

Table 15

*Factor 3, Empathic Communication:
Highest (Most Like) and Lowest (Most Unlike) Ranked Statements*

Array Position	Z-Score	Item #	Statements
Six Most Like Statements			
11 (+5)	1.864	22*	I can improve overall health outcomes if I have an understanding of my patient's perspectives.
10 (+4)	1.574	21*	I can render better care if I am able to view things from another person's perspective.
10 (+4)	1.411	25*	I can improve my diagnostic judgment if I am empathic with patients.
9 (+3)	1.353	16	An important component to my relationships with patients is my ability to understand their emotional concerns.
9 (+3)	1.124	27	I pay close attention to patient's body language when communicating with patients.
9 (+3)	1.065	18*	My ability to apply information from the social sciences will help me understand the relationship between psychosocial issues and physical illness.
Six Most Unlike Statements			
1 (-5)	-1.612	3	It's really not necessary for physicians to ask patients about what is happening in their lives in order to understand their physical complaints.
2 (-4)	-1.48	7	The ability to establish rapport with the patient is often over-emphasized.
2 (-4)	-1.374	12*	My understanding of the patient's emotional concerns is irrelevant to an accurate diagnosis of medical illnesses.
3 (-3)	-1.352	11	Illnesses are cured by medical treatment--emotional understanding is not really part of my responsibility.
3 (-3)	-1.222	2*	If I haven't experienced the patient's illness or circumstances, I won't really be able to understand the patient's emotions.
3 (-3)	-1.159	6	I do not feel bad when encountering the misfortunes of a patient.

Post-sort comments show the connection between trust and communication. For example, Participant 40 states, "It is important to establish a relationship of trust & confidence from a patient with a non-judgmental attitude to give good care." Although Empathic Communicators share common views with the other factors, they seem to place a greater emphasis on the end result of empathy in the patient-physician interaction. The Empathic Communicators recognize that the physician must gain an understanding of the

patient's perspective in order to improve diagnostic accuracy and achieve the best possible health outcomes.

The views of the Empathic Communicators seem to be grounded in communicating in a way that develops an understanding of multiple perspectives. In order for Empathic Communicators to understand the perspectives of their patients, they want the patient to feel comfortable enough to share meaningful information. The importance that Empathic Communicators place on their ability to view circumstances from another view is revealed in the placement of the following distinguishing statements:

- #22 I can improve overall healthcare outcomes if I have an understanding of my patient's perspectives. (+5, 1.864)
- #21 I can render better care if I am able to view things from another person's perspective. (+4, 1.574)
- #2 If I haven't experienced the patient's illness or circumstances, I won't really be able to understand the patient's emotions. (-3, -1.222)

Analysis of the post-sort comments aided in clarification of this viewpoint.

Participant 9 elaborated on the placement of sort items by stating, "The extent of the emotional interaction will vary by patient which is why I disagreed most that the physician should control the dialogue in medical interviews. Let the patient speak. They came to the physician for a reason." Participant 24 commented that a relationship of trust is important because when trust is present it is "easier for the patient to open up & tell their doctor more than if trust is not present."

Empathic Communicators differ from the other factors with their emphasis on the physician's responsibility to understand the patient's perspective. It is the ability to understand the patient's perspective that enables the physician to make the most accurate diagnosis possible. For Empathic Communicators, a physician is at great risk of not getting key information if a relationship of trust and open communication does not exist. It is important for Empathic Communicators to establish a relationship of trust so that the patient will feel comfortable providing critical and personal details that will improve the physician's diagnostic judgment. Thus, empathy is important because an empathic relationship with patients creates meaningful communication, which leads to better healthcare outcomes. The distinguishing statements that support this view are:

- #25 I can improve my diagnostic judgment if I am empathic with patients. (+4, 1.411)
- #12 My understanding of the patient's emotional concerns is irrelevant to an accurate diagnosis of medical illnesses. (-4, -1.374)

Several post-sort comments support this interpretation of Factor 3's views.

Participant 45 states, "Good doctor-patient relationships foster trust, trust promotes honesty, honesty leads to more accurate diagnoses, which in turn leads to the best patient care and often better outcomes." Participant 33 said,

You have to include the emotional aspects of a patient to get an accurate diagnosis and understand the dynamics that effect that patient's life. Otherwise, you're missing one whole piece of the puzzle when diagnosing and when helping them make plans for their own health.

Participant 49 also provides support for this view by commenting, “Drs. who make patients feel at ease and show concern during an office visit are more likely to be able to get the information needed to make a more accurate diagnosis.” Participant 50 adds, “It is necessary for outcome-sake to focus first on the physical, but almost simultaneously I must be aware of the emotional or I can easily miss key information and do a disservice to my patient.”

Additional Participant Comments

There were post-sort comments that revealed valuable insight into the participants’ views of empathy in patient-physician interactions that were not directly connected to a specific statement or factor. Two issues that resurface in participant comments were that different circumstances would influence their views of the role of empathy, and that the physician needs to find a way to maintain an emotional balance.

Situations Vary

Participants made multiple comments indicating that varying patient situations and circumstances influence the patient-physician interaction. The comments indicated that this variation might have made a difference in the way the participant sorted the statements. A first-year male student (#42) stated that several factors influence situations and patient interactions. He commented, “The patient-physician interaction is very dynamic, with this in mind it was difficult for me to rank some of the statements. Some would have been applicable in many situations but not in others.” Participant 43 also commented that the patient relationship is a “dynamic situation”. Participant 9 commented that, “the extent of emotional interaction will vary by patient.” Participant 12 agreed that circumstances matter when he stated, “Some of the questions really hit me in

the middle and I could have placed them more decisively if some clarification was available. There are frequently things that are other than absolute.” According to participant 28, “interactions change depending on setting. My clinical experience has been in ER, which has very different time constraints than an oncology office.”

Emotional Balance

Other post-sort comments revealed a concern about balance in the patient-physician interaction. In some cases, participants expressed that balance was necessary for the overall health of the physician. A second-year female student explained her view stating, “There is a fine line between providing an empathic response while maintaining professional(ism), and having the patient become too clingy because you are now their ‘shoulder to cry on.’” A balance has to be attained, most likely through experience.” Participant 8 stated, “One of the most difficult things about treating people is balancing empathy w/ rationalism so that you are neither overcome by your patients’ problems nor callous to them.” Participant 36, a second-year female student whose sort loaded on factor 1 commented about caring for the patient and finding an appropriate professional balance:

I think it is a very interesting relationship. It is hard not to get emotionally involved, yet they look to you for support. I don’t think I’d appreciate my doctor crying when telling me bad news. There has to be some type of professionalism. Also, if you carry all the anguish and stress from your patients, it will be very unhealthy for the doctor. I don’t know what the compromise is. If you can find a balance between empathy and being professional, let me know!

Summary

This chapter presented the analysis and interpretation of collected data from 56 medical student volunteers attending Oklahoma State University's Center for Health Sciences. Findings indicate three identifiable patterns of views regarding empathy in patient-physician interactions exist within the sample population.

Factor 1 included 24 of the 56 Q-sorts, accounting for 30% of the total variance, and was identified as Empathic Connection. Empathic Connectors agree that physicians need emotional understanding in order to provide proper patient care, but they prefer to go beyond a foundational cognitive understanding of the emotions. Empathic Connectors reveal a tendency to experience a degree of shared emotion with their patients. They associate empathy with feeling and perceive compassionate care as the means to gain patient trust.

Factor 2 included 4 of the 56 Q-sorts, accounting for 10% of the total variance, and was identified as Empathic Support. Empathic Supporters are very cautious when it comes to connecting emotionally with patients and guard against becoming overly emotional. However, Empathic Supporters agree that physicians need to understand the patient's emotions. But too much emotion on the part of the physician might diminish professional effectiveness. To Empathic Supporters expressing empathy while maintaining a professional emotional distance is essential for ability to provide support and encouragement.

Factor 3 included 16 of the 56 Q-sorts, accounting for 25% of the total variance, and was identified as Empathic Communication. Empathic Communicators appear to be grounded in creating open communication that will allow them to gain insight into the

patient's perspective. Empathic Communicators will empathize with their patients because they want patients to feel comfortable sharing meaningful information to aid in reaching accurate diagnoses. Thus, for Factor 3, the path to empathic care is empathic communication.

Across all three factors, there appears to be a view that some degree of empathy is necessary in patient-physician interactions. There is an overall agreement that it is vital for physicians to establish a good rapport in order to develop an emotional understanding of what is happening in their patients' lives. This emotional understanding underlies the physicians' abilities to holistically care for their patients.

Implications of these findings and recommendations for future research are discussed in the following chapter.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The purpose of this study was to describe the views of medical students regarding the role of empathy in patient-physician interactions. This chapter summarizes the study, presents conclusions, and discusses implications of the findings for theory, practice, and future research.

Summary of the Study

As studies specifically focused on empathy in medical students are limited, it is necessary for medical educators to understand how medical students view the role of empathy in patient-physician relationships. This information can assist in developing optimum curricula that will advocate for the importance of empathy in healthcare and successfully evaluate the effectiveness of educational programs aimed at promoting empathy (Hojat et al., 2002c). The research question guiding this study was “What views do medical students have about the role of empathy in patient-physician medical interaction?” Examining the perspectives of medical students provides insight into how students differ in their views regarding the importance of empathy and how empathy might influence healthcare outcomes.

Q methodology was employed in this study as a means to identify the underlying structure of students’ views regarding the role of empathy in patient-physician interactions. The Q-sort concourse was developed using adaptations of existing standardized scales and with statements from the literature to demonstrate a range of opinion and a fair representation of the perspectives relating to the research topic. A subset of items, Q-Sample, was derived from the concourse using a theoretical

framework identified by Morse et al (1992). After conducting a literature review of the empathy construct from a healthcare perspective and a psychological perspective, Morse et al. identified four key components of empathy: moral, emotive, cognitive, and behavioral. The Q-Sample consisted of 36 statements that represented the theoretical frame from both biomedical and biopsychosocial perspectives. The research participants sorted the 36 statements during the Q-sort process.

Fifty-six participants were recruited from the student population at Oklahoma State University's Center for Health Sciences. The participants consisted of 32 male students and 21 female students (three did not complete demographic information). Of the total, 23 first-year, 21 second-year, and 9 third-year medical students performed the Q-sort. In addition to the Q-sort, participants completed a post-sort survey and answered a demographic questionnaire.

I conducted a centroid factor analysis followed by a varimax rotation. The analysis yielded a three-factor solution supported by theory and qualitative data. The factors represent three themes or patterns that emerged from the participants' sorts. I interpreted the factors, or themes of perspectives, and named them Empathic Connection, Empathic Support, and Empathic Communication.

Empathic Connectors agree that physicians' need emotional understanding in order to provide proper patient care. However, Empathic Connectors appear to prefer to go beyond a foundational cognitive understanding of the emotions. Empathic Connectors reveal a tendency to experience some form of shared emotion with their patients. They seem to associate empathy with personal feelings and perceive compassionate care as a means to gain patient trust.

Empathic Supporters are cautious when it comes to connecting emotionally with patients and guard against becoming overly emotional. Empathic Supporters agree that physicians need to understand the patient's emotions in order to provide holistic healthcare. But, they tend to perceive that some form of emotional distance and control are necessary if the physician is to remain objective and avoid job burnout. Empathic Supporters appear to view excessive emotion on the part of the physician as potentially diminishing to professional effectiveness, and believe patients desire a physician who is strong and in control. To Empathic Supporters expressing empathy while maintaining a professional emotional distance is essential to providing patients support and encouragement.

Empathic Communicators appear to be grounded in creating open communication that will allow them to gather the maximum amount of medical information and gain insight into the patient's perspective. Empathic Communicators empathize with their patients because they want the patient to feel comfortable sharing meaningful information that may aid the physician in reaching an accurate diagnosis. For Empathic Communicators the path to empathic care is empathic communication.

Across all three factors, there appears to be a view that empathy is necessary in patient-physician interactions. There is overall agreement that it is vital for physicians to establish good rapport with patients in order to develop an emotional understanding of what is happening in their patients' lives. This emotional understanding underlies the physician's ability to holistically care for their patients.

Conclusions

The views of the participants in this study share common elements, yet differ in several important aspects. The emerging patterns of views among the medical students who participated in this study revealed insight into the underlying structure of the empathy construct. Conclusions from these findings are as follows:

- A biopsychosocial orientation to medicine seems to be present in all the views. Participant consensus items indicate that understanding psychosocial issues and the emotional concerns of patients are important to medical treatment.
- Although there appears to be agreement in perspectives of medical students related to empathy, there are at least three potential underlying views regarding the role of empathy in patient-physician interactions. Participants perceived empathy differently regarding their views of emotional connection, type of support, and reasons for communication with patients.
- Empathy appears to be a more complete construct when considered as a multidimensional construct. All four components of empathy influenced the views of the participants.
- Circumstances matter. Participants commented that they were challenged when sorting some of the items due to the complexity of medical circumstances and unique patient dynamics. According to the participants, situations vary and call for different physician responses.
- Emotion matters. Participants reflected on the emotionality of the physician in post-sort comments. Whether emotion was a path for a participant to connect to

the patient, a key to open communication, or something that needed to be controlled, emotion is a vital component in the role of empathy.

Implications

The results of this study indicate that medical students may differ in their views of the role of empathy in patient-physician interactions. The results revealed several commonalities that the participants shared in their views. Both the different viewpoints and shared perspectives provide relevant implications to theory, teaching practices, and directions for future research.

Implications to Theory

It has been proposed that empathy is a complex multidimensional construct that is paramount to healthy, effective patient interactions (Hojat et al., 2002e; Mercer & Reynolds, 2002; Morse et al., 1992; Stepien & Baernstein, 2006). The various dimensions of empathy that have been revealed in the literature include moral, emotive, cognitive, and behavioral components (Mercer & Reynolds, 2002; Morse et al., 1992; Stepien & Baernstein, 2006). The views that emerged in this study support this multidimensional theoretical perspective of empathy. Indeed, all four empathy components seem to be present in the results of this study, and all appear to influence how the students prefer to respond empathically to the patient.

Medical students appear to have different perspectives regarding the most appropriate way to provide empathic care to the patient. For the Empathic Connectors, the emotional component influences their preference to provide an emotional response to show the patient compassion and care. For the Empathic Supporters, the influence of the emotional and behavioral component was revealed based on their view that physicians

need to control emotions in order to be considered professional. They prefer that the physician be supportive and encouraging by presenting a strong, professional image to the patient. Empathic Communicators are influenced by cognitive and behavioral components of empathy as demonstrated by their desire to empathize in order to build trust. The goal of the Empathic Communicators is to establish a relationship that will encourage the patient discuss revealing details important for an accurate diagnosis. The moral component of empathy influenced all of the participants' views regarding empathy's role in patient-physician interactions. The viewpoints of this study revealed an internal, altruistic desire to help and care for their patients. Regardless of the viewpoint the students hold, this study reveals that all four components of empathy were represented in the Q-sorts and post-sort comments. Thus, empathy appears to be a more complete construct if all components are considered collectively. If a particular component of empathy is eliminated or ignored, the theoretical framework would potentially miss a critical element of the empathy phenomenon.

Researchers often agree that empathy involves multiple components, but may disagree when it comes to determining which components are necessary to teach empathy to medical students. Previous studies have asserted that only cognitive or behavioral aspects of empathy are relevant to medical education and consider emotion to be a component of sympathy (Hojat et al., 2002d). Other researchers propose that empathy is not authentic unless an emotional element is present, and how physicians respond to the emotionality of the patient is the core of empathic care. (Halpern, 2001; Stepien & Baernstein, 2006).

According to Benbassat & Bauml (2004), empathy is a process that begins with an awareness of the patient's concerns and produces a sequence of emotional engagement to help the patient. Emotional engagement is more than intellectual understanding (Benbassat & Bauml, 2004; Mercer & Reynolds, 2002; Stepien & Baernstein, 2006). To only address cognitive empathy or behavioral empathy as independent components ignores the possibility that the student may experience a natural emotional response to what the patient reveals or the patient's circumstances, such as the emotional reactions revealed in student narratives (Branch et al., 1993). It may be the student's emotion that stimulates sensitivity to the patient's feelings in the first place (Smith, 2006). Davis (1996) included a dimension of empathic concern when he developed the Interpersonal Reactivity Index. Davis defined this dimension as the tendency to experience tender, concerned feelings for others who are less fortunate, which supports the position that emotion plays an active role in empathy. A separatist approach to the construct of empathy creates a gap that does not consider how students experience emotions during interactions with patients, nor does it consider how students prefer to express or suppress the emotions they experience.

The moral component of empathy is frequently alluded to in empathy research, but seldom specifically addressed in the research design or findings (Morse et al., 1992). The moral component is defined as the internal altruistic motivator that drives the practice of empathy, or a moral predisposition (Mercer & Reynolds, 2002; Morse et al., 1992; Stepien & Baernstein, 2006). The results of the current study support the conclusion that an overall moral predisposition and a desire to help others may influence perceptions of empathy. Participants indicated that the desire to help others in need was a

key motivator for wanting to become a physician. This study revealed that participants believed that physicians need to investigate biological issues, as well as psychosocial issues in order to provide good patient care. The biopsychosocial perspective may indicate that participants believe that considering organic issues alone is not sufficient to effectively care for their patients, and patients' emotional concerns need to be acknowledged and understood by the physician. Reynolds (2006b) stated that the moral component of empathy should not be dismissed, and that it would be beneficial to understand how the moral component interacts with the other components of empathy. The results of this study support the position that the moral component may provide critical insight into understanding the motivation behind empathy. However, the altruistic desire to help others may manifest itself in a variety of behaviors. A student may view the role of the physician as a patient's guardian, counselor, technical expert, teacher, or friend (Emanuel & Emanuel, 1992). All of these views may be driven by a moral component, but will result in different empathic behavior during patient interactions. While the moral component alone is not enough to develop the desired empathic behavior, this study supports that it may have an interactive role with all other components of empathy.

Isolating the various components of empathy may produce an incomplete view of the construct and may inadvertently overlook necessary elements and the interactions of those elements. The results of this study support an integrated view of the components of empathy, and considering all of the components as interacting elements seems to provide the best fit for medical education.

Implications for Practice

If medical educators consider empathy as a multidimensional construct, it may make a difference in the way they design methods of developing empathy in their students. According to Shapiro et al. (2004), teaching methods influence the different dimensions of empathy in different ways. If educators know which dimension, or combination of dimensions need development, they can target teaching objectives to match the needs of their students. The results of this study revealed a consensus that empathy is an important element in patient care. However, there are various views among the participants regarding how physicians should respond to the patients' emotions and convey empathy.

Few studies have addressed varying student views of empathy. Emanuel and Emanuel (1992) proposed different personality perspectives or models to patient-physician relationships, but no other articles were located regarding how medical educators might develop curricula that would target multiple viewpoints of empathic care. Teaching empathy to medical students might be enhanced if educators openly discuss the students' concerns regarding patient interactions. Several studies have reported information regarding barriers to empathy in patient-physician interactions (Branch et al., 1993; Rosenfield & Jones, 2004), but few studies addressed how educators might help students reframe perceived barriers, or work through their concerns. Many participants in this study revealed a struggle to find balance between being too emotional and appearing cold or uncaring. Some participants mentioned a concern that feelings and emotional behavior needed to be controlled in order to avoid job burnout, and to avoid appearing unprofessional in the eyes of their patients. Rosenfield & Jones (2004)

proposed that medical students may develop maladaptive responses that might decrease their level of empathy if the students' concerns are not addressed in the curriculum.

Medical educators can assist students by affirming the students' concerns and offering discussions and ideas to work through the dilemmas. Branch et al. (1993), utilized small groups to review and reflect upon students' critical incident reports, and discuss the students' attempts to reconcile empathy with the reality of patient care. The researchers concluded that the discussions not only helped the students, but also increased the researchers' understanding of the importance of what the students face. The researchers hoped that the new understanding would enable them to become better teachers.

Makoul (2003) stated that a discussion regarding what is appropriate and comfortable for both the student and the patient would be beneficial to those who teach empathy. Teaching methods that begin by defining mutual learning goals foster a teaching environment that respects multiple viewpoints. According to Branch et al. (2001), active learning exercises that incorporate mutual learning objectives may provide the best forum for developing empathic behavior. The article discusses a stepwise approach that begins with the student practicing the behavior, observing their performance, critiquing their work, eliciting feedback from others, reflecting on the exercise, and repeating the behavior again. This learning cycle honors the perspective of the student by allowing the student to determine what behavior needs continued development.

The findings of this study support the need for teaching methods that integrate open forms of developmental discussion to promote learning environments that foster

growth for multiple perspectives of empathy. It would be beneficial for future teaching designs to incorporate various ways of providing empathic development that would allow students to remain authentic to their views of what is considered appropriate and professional behavior.

Implications for Future Research

Several multidimensional scales exist in the general population (Davis, 1996; Hogan, 1969; Mehrabian & Epstein, 1972). However, the existing scales often use dimensions or subscales defined by the researcher, such as fantasy, openness, flexibility, and personal distress. The subscales developed for the general population may not translate to a healthcare population, especially medical students. The Jefferson Scale of Physician Empathy (JSPE)-Student Version is one of the few instruments designed to measure empathy in medical students. The researchers' goal was to develop a brief psychometrically sound instrument to measure empathy specifically to patient care situations (Hojat et al., 2001b). The student version of the JSPE was developed to provide medical educators with an instrument to reliably evaluate the effectiveness of educational interventions in empathy development, or eventually provide an effective admissions tool (Hojat et al., 2002d; Hojat et al., 2004). While the JSPE fulfilled the objectives of the researchers and has proven to be a useful instrument in many studies, the scale provides researchers a tool that only measures a level of empathy rather than reporting subscales of the components of empathy. Because questions remain as to how the four components of empathy (moral, emotional, cognitive, and behavioral) interact, or co-exist, an assessment tool that provides both subscale scores and a composite score would be helpful to future research studies and educational interventions. Additional

research is needed to develop a self-assessment tool for empathy using a multidimensional framework.

Observational studies take into consideration the empathic behavior expressed by the medical student and often involve a coding method to record the behavior that was witnessed. The observation may only reveal a level of empathy displayed and may have no relationship to the expectations of either the patient or the student (Makoul, 2003). There are rating instruments that assess the patient-model perceptions of the interaction (Mercer et al., 2004). The additional variable captured from the perspective of the patient provides the researcher a reliability measure to the ratings of a third-party rating. Studies capturing a similar variable from the students' views were not located in the literature search. Existing observational studies have not been structured in a way to recognize the students' intentions or perceptions of the behavior. The existing observational designs do not consider that the student may have simply been ineffective, but still had a desire to provide comfort to the patient or tried to connect to the patient. Future observational studies that incorporate a variable to capture feedback from the student on the patient-model interaction would add clarification of the students' intentions, expectations, and actions.

Previous research has found that although medical students enter the profession with a desire to help others, the challenges and clinical experiences students encounter may cause a decline in empathy and detachment from their patients (Bellini & Shea, 2005; Benbassat & Baumal, 2004; Branch et al., 1993; Rosenfield & Jones, 2004). The participants in the current study were first and second year medical students, or third year students who were just beginning their clinical rotations. The study results revealed a

consensus in a desire to help others as a motivation for entering medical school. A common desire to provide empathic care was also found in the results. This supports the previous findings as to the views of medical students early in the education program. Although all the medical students at OSU-CHS were invited to participate in the study, the Q-Sort was not administered to the entire class. It is possible that those who volunteered to participate in the study were more empathic than their non-participating classmates. However, questions still remain as to how or if this altruistic component of empathy would change as students are exposed to actual clinical situations. It would be beneficial to use Q-method with medical students who have completed multiple clinical rotations. A study of this nature would be helpful to see if the underlying views of empathy are similar over the course of patient experiences, or if the underlying views of empathy succumb to stresses and pressures encountered during the education process.

Actual clinical experiences can vary greatly between different patients and different medical circumstances. The participants in this study mentioned that some of the Q-sort items were difficult to position due to situational variation. Future Q-method studies could incorporate multiple conditions of instruction for the Q-sort process. According to McKeown and Thomas (1988), asking participants to perform the sort process under multiple hypothetical constructs allows the researcher the opportunity to investigate if the participants' subjectivity behaves differently under different conditions. Future research that considers different circumstances in the methodology would provide understanding of medical students' expectations of the role of empathy under various conditions.

Strengths and Limitations

A strength of my study is in its innovation to use Q methodology to investigate the subjective phenomenon of empathy from the perspective of the participant. Using Q method enabled me to impose a limited amount of structure in order to permit the participant to determine the meaning of each statement, and how that statement fit in his or her view of the role of empathy in patient-physician interactions. This approach allowed multiple viewpoints to emerge from the perception of the students.

A limitation of my study is that only medical students at OSU's Center for Health Sciences were invited to participate. Thus, all participants were volunteer students from OSU's Center for Health Sciences, an osteopathic medical school located in Tulsa, Oklahoma. It is not known how medical students from other universities and other cultures may have interpreted the meaning of the items. In addition, it is not know if the viewpoints of students who volunteered their time to participate in this study are naturally more inclined to be empathic than the viewpoints of those who did not volunteer. However, the viewpoints regarding the role of empathy that emerged in this study do exist, and do deserve consideration in future educational practices and future research.

Closing Remarks

Empathy is not an easy construct to understand or investigate. Human beings are complex and so are their interactions. Those who are in the healthcare field have especially unique circumstances since their encounters with patients are simultaneously professional and personal within a limited amount of time. The challenges involved in a patient-physician interaction make empathy a critical component for all parties.

To explore the student perspective of empathy in this dynamic interaction was very insightful. Q methodology proved to be an especially helpful approach in gaining an understanding of the commonalities and differences that existed among the participants. The students in this study revealed that they could not be measured under dichotomous terms such as empathic or non-empathic. They revealed that empathy might not be a construct that should be measured as either high or low; rather, it might be best for practitioners to consider how those who are empathic might behave or think differently.

REFERENCES

- Ashworth, C. D., Williamson, P., & Montano, D. (1984). A scale to measure physician beliefs about psychosocial aspects of patient care. *Social Science & Medicine, 19* 1235-1238.
- Association of American Medical Colleges. (1998). *Report I: Learning Objectives for Medical Student Education. Guidelines for Medical Schools.*
- Baron-Cohen, S., & Wheelwright, S. (2004). The Empathy Quotient: An investigation of adults with asperger syndrome or high functioning autism, and normal sex differences. *Journal of Autism and Developmental Disorders, 34* 163-175.
- Beckman, H., Markakis, K., Suchman, A., & Frankel, R. (1994). Getting the most from a 20-minute visit. *American Journal Gastroenterology, 89* 662-664.
- Bellini, L. M., & Shea, J. A. (2005). Mood change and empathy decline persist during three years of internal medicine training. *Academic Medicine, 80* 164-167.
- Benbassat, J., & Baumal, R. (2004). What is empathy, and how can it be promoted during clinical clerkships? *Academic Medicine, 79* 832-839.
- Bennett, M. J. (2001). *The empathic healer: An endangered species?* San Diego, CA: Academic Press.
- Borrell-Carrio, F., Suchman, A. L., & Epstein, R. M. (2004). The biopsychosocial model 25 years later: principles, practice, and scientific inquiry. *Annals of Family Medicine, 2* 576-582.

- Branch, W. T., Kern, D., Haidet, P., Weissmann, P., Gracey, C. F., Mitchell, G., et al. (2001). Teaching the Human Dimensions of Care in Clinical Settings. *Journal of the American Medical Association*, 286 1067-1074.
- Branch, W. T., & Malik, T. K. (1993). Using "windows of opportunities" in brief interviews to understand patients' concerns. *Journal of the American Medical Association*, 269 1667-1668.
- Branch, W. T., Pels, R. J., & Hafler, J. P. (1998). Medical students' empathic understanding of their patients. *Academic Medicine*, 73 360-362.
- Branch, W. T., Pels, R. J., Lawrence, R. S., & Arky, R. (1993). Becoming a doctor--critical incident reports from third-year medical students. *New England Journal of Medicine*, 329 1130-1132.
- Britton, P. C., & Fuendeling, J. M. (2005). The relations among varieties of adult attachment and the components of empathy. *Journal of Social Psychology*, 145 519-530.
- Brown, S. R. (1993). A primer on Q methodology. *Operant Subjectivity*, 16 91-138.
- Bylund, C. L., & Makoul, G. (2002). Empathic communication and gender in the physician-patient encounter. *Patient Education Counseling*, 48 207-216.
- Bylund, C. L., & Makoul, G. (2005). Examining empathy in medical encounters: An observational study using the empathic communication coding system. *Health Communication*, 18 123-140.
- Campbell, R. J., & Kagan, N. (1971). The development and validation of a scale to measure affective sensitivity (empathy). *Journal of Counseling Psychology*, 18 407-412.

- Colliver, J. A., Willis, M. S., Robbs, R. S., Cohen, D. S., & Swartz, M. H. (1998). Assessment of empathy in a standardized-patient examination. *Teaching and Learning in Medicine, 10* 8-11.
- Cooper, R. A., & Tauber, A. I. (2005). Viewpoint: New physicians for a new century. *Academic Medicine, 80* 1086-1088.
- Coutts-van Dijk, L. C., Bray, J. H., Moore, S., & Rogers, J. (1997). Prospective study of how students' humanism and psychosocial beliefs relate to specialty matching. *Academic Medicine, 72* 1106-1108.
- Davis, M. H. (1996). *Empathy: A social psychological approach*. Boulder: Westview Press, Inc.
- Deci, E. L., & Ryan, R. M. (2002). Overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research*. Rochester, NY: The University of Rochester Press.
- Duan, C., & Hill, C. E. (1996). The current state of empathy research. *Journal of Counseling Psychology, 43* 261-274.
- Emanuel, E. J., & Emanuel, L. L. (1992). Four models of the physician-patient relationship. *Journal of the American Medical Association, 267* 2221-2226.
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science, 196* 129-136.
- Engel, G. L. (1980). The clinical application of the biopsychosocial model. *American Journal of Psychiatry, 137* 535-544.

- Engel, G. L. (1997). From biomedical to biopsychosocial: Being scientific in the human domain. *Psychosomatics*, 38 521-528.
- Frankel, R. (1995). Emotion and the physician-patient relationship. *Motivation and Emotion*, 19 163-173.
- Gallagher, T. J., Hartung, P. J., Gerzina, H., Gregory, J. S. W., & Merolla, D. (2005). Further analysis of a doctor-patient nonverbal communication instrument. *Patient Education and Counseling*, 57 262-271.
- Gallagher, T. J., Hartung, P. J., & Gregory, J. S. W. (2001). Assessment of a measure of relational communication for doctor-patient interactions. *Patient Education and Counseling*, 45 211-218.
- Halpern, J. (2001). *From detached concern to empathy: Humanizing medical practice*. New York: Oxford University Press.
- Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology*, 33 307-316.
- Hojat, M. (2007). *Empathy in patient care: Antecedents, development, measurement, and outcomes*. New York: Springer.
- Hojat, M., Gonnella, J. S., Mangione, S., Nasca, T. J., Veloski, J., Erdmann, J. B., et al. (2002a). Empathy in medical students as related to academic performance, clinical competence and gender. *Medical Education*, 36 522-527.
- Hojat, M., Gonnella, J. S., Mangione, S., Nasca, T. J., Veloski, J. J., Erdmann, J. B., et al. (2002b). Empathy in medical students as related to academic performance, clinical competence and gender. *Medical Education*, 36 522-527.

- Hojat, M., Gonnella, J. S., Nasca, T. J., Mangione, S., Veloski, J., & Magee, M. (2002c). The Jefferson Scale of Physician Empathy: Further psychometric data and differences by gender and specialty at item level. *Academic Medicine*, 77 S58-S60.
- Hojat, M., Gonnella, J. S., Nasca, T. J., Mangione, S., Veloski, J., & Magee, M. (2002d). The Jefferson Scale of Physician Empathy: Further psychometric data and differences by gender and specialty at item level.
- Hojat, M., Gonnella, J. S., Nasca, T. J., Mangione, S., Vergare, M., & Magee, M. (2002e). Physician empathy: Definition, components, measurement, and relationship to gender and speciality. *American Journal of Psychiatry*, 159 1563-1569.
- Hojat, M., Mangione, S., Gonnella, J. S., Nasca, T. J., Veloski, J., & Kane, G. (2001a). Empathy in medical education and patient care. *Academic Medicine*, 76 669.
- Hojat, M., Mangione, S., Nasca, T. J., Cohen, M., Gonnella, J. S., Erdmann, J. B., et al. (2001b). The Jefferson Scale of Physician Empathy: Development and preliminary psychometric data. *Educational and Psychological Measurement*, 61 349-365.
- Hojat, M., Mangione, S., Nasca, T. J., Rattner, S., Erdmann, J. B., Gonnella, J. S., et al. (2004). An empirical study of decline in empathy in medical school. *Medical Education*, 38 934-941.
- Hojat, M., Zuckerman, M., Magee, M., Mangione, S., Nasca, T. J., Vergare, M., et al. (2005). Empathy in medical students as related to specialty interest, personality,

- and perceptions of mother and father. *Personality and Individual Differences*, 39 1205-1215.
- Keefe, T. (1976). Empathy: The critical skill. *Social Work*, 21 10-14.
- Kirsner, J. B. (2002). The most powerful therapeutic force. *Journal of the American Medical Association*, 287 1909-1910.
- La Monica, E. L. (1981). Construct validity of an empathy instrument. *Research in Nursing and Health*, 4 389-400.
- Larson, E. B., & Yao, X. (2005). Clinical empathy as emotional labor in the patient-physician relationship. *Journal of the American Medical Association*, 293 1100-1106.
- Levinson, W., Gorawara-Bhat, R., & Lamb, J. (2000). A study of patient clues and physician responses in primary care and surgical settings. *Journal of the American Medical Association*, 284 1021-1027.
- Makoul, G. (2001). The SEGUE Framework for teaching and assessing communication skills. *Patient Education and Counseling*, 45 23-34.
- Makoul, G. (2003). The interplay between education and research about patient-provider communication. *Patient Education and Counseling*, 50 79-84.
- Margalit, A. P. A., Glick, S. M., Benbassat, J., & Cohen, A. (2004). Effect of a biopsychosocial approach on patient satisfaction and patterns of care. *Journal of General Internal Medicine*, 19 485-491.
- Markakis, K. M., Beckman, H. B., Suchman, A. L., & Frankel, R. M. (2000). The path to professionalism: cultivating humanistic values and attitudes in residency training. *Academic Medicine*, 75 141-150.

- Matthews, D. A., Suchman, A. L., & Branch, W. T., Jr. (1993). Making "connexions": enhancing the therapeutic potential of patient-clinician relationships. *Annals of Internal Medicine, 118* 973-977.
- McKeown, B., & Thomas, D. (1988). *Q methodology* (Vol. 66). Newbury Park: Sage Publications.
- Mehrabian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality, 40* 525-543.
- Mercer, S. W., Maxwell, M., Heaney, D., & Watt, G. C. M. (2004). The Consultation And Relational Empathy (CARE) measure: Development and preliminary validation and reliability of an empathy-based consultation process measure. *Family Practice, 21* 699-705.
- Mercer, S. W., & Reynolds, W. J. (2002). Empathy and quality of care. *British Journal of Medical Psychology, 52* S9-S13.
- Morse, J. M., Anderson, G., Bottorff, J. L., Yonge, O., O'Brien, B., Solberg, S. M., et al. (1992). Exploring Empathy: A conceptual fit for nursing practice? *IMAGE: Journal of Nursing Scholarship, 24* 273-280.
- Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods* (Third Edition ed.). Thousand Oaks, CA: Sage Publications.
- Peabody, F. W. (1927). The care of the patient. *JAMA, 88* 813-818.
- Platt, F. W., Gaspar, D. L., Coulehan, J. L., Fox, L., Adler, A. J., Weston, W. W., et al. (2001). "Tell me about yourself": The patient-centered interview. *Annals of Internal Medicine, 134* 1079-1085.

- Platt, F. W., & Keller, V. F. (1994). Empathic communication: A teachable and learnable skill. *Journal of General Internal Medicine, 9* 222-226.
- Reynolds, W. J. (2006a). 30th anniversary commentary on Morse J.M., Bottorff J., Anderson G., O'Brien B. & Solberg S. (1992) Beyond empathy: expanding expressions of caring. *Journal of Advanced Nursing 17*, 809-821. *Journal of Advanced Nursing, 53* 88-89.
- Reynolds, W. J. (2006b). Barriers to empathy do not mean that empathy is not needed. *Journal of Advanced Nursing, 53* 88-89.
- Rosenfield, P. J., & Jones, L. (2004). Striking a balance: Training medical students to provide empathetic care. *Medical Education, 38* 927-933.
- Roter, D. L., Larson, S., Shinitzky, H., Chernoff, R., Serwint, J. R., Adamo, G., et al. (2004). Use of an innovative video feedback technique to enhance communication skills training. *Medical Education, 38* 145-157.
- Salovey, P., & Grewal, D. (2005). The science of emotional intelligence. *Current Directions in Psychological Science, 14* 281-285.
- Shapiro, J., Morrison, E. H., & Boker, J. R. (2004). Teaching empathy to first year medical students: Evaluation of an elective literature and medicine course. *Education for Health: Change in Learning & Practice, 17* 73-84.
- Shapiro, J., & Rucker, L. (2004). The Don Quixote effect: Why going to the movies can help develop empathy and altruism in medical students and residents. *Families, Systems & Health: The journal of Collaborative Family HealthCare, 22* 445-452.

- Shapiro, J., Rucker, L., & Beck, J. (2006). Training the clinical eye and mind: using the arts to develop medical students' observational and pattern recognition skills. *Medical Education, 40* 263-268.
- Sloane, P. D., Beck, R., Kowlowitz, V., Blotzer, A. M., Wang, L., Akins, L., et al. (2004). Behavioral coding for evaluation of medical student communication: Clarification or obfuscation? *Academic Medicine, 79* 162-170.
- Smith, A. (2006). Cognitive empathy and emotional empathy in human behavior and evolution. *The Psychological Record, 56* 3-21.
- Smith, N. W. (2000). *Current systems in psychology: History, theory, research, and applications*. Belmont, CA: Wadsworth/Thomson Learning.
- Spiro, H. M. (1992). What is empathy and can it be taught? *Annals of Internal Medicine, 116* 843-846.
- Spiro, H. M. (1993). Empathy: An introduction. In H. M. Spiro, M. G. Curnen, E. Peschel & D. St. James (Eds.), *Empathy and the practice of medicine: Beyond pills and the scalpel*: Yale University Press.
- Spiro, H. M., Curnen, M. G., Peschel, E., & St. James, D. (Eds.). (1993). *Empathy and the practice of medicine: Beyond pills and the scalpel*: Yale University Press.
- Stepien, K. A., & Baernstein, A. (2006). Educating for empathy. A review. *Journal of General Internal Medicine, 21* 524-530.
- Suchman, A. L. (2000). Story, medicine, and healthcare. *Advance Mind Body and Medicine, 16* 193-207.

- Suchman, A. L. (2003). Research on patient-clinician relationships: celebrating success and identifying the next scope of work. *Journal of General Internal Medicine, 18* 677-678.
- Suchman, A. L., Markakis, K., Beckman, H. B., & Frankel, R. (1997). A model of empathic communication in the medical interview. *Journal of the American Medical Association, 277* 678-682.
- Suchman, A. L., & Matthews, D. A. (1988). What makes the patient-doctor relationship therapeutic? Exploring the connexional dimension of medical care. *Annals of Internal Medicine, 108* 125-130.
- van Exel, N. J. A., de Graaf, G., & Brouwer, W. B. F. (2006). "Everyone dies, so you might as well have fun!" Attitudes of Dutch youths about their health lifestyle. *Social Science & Medicine, 63* 2628-2639.
- van Zanten, M., Boulet, J. R., Norcini, J. J., & McKinley, D. (2005). Using a standardised patient assessment to measure professional attributes. *Medical Education, 39* 20-29.
- Wilkes, M., Milgrom, E., & Hoffman, J. R. (2002). Towards more empathic medical students: a medical student hospitalization experience. *Medical Education, 36* 528-533.
- Williams, G. C., Frankel, R. M., Campbell, T. L., & Deci, E. L. (2000). Research on relationship-centered care and healthcare outcomes from the Rochester biopsychosocial program: A self-determination theory integration. *Families, Systems & Health: The Journal of Collaborative Family HealthCare, 18* 79-90.

- Williams, G. C., Gagne, M., Ryan, R. M., & Deci, E. L. (2002). Facilitating autonomous motivation for smoking cessation. *Health Psychology, 21* 40-50.
- Williams, G. C., Grow, V. M., Freedman, Z. R., Ryan, R. M., & Deci, E. L. (1996). Motivational predictors of weight loss and weight-loss maintenance. *Journal of Personality and Social Psychology, 70* 115-126.
- Williams, R. G. (2004). Have standardized patient examinations stood the test of time and experience? *Teaching and Learning in Medicine, 16* 215-222.
- Winefield, H. R., & Chur-Hansen, A. (2000). Evaluating the outcome of communication skill teaching for entry-level medical students: Does knowledge of empathy increase? *Medical Education, 34* 90-94.

APPENDIXES

APPENDIX A:

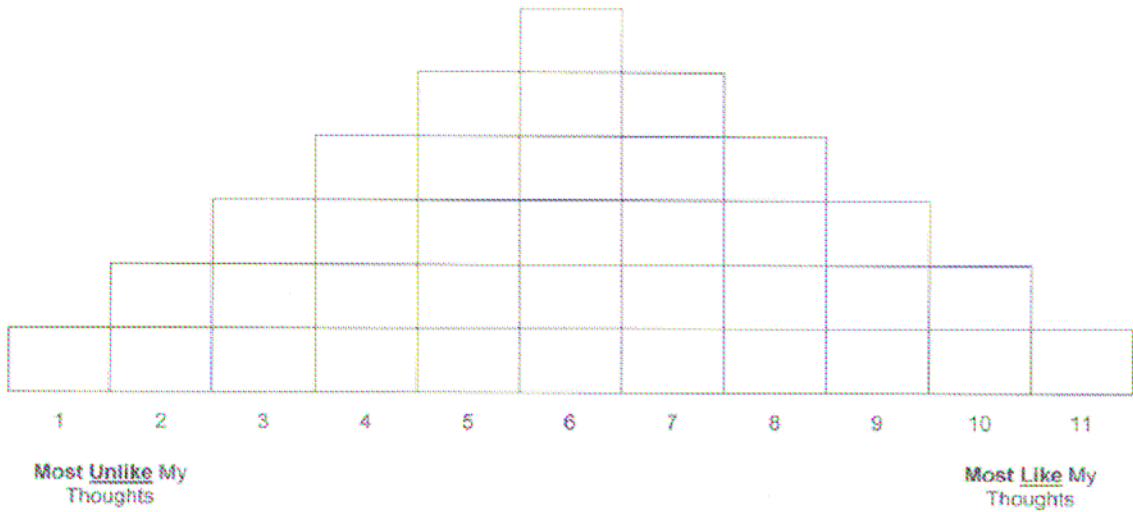
Q-Sort Statements

Understanding the subjective experience of patients is important for treating mental disorders, but not physical diseases.	I do not feel bad when encountering the misfortunes of a patient.
My diagnostic judgment can be jeopardized if I explore emotional issues.	I try to remain unemotional when witnessing the emotional experiences of patients.
The ability to establish rapport with the patient is often over-emphasized.	Patients are more comfortable when I maintain a professional emotional distance.
To deliver the highest quality care, I must not become too involved with the emotional state of patients.	Illnesses are cured by medical treatment--emotional understanding of patients is not really part of a my responsibility.
Patients can gain a therapeutic sense of validation when their feelings are understood.	When I attempt to mask my own feelings it minimizes my understanding of the patient's emotions.
An important component to to my relationships with patients, is my ability to understand their emotional concerns.	It is natural for me to be touched by the situations of my patients.
My ability to apply information from the social sciences will help me understand the relationship between psychosocial issues and physical illness.	It is acceptable to show tears in the presence of patients who are suffering.
I can improve overall healthcare outcomes if I have an understanding of my patient's perspectives.	Because patients may misinterpret my intentions, I should be cautious when discussing emotional issues.
The average office patient is mainly interested in alleviation of illness, so it is often best to remain focused on biomedical concerns.	Clinical neutrality requires me to maintain an emotional distance with my patients
My attentiveness to the emotional concerns of patients is a minor factor in overall medical treatment.	There are so many issues to be investigated when seeing patients, emotional concerns need to be discussed last.
It's really not necessary for physicians to ask patients about what is happening in their lives in order to understand their physical complaints.	Due to my expertise, I am expected to maintain control of the dialogue during medical interviews.
I want to rule out organic disease before I explore psychosocial concerns.	If I explore the feelings expressed by my patients, I will actually be a more efficient and effective physician.
My patients will feel better if I offer personal support and reassurance.	Exploring psychosocial factors is a major part of good "bedside manner".
I like to offer encouraging words, or maybe a kind touch, to convey compassion when patients have emotional concerns.	I will have limited clinical success if I don't empathize with my patients feelings.
It is important for me to ask patients how their cultural and/or spiritual beliefs influence their view of illness and treatment.	I am more concerned with acknowledging rather than exploring the patient's emotions.
I can improve my diagnostic judgment if I am empathic with patients.	Because people are so different, it is almost impossible for me to see things from the patient's perspectives.
I can render better care if I am able to view things from another person's perspective.	If I haven't experienced the patient's illness or circumstances, I won't really be able to understand the patient's emotions.
I pay close attention to patient's body language when communicating with patients.	My understanding of the patient's emotional concerns is irrelevant to an accurate diagnosis of medical illnesses.

APPENDIX B:

Record Sheet Example

What are your thoughts about interactions with patients?



What else would you like to say about patient-physician interactions?

What are your reasons for wanting to become a physician?

APPENDIX C:

Researcher's Script

Step 1 - Here is an envelope containing 36 cards and a brief description of a medical scenario. Please read through all the statements in the envelope. Now, **consider your thoughts about interactions with patients**, and read the statements one more time. But this time, sort the statements into three (3) piles. After you read each card, place it into one of three (3) piles so that those cards **most like** your **thoughts** are placed into a pile on your right. This is the “most like” pile. Those cards that are **most unlike** your **thoughts** are placed into a pile on your left. We'll refer to this as the “most unlike” pile. Those cards that are neither like nor unlike your **thoughts** can be placed in a third pile directly in front of you. We'll refer to this as the “neutral” pile.

Step 2 – Now that you have three (3) piles of cards, start with the pile to your right, the “most like” pile and select one (1) card from this pile that is **most like** your **thoughts about interactions with patients**. Place it in the space at the far right of the sheet in front of you in column 11.

Step 3 – Next, from the pile to your left, the “most unlike” pile, select one (1) card that is most unlike your **thoughts about interactions with patients** and place it in the space at the far left of the sheet in front of you in column 1.

Step 4 – Now, go back to the “most like” pile on your right and select the two (2) cards from those remaining that are **most like** your **thoughts** and place them into the two (2) open spaces in column 10. The order of the cards within the column, that is the vertical positioning of the cards, does not matter.

Step 5 – Next, return to the “most unlike” pile on your right and select the two (2) cards from those remaining that are **most unlike** your **thoughts** and place them into the two (2) open spaces in column 2.

Step 6 – Now you'll continue placing cards onto the sheet in this same manner until all of the cards have been placed into all of the spaces. Once you have placed all the cards from either the “most like” or “most unlike” pile, begin to place cards from the middle pile into spaces as appropriate.

Step 7 - Now that you have filled all available spaces, feel free to rearrange the cards until the sheet best represents your beliefs.

Step 8 - Record the number of the statement on the record sheet.

Once you have completed the sort process and recorded your sort on the record sheet, please respond to the questions on the record sheet and complete the demographic survey.

APPENDIX D:

Demographic Survey

Gender: () Female () Male

Please indicate your student class:

() MSI () MSII () MSIII () MSIV

Number of clerkship rotations completed:

() 0 () 1-4 () 5-9 () 10 or more

In what was your undergraduate degree? _____

When did you know you wanted to attend medical school? _____

Did you grow up in a rural or urban area? _____

Please circle any specialty interests that you may be considering (*circle all that apply*):

Family Medicine Pediatrics Surgery Internist Sports Medicine

Psychiatry OB/GYN

Forensic Medicine Anesthesiology Medical Research Other area of interest: _____

What comments regarding this research study would you like to share?

APPENDIX E:

Participant Consent Form

Dear Participant,

You are invited to participate in a research study. The purpose of the study is to describe what medical students believe about patient-physician interactions. Individuals who agree to participate in this study will complete a short survey describing general demographic characteristics and sort 36 statements, a process that takes no more than 30 minutes. The results of this study will indicate potential teaching areas that medical educators may address in order to better prepare students for interactions with patients.

If you agree to participate, your responses will be kept confidential, and your name will not be used in reports, nor will it be associated with any information. Only data analysis information as a group will be kept beyond the conclusion of this study; all other materials will be destroyed. You have the option of stopping the process at any time you wish. You are also free to withdraw your consent and end your participation at any time during the study.

If you have questions about the research and your rights as a research volunteer, you may contact Dr. Sue C. Jacobs, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-1676 or irb@okstate.edu.

A copy of this information is provided and is yours to keep.

If you agree to participate, please read and sign the statement below:

I have read and fully understand this consent form. I sign it freely and voluntarily. I have received a copy of the consent form.

Date: _____ Time: _____ (a.m./p.m.)

Name (printed): _____

Signature: _____

I certify that I have personally explained all elements of this form to the participant before requesting her/him to sign it.

APPENDIX F:

IRB Approval

Oklahoma State University Institutional Review Board

Date: Tuesday, September 05, 2006
IRB Application No ED06169
Proposal Title: Medical Student's Views of the Role of Empathy in Patient-Physician Interactions
Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 9/4/2007

Principal Investigator(s)

Dana Lindon
18538 E. 1st
Tulsa, OK 74108

Diane Montgomery
424 Willard
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,



Sue C. Jacobs, Chair
Institutional Review Board

VITA

Dana Jo Lindon

Candidate for the Degree of

Doctor of Philosophy

Thesis: MEDICAL STUDENTS VIEWS OF THE ROLE OF EMPATHY IN
PATIENT-PHYSICIAN INTERACTIONS

Major Field: Educational Psychology

Biographical:

Education: Graduated from Cushing High School, Cushing, Oklahoma in 1981. Received a Bachelor of Science degree in Organizational Administration from Oklahoma State University, Stillwater, Oklahoma in May 1985. Completed the requirements for a Masters of Human Relations degree from the University of Oklahoma in May 2001. Completed the requirements for a Doctorate of Philosophy degree in Educational Psychology in May 2007.

Experience: Transitioned from the banking field to academia in 2002 after 10 years of experience in leadership positions, including Director of Business Integration and Senior Manager of a Customer Service Call Center. Currently employed as a part-time instructor of Psychology at Tulsa Community College, and as a Senior Research Assistant at OSU's Center for Health Sciences conducting research in the Behavioral Sciences Department.

Professional Memberships: APA, AERA, American Association of University Professors, International Society of the Scientific Study of Subjectivity

Name: Dana Jo Lindon

Date of Degree: May, 2007

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: MEDICAL STUDENTS VIEWS OF THE ROLE OF EMPATHY IN
PATIENT-PHYSICIAN INTERACTIONS

Pages in Study: 110

Candidate for the Degree of Doctor of Philosophy

Major Field: Educational Psychology

Scope and Method of Study:

A Q Method study was employed to investigate the underlying views medical students medical students have regarding the role of empathy in patient-physician interaction. Fifty-six students enrolled in Oklahoma State University's Center for Health Sciences volunteered to participate in the study.

Findings and Conclusions:

The views of the participants in this study share common elements, yet differ in several important aspects. The emerging patterns of views among the medical students who participated in this study revealed insight into the underlying structure of the empathy construct. The findings reveal that there are three potential viewpoints identified as Empathic Connection, Empathic Support, and Empathic Communication. While the viewpoints have unique differences, the study revealed that all participants agree that the role of empathy is important in patient-physician interactions. The study found that it might be more appropriate to describe empathy using frameworks that include all the components of empathy.

ADVISER'S APPROVAL: Dr. Diane Montgomery
