

The Vital Role of Patient Feedback in the Critical Assessment of a  
Patient-Centered Care Objective Structured Clinical Examination

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By

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

THE VITAL ROLE OF PATIENT FEEDBACK IN THE CRITICAL ASSESSMENT  
OF A PATIENT-CENTERED CARE OBJECTIVE STRUCTURED CLINICAL  
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## ABSTRACT

Priorities in medical education have increasingly emphasized teaching skills and fostering attitudes related to patient-centered care (Beckman & Frankel, 2003; Haidet & Paterniti, 2003). The challenge for academic medical centers is to implement these competencies into their curriculum and assess the outcomes.

Using a qualitative single case study design, I sought: 1) to examine the validity of the Patient-Centered Care (PCC) Objective Structured Clinical Examination (OSCE) used as a tool to determine whether or not third-year medical students are treating chronically ill patients in a patient-centered manner based on patient feedback and critical analysis; and 2) to compare the descriptors identified by the current research respondents with the descriptors developed and implemented through an earlier project that serves as a foundation for this current research.

Comparison of the respondent data with the descriptors obtained through the earlier project supports the validity of the PCC OSCE and revealed consistency within five global areas: a) communication, b) answers questions adequately and listens intently, c) compassionate and non-judgmental, d) focus is on the whole patient and not just the illness, and e) individualized care. Additional concepts were also identified that would enhance the descriptors and were important elements of patient-centered care. Additional concepts were also identified that would enhance the descriptors and were important elements of patient-centered care: a) patient advocacy, b) use of visual aids, c) confidentiality, and d) religious and cultural considerations.

## **CHAPTER ONE**

### **INTRODUCTION**

Healthcare in the 21<sup>st</sup> century has become increasingly complex, and treating patients often requires more than factual knowledge. Facts can be gained from reading books or from memorizing lecture notes, and from repeating successful actions in response to challenges that led to that success. However, in medicine, processing skills for diagnosis and treatment are not learned by reading textbooks or listening to lectures (Gaba, Howard, & Small, 1995). The current healthcare system “places a premium on basic science education and leaves most clinical training to a relatively unsystematic apprenticeship process” (Gaba, 2007, p. 127). For generations, the practice of medicine has relied upon a master-apprentice system of learning. Traditional teaching methods based on one-way communication from the expert bestowed upon the novice medical student are not particularly effective in adult learning, and retention of the information is short lived (Fanning & Gaba, 2007). Fanning and Gaba theorize adults often learn best when they are actively engaged, play a role in their learning, and have the opportunity to make meaning of what they have learned within the context of their own experiences. For this reason, Stewart et al. (1995), suggested a revised model for medicine and medical education that includes the “conventional biomedical approach but that also goes beyond it to include consideration of the patient as a person” (p. xv). Stewart et al. called this the patient-centered model.

The master-apprentice learning technique is also challenged by the very structure of the healthcare system. With the rise of managed care systems as a means of reducing national health care expenditures, the average patient’s length of stay has rapidly declined

which leads to even more demand for efficient and expedited care (Dawson & Kaufman, 1998). Additionally, the rate at which patients are leaving inpatient healthcare facilities results in inadequate time for residents and medical students to assess the patient, make a diagnosis, and actually see the outcome come to fruition. Simulation has offered unique teaching opportunities and “practice” time to residents and medical students that otherwise would have only been able to refine their skills on live patients as they were available. The advent of medical simulation has allowed medicine to expand beyond the traditional method of teaching (i.e., master to learner) and begin to educate physicians with a hands-on approach without causing harm to real patients (Dawson & Kaufman, 1998).

In its 2011-2012 strategic planning statement, the University of Missouri (MU) School of Medicine states its global mission is “to improve the health of all people, especially Missourians, through exemplary education, research and patient-centered care” (<http://medicine.missouri.edu/about/>). Within medical education, this mission is being achieved by incorporating medical simulation as a teaching method for third year medical students. Further, the MU School of Medicine has created educational experiences for its medical students designed to develop them into the kind of doctors its patients need and desire. To that end, several characteristics of “good” doctors were established. The MU School of Medicine entitled these the MU2020 key characteristics (2005). They include: (a) able to deliver effective patient centered care (PCC), (b) honest with high ethical standards, (c) knowledgeable in biomedical sciences, evidence-based practice, and societal and cultural issues, (d) critical thinker, problem-solver, (e) able to communicate with patients and others, (f) able to collaborate with patients and other members of the

health care team, (g) committed to improving quality and safety, and (h) committed to life-long learning and information mastery (<https://somis.umh.edu/visions>). See Appendix A for a detailed description of each characteristic. From these key characteristics, the institution has developed simulated activities designed to support its mission of creating a culture of quality improvement and patient-centered care.

The remainder of this chapter will briefly address the concept of patient-centered care, simulation based medical education, and assessment. Additionally, the statement of the problem for this research will be discussed, as will the purpose and framework of this body of work, the stated research question and definitions of terms used for this research. This chapter concludes with an identified list of limitations, assumptions and significance of this study.

## Background

### *Patient-Centered Care*

Stewart et al. (1995) proposed a line of questioning that spoke to the heart of being patient-centered. They believed every clinical encounter should result in answers to questions such as: (a) what is the patient's understanding of the illness, (b) what does the patient believe caused it, (c) what are his or her fears, and (d) what are his or her expectations of the doctor (p. 11)? The purpose of utilizing the patient-centered model of care is to build a collaborative relationship in which doctor and patient work together and develop a shared understanding of the treatment pathway. "The process is circular, not linear, and the shared understanding often is different from the initial understanding of both doctor and patient" (Stewart et al., p. 12). The goal is to follow patients' leads and to understand patients' experiences from their own points of view. In this way, effective

patient care requires attending as much to patients' personal experiences of illnesses as to their diseases.

A patient-centered approach for chronic care patients has the potential to achieve better outcomes by merging the patient's own knowledge of his or her disease with the expertise of the physician, treatment options, and the education of the patient about self-management (McWilliam, 2009). Intuitively, patients' involvement in care of their own chronic illness makes sense given the amount of time they deal with their illness on their own as opposed to being within the constraints of the healthcare environment. There is an inherent value placed on getting to know and understand what each patient and his/her family members are confronting as a result of his/her chronic illness. McWilliam (2009) suggests this approach to medical care is an "objective, concrete *method* of communication, a technique for *doing*, specifically, for identifying the content to which the practitioner needs to attend to achieve patient-centered care" (p. 278). In essence, the physician has the responsibility for achieving patient-centered care while the individual patient's role is that of a partner with the expectation he or she will comply with the negotiated approach to that care.

The University of Missouri, School of Medicine has incorporated the addition of a third-year examination within the context of a patient-centered care simulated activity with the use of standardized patients. Standardized patient encounters have been utilized to teach and assess medical students in a variety of facets of medical practice, including history taking, physical examination techniques, and effective interpersonal and communication skills (Dotger, B. H., Dotger, S. C., & Maher, 2010). By today's definition, standardized patients are lay persons trained to "portray a scripted patient

presentation accurately and consistently across many encounters” (Yudkowsky, 2004, p. 499). The value of the standardized patient is “it takes the process of learning a step beyond the books and away from reliance on paper and pencil tests. It puts the learning of medicine in the arena of veritable clinical practice - as close to the truth of an authentic clinical encounter as one can get without actually being there, because there is a living, breathing, responding human being to encounter” (Wallace, 1997, p. 6). Standardized patient examinations are used to assess the ability of physicians and medical students to collect medical history and physical examination data and to create a relationship with the patient (Norcini & McKinley, 2007). Scores for assessments composed of standardized patients are typically generated by applying criteria developed by subject matter experts or collecting ratings of performance. For example, specific scoring criteria or checklists are developed for each patient scenario and are generally focused on the medical student’s ability to collect the relevant data from the patient.

### *Assessment*

One form of assessment is the utilization of an objective structured clinical examination (OSCE). An OSCE as defined by Austin, O’Byrne, Pugsley & Munoz (2003) is,

comprised of a series of stations through which all candidates rotate on a timed basis. In each station, the candidate is faced with a simulated task or problem; the candidate is required to perform specific functions to complete the task or address the problem.

The OSCE is now a commonly used method of assessing clinical competence of medical students and practicing physicians in such areas as history taking, physical examination and diagnostic reasoning (McLaughlin, Gregor, Jones, & Coderre, 2006). The OSCE

format attempts to increase the examination reliability by more closely simulating realistic clinical scenarios. OSCEs have been shown to have both reliability and construct validity as an evaluation tool (Cohen, Resnick, Taylor, Provan, & Rothman, 1990; Austin et al., 2003).

The OSCE, which has the potential to assess many aspects of both theory and practice, can be viewed in the context of the strengths and limitations of other forms of assessment. For example, multiple choice examinations have been criticized for lack of validity due to their tendency to “cue” the learner (Mavis, Henry, Ogle, & Hoppe, 1996). Other forms of written assessment such as essays and written exams are also criticized for telling what students know and understand, but very little about their actual competence or performance (Miller, 1990). Miller’s pyramid (addressed below) indicating a framework for clinical assessment (i.e., knows, knows how, shows how and does) is helpful in addressing competency levels. This research will focus on the implementation of a standardized patient OSCE as a tool for developing students to become more patient-centered in their care of chronic disease patients.

#### Statement of the Problem

Priorities in medical education have increasingly emphasized teaching skills and fostering attitudes related to patient-centered care (Beckman & Frankel, 2003; Haidet & Paterniti, 2003). The Liaison Council for Medical Education, the Accreditation Council for Graduate Medical Education, the National Board of Medical Examiners and various specialty certification boards have all taken important measures to raise awareness about the importance of preparing medical students in several competencies related to patient-centered care (Haidet et al., 2006). Examples of these competencies include

patient/physician communication, fostering effective medical relationships and practicing medicine in a manner consistent with professional norms and values. The challenge for academic medical centers is to implement these competencies into their curriculum and then assess the outcomes. For example, the definition of patient-centered care is quite ambiguous and its implementation has largely been left up to individual academic institutions.

To meet this challenge, institutions such as the University of Missouri, School of Medicine (MUSOM) have integrated a patient-centered care OSCE into the curriculum for third year medical students. It is designed to enhance the students' understanding of the various components of patient-centered care. The foundation work for the development of the patient-centered care OSCE was funded through the Stemmler Medical Education Research Fund, with the intention of addressing two global research questions; the first of which is applicable to this current research: 1) How does the development of a set of descriptive anchors for each of the MU School of Medicine Key Characteristics influence the validity, reliability, reproducibility and trustworthiness of portfolio assessment, and 2) How do student contributions to the portfolio influence faculty assessment of portfolios (Hoffman, Donaldson, Griggs, & Lu, 2008)?

#### *Stemmler Project*

An extensive literature review was conducted from which key descriptive anchors were identified and then assigned to the various competencies addressed in the MU2020 characteristics. This element was critical as a means of aligning the organizational values stated in the MU2020 key characteristics with the curriculum established to meet those goals. An assessment tool was then developed to rate each descriptive anchor. These



assessment instruments were administered via survey to 14 medical students (first through fourth years) and nine clinical faculty members. Faculty and students completed the surveys independently and brought the completed instruments to focus group interviews. In addition, four patient focus group interviews with a total of twenty-two patients were conducted. The participants had chronic conditions (or had family members with chronic conditions) that had required multiple experiences in a health care setting. Patients were asked to describe their experience in the health care settings and identify the elements of those experiences they would describe as being patient-centered. The interviews were recorded and later analyzed for themes paying particular attention to those most common to all three groups of participants (faculty, students and patients). After extensive qualitative and quantitative measures were employed, wherein patterns of consistency were established and validated, the behavioral anchors that would become a part of the assessment tool were identified and implemented as the OSCE for patient-centered care.

### *Current Research*

With the above mentioned project as a foundation, this research attempts to close the loop created from the work of the Stemmler research. This research returns to the patients and asks whether the medical students participating in the PCC OSCE are demonstrating behaviors consistent with the chronically ill patients' views of patient-centered care. The PCC OSCE has been developed and implemented, but the remaining question is whether the MUSOM is meeting the expectations outlined by that patient base. Or stated another way, has the institution incorporated those components that patients identified as being patient-centered? The current literature has not approached

the development of PCC OSCEs in this manner. Many bodies of research exist that address the validity of various OSCEs, but patients with chronic disease have not been a key constituency in determining whether or not the OSCE has been designed in a manner consistent with their perception of patient-centered care and their personal experience within a health care system.

### Purpose of the Study

The purpose of this study is twofold. The first is to examine the validity of the Patient-Centered Care (PCC) Objective Structured Clinical Examination (OSCE) used as a tool to determine whether or not third-year medical students are treating chronically ill patients in a patient-centered manner, based on patient feedback and critical analysis. Given the initial research structure wherein patients were asked what elements they believe comprised patient-centered care, the conclusions drawn regarding the implementation of the PCC OSCE would be incomplete without returning to this constituent base and asking whether the OSCE is an accurate depiction of patient-centered care. The second purpose is to compare the descriptors identified by the current research respondents with the descriptors developed and implemented through the Stemmler project; specifically looking at those elements that are common to both pieces of research and those that are unique to the current research but serve to inform the existing PCC OSCE.

### Framework for Study

To successfully promote and enhance effective learning, “assessment should include both formative and summative functions, as its ultimate goal is to ensure professional competence” (Berkenstadt, Ziv, Gafni, & Sidi, 2006, p. 853). According to

the Miller (1990) model of medical competence, each of the domains contributing to professional competence (i.e., knowledge, technical skills, clinical reasoning, communication and emotions) should be evaluated according to four stages. Those four stages are defined as: a) knows, b) knows how, c) shows how, and d) does (Miller, 1990). At the base of the pyramid, is knowledge where individuals might be tested by traditional written exams, assignments and projects. Few would argue that knowledge is critical to becoming a competent physician; however, to fulfill the broader objectives in patient care, students must also know how to use the knowledge they have accumulated. They must be able to acquire a variety of information from the patients and laboratory results, analyze that information, and translate those findings into a rational diagnosis and management plan. The third layer of the pyramid represents an opportunity for the students to take the knowledge they have obtained, coupled with the diagnosis, and actually show how they can integrate that information into a clinical setting. The intent is to help prepare medical students for the pinnacle of the pyramid (action) where they are providing care in an authentic clinical setting. The OSCE has the potential to rest in the third area just beneath the apex. For the purposes of this research, the focus of the OSCE validation and assessment is in this third layer, where students address patient diagnoses in a simulated environment through the use of simulated patients.

### *Experiential Learning*

Mezirow (1990) observes, “No need is more fundamentally human than our need to understand the meaning of our experience” (p. 11). Underlying the theory of experiential learning is the belief that knowledge is acquired most effectively in the informal, everyday context in which it was first created. Dewey (1971) stressed the

creation of new knowledge or the transformation of oneself through learning was more fundamental than simply learning to do something. He believed experiential learning meant that a learner became aware of an issue, formulated an idea of how to address the issue, responded, and experienced the consequences. The previous conceptions were then conformed or modified through this process. The PCC OSCE has been developed as a means of providing medical students with an authentic learning environment in which they can process an issue in the manner Miller (1990) suggests. The OSCE is designed to take the basic knowledge the students possess regarding patient-centered care and actually implement that knowledge into action through the utilization of simulation cases with standardized patients.

Kolb's (1984) learning cycle defines the basic principles of experiential learning. The elements are: a) concrete experience – being fully involved in an experience, b) reflective observation – thinking critically about what you have done or been involved in, c) abstract conceptualization – making connection between the new experience and previous experiences, looking for patterns and starting to theorize about what they mean, and d) active experimentation – testing out your new ideas in the real world, bringing your theory and practice together (p. 123). Kolb's model provides the learner with an opportunity to learn from their observations and reflections by formulating concepts and generalizations and then retesting those through new situations.

### Setting the Context

#### *Learner-Environment Convergence*

When experiential learning theory is incorporated into an instructional environment and embraces the learner for all he or she brings to the environment in the manner discussed

above, great potential exists for meaningful learning to occur. However, one potential pitfall of this process is the ability of the institution to establish clearly articulated learning goals and to critically assess the outcomes. Since first introduced in the mid-1970s, many medical schools around the country have created and implemented end-of-third-year examinations that assess students' skills in clinical decision making and management (Harden et al., 1975; Harden, 1979; Rentschler et al., 2007). First described by Harden et al. in 1975, OSCEs were designed to assess the clinical skills and competence of final year medical students. The original OSCE, as devised by Harden et al. (1975), involved a series of 16 stations, each five minutes in duration. Some stations used standardized patients while others required students to answer written questions related to previous stations or questions pertaining to an x-ray or photograph. Since its inception, increasing numbers of medical schools have run OSCE examinations in much the same manner (Newble & Swanson, 1988; Martin & Jolly, 2002).

#### Research Questions

This study will utilize qualitative methods to answer the following questions:

- 1) Given the stated focus of each Patient-Centered Care Objective Structured Clinical Examination (PCC OSCE), how do the students interact with patients and their families in a patient-centered way, as defined by patients with chronic illness?
- 2) How do the data obtained in the research compare with the descriptors obtained through the Stemmler research?

## Method

This is a qualitative single case study addressing the current definition of patient-centered care, implemented through the use of an objective structured clinical examination, through the utilization of digitally recorded standardized patient cases observed by chronically ill patients. Research for this study was conducted at a single academic medical center.

The advancement of this research was made possible through the original work of a Stemmler project conducted at the University of Missouri School of Medicine (Hoffman, Donaldson, Griggs, & Lu, 2008). The Stemmler project was implemented in an effort to develop a patient-centered care OSCE for third year medical students. From this original work, one portion remained incomplete - a return to the patient constituency with the specific purpose of asking them whether or not the OSCE was addressing the critical elements of patient-centered care, as originally identified by students, faculty and patients.

In this current research, two single respondent interviews and 6 focus group interviews comprised of chronically ill patients were conducted. To be included in this pool of participants, the patients are required to have been routinely visiting a physician for their chronic illness, with three or more visits in a year. No patients could be younger than the age of 30. The participants for this research (25 in total) were purposefully selected by faculty physicians at the academic medical center under study, and one coordinator for the Heyssel Senior Teacher Educator Partnership (STEP) program. Selection was based upon the criteria established above. The participants were

homogenous in that they all had a chronic illness that necessitated multiple visits to their physicians, but they varied in age and gender.

At the onset of each focus group encounter, the patient participants were asked to define patient-centered care in their own words, and to write their definition on the paper provided. These definitions were collected for later comparison. The respondents then viewed the first digitally recorded simulated encounter. Through an inductive process, the patients were asked to indicate the patient-centered characteristics they believed to be present. Additionally, the patients were asked to provide a global rating for this encounter (satisfactory or unsatisfactory) indicating whether or not patient-centered care was addressed for that particular case. The focus group then participated in a think aloud process in which specific features of the standardized patient session were discussed using a semi-structured interview protocol. The questions used to guide this process are included in Appendix E. An identical process was repeated for a second digitally recorded encounter. Second viewings of each video and a return to specific segments of the videos were performed at the request of the participants. This process was implemented in order to address the first research question: Given the stated focus of each Patient-Centered Care Objective Structured Clinical Examination (PCC OSCE), how do the students interact with patients and their families in a patient-centered way as defined by patients with chronic illness?

The patient-centered characteristics described by the two single respondents and members of the 6 focus groups were compared to the existing checklist of descriptors established by the Stemmler project. This comparison was performed as a means of addressing the second research question for this study: How do the data obtained in the

research compare with the descriptors obtained through the Stemmler research? Specific attention was given to the descriptors as outlined in Appendix B.

Each focus group was held for a maximum of 2 hours' duration. Interviews were digitally recorded for transcription and analysis. Two digital recorders were used (one served as a back-up) and interviews were transcribed by a professional transcriptionist. An assistant to the researcher was also present at each focus group, serving as a note taker and coordinator of interview logistics, such as handling the recording device. The researcher listened to all interviews while simultaneously reviewing the transcribed data for accuracy prior to analysis of the data.

This research has been approved for exemption by the Institutional Review Board (IRB) at the University of Missouri; project number 1164277.

#### Definitions

The following definitions are offered to provide clarity for the specific terminology used in this study.

Chronic condition or illness, in medicine, is defined as illnesses that last longer than 3 months (Von Korff, Gruman, Schaefer, Curry, & Wagner, 1997)

Objective Structured Clinical Examination (OSCE) is “comprised of a series of stations through which all candidates rotate on a timed basis. In each station, the candidate is faced with a simulated task or problem; the candidate is required to perform specific functions to complete the task or address the problem” (Austin, 2003, p. 1)

Simulation is “the act of mimicking a real object, event, or process by assuming its appearance or outward qualities” (Reznek, 2004, p. 37). Medical simulations attempt to recreate scenes in clinical practice that are most critical and important to know. On a



practical level, “simulations are a representation of reality used with the intent to plan, teach, or even entertain” (Macedonia, Gherman, & Satin, 2003, p. 388).

Standardized patients are “lay persons who are trained to portray a scripted patient presentation accurately and consistently across many encounters” (Yudkowsky, 2004, p. 499).

Standardized patient encounters have been used to “teach and assess medical students in history taking, physical examination techniques, effective interpersonal and communication skills, and clinical reasoning” (Barrows, 1993, p. 444).

#### Limitations

This research is geographically limited to only one academic medical center. It was also constrained by the population of patients recruited for the focus groups. Due to the researcher’s belief that chronically ill patients would provide richer insight into their healthcare experiences, participants must have been routinely visiting a physician for their chronic illness with three or more visits in a year. No patients were younger than the age of 30. In this way, the sampling was random, but only within the pre-selected pool of potential participants. Another limitation is that the selection of participants was not based on specific cultural considerations, and there was no attempt to account for a male-to-female ratio in the participant selection process.

The researcher’s personal learning bias could also be considered a limitation of this research. I believe that as learners we do not construct meaning in a vacuum. Rather, meaning begins to form and take shape as we engage in authentic learning opportunities with other individuals. While I believe learning can and does take place in many forms (e.g., self-directed, didactic formats, informal conversations with colleagues, etc.), in

order for that information to take shape and have meaning, it must be transferred into a real-world opportunity or event that simulates an authentic activity. As this research will highlight, many professions have incorporated simulated activity into their training requirements in order to expose their learners to as many scenarios as possible. Thus, when they are faced with the ‘real-world occurrence’ they can extract from that simulated experience and, ideally, more adequately respond to that concern or need.

A third limitation is the composition of the individual sessions and focus groups. Due to scheduling constraints of the patients, two of the interviews were conducted with one person each; the other focus groups had no more than 6 respondents. When there are a smaller number of participants, there may be a tendency for the discussion to lack the rich description that might be more readily available with a larger group where one person’s thoughts and comments may trigger a thought with another person. That is not possible with an interview of one.

### Assumptions

In this section, I make explicit assumptions related to this research. First, I have assumed that by intentionally and strategically embedding the seeds of patient-centered care into the medical school curriculum, medical students will embody only one way to practice medicine, and patients will receive the best medical treatment possible, that will address the “whole person” versus just the chronic illness they have. By integrating PCC into the medical school curriculum, the institution is investing in the future of physicians that extends well beyond this institution and will touch each facility these medical students enter as residents and practicing physicians.

Secondly, qualitative research is a form of inquiry in which researchers make an interpretation of what they see, hear and understand (Creswell, 2007). This means even though I cannot separate my interpretations of the findings from my own background, history and prior understandings, I have tried to remain aware of my position in relation to this research at all times. Chapter three explicitly addresses the manner in which I formally monitored my influence on this research.

Finally, I am working under the assumption that underlying the idiosyncrasies of the patient-centered model is the belief that all interested parties (physicians, patients, faculty members, standardized patients and educators) are all working toward the attainment of common ground; a mutual understanding of the nature of chronic illness. This patient-centered care process becomes a "...process in which meanings are shared. The process is circular, not linear, and the shared understanding often is different from the initial understanding of both doctor and patient" (Stewart et al., 1995, p. 12).

### Significance

Increased healthcare expenditures, a rise in the number of medical errors, tight regulations, and demand from the public at large for more accountability in healthcare have left educators in a quandary regarding the best way to educate medical students. One of the difficulties in implementing and assessing PCC is the ambiguity present in defining the essence of PCC, the appropriate measures one would take to integrate this information into an existing medical school curriculum, and the subsequent assessment that serves to inform and improve upon patient-centered care. Previous research addresses the importance of utilizing an authentic learning environment to address these facets of medical education within a simulated environment. This research serves to

inform those gaps in the literature by further clarifying the definition of patient-centered care, and by providing one example of a process for validating the elements comprising the OSCE used to assess the critical PCC factors through the use of a simulated activity. The current literature offers a variety of research approaches in this area, but none have addressed the concept from the perspective of chronically ill patients. The inclusion of the patient perspective in determining the most critical elements of PCC and utilizing patient feedback in assessing the validity of a PCC OSCE is a unique approach to this area of research. The significance of this body of work specifically for the MUSOM is that it serves to close the gap and fulfill an identified need created by the foundational work of the Stemmler project. Chronically ill patients were utilized in creating the original descriptors used in the development of the PCC OSCE. It only seems logical to return to that patient base after the PCC OSCE has been fully integrated into the third year medical students' curriculum and ask the patients to identify those elements they would describe as being patient centered. The patients' feedback will be integral to the improvement process of the PCC OSCE.

### Conclusion

This chapter provides the reader with an introduction to this line of research, the statement of the issue addressed by this study, and the methods this researcher employed to inform the research questions. Additionally, definitions were provided in an effort to guide the reader through the vocabulary unique to this area of research, followed by the limitations, assumptions and significance of this study. The following chapter will address the context of this study by reviewing salient literature related to patient-centered care, low-fidelity simulation, and the use of standardized patients in an authentic learning

environment. Subsequent chapters address methods (Chapter 3), findings (Chapter 4) and discussion and conclusions (Chapter 5).

## CHAPTER 2

### LITERATURE REVIEW

Many schools of medicine across the nation have begun to implement quality improvement and patient safety simulated activities into their core curriculum. One example is the University of Missouri School of Medicine (MUSOM). A central part of its mission as a Research University/Very High and Community Engaged institution of higher education is to “educate physicians to provide effective patient-centered care for the people of Missouri and beyond” (<https://somis.umh.edu/visions/>). To achieve this mission the MUSOM has created educational experiences for its medical students, designed to develop them to be the doctors their patients need and desire. To that end, several characteristics of “good” doctors were developed. The MUSOM entitled these the MU2020 key characteristics and they include: (a) able to deliver effective patient-centered care (PCC), (b) honest with high ethical standards, (c) knowledgeable in biomedical sciences, evidence-based practice, and societal and cultural issues, (d) critical thinker, problem-solver, (e) able to communicate with patients and others, (f) able to collaborate with patients and other members of the health care team, (g) committed to improving quality and safety, and (h) committed to life-long learning and information mastery. See Appendix A for a detailed description of each characteristic. From these key characteristics, the institution has developed simulated learning activities designed to support its mission of creating a culture of quality improvement and patient-centered care.

The impetus for this movement has also been framed through the efforts of national accrediting bodies such as the Accreditation Council for Graduate Medical

Education (ACGME) which is the entity responsible for the accreditation of graduate medical training programs within the United States. In 1999, the Outcomes Project of the ACGME developed six core competencies – all to be implemented by July 2007 (Freeman & Dobbie, 2009). The principles of this project were to emphasize to medical schools that the things they measure are the things that are improved upon. These competencies were designed to shift the emphasis of medical education from a process-oriented function to one that focuses on outcomes, as driven by institutional goals and objectives. The current phase of the project focuses on the “integration of the competencies, with emphasis on educational outcomes” (ACGME/ABMS, 2010). As a result, residency programs nationwide have collaborated on the creation of an assessment toolbox that suggests the use of standardized patients to provide reliable, valid and fair assessments of several of these competencies (ACGME/ABMS, 2010).

In 1998, the American Board of Medical Specialties created a task force to develop a definition of what is meant by the “competent physician” (Itani, 2002). The competent physician, according to the ABMS task force, “should possess the medical knowledge, judgment, professionalism, and clinical and communication skills to provide high-quality patient care (p. 197). Furthermore, “patient care encompasses the promotion of health; prevention of disease; and diagnosis, treatment, and management of medical conditions with compassion and respect for patients and their families” (p. 197). The following literature serves to inform this research focused on the implementation of a standardized patient objective structured clinical examination (OSCE) as a tool for developing students to become more patient-centered in their care of chronic disease patients.

The remainder of this chapter will address the context of this study by reviewing salient literature related to this research. This literature review begins with a discussion of learning; specifically, solving ill-structured case study problems within a complex learning environment. Cognitive flexibility theory is introduced as one approach to addressing ill-structured problems such as those found in the medical arena. Evidence-based improvement is then discussed as it relates to the quality improvement efforts in medicine and connecting the evidence with medical practice. Simulation-based medical education is then discussed as a useful modality in solving problems in education. Various components of simulation are shared as they specifically relate to this research, which includes patient-centered care and standardized patients as teachers. A discussion of experiential learning follows with attention given to the concept of Kolb's learning cycle and assessment in learning using Miller's model of competency. The literature review concludes with a description of the context for this research, as well as a brief background on the definition and use of an OSCE emphasizing its use as a 360° evaluation tool.

## Background

### *Problem Solving in Learning*

Learning is driven by problems that need solving. A problem "is an unknown entity in some context" (Jonassen, 2004, p. 3). It is the difference between a "goal state and a current state" (p. 3); where a learner's knowledge currently rests and where it should be. Jonassen (1997) describes problems on a continuum from well-structured to ill-structured the latter of which are problems that are typically encountered in everyday and professional practice; problems that one would encounter in a medical setting.



Solutions for well-structured problems can be taught rather effectively unlike their counterparts that are most often more complex and require experience and practice in reaching a resolution in an authentic environment (Jonassen, 2004). Case studies are typically ill-structured, complex and interdisciplinary in that “a reasonable solution is impossible by examining the problem from a single viewpoint” (p. 15). Case studies often present a problem that must be socially negotiated and co-constructed to reach a resolution.

The ability to solve very complex and ill-structured problems requires that students learn to think differently than they do in a typical classroom where didactic lecture and memorization are the norm. One approach to solving ill-structured problems is through the use of cognitive flexibility theory which stresses the importance of multiple ideas having interconnectedness; environments intentionally represent multiple perspectives or interpretations of the content in the cases used to address those problems (Spiro, Coulson, Feltovich, & Anderson, 1988).

Learning to solve problems requires that learners be able to manipulate the problem elements in some way; manipulate parameters, make decisions or otherwise affect the environment in some way to test the effects of their decision-making. Learners should be actively engaged by the problem and be able to see the results of their solutions. Jonassen (2004) suggests simulation as an environment where components of the system are able to be manipulated to meet educational objectives.

#### *Simulation Based Medical Education (SBME)*

Simulation based medical education is “the act of mimicking a real object, event, or process by assuming its appearance or outward qualities” (Reznek, 2004). Medical

simulations attempt to recreate scenes in clinical practice that are most critical and important to know. This movement to simulation-based training and assessment represents a significant shift from the traditional “see one, do one” approach and the traditional reliance on real patients for education (Scalese, Obeso, & Issenberg, 2007). On a practical level, “simulations are a representation of reality used with the intent to plan, teach, or even entertain” (Macedonia, Gherman, & Satin, 2003, p. 388).

The earliest primitive medical simulations in the 1800s were simple anatomic reproductions primarily designed for practice skills such as resuscitation and intubation with crude mannequins (Rosen, 2004; Macedonia et al., 2003). The 1950s and 1960s marked great advances in medical science accompanied by developments in medical technology largely due to the military which was a major impetus in the transfer of modeling and simulation technology to medicine (Loftin, 2002; Macedonia et al.). In medicine, anesthesiologists were the first to explore the technology in 1967 with the computer-enhanced patient simulator, Sim One, which consisted of a life-sized mannequin connected to a computer, an instructor’s console, and an anesthesia machine (Reznek, 2004).

The birth of modern simulation can largely be credited to the aerospace industry. For decades, pilots have been training on flight simulators which have become so sophisticated and realistic that hundreds of take-offs and landings can be safely performed before the pilot’s first real flight (Satava, 1995). As aerospace simulation began to prove itself to the world as the most cost efficient and effective means of training for real-world flight, other sectors began to come on board such as transportation, nuclear power, business management and medicine. Medical simulation,

much like aviation simulation, involves the application of complex decision making, time-sensitive response or action, and skilled tasks. Each one also involves a significant learning curve which is unique to each individual learner. As educators, we cannot alter the natural learning potential of an individual, but we can alter the number of experiences a person is exposed to through simulated activities. It was with these similarities in mind that the Institute of Medicine suggested medical simulation be embraced as a means of reducing medical error. The Institute recognized the key to the success of simulation in the civil aviation industry was the incorporation of the simulation principles into an overall quality improvement cycle that started and finished with the pilots themselves (Kohn, Corrigan, & Donaldson, 2000). Thus began the integration of a quality improvement element into all medical simulation endeavors.

Although advances in simulation technology have continued to evolve, the original concept and general design are still visible today. Medical milestones include the first Virtual Human Project and a global interest in patient safety issues. In the Virtual Human Project, the national library of medicine developed anatomic models that allowed three-dimensional viewing and manipulation of anatomic structures (Satava, 2001). These images were the basis for much of the work in surgical simulation, medical virtual reality and internet-based simulation. Global attention over patient safety was brought to the forefront with the release of the United States Institute of Medicine report on medical safety entitled “To Err is Human” (Kohn, Corrigan, & Donaldson, 2000). The report estimated that as many as 98,000 patients die annually from medical errors. This fact coupled with the decline of traditional resources (i.e., animals and cadavers) for practicing medical skills, limited work hours, reduced patient availability for teaching

and public pressure to ensure competency for physicians at all levels have converged. The result of which is a host of papers published regarding simulation in healthcare education both in nursing and medical disciplines (Vandrey & Whitman, 2001; Henricks, Rule, Grady, & Ellis 2002; Weller, Block, & Young, 2003; Wayne, Butter, & Siddall, 2005). Leape and Berwick (2005) also published a report “Five Years After to Err is Human: What Have We Learned?” that highlighted a major concern in the field of medicine. While medicine had made significant advancement toward patient safety and quality improvement measures in some areas, progress was very slow. Progress was being made, but at a much slower pace than anticipated. This report also heightened awareness as to the possibilities that simulation brought to the medical arena in teaching medical students, residents and physicians how to take care of patients in a safer environment.

A major shift in the philosophy of medical education also occurred during the 1990s. The new theories acknowledged that effective medical education merged knowledge, skills, behavior and attitudes while the traditional apprenticeship model only tested knowledge milestones (Roberts, 1990; Matsell, 1991). Methods for evaluation of physicians expanded to include standardized patients and computerized simulation (Barrows, 1993; Stevens, Kwak, & McCoy, 1989). The military continued to serve as a major catalyst in providing financial resources and ingenuity in the development of simulation in medicine as it demanded this learning modality for training of medical personnel during peace time and for medical response to casualties of terrorist activities.

Early simulations in the medical field have tended to focus on a particular task content setting such as anesthesia (Reznek, 2004). Applied simulation to address medical

decision making across specialties is a more recent area of exploration as demonstrated in research conducted by Satish and Streufert (2002). Their interest focused on the concept of a strategic management simulation (SMS) system as it applied to medical decision making and its development based in the context of complexity theory. The majority of SMS simulated events were pre-programmed to ensure that all participants had equivalent experiences which allowed for participant comparisons on their performance with established criteria for what constitutes excellent, average and poor performance (Satish & Streufert, 2002). Excellence implied competency in processing information and the ability to address complex problems across a variety a disciplines in the healthcare system. The more capacity individuals or teams had to make decisions that used their knowledge and information more effectively, the higher they performed according to the SMS simulation standards. The simulation measured whether healthcare personnel could deal with complex real world challenges that went beyond ordinary technical knowledge.

The SMS simulations as described by Satish and Streufert (2002) were designed to provide authentic task settings that extended over a period of several hours. Participants went through four simulation scenarios over a three hour time period where they faced challenges, solved problems and made critical decisions. Once the simulation began, participants received computer generated visual and verbal information about events relevant to their task. They had the freedom to request more information as needed and an assistant entered their decisions into a computer system. Responses to that event were measured both in terms of “elapsed time between event and response to the event” and in terms of the “characteristics of the response” both of which were computer scored (Satish & Streufert, 2002, p. 166). Based on a participant’s performance in the

simulation, the computer calculated 25 critical parameters of decision making. The computer generated measures focused on “how” the participant or team members processed the information. Measures varied across the spectrum from simple counts such as the number of decisions the team made, to calculations of highly complex competencies (Satish & Streufert, 2002). Simulation participants were provided with printed and video information about their setting and their performance for debriefing purposes at which time feedback information was also provided on areas where competency was lacking. Each participant then had an opportunity to practice the skills deemed less than adequate. At the completion of this training session, a second SMS simulation scenario was administered to reassess competency. Overall, Satish and Streufert believe the SMS simulation helped to discover whether or not individuals and healthcare teams are able to adequately deal with complex problems within a specific context and largely driven by what is best for the patient.

According to Ziv (2005), simulation in medical education is becoming increasingly powerful as a complementary teaching methodology. The primary objective of a good training simulation is to have constant and consistent movement between the simulator/simulated patient and the learner. SBME should be integrated with other educational events including clinical experience, lectures, reading, laboratory work, and problem-based learning to name a few (McGaghie, Issenberg, Petrusa, & Scalese, 2010). Simulation-based medical education complements clinical education, but “education in procedural skills should not be divorced from their clinical context and that oversimplification of a complex process can interfere with deep understanding” (Kneebone, 2009, p. 956).

Research conducted by Shepherd, Kelly, Skene, and White (2007) looked at quantifying the assumption that simulation is an effective educational method. They utilized a randomized controlled trial methodology in which three different patient assessment learning interventions were used to evaluate graduate nurses' knowledge and skills to determine if one particular intervention was more effective than the other. The three learning environments were a self-directed setting, a traditional didactic classroom model using PowerPoint presentations, and an educational session involving low-fidelity simulation. At the conclusion of the interventions, all graduate nurses completed a patient assessment test scenario using a mannequin with low-fidelity simulation capabilities. This research suggested that educational activities that incorporate low-fidelity simulation are more effective than more traditional teaching modalities such as self-directed learning and didactic classroom education for teaching specific assessment skills. Their hypothesis was supported in that the mean test scores for nurses in the simulation group were significantly higher than those participating in the traditional didactic classroom and the self-directed learning environment.

Additional demands are being placed on the medical profession via the patient safety movement, the use of objective structure clinical examinations (OSCEs) as means of certification, and risk management considerations which require accountability and high quality standards even in a training environment. Technologies that have been the driving force in the integration of simulation into medical education are not high-fidelity; rather, most simulators in use today are at the low-technology end of the spectrum and are used in the high-volume, basic skills learning arena (Bradley, 2006). Simulated patients have over the last two to three decades become commonplace in medical

education, particularly in undergraduate communication skills learning. They have also been used in medical student assessments in lieu of actual patients, and as evaluators of the simulation encounter and process. Given the stated benefits of medical simulation, it is unclear how simulation is addressing medical competencies, and how that information gets transferred into the healthcare environment at-large. To address this deficiency, the discussion below will highlight several aspects of simulation and its role in quality improvement effort in health care. For the purpose of this research, simulation will be addressed within the context of its use as a tool in developing a patient-centered environment of care. The utilization of standardized patients as teachers within a low-fidelity simulation milieu will then be discussed, followed by several facets of applied learning principles used to inform this research. Those include experiential learning, the role of assessment in learning, and the implementation of an OSCE as an evaluation tool in medical education.

### Simulation in Action

#### *Patient-Centered Care*

As Sir William Osler stated in 1903, “the student begins with the patient, continues with the patient, and ends his studies with the patient, using books and lectures as tools, as means to an end” (Itani, 2002). A great deal of today’s research in the area of patient-centered care can be linked to the Department of Family Medicine at the University of Western Ontario (Stewart et al., 1995). The initial research was conducted under the direction of Dr. Ian McWhinney in 1968 with additional contributions made by Dr. Joseph Levenstein with his arrival in 1981 (Stewart et al., 1995). Dr. Levenstein began to question his ability to share his expertise and approach to medicine with medical



students under his advisement when he could not adequately verbalize his approach to patient care. Thus, began his personal journey of self-reflection and inquiry as how best to treat the ‘whole’ patient. He audio taped 1,000 patient visits and sorted the tapes into effective and ineffective interviews. He discovered when he approached the patient visit first by eliciting their concerns and expectations of the visit, the interview was quite effective. In contrast, when he began the interview with his own agenda, the interview was less effective. Instead of lecturing to his students that they needed to learn how to become more caring physicians, he discovered through the detail of these interviews he could use the information gleaned from them to guide his students to listen for patients’ cues about their concerns, fears, and expectations of their clinical visit (Levenstein, McCracken, McWhinney, Stewart, & Brown, 1986). This approach to medical treatment became known as the patient-centered model and set out to make the implicit in patient care explicit. The patient-centered model was not simply a model for curriculum, but rather a conceptual framework to guide practitioners in their daily interaction with patients.

Stewart et al. (1995) proposed a line of questioning that spoke to the heart of being patient-centered and believed every clinical encounter should result in answers to questions such as: (a) what is the patient’s understanding of the illness, (b) what does the patient believe caused it, (c) what are his or her fears, and (d) what are his or her expectations of the doctor (p. 11)? The purpose of utilizing the patient-centered model of care is to build a collaborative relationship in which doctor and patient work together and develop a shared understanding of the treatment pathway. “The process is circular, not linear, and the shared understanding often is different from the initial understanding of

both doctor and patient” (Stewart et al., 1995, p. 12). The goal is to follow patients’ leads and to understand patients’ experiences from their own points of view. In this way, effective patient care requires attending as much to patients’ personal experiences of illnesses as to their diseases.

A patient-centered approach for chronic care patients has the potential to achieve better outcomes by merging patients’ knowledge of their diseases, the expertise of the physician, treatment options, and educating the patients on self-management (McWilliam, 2009). Intuitively, the patients’ involvement in the care of their own chronic illness is plausible given the amount of time they deal with their illness on their own as opposed to being within the confines of the healthcare environment. An inherent value is placed on getting to know and understand what each patient as a person is confronting as a result of his or her chronic illness. McWilliam suggests this approach to medical care is an “objective, concrete *method* of communication, a technique for *doing*, specifically, for identifying the content to which the practitioner needs to attend to achieve patient-centered care” (p. 278). In essence, the physician has the responsibility for achieving patient-centered care while the individual patient’s role is that of a partner with the expectation he or she will comply with the negotiated approach to that care. The patient becomes empowered as an integral member of the team versus a dichotomized approach wherein the patient is only an observer waiting for instructions from the physician as to how his/her care will be managed. The physician-patient relationship becomes socially constructed wherein true partnership and teamwork are developed in the approach to that individual patient’s care.

A major challenge in fostering and achieving a patient-centered care environment is in teaching medical students how to become more patient-centered and then assessing how successful one is in reaching that goal. Many institutions such as the University of Missouri School of Medicine are integrating simulation into its medical student curricula to achieve this objective with the assistance of standardized patients.

### *Standardized Patients as Teachers*

The term standardized patient has gone through much iteration since its inception in 1963. Many other names have been given to this instructional strategy such as programmed patient, patient instructor, professional patient, and surrogate patient just to name a few (Wallace, 1997). The conceptual origin of the standardized patient (SP) dates back to 1963 under the experimentation of Howard S. Barrows, M.D. Dr. Barrows created the first standardized patient for his third-year neurology clerkship out of the observed need for a more comprehensive method to evaluate the clinical skills of third-year medical students ([www.mc.uky.edu/meded/cstac/sphistory.asp](http://www.mc.uky.edu/meded/cstac/sphistory.asp)). The cases he selected were based on actual patients he had interviewed and observed. He created a checklist of observations he deemed most important for the student to exhibit or inquire of the SP during the visit from which he based his student assessment. Although, not a widely accepted concept from his peers, Barrows continued his work and began to see the advantages of using SPs not only in the assessment of medical students, but also in the areas of teaching and research. One concern Barrows heard from his colleagues about the use of standardized patients was “case specificity”. This refers to the possibility that “a student’s performance in dealing with one patient may be quite different from the student’s performance with a second patient” (Barrows, 1993, p. 448). His response was

a comparison of a student's performance on a multiple choice test to the use of standardized patients. He believed the solution of case specificity with a multiple choice exam rested with the distribution of a large number of questions in order to establish reliability. Such is the case with the standardized patients; the use of multiple standardized patients in assessment circumvents the problem of case specificity.

By today's definition, standardized patients are lay persons trained to "portray a scripted patient presentation accurately and consistently across many encounters" (Yudkowsky, 2004, p. 499). Simulated patients provide a transition to the real patient for medical students (Barrows, 1993). Wallace (1997) states the value of the standardized patient as,

It takes the process of learning a step beyond the books and away from reliance on paper and pencil tests. It puts the learning of medicine in the arena of veritable clinical practice - as close to the truth of an authentic clinical encounter as one can get without actually being there, because there is a living, breathing, responding human being to encounter.

Standardized patient encounters have been utilized to teach and assess medical students in a variety of facets of medical practice, including history taking, physical examination techniques, and effective interpersonal and communication skills (Perera, J. Perera, J. A., Abdullah & Lee, 2009; Barrows, 1993; Kinnersley & Pill, 1993). Based on the success of these encounters, other researchers have extended this approach to the assessment of their residents. Yudkowsky, Alseidi and Cintron (2004) assessed the communication and interpersonal skills of their second and third year general surgery residency programs. Standardized patients rated the residents' ability to conduct six communication tasks in a patient-centered approach. The six tasks were "giving bad news, obtaining informed consent, dealing with a patient who refuses treatment,

addressing domestic violence, providing patient education, and conducting a focused history and physical examination” (p. 500). While it was a rather small group of residents that participated, 22 in total, the feedback from both residents and SPs was quite positive. The verbal feedback provided from the SPs was found to be very helpful by the residents and 75% of the residents believed the cases allowed them to demonstrate their ability to provide effective patient-centered care.

Although not a substitute for direct observation in clinical practice, assessment of residents’ skills in the context of standardized patient encounters offers several potential advantages. SP scenarios offer opportunities where real patient interaction might be unavailable or might even pose ethical challenges. With the utilization of SPs, risk to both resident and patient is minimized. Content validity is improved by the careful selection of cases based on the educational needs and objectives rather than patient availability. Additionally, all residents encounter the same case portrayed in the same way, ensuring fairness and enabling direct comparisons across the entire pool of learners. SP encounters provide exceptional opportunities for experiential learning (Yudkowsky, Alseidi, & Cintron, 2004). Post-encounters also serve as an opportunity for a “teachable moment” in which learners can reflect upon their experience. Feedback focused on effective and ineffective sessions is a unique benefit of SP-based encounters. Objective structured clinical examinations can also provide valuable information for curriculum evaluation by documenting outcomes and identifying weaknesses across learners that can be targeted areas for improvement.

In 2006, Yudkowsky, Downing and Ommert looked at the communication and interpersonal skills assessments of all second and third year residents in the Internal

Medicine and Family Medicine programs at the University of Illinois Medical Center. The assessment consisted of six standardized patient encounters. Each focused on a different communication task to include items such as giving bad news, dealing with a patient who refused treatment, and physical examination with a patient in acute pain. The cases were selected to allow residents to demonstrate their skills across a range of settings, ages and genders. The cases were developed with the help of program faculty who verified that the tasks were within their residents' expected competencies. Prior to the assessment, each resident completed a survey providing information on his/her prior experience with standardized patients, the presence or absence of attending formal training or a course on patient-centered interviewing during medical school, and comfort level with participation in this type of assessment process. The researchers hypothesized that residents who had more experience with the tasks identified in the assessment would be more comfortable in the encounter and thus would tend to be more patient-centered in their approach of the standardized patient. Additionally, the researchers suggested the residents who had prior experiences with standardized patients and who had participated in patient-centered interviewing courses would take a more patient-centered approach. The findings suggest that more experience with patient communication was not in and of itself a predictor of better performance in a standardized patient simulation of a comparable task. Experience did not correlate with competence. Interestingly, prior experience with standardized patients in medical school had a strong positive effect on performance. Significantly, residents with standardized patient experiences in medical school were almost five times less likely to receive negative feedback from the standardized patient evaluations.

Simulated patients (SPs) are widely used as an effective learning tool; however, there is very little literature available that describes consecutive consultations between the same student and the same SP. In a qualitative study conducted by Linssen, Dalen, and Rethans (2007), an SP encounter was developed in which one student met with the same SP during 4 successive consultations over an 8 month period of time. A total of 32 SPs portrayed 1 of 8 different patient roles in which they suffered from a chronic health problem of cardiovascular, abdominal, psychosocial or musculoskeletal origin. In follow-up focus group interviews with the SPs, they first noted the meaningful relationship they had established with the student physician in consecutive consultations versus previous consultations they had participated in which consisted of a one-time visit with each student physician. The SPs noted the format of this longitudinal study felt more realistic than single-case consultations, and upon the second or third visit from the student there was a sense of familiarity with their respective student physician. The conversation between student and SP became more informal and the SPs noted they felt more comfortable in sharing information about their illness and believed there was a realistic continuity of care.

In other research conducted by Gibbons et al. (2002) an instructional development project was designed wherein nurse practitioner students were randomly assigned to one of nine groups of three students. Once a week they would each individually participate in a simulated activity with an SP. Each encounter was observed by the other two group members from behind a one-way mirror with faculty simultaneously observing the students via video. At the conclusion of each encounter, the student completed a self-evaluation using a checklist. The SP evaluated the students using a set rating scale, the

peers provided feedback on their individual group members' performance, and the faculty member rated each student. The combination of these scores gave a complete picture as to how each student performed from all reviewing members. This format allowed students to become cognizant of their personal strengths and weakness in communicating with others – faculty, peers and patients. For the learner, each evaluation added a unique perspective to their learning potential.

Literature on the use of standardized versus real patients is also on the rise. Bokken et al. (2009) performed a qualitative study using focus-group interviews involving students who had experienced both real patient encounters and SP encounters. The aim of this study was to evaluate the points of view of students with regard to the strengths and weaknesses of real patients versus SPs in the undergraduate medical curriculum. Five focus-group interviews were conducted with fourth and fifth year medical students using an interview guide. In general, the 38 participants believed the real patient encounters were more authentic; however, the researchers believed this could have been biased feedback that might have been negated had the SPs been “undercover” and not clearly identified as being a standardized patient to the student. The students proceeded to identify several strengths of SP encounters compared with real patient encounters. For example, SP encounters were helpful in preparing students for real patient interactions particularly with regard to communication skills and subsequent feedback.

The culmination of research explained above identifies a variety of uses for standardized patients in a simulated environment. It is also important to look at the authentic learning environment that houses these activities. The next section addresses



quality improvement and the need for evidence-based knowledge to be acted upon and used in a patient setting. To possess the knowledge is only one component of learning; one must then be able to apply that knowledge in a useful way. The plan-do-study-act (PDSA) cycle is also addressed as one model for the implementation of improvement.

### Quality Improvement and Applied Learning

#### *Quality Improvement Driven by Best Evidence*

Quality improvement is defined as “the combined and unceasing efforts of everyone – health care professionals, patients and their families, researchers, payers, planners, and educators – to make the changes that will lead to better patient outcomes (health), better system performance (care) and better professional development (learning)” (Batalden & Davidoff, 2007, p. 3). Improvement measures in health care are interdependent; they are a shared responsibility for everyone from the medical student to the patient receiving the care.

Evidence-based medicine is a process wherein the best-known evidence for a particular medical issue is applied to an individual patient at a specific point in time while using a clinician’s judgment (Sackett, 1996). There is much more to implementing evidence into medical practice than just “the evidence” although that is where most of the medical education focus resides (Ogrinc & Headrick, 2008). The missing element is often a connecting factor of knowledge and skills that extracts the best medical evidence and puts it into practice in a consistent and reliable manner toward the improvement of the health care system. To implement the evidence into practice one must understand who the people are, what processes are in place and how the system is structured. Making the knowledge available without guidance on implementation is not enough.

*Implementation of improvement.* One model of improvement used to connect knowledge and skills with medical practice is known as the Plan, Do, Study, Act (PDSA) model. The PDSA cycle for improvement, introduced by Langley in 1996, provides a structure for diagnosing and treating systems of care. It is used as “a methodology for making and testing changes on a small scale” (Ogrinc & Headrick, 2008, p. 9). The planning phase of the cycle is where specific objectives of the improvement are discussed and a decision is made as to who will carry out the remaining elements of the entire model. The second phase, ‘do’, is where the actual implementation of the change takes place and observations are documented. The study phase is the point at which complete analysis occurs and a discussion of what was learned takes place. The final stage, ‘act’, is where future changes are identified and objectives for the next planning stage are prepared and then the next PDSA cycle continues. This is an iterative process wherein each PDSA cycle builds upon the next. It is never intended that the implementation of one PDSA cycle will achieve the original aim set at the beginning of the process. Rather, “each PDSA cycle is a small experiment that advances the knowledge about the system. Successful change in complex systems is often the cumulative effect of many small changes over time” (Langley, 1996, p. 95). Ogrinc and Headrick (2008) state,

Improvement is a professional responsibility for everyone in the system and goes well beyond having the right scientific evidence. Improving health care is a contact sport – it is something that we *do*. Improvement does *not* occur through listening to a lecture, sitting in a meeting, reading a book or performing online simulation. It is learned through experience; experience is vital for achieving competence in this domain.

### *Experiential Learning*

With the rapidly changing healthcare environment, academic medical centers today must focus on the learning their students are undertaking and ensuring that this

learning is equipping the students with the ability to master unspecified challenges with which they are certain to be faced. Dewey stressed the creation of new knowledge or the transformation of oneself through learning to perform new roles was more fundamental than simply learning how to do something (1971). For Dewey, experiential learning meant a cycle of continual attempts of becoming aware of a problem, formulating an idea, trying out a response, experiencing the consequences and then either confirming previous conceptions or modifying them based on this cyclical process. Mezirow (1990) observes, “No need is more fundamentally human than our need to understand the meaning of our experience” (p. 11). It is through the process of meaning making that one has an opportunity to change his or her perspective on a particular experience.

Underlying the theory of experiential learning is the belief that knowledge is acquired most effectively in the informal, everyday context in which it was first created. Lave and Wenger (1991) refer to this concept as situated cognition. Experiential education “first immerses learners in an experience and then encourages reflection about the experience to develop new skills, new attitudes, or new ways of thinking” (Lewis & Williams, 1994, p. 5).

Kolb’s (1984) learning cycle defines the basic principles of experiential learning. The elements are: a) concrete experience – being fully involved in an experience; b) reflective observation – thinking critically about what you have done or been involved in; c) abstract conceptualization – making connection between the new experience and previous experiences, looking for patterns and starting to theorize about what they mean; and d) active experimentation – testing out your new ideas in the real world, bringing your theory and practice together (p. 123). Kolb’s model provides learners with an

opportunity to learn from their observations and reflections by formulating concepts and generalizations and then retesting those through new situations. Kolb theorizes that learning increases in complexity through this process, and thus the learning cycle is transformed into a learning spiral of ever-increasing complexity. Furthermore, in order for meaningful learning to occur that fully transforms one's understanding, all four stages of the cycle must be negotiated by the learner. To Kolb, "an experience that is not reflected upon is unrealized learning" (p. 37).

#### *Assessment's Role in Learning*

To successfully promote and enhance effective learning, "assessment should include both formative and summative functions, as its ultimate goal is to ensure professional competence" (Berkenstadt, Ziv, Gafni, & Sidi, 2006, p. 853). According to the Miller model of medical competence, each of the domains contributing to professional competence (i.e., knowledge, technical skills, clinical reasoning, communication, and emotions) should be evaluated according to the four stages of competence. The four stages are defined as: a) knows, b) knows how, c) shows how, and d) does (Miller, 1990). At the base of the pyramid diagram, is knowledge where individuals might be tested by traditional written exams, assignments, and projects. Few would argue that knowledge is critical to becoming a competent physician; however, to fulfill the broader objectives in patient care, students must also know how to use the knowledge they have accumulated. They must be able to acquire a variety of information from the patients and laboratory results, analyze that information and translate those findings into a rational diagnosis and management plan. Professional work is about performance, and in medicine, "it's the interweaving of the science of disease biology

and the science of clinical practice. Learning that interweaving and the professional work that flows from it is largely a matter of experiential learning – learning from doing and reflecting on it” (Ogrinc & Headrick, 2008, p. 10). The third layer of the pyramid represents an opportunity for the students to take the knowledge they have obtained coupled with the diagnosis and actually show how they can integrate that information into a clinical setting. The intent is to help prepare medical students for the pinnacle of the pyramid (action) where they are providing care in an authentic clinical setting. The patient-centered care OSCE has the potential to rest in this area just beneath the apex. For the purposes of this research, the focus of the OSCE validation and assessment is in this third layer where the focus is on the students’ ability to provide patient-centered care in a simulated environment through the use of standardized patients.

#### *Objective Structured Clinical Examination*

The primary goal of medical education is to produce competent practitioners. Definitions of competency abound, but with significant amount of variability. “Competencies are a complex set of behaviors built on the components of knowledge, skills and attitudes” (Carraccio, Wolfsthal, Englander, Ferentz, & Martin, 2002, p. 362). A second definition, “competencies are knowledge, skills, attitudes and personal qualities essential to the practice of medicine” (Albanese, Mejicano, Mullan, Kokotailo, & Gruppen, 2008, p. 248). Lastly, competency takes place when “residents are able to provide medical care and/or other professional services in accordance with practice standards established by members of the profession and in ways that conform to the expectations of society” (Whitcomb, 2002, p. 351). Regardless of the definition one opts to utilize, physician competencies have become an increasing focus of medical education

at all levels. Competency is typically judged by faculty evaluations and standardized multiple choice tests. According to Sloan, Donnelly, Schwartz, and Strodel (1995), this type of assessment is problematic due to the subjectivity of faculty evaluations and the one-dimensional assessment standardized tests are designed to measure – knowledge base. They believe other important aspects of clinical expertise such as physical examination skills, interpersonal skills, and patient treatment skills are not objectively assessed. Sloan et al., conducted a pilot study wherein they sought to demonstrate that the objective structured clinical examination (OSCE) was a reliable measure of clinical performance. They had three goals: a) to determine the reliability of the OSCE in testing an entire residency population, b) to determine the validity of the OSCE in measuring the performance of residents at multiple training levels, and c) to determine the usefulness of the information gained about residents' clinical skills. Their work consisted of a 38-station OSCE that was administered to 56 surgical residents. The residents were grouped into three levels of training: interns, junior residents, and senior residents. The reliability of the OSCE was very high (0.91), and logically, performance varied significantly according to level of training, with senior residents performing best.

As the utilization of the OSCE has increased so has the attention given to the area of OSCE assessment, trustworthiness, validity, and reliability of the OSCE (Rushforth, 2006). The OSCE, which has the potential to assess many aspects of both theory and practice, can be viewed in the context of the strengths and limitations of other forms of assessment. For example, multiple choice examinations have been criticized for lack of validity due to their tendency to “cue” the learner (Harden et al., 1975; Mavis et al., 1996). Other forms of written assessment such as essays and written exams are also

criticized for telling what students know and understand, but very little about their actual competence or performance (Miller, 1990). As previously mentioned, Miller's pyramid provides a framework for clinical assessment (i.e., knows, knows how, shows how and does) is helpful in addressing competency levels.

OSCEs document a minimum level of clinical competency and prepare students for national exams. An OSCE is "comprised of a series of stations through which all candidates rotate on a timed basis. In each station, the candidate is faced with a simulated task or problem; the candidate is required to perform specific functions to complete the task or address the problem" (Austin, O'Byrne, Pugsley, & Munoz, 2003, p. 1). The OSCE is now a commonly used method of assessing clinical competence of medical students and practicing physicians in such areas as history taking, physical examination, and diagnostic reasoning (McLaughlin, Gregor, Jones, & Coderre, 2006). They have been shown to have both reliability and construct validity as an evaluation tool (Cohen, Resnick, Taylor, Provan, & Rothman, 1990; Austin et al., 2003).

#### *OSCE as a 360° Evaluation Tool*

The original Stemmler project outlined in Chapter 1 had one remaining element to complete in the validation process of the PCC OSCE – the chronic disease patient population. Using the Stemmler work as a foundation, the primary purpose of this current research is to provide a critical assessment of the tool used to evaluate the PCC OSCE and determine whether the OSCE has integrated the core elements of patient-centered care based upon critical review and feedback from the patients. In essence, this process is closing a gap in the literature in that most research of this nature has returned to the learners, faculty and even standardized patients as a means of assessing the process, but

research has not included the patient feedback so critical to a patient-centered environment.

As the ACGME suggests with the establishment of their toolbox of assessment methods, this is a 360° evaluation. A 360° evaluation is “an evaluation of the resident by all people in the sphere of the resident’s influence, which is why the evaluation is now also known as a multisource assessment” (Davidson, 2007, p. 66). This type of evaluation consists of measurement tools completed by multiple people in a resident’s sphere of influence. Evaluators may include superiors (faculty), peers, subordinates, and patients and their families (Davidson, 2007). The current research has borrowed this concept from graduate medical education and implemented it into the core assessment of the PCC OSCE for third year medical students at the University of Missouri School of Medicine. The groups involved in the evaluation process for the PCC OSCE are the students (self-evaluation), faculty (evaluation of student performance), standardized patients (feedback of student performance on simulated encounters) and chronic care patients (review digitally recorded simulated sessions and provide feedback in an effort to validate the OSCE assessment tool) with the focus of this research being on the latter population.

### Conclusion

The idea of patient-centered care is quite ambiguous. One would be hard pressed to find someone who would disagree with the idea that our healthcare system should largely be driven by the needs of the patients it is designed to serve, but many would have difficulty identifying all of the components from which it is comprised. It is a concept that many institutions embrace as important and critical for the development of their



medical students, but quantifying a measurement of successful implementation is challenging at best.

The purpose of this current research is to provide one means of validation of an established PCC OSCE utilizing the input of chronic care patients. This chapter has served as a means of identifying the literature that currently exists on several domains that inform this research and to establish the need for more attention to this area of research as the demand for more accountability in healthcare increases and expectations for patient safety and individualized patient care rises. Subsequent chapters address methods (Chapter 3), findings (Chapter 4), and discussion and conclusions (Chapter 5).

## CHAPTER 3

### RESEARCH DESIGN

In this chapter, I address the conceptual framework supporting this study and research methodology as they relate to the following research questions:

- 1) Given the stated focus of each Patient-Centered Care Objective Structured Clinical Examination (PCC OSCE), how do the students interact with patients and their families in a patient-centered way as defined by patients with chronic illness?
- 2) How do the data obtained in the research compare with the descriptors obtained through the Stemmler research?

Data collection and analysis are also discussed. In addition, the context of the study is described with details about the research participants and the environment in which this research was conducted. This chapter concludes with a statement of researcher positionality and provisions taken to ensure data quality.

#### Research Design

This is a qualitative single case study addressing the current design of a patient-centered care objective structured clinical examination through the utilization of digitally recorded standardized patient cases observed by chronic care patients. Research for this study was conducted at a single school of medicine. Since the research methods approach used should follow from the questions being asked, it is critical the case study design be addressed more closely in order to establish it as an appropriate design for this line of research.

Qualitative research uses an emerging approach to inquiry, collects data in a natural setting, and analyzes data inductively, which results in the establishment of patterns or themes (Creswell, 2007). One qualitative approach to research is the case study in which a bounded system (a case) is explored at one point in time with the use of multiple sources such as interviews and document analysis, and results in a case description that utilizes case-based themes (Creswell, 2007). Miles and Huberman (1994) define a case as “a phenomenon of some sort occurring in a bounded context” (p. 25). For the purpose of this research, the bounded system is the patient-centered objective structured clinical examination utilized by one school of medicine and critiqued by six focus groups and two individual interviews comprised of patients with chronic illness. These six focus groups and two individual interviews each viewed two digitally recorded simulated scenarios and provided feedback as to the presence or absence of patient-centered care characteristics. See Table 1 for distribution of digitally recorded simulated encounters.

Case study does not take ownership of any particular method of data collection or analysis. Rather, any and all methods of data collection can be used in a case study, with one of the most common being an interview process (Merriam, 1999). Further definitions of case study rest with three unique qualifying features. The first is that a case study can be described as particularistic in that it focuses on a particular situation, event, program or phenomenon. “This specificity of focus makes it an especially good design for practice problems – for questions, situations, or puzzling occurrences arising from everyday practice” (Merriam, 1999, p. 29). Secondly, case studies generally are descriptive in that at the end of the study one will find a thick description of the phenomenon under study.

Thick description means “the complete, literal description of the incident or entity being investigated” (p. 30). In this way, a case study presents documentation from a variety of sources such as events, situations, quotes and samples. A case study can illustrate the complexities of a situation and shed light on the various factors that contribute to those complexities. As part of their descriptive nature, case studies also present information that highlights differing opinions on an issue and suggests how these differences have influenced the result. The final unique feature of a case study is its heuristic qualities; they illuminate our understanding of the phenomenon under study. They shed light on the discovery of new meaning or confirm what is already known. “Previously unknown relationships and variables can be expected to emerge from case studies leading to a rethinking of the phenomenon being studied” (p. 30). One important attribute of a case study is that it represents problems to learners to be solved. “Cases are valued because they simulate authentic activity that is situated in some real-world context” (Jonassen, 2004, p. 52).

Based on the criteria above, this study fits well within the constraints of a case study. It is focused on one particular facet of the medical students’ curriculum (the PCC OSCE), and it is designed to result in a thick description based on information from multiple sources, the combination of which more accurately describes the phenomenon with a thoroughness not provided by one individual source. Additionally, the intent of this research is to extract information from the patients that will both explore whether the PCC OSCE is addressing the critical elements of patient-centered care through the use of standardized patient cases, and illuminate those aspects that may not be as clearly defined which will result in modifications to the existing case and its evaluation.

Determining when to use a case study as opposed to other research designs depends upon what the researcher wants to know. Yin (1994) suggests “for ‘how’ and ‘why’ questions case study has a distinct advantage” (p. 9). Case study is particularly suited for this research as it focuses on a process for assessing the achievement of a particular medical student competency. The study also explores how well the process employed to monitor the implementation of the PCC OSCE is being accomplished, based upon the feedback of a specific patient population. A strength of utilizing a case study approach is the phenomenon under investigation is anchored in real-life situations. Case study is a natural fit for this research in that the very nature of the cases developed for the PCC OSCE is based on standardized patient cases, utilizing an authentic learning environment, and is intended to advance the knowledge base in this area of study by informing others as to the critical elements necessary for patient-centered care to be fully utilized.

## Methods

In this section, I discuss the process utilized for case selection as well as characteristics of the participants for this research. I include data quality and analysis, and conclude with information on myself as the researcher as it pertains to this research.

### *Case Selection*

In spring 2010, 96 third-year medical students participated in five case scenarios, each consisting of a standardized patient clinical office visit. Each standardized patient encounter was digitally recorded and those recorded sessions were used for this research study. Using case study methods, two single respondent interviews and 6 focus group

interviews were conducted, transcribed, and analyzed using a conventional qualitative content analysis process introduced by Miles and Huberman (1994).

### *Participants*

According to Seidman (1998), “randomness is a statistical concept that depends on a very large number of participants” (p. 44). True randomness would be prohibitive in an in-depth interview study. Furthermore, interview participants must consent to be interviewed, so an element of self-selection is always present in an interview study. Criteria for inclusion negated the possibility of random selection. To be a participant in a focus group for this research, the patients must have been routinely visiting a physician for their chronic illness with three or more visits in a year. No patients were younger than the age of 30.

Participants were solicited via written or verbal request of University of Missouri (MU) School of Medicine faculty and staff. Three family medicine physicians, one internal medicine physician, two specialty physicians, and one coordinator for the Heyssel Senior Teacher Educator Partnership (STEP) program assisted with the recruitment of participants. Purposeful selection was utilized by the recruiting physicians due to the constraints of the patient criteria that had to be upheld. Initial participant contact was made by each faculty/staff member. The patients’ names and contact information of each was then shared and I randomly selected from each list in an effort to provide a barrier of protection for the patient. In this way, those who assisted with the recruitment of the participants were not aware of the final selections. I then contacted those selected individuals with an email to introduce myself and the research. I sent a subsequent email to those individuals who responded in the affirmative as to their

willingness to proceed. A meeting date, time and location were identified. The number of participants at each interview was determined by availability of the participants and did not exceed 8 people as the case study literature suggests (Krueger & Casey, 2009). Total number of participants was 25 selected from a possibility of 37 total patients.

Five exemplary patient-centered care encounters were selected for this research – one digitally recorded encounter to represent each of the five case scenarios utilized in the training of the third year medical students in spring 2010. The determination of exemplary status was made by the faculty members that reviewed and commented on each video. Upon review of each digitally recorded case, the faculty members were asked to comment if each instance was an exemplary encounter. Those graded as such were acceptable for use in this research. A brief description of each case scenario is provided in Appendix B. Permission for use of each recorded encounter was obtained through the manager of the Russell D. and Mary B. Sheldon Clinical Simulation Center at the University of Missouri. Written consent was also obtained from each student represented in each exemplary case utilized for this research. The five cases were randomly distributed between the 8 individual/focus group sessions in order to maximize potential feedback. Each video was presented in the same order for each respondent group. In other words, for those groups viewing Andy, each respondent group viewed Andy I prior to Andy II. Similarly, those viewing the cases of Emily and Janie viewed Emily's case first proceeded by Janie, and so forth. The composition of each respondent group was strictly based on the availability of each participant. Table 1 summarizes the distribution of each encounter by individual interview/focus group.

Table 1

*Distribution of Each Simulation Case by Individual Interview/Focus Group*

Respondent Groups	Simulation Case #1	Simulation Case #2
1 (Individual)*	Andy 1	Andy 2
2 (n=3)	Emily	Matt
3 (n=2)	Emily	Janie
4 (n=5)	Andy 1	Andy 2
5 (n=5)	Janie	Matt
6 (n=6)	Emily	Janie
7 (Individual)*	Andy 1	Andy 2
8 (n=2)	Andy 1	Andy 2

*\*Individual - indicates the interview was conducted with one person viewing the digitally recorded simulated cases as opposed to focus groups consisting of 2-6 participants.*

*Data Collection*

Each interview/focus group began with a brief introduction of the research and completion of the consent form. The respondent(s) then completed an Information Sheet wherein they were asked to share demographic information about themselves and their initial descriptions of patient-centered care. See Appendix C for sample Respondent Information Sheet.

The first digitally recorded encounter was viewed. The intent of the review of the recorded simulated scenarios was to provide the focus groups with a visual framework of patient-centered care “in action” and not based on the performance of each individual student. Therefore, the participants were asked to focus on the elements of the simulated scenario they believed epitomized patient-centered care and not on the actual medical student performance.

After reviewing the first digitally recorded simulation, a debriefing was conducted with the respondent(s). The audio of this debriefing was documented via a digital recorder. Field notes were taken at the time of each interview for later reflection. Once



the respondent(s) had exhausted all comments about the first simulation encounter, a second 15-minute encounter was viewed, followed by the same debriefing process.

#### *Data Sources*

Focus groups are “group interviews that are structured to foster talk among the participants about particular issues” (Bogdan & Biklen, 2007, p. 109). The idea is that group participants can stimulate each other to articulate their views or even to realize what their own views are. Focus groups differ from other group interactions in that the primary goal is not to reach some conclusion at the end of a discussion, reach a consensus or provide recommendations. Rather, the data are solicited through open-ended questions with the intention of collecting a range of opinions from people across several groups (Krueger & Casey, 2009).

Two single respondent interviews and 6 focus group interviews were conducted, transcribed, and analyzed for this research. The composition of these groups was strictly based on the availability of each patient; thus, the single interviews were conducted based on the patients’ schedules. At the onset of each focus group encounter, the patient participants were asked to define patient-centered care in their own words and write their definition on the Respondent Information Sheet (Appendix C) provided. These definitions were collected by the researcher for later comparison. They were then asked to view the first digitally recorded simulation case. Through an inductive process, the patients were asked to indicate the patient-centered characteristics they believed to be present. Additionally, the patients were asked to provide a global rating for this encounter (satisfactory or unsatisfactory) indicating whether or not patient-centered care was addressed for that particular case. The focus group then participated in a think aloud

process in which specific features of the standardized patient session were discussed using a semi-structured interview protocol. An identical process was then repeated for the second digitally recorded simulation case. Second viewings of each video and a return to specific segments of the videos were performed at the request of the participants.

The ratings provided by the two single respondent interviews and 6 focus group interviews and the descriptions they provided of patient-centered care were later compared to the existing descriptors established by the Stemmler project. This comparison was done as a means of addressing the second research question for this study: How do the data obtained in the research compare with the descriptors obtained through the Stemmler research? In the analysis phase of this research, specific attention was given to the descriptors outlined in Appendix B in assessing any commonalities between the existing descriptors and the comments made by the participant focus group and individual interviews.

Each focus group and single respondent interview was held for a maximum of 2 hours. Interviews were digitally recorded (audio only) for transcription and analysis. Two digital recorders were used (one served as back-up) and interviews were transcribed by a professional transcriptionist unfamiliar with the institute involved in this research. An assistant was also present at each focus group and served as a note taker and coordinator of interview logistics such as handling of the recording device. I listened to all interviews while simultaneously reviewing the transcribed data for accuracy prior to analysis of the data.

## Data Analysis

Data analysis is “a process of making sense out of data” (Merriam, 1999, p. 192); “the process of systematically searching and arranging the interview transcripts, field notes and other materials that you accumulate to enable you to come up with findings” (Bogdan & Biklen, 2007, p.159). This section is designed to provide insight as to the approach this researcher has taken in analyzing the data collected.

In qualitative research, data analysis consists of organizing the data, then reducing it into themes through a process of coding and condensing the codes, and finally representing the data in an organized way for discussion (Creswell, 2007). Analysis of the focus group interviews began immediately upon completion of each interview. The researcher’s initial interpretation of the interviews were recorded in combination with field notes that recorded personal reactions, content and questions that arose during the focus group discussion. Interviews were then transcribed and coded for emerging themes as described below.

### *Coding Process*

After the initial collection of the data from the focus group interviews, the researcher began working her way through the transcripts utilizing a conventional qualitative content analysis process introduced by Miles and Huberman (1994) that began with a general overall review of the field notes combined with note taking in the margins of those notes. All transcripts were arranged chronologically according to the date the data were collected. The researcher then read through the transcripts in their entirety twice without taking notes. Upon the third reading, a preliminary list of possible coding

categories were written in a codebook, as well as a list of emerging ideas and diagrams that sketched out possible relationships between data (Miles & Huberman, 1994).

After generating preliminary coding categories, specific units of data (transcripts and field notes) were analyzed and assigned a code. This served as an attempt to discover the usefulness of the original categories created. The coding categories were then modified, new categories were developed, and others discarded. Sub-codes were then developed based on the emerging themes of the data. The sub-codes provided further insight as to how each category related to the others. Critical attention was given to particular quotes from patients that became prominent throughout the data analysis process. A second coder was also enlisted for the coding process. The details of that arrangement are listed below.

#### Researcher Positionality

A researcher's background is critical to the qualitative research process and should be openly shared with the audience to ensure full disclosure in the research process. Glesne and Pushkin (1992) question research that examines "your own backyard – within your own institution or agency, or among friends or colleagues" (p. 21). Furthermore, Glesne and Pushkin suggest that such information is "dangerous knowledge that is political and risky for an 'inside' investigator" (p. 21). While I am employed by the same academic medical center, I am involved with a completely different spectrum of the educational system in continuing medical education.

I am currently the Program Director for Continuing Medical Education and a Ph.D. student in Higher and Continuing Education. My background is in finance and business law, with graduate work in public administration. In many ways, I have the

ability to provide a fresh perspective to this line of research in that I am not currently working with and do not have a background in assisting with medical students and their curriculum. This research has afforded me an opportunity to become immersed into a field of research I have been interested in for years, but the opportunity for involvement has never been present.

### Data Quality

Standards for assessing the quality of qualitative research vary greatly. When referencing the trustworthiness of a study, Lincoln and Guba (1985) used alternative terms such as credibility, transferability, dependability and confirmability. Lincoln and Guba also proposed techniques such as “prolonged engagement in the field and the triangulation of data sources, methods and investigators to establish credibility” (p. 300). Richardson (1994) described validation as an image of a crystal that is ever growing, changing and being altered. “Crystals are prisms that reflect externalities and refract within themselves, creating different colors, patterns, and arrays casting off in different directions. What we see depends on our angle of response” (p. 963). Creswell (2007) contests that validation in qualitative research is “an attempt to assess the accuracy of the findings as best described by the researcher and the participants” (p. 207). In essence, validation then becomes a process rather than a verification wherein most researchers agree the use of validation strategies are integral to the integrity of the process regardless of the type of qualitative approach that is implemented (Creswell, 2007).

The following provisions for trustworthiness have been built into this research design:

1. Triangulation: Multiple methods of data collection were utilized including document analysis and focus group interviews. The use of multiple methods of data collection provides corroborating evidence from which themes and perspectives emerge (Creswell, 2007).
2. Peer Review or Second Coder: A Ph.D. colleague with 9 years of experience working with medical students in rural medical practice served as a peer reviewer and second coder. The researcher and second coder met in person to discuss the purpose and intent of this research. Once the transcribed data was received, the researcher and the second coder read through the first transcript independently. The two then met and examined the overarching, contextual codes assigned to the material, as well as the particular narrative codes that emerged from the transcripts. A preliminary qualitative codebook of the major codes was developed that contained a definition of each code and samples of the text assigned to each code. This codebook provided a master list of terminology to assist and simplify the remaining transcripts to be coded. Subsequent meetings were held as two more transcripts were independently coded by each and compared. The second coder was responsible for coding 25% of all transcripts. All discrepancies were discussed in detail. When discrepancies arose, the transcripts in question were coded again by both independently until resolution was made and both coders were in 100% agreement.
3. Field Notes: These were used by the researcher as a means of enhancing reliability in capturing the comments of each member of the focus group (Creswell, 2007). Each interview session with the participants was digitally

recorded (audio only) and transcribed. Twenty-five percent of the transcripts were coded by two individuals independently to analyze transcript data. A more thorough description of the coding process is documented above.

4. Audit Trail: Each specific quote shared in the findings of this research can be traced back to the original quotations based on the codes I provided. The source of each quote has been included at the end of each statement.

### Conclusion

Given the information above, it is important to also reflect on the qualitative process as one of emergent design. Creswell (2007) shares “the key idea behind qualitative research is to learn about the problem or issue from participants and to address the research to obtain that information” (p. 39). In the following chapters, I will discuss the general findings of this research, provide comparisons between the patient focus groups with those descriptors formulated in the Stemmler project, and will highlight any outliers that do not conform to these descriptors. I conclude with areas of further research.

## CHAPTER FOUR

### FINDINGS

#### Introduction

This qualitative study serves to provide additional insight into the various components that serve to inform the patient-centered model in health care from the perspective of the patient. I sought to answer the following two questions:

- 1) Given the stated focus of each Patient-Centered Care Objective Structured Clinical Examination (PCC OSCE), how do the students interact with patients and their families in a patient-centered way as defined by patients with chronic illness?
- 2) How do the data obtained in the research compare with the descriptors obtained through the Stemmler research?

This chapter begins with a brief description of the participants of this research, followed by detailed findings that evolved from the interviews. The findings are shared according to each simulated case scenario.

#### *Participants*

To gain a better understanding of the patient-centered care perspective and to address the research questions for this study, a total of 25 participants were interviewed from an original list of 37 possible candidates. The criteria for inclusion were twofold: the participants must have been routinely visiting a physician for their chronic illness with three or more visits in a year; and the participants had to be a minimum of 30 years old. The participants ranged from 30-85 years of age, and were comprised of 18 females and 7 males. The frequency of the participants' visits was most commonly three to four



times a year (on average), with the majority of those visits taking place in a doctor's office as opposed to a hospital or emergency room.

### *Initial Descriptions of Patient-Centered Care*

In an effort to collect the participants' thoughts about patient-centered care without the influence of the simulation cases, each participant was asked to provide a general description about patient-centered care as it related to his/her personal experience. A summary of the descriptions is shared in Table 2 below.

Table 2

### *Definitions of Patient-Centered Care as Shared by Participants Prior to Viewing Simulation Cases/Encounters*

- 
- A provider that listens to my concerns; allows time to address my questions and concerns and explains things to me in a way I can understand and relate
  - There is a focus on the patient - their pain/symptoms, what they want for treatment or given many options; care about patient not just fixing the problem and send out for next patient to get in/out
  - Making sure the patient is comfortable and their questions are answered
  - Patient-centered care is non-judgmental care delivered in a caring, compassionate manner where the physician actively listens to the patient's concerns, then applies the best and appropriate care available
  - Positive attitude; listens carefully to needs before prematurely making a diagnosis; attentive to patient; not rushed; respectful; educates patient when necessary; reviews next steps
  - Focus on the person not just their problem or "systems"; personal interaction
  - Sadly...jargon; but less cynically, medical care by people (doctors, nurses, techs, et. al.) who are sincerely interested in their patients as human beings, not just cases or diseases
  - Service - professional - quality - caring - thorough - friendliness - communication
  - Each patient's care is different and therapy is individualized
  - Personalized rather than statistical or general population
  - Treating the patient holistically rather than his/her illness
  - Care that has been given after discussion with the patient
  - The patient comes first
  - Concerned about me as an individual
  - Care that allows the patient to participate in the decision making
  - A sharing of information wherein the patient's needs are at the center
  - Medical staff that are there for me

- A caring physician who will answer questions from the patient
- Care givers involving themselves with the patient to deliver high quality care and develop a relationship
- Every patient treated as an individual and requires an individualized treatment plan that covers the needs of that particular patient
- Connecting with the patient and not being in a hurry; not making the patient feel rushed
- A holistic approach – not just treating the illness
- Doesn't overuse medical jargon
- Maintains good eye contact
- Honesty
- Compassion

These descriptions are shared here as initial findings and will be addressed again in Chapter 5 when I reflect on how well these descriptions and those shared during the focus group sessions compare with the descriptors obtained through the Stemmler research.

#### Respondent Feedback by Case

##### *Andy I – Type 1 Diabetes*

The case of Andy was designed to be a scenario of a 15-year old adolescent admitted to the hospital for extreme fatigue and dehydration. The student physician was charged with answering the patient and family member's questions and explaining the diagnosis of Type 1 diabetes. Additionally, the physician was to be compassionate and understanding of the sensitivity of this diagnosis for an adolescent patient and a family member who do not have a great deal of knowledge about Type 1 diabetes. The specific case descriptors are listed in Appendix B.

Several themes emerged from the review and discussion of Andy. The first emphasized the importance of clear and effective communication between a patient and a physician. When espousing a patient-centered model of care, communication was the most referenced element as being critical to the success of the physician/patient relationship. Secondary to this is the implementation of clear communication between the

physician and family members of the patient. Another theme that materialized addressed the nonverbal forms of communication that can be viewed as even more influential than the words a physician speaks. A third element that resounded with the focus groups was the importance of health literacy and monitoring the overuse of medical jargon. Finally, the psycho/social considerations and team approach to a patient's care are discussed in light of this case. All of these themes are addressed below in more detail.

*Communication - Patient/Physician and Family/Physician Relationship.*

Communication between a patient and a physician was the most common element referenced in Andy's encounter. The majority of participants noted a successful patient/physician relationship relies heavily upon effective communication. As noted by many of the interviewees, integral to the success of the encounter is the ability to foster a two-way line of communication in which the patient expresses concern about his/her illness or disease, and the physician shares his/her knowledge about how best to address the concerns. Most succinctly stated by one respondent, "I believe in order to be treating patients in a patient-centered way, the physician should listen as much as he talks, if not twice as much. He really needs to get to know that patient on a personal level and empathize with their situation." (A.08.122) Others concurred and one stated more explicitly,

When I see good patient-centered care, it begins with the care giver knowing something about that patient or that family member; noticing the little things...they make a connection and you want them to know that was appreciated. With Andy, the doctor [student physician] should have made a connection by finding something he liked to discuss like sports or other things pertinent to Andy's personal life that would open up the dialogue beyond just the diagnosis of diabetes. That's patient-centered care to me. I mean, you go to doctors that you like and you like them on a personal level and then the health care stuff sort of comes after that. It's all about the connections you feel with the health care providers.

You're not just another patient with diabetes, in this case; it's more about you as an individual. (A.07.351-360)

Several other respondents would like to have seen the physician ask more personal questions about the patient; get to know him a little more personally. Members of one focus group questioned whether or not the physician introduced herself when she came in the room. Upon second review, they noted she did introduce herself as the doctor; however, as one respondent noted,

Yes, she [the student physician] did introduce herself, but you know what, you didn't see it and that's the problem. I mean it was just a real quick thing and it was kind of blown off... 'hi, I'm doctor so-and-so'... I think you have to get to the patient's level and she really didn't spend much time getting to know him throughout this visit. Unfortunately, you can't do it in a very short period of time and especially a teenager... because his level is going to be hard to find to begin with... so she's gotta start with 'hi, how are you... how was your date last night'... that type of thing, she's just got to get to his level and then really hone in on what he's really there for. (K.01.173-178)

Another respondent concurred with the previous statement and suggested the physician could have begun the conversation with, "I'm interested in you... I'm doctor so-and-so and even though you've never seen me before I'm interested in you and your mother as people." (K.01.188-189) Additionally, others suggested making the interview more conversational would allow the patient to open up. "If she would have been a little softer in her approach and did what we're talking about then it would have been a whole different conversation all the way through." (K.01.211-213) Similarly, another proposed an opening statement of "do you have questions about... and then kind of give him a little list because he is really going to have difficulty coming up with his own questions... you really don't know what to ask when you first receive this type of news." (K.01.262-264) Still another recommended Andy's physician should begin with,

You're not going to understand a lot of what I'm saying right now... I

anticipate you're going to have a bunch of questions later but you're not going to be able to come up with those right now and I'm going to be back and I'm going to give you plenty of time to think about those questions and ask them and we'll go over all this until you feel comfortable with it. (A.07.103-111)

In the instance of Andy, an additional facet of communication was introduced with the presence of an inquisitive family member in the exam room. Family dynamics provide a compounding factor secondary to the doctor/patient relationship, and can make a clinical encounter more difficult to navigate. As one respondent noted,

There is a fine line when it comes to dealing with a diagnosis when addressing the patient one-on-one versus the scenario just presented in which a family member is also present. I think maybe the doctor kind of assumed that the mother knew more than she did because she had some experience with her brother's diagnosis of diabetes which made the interaction between the physician and the patient seem more disjointed and perhaps confusing to the patient. The physician interacted more with the mother instead of addressing the patient directly. (K.01-199-205)

Similarly, another respondent indicated, "She was talking more to the mother, like the mother had the disease instead of the actual patient, she wasn't letting him interact and comprehend exactly what he was going to be going through, she was talking more to the mom." (K.01.51-53) Further, "when she basically was breaking the news she was breaking the news to the mother, which I thought was kind of odd particularly given his age. It wasn't like he was five." (A.01.231-233) Another respondent, a retired physician, commented this activity appeared to be a more "mother-centered" versus patient-centered scenario without much interaction with the patient. Stated more poignantly,

She didn't really engage him at all. He's set to fail; he's going to be non-compliant from the very beginning because he's not going to be able to comprehend all of the, you know...the dietician and the diabetic teacher that's going to come in and show him how to do the insulin. When you're diagnosed with diabetes there's a lot to comprehend and learn. She covered an awful lot of ground in a short amount of time. (K.01.67-71)

Clearly, the sentiment of the interviewees was the importance of clear communication with the patients in making sure their questions are answered. Addressing family members was thought to be secondary only to the direct needs and concerns of the patient. As one participant stated, “patient-centered communication requires direct questions and responses to and from the patient first, with points of clarification made with the family as appropriate.” (A.07.204-205)

Positive reinforcement was also noted by the respondents as critical to the success of a case like Andy wherein the doctor assures the patient that they can be successful in achieving good health. “She [the student physician] also kept reassuring the patient that life could go on. Life will still be normal, just a little different, so I think she did a good job of that because this is a huge change for him [the patient] and his family.” (A.01.91-94) Several respondents expressed their appreciation for the statements that gave the patient hope for his well-being.

I think she [the student physician] did a good job of saying, you know, this isn't your fault, this is a genetic thing. You eating sugar, a lot of sugar in the past had nothing to do with why you got this disease. She really made that very clear which was good because that's the first thing you think of when you are diagnosed with something is... what did I do wrong to get this. (A.01.114-118)

Additional comments regarding hope were shared such as, “A lot of doctors are just real clinical in nature, she showed that she expected there to be an emotional response to this, which was good. She was not judgmental.” (A.01.127-129)

The importance of positive reinforcement was also noted with regard to the student physician's approach in encouraging compliance with dietary measures. One respondent suggested and others agreed the student physician sounded much too authoritative when she stated, “you're going to have to learn how to eat better.”

(A.01.240) A more appropriate approach might be to phrase her suggestion as follows “in order to manage this disease...eating is a big part of it, so how well you eat and what you eat will make a big difference in how your body responds.” (A.01.243-244) The participants agreed this approach would likely result in better patient compliance.

*Nonverbal communication.* Nonverbal cues and gestures were also noted by the respondents and when done appropriately were interpreted as an indication the physician was more nurturing and concerned. As one respondent stated, “I thought this physician was really good at showing the body language of being open and not rushed and having time to sit and really talk to the patient and answer any questions that he [the patient] had.” (A.01.294-296) Yet another expressed the importance of the student physician asking the patient if sitting down beside him [the patient] on the bed was okay. Put most succinctly,

To me, when everybody is sitting down or lying down and then you’ve got one person standing up then you’ve got...sort of a hierarchy. She [the student physician] should have said, do you mind if I sit down and then do everything in a conversational mode, that’s the way I would have like to be treated. (K.01.251-252)

Other messages are conveyed in a more subtle way with nonverbal cues and body language. Noted by one respondent,

She [the student physician] touched the patient and sat on the bed next to the patient... so having that emotional connection, not standoffish or aloof or anything....at many points of time, she [the student physician] asked if they had any questions so she gave a sense that she was not rushed at all, that she was going to sit there and answer anything that needed to be answered. (A.07.83-85)

Another respondent noted, “When she [the student physician] first came in, her eye contact was mostly towards the mother, and then later when she got going she...talked more to the patient.” (A.01.231-235)

*Health literacy.* A third theme that emerged was health literacy as it pertains to communication between patients and physicians. Health literacy as defined by the Institute of Medicine, Committee on Health Literacy is "The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (Nielsen-Bohlman, Panzer, & Kindig, 2004, p. 114). Many respondents expressed concern regarding the ability of patients to understand what the physician is telling them in order to increase the likelihood that patient will comply with the physician recommendations. As one respondent stated, "Providing patient-centered care involves the physician sharing information with a patient. If the patient cannot comprehend the message being conveyed by the doctor, the patient is not going to be successful." (K.02.286-288)

With the case of Andy, one respondent noted, "She did a really good job of explaining things in a way that he could understand... again, saying the big word and then putting it in layperson's terms and then she even used visuals." (A.01.294-298) A second respondent followed up with an additional suggestion of using handout materials to help explain the diagnosis.

It would have been nice to have some handout materials... here's what we're talking about, here's what you can look at, come back, write your questions down so the next time I [the student physician] come I can address those questions that you couldn't think of unprompted. Even better would be an opportunity to address concerns with another patient with the same disease. For example, a stellar adolescent patient that would visit with Andy and share some of his or her experiences in living with diabetes would be very helpful.  
(A.07.137-140)

Another stated, "relating the situation to real life things that they could understand and saying the big word, but then defining it in a way that they could relate to is important. I



think you have to get to the patient's level.” (A.01.294-298) One respondent expressed concern regarding the delicate balance when addressing a patient's level of familiarity with medical terminology.

I've seen it on both sides where either they assume you know nothing and it is very, very basic and that's a little bit insulting or they assume you know too much and they just kind of keep on going with it. I would have liked to have seen her be a little more engaging in her approach to the health literacy aspect of this patient and family member. Following up with affirmation questions like, 'did you understand what I just explained', or perhaps having him repeat back what she just told him. (A.07.90-95)

*Psycho/social considerations.* Several respondents were particularly attuned with Andy's emotional state with regard to his communication with the physician. One respondent particularly noted,

It looked like the patient, in this particular scenario was very apprehensive and sad and upset about everything. I think it would have been good also for the physician to do a little bit more about what is causing you all of this fear. Does he have other things going on at home that are going to complicate this diagnosis? Do you need to make contact with more of a social worker or psychologist or somebody else? Because that fear level looked really high to me, so it really worries me for him. Is this family member going to be with him all the time? What else is going on with this patient that is making him so anxious about this diagnosis? (A.07.169-175)

Similarly, others commented in order for this scenario to represent a patient-centered care environment, they would like to have seen the physician assess the relationship of the patient and family member more thoroughly.

I know when I've had family members in the hospital sometimes they just either assume that you [the family member] are going to be there all the time helping with that patient or you might be the one that is there all the time and they don't really acknowledge there might be another scenario in which the patient does not have anyone to stay with them. (A.07.76-80)

Additional comments suggested the physician could have gathered this information with a few questions such as, “Is this someone who is going to be there with you all the time or is this someone who just happens to be there visiting with you in the hospital?” (A.07.81-87)

*Team approach to patient care.* Various respondents addressed a need for other members of the healthcare team to be brought into this visit. For example, one noted that a nurse educator should be a part of this simulated activity. As one retired physician stated, “My nurse was a whole lot better with the routine educational stuff than I was...I wasn’t interested in that kind of stuff, seriously, but I knew she was better at it and she did it and did it well.” (A.06.691-692) Similarly,

I would have liked to have seen other members of the care delivery team in there with the physician because then that way the nurses, the dietician...maybe not a whole bunch of people on this first interaction, but there should have been more of a handing off mechanism. At one point she said there would be a dietician that would come talk to the patient but she didn’t really go into much detail about that. It would have been nice to have said the dietician’s name, tell a little bit about where the dietician’s knowledge level is, what she’s going to do with the patient... because I think that might alleviate some of the fears that went along with it also. (A.07.103-111)

Another respondent stressed the importance of discussing a team approach with a patient who has received a diagnosis such as diabetes. Letting the patient know “I’m here as the physician leading this, but these are all the people that are involved with your care...physicians should discuss what has happened since you’ve been here, and this is what’s going to happen before you can go home, so we’re going to try to address all of those things.” (A.07.46-60) Further,

A team approach to care is comforting because then you feel like you have this whole network of support versus just one particular doctor. It’s like a safety net to where you know that if something

bad comes up you have multiple people you can call and they are all familiar with your case. It's not an 'us' and 'them' approach. It's all of us working together and in my humble opinion that is where patient-centered care begins. It's not you and you alone. (A.03.473-474)

*Summary.* The respondents viewing the case of Andy primarily focused on the importance of communication and how vital efficient and effective communication is to the patient/physician encounter. The majority of the comments regarding this case focused on the various facets that encompass successful communication, but also branched into specific forms of communication such as nonverbal nuances and detailed how those cues can resonate with patients sometimes even more than the spoken word. Additionally, the concept of approaching health care from a team perspective was imperative to the successful journey of this patient. The majority of the respondents agreed that patient-centered care cannot revolve around the patient's doctor. Rather, today's environment rests upon the input of all health care professionals especially with a chronic illness such as diabetes that was presented in the case of Andy.

#### *Andy II – Type 1 Diabetes – Clinic Follow-Up*

This scenario was a continuation of Andy I in that it was designed to be a follow-up appointment in the clinic environment. Several of the comments regarding communication that were shared from Andy I were repeated for this scenario regarding the importance of communication specifically regarding medical jargon and the importance of speaking in lay terms. Additionally, there were comparisons made between the two scenarios and the overall majority suggested the physician in the Andy II simulated encounter utilized better communication skills with the patient.

Everybody was at ease when she walked in the door, including the doctor [student physician] and I thought she was more relaxed and

secure since she already knew him, went and shook hands and that was it and that was pretty proper and then she went right to him and then she started asking him questions and it looked like, to me, you know, they were in sync at what he was expected to do and what she expected from him. She asked questions that made him answer, not the mother or, she was directing everything towards the patient, which she should have been doing in the first case we just viewed. (K.02.47-50)

Another respondent agreed this seemed to be more like a “partnership” wherein, “the patient had left the hospital and has now returned with what he had learned, and now he could talk on a different level with her; the questions would be much more of a sharing.” (A.07.46-47) Similarly, “now Andy’s open and before he was not...her job would be much easier at this point. I loved the idea of the physician talking directly to the patient.” (K.02.110-111) Additionally, there was an overall sense that the physician was very supportive and even made suggestions on ways to modify Andy’s care plan. For example, “I did like the fact that she [the physician] gave him other ways to monitor. If he [Andy] doesn’t know what time he’s doing his blood sugars, add that to the log – modify the log - and it was good for him to write down when he was sick.” (A.07.318-321)

*Psychological and social considerations.* There were unique qualities expressed by the respondents that viewed Andy II. One aspect unique to Andy II was the introduction of a psycho/social aspect of Andy’s diagnosis of diabetes. Two respondents commented on how the physician addressed concerns about testing his blood sugar while in a social setting. “She addressed the social awkwardness that he’s probably dealing with at school and having to check his blood sugars and to possibly do insulin while he’s in school...which is probably one of the hardest things about having diabetes as a teenager, is dealing with that.” (A.01.423-425) Another stated,

She [the student physician] didn’t make him feel guilty...he said he was still eating out of the vending machines twice a day and she kind of said,

‘well, that’s not the best thing’ and the mom popped in and said, ‘well, I thought he was doing a good job’ and she’s like, oh no, he is doing a good job...she summarized all the positive things he’s been doing so far and said to make small changes over time, ‘you don’t need to do everything at once, you’re already doing a great job’. Also, when she asked him about what the dietician said and he’s like, um...and she was like, ‘oh it’s ok, it didn’t stick did it’? She just moved on, just kind of laughed about it and said we’ll set up another appointment. Obviously there’s a lot thrown at him at once, so again...didn’t make him feel guilty...did a good job of summarizing all the things he was doing right...I think overall she made him feel good for all the positive changes he’s making already. (K.02.92-97)

When asked what gaps they noted with regard to patient-centered care in this simulated scenario regarding Andy’s follow-up care, multiple participants commented on the need for written educational materials for the patient particularly when physicians are explaining complicated illnesses. One respondent noted how access to medical advice is so rampant with access to the internet and how the physician should have addressed reliable sites Andy could visit to answer many of his remaining questions or those he has not even thought of yet. He stated,

That’s what people do nowadays. They go home and they look stuff up and you kind of want to have some handouts or materials that they can look at or tell them websites to go to. Everybody uses the Internet now, so she could have said ‘if you really want to read more about diabetes, here’s some things you can read or here’s some places you can go’. She did allude to giving him some literature about written materials, what to do when he was sick, so that was good. It would have been nice to have them there, bring it in with her, whatever written materials they’re going to give him. It’s always hard when they hand you something when you’re going out the door...you haven’t had time to look at it or ask any questions about it. (A.07.217-226)

One respondent cautioned and suggested consideration be given to the needs of the patient and meeting those needs with appropriate materials. “You don’t know if that person’s going to be able to handle those materials. Which way would they like to get them – printed or electronic? What’s the patient’s level of education or reading abilities? Things like that.” (A.07.228-231)

Another respondent was concerned the physician did not address the patient's support system at home and believed that aspect would be critical to the essence of patient-centered care. Additionally, the respondent was concerned the lack of attention to this facet might lead to a less compliant patient. She noted,

Sounds like maybe he'd been talking to his friends, not so much with a parent or a caregiver or whoever was around there and he was still kind of nervous about this diagnosis. Like when he said 'am I going to die from it'? I think there still was a lot there that the physician could address with the patient's emotional status. (A.07.231-237)

Other social considerations were perceived by the respondents when the patient mentioned he liked to play basketball. Several respondents suggested the physician should inquire further to make sure the patient has someone within his social circles that knows of his diagnosis. This would instill a sense of security for Andy in the event he should have a negative reaction to his insulin, or if his blood sugars were too low on any given day. By notifying close friends and family, he would most likely have someone that would know how best to respond to that negative experience. Further, making him aware of the bracelet that can be worn indicating he is a diabetic would be beneficial to his well-being. It was also noted by two respondents that Andy had asked what he should have on hand (i.e., snacks and insulin) when he is out with his friends. They didn't feel like the physician adequately addressed that critical question. "I thought the [student] physician left the question about what he [Andy] needs to bring with him when he's out and about...snacks or his insulin and the [student] physician didn't quite completely answer that. You definitely want to have those resources available to you." (A.07.257-263)

Additional comments from the respondents suggested more guidance from the student

physician as to the best approach for day-to-day living would have been critical to a patient-centered environment. For example,

Offering classes for diabetics, especially newly diagnosed diabetics, is critical and those resources should have been offered to him. The classes would most likely have suggestions for how he can make the best nutrition choices given his lifestyle. Options he should choose in the cafeteria for example given that he is a high school student. (A.08.195-197)

Some respondents expressed difficulty and concern with the student physician asking Andy if he had any questions in a generic manner. “There’s ways to solicit that information without asking ‘do you have any questions’...because that seems to be too big...for everybody...all of a sudden you can’t think of anything.” (K.02.216-218)

Another affirmed “I agree. 90% of the time they walk into your hospital room and they’ll say, ‘how are you doing today’? Of course I’m not well or I wouldn’t be here!”

(K.02.305-311) One respondent indicated,

Actually it’s conversational, instead of making it sound like you’re expecting a question...so if you’re in a conversation and you just elicit information, if you just think about listening to everything that person is saying and then anticipating those questions that are coming out of that conversation...I think you have to be a good imparter of information, but you still have to be able to listen and remember what that person is saying and when that person says it, that’s when you ask the question that you need to ask at that time. So instead of waiting until the very end and saying, ok, now do you have questions...pause as you go along. You try to overcome those questions or objections to anything that you’re saying during the course of the conversation. To me it’s all conversational, it’s not, ‘I know this and you don’t, so you have to ask questions so you can know’. (K.01.256-262)

Other alternatives to asking ‘do you have any questions’ were shared. For example, “I think you can use some statements like, ‘am I making myself clear about these things that we’re talking about?’ (K.02.279-280) Another suggested,

To have the medical student know that in the midst of sharing all this stuff they want to share they can keep stopping and saying, is that clear, or are

there any questions regarding that particular point I just discussed...and then go on making it clear that the patient knows you really want to know if there are any questions. Because if it's just an off-hand, 'are there any other questions' it feels like they are really saying 'please don't have any other questions. I've got to get to my next patient'! (K.02.286-289)

In summary, the majority of the focus group responses to this follow-up case with Andy fell within the parameters of communication, but more specifically the need for multiple methods for delivery of the health care message. Many respondents wanted to see more use of written materials that would provide a twofold purpose – first, to immediately educate Andy about his chronic illness; and secondly, to give Andy reference materials to re-visit in the future at the point of direct need. These materials could provide clarification as he comes to terms with his illness and establishes a routine with regard to food consumption and blood sugar levels. Finally, the respondents overwhelmingly wanted to see more discussion about Andy's support system, particularly those that were around him with the most frequency. The focus group participants wholeheartedly believed surrounding Andy with a network of support would assist with Andy's self-compliance, but perhaps more importantly would serve as a safety mechanism in the event of an adverse event with Andy's insulin and blood sugar levels.

#### *Jenny and Emily*

This simulated scenario was designed to address a 14-year old girl, Jenny, who presented with her mother, Emily. Jenny has experienced ongoing abdominal pain and difficulty sleeping. Recent visits to other health professionals resulted in no definitive diagnosis as to the origin or cause of the symptoms. The goal of this encounter was for the physician to create a relaxed environment so as to develop a rapport with Jenny and



her mother and get to the core of the medical issue. The specific case descriptors are listed in Appendix B.

Primarily two themes evolved from the discussions of Jenny and Emily in light of providing patient-centered care. The first is the relationship a physician has with a patient and how that relationship works in tandem with the rapport established with an additional family member. The second major theme was the critical importance of having a respectful demeanor with a patient, particularly one that may be apprehensive in sharing his or her specific concerns related to an ambiguous diagnosis. Several key elements that fall within the general constraints of the term respect are also shared in detail below.

*Patient/Physician and Mother/Physician Relationship.* The most universal comment received from the respondents was with regard to the relationship the student physician developed with the mother and the daughter. The respondents believed it was critical the student physician address both of their concerns appropriately, but ultimately Jenny was his primary concern, as she was the patient with the medical concern.

He [the student physician] kind of peeled away those layers of what was really the problem with Jenny. At the same time, he was trying to address questions with her [Jenny] knowing that the mother was probably going to chime in before Jenny could respond. But still, it looked like he was trying to make eye contact with Jenny and keep her in the loop. He [the student physician] kept directing his attention to her [Jenny] in a way to keep her as an active participant. (A.02.139-141)

Many of the respondents also gave credence to the student physician's ability to diplomatically ask the mother to leave the room at which point he had an opportunity to visit one-on-one with Jenny. The absence of the mother allowed the student physician to build trust with Jenny and really find out what was going on in her life that may be leading to the ambiguous complaint of abdominal pain.

He [the student physician] did a good job of explaining to the mother that maybe it would be best if she stepped out so that he could ask Jenny some questions that she [Jenny] might feel more comfortable answering without her mom in the room and obviously that was the case as she [Jenny] began to open up more about the family dynamics in the home. (A.02.139-141)

Similarly,

The [student] physician was able to tactfully get the mom to a place where she could be out of the room...I think he did it in a timely manner, he wasn't abrupt...he gave the mom time to participate in the visit but then at a point where he recognized the mom was answering all the questions, he knew it was time for her [Jenny's mother] to be excused. When kids are at this age, they like to have visits alone and he sort of made that transition where the daughter was allowed to speak for herself. (A.03.31-34)

*Respect for the Patient.* Other positive attributes of patient-centered care in this case was how the student physician presented himself from his initial entry into the room. "I like how he [the student physician] asked, 'is it okay if I come in' at the very beginning. I think, especially when you've got younger patients...giving them a little bit of power really helps that relationship and helps them open up to you. That was a really good thing... 'is it okay if I come in'." (A.02.251-254) Likewise, "I think just that subtle question of 'is it okay for me to come in' makes the patient feel respected, particularly with an adolescent. He [the student physician] gave the perception that he cared about Jenny's feelings." (A.02.255-256)

Several respondents commented on the student physician's ability to maintain good eye contact with both the mother and the daughter. This provided them [Jenny and her mother] with the perception of having the [student] physician's undivided attention, trust and respect – he was vested in them as patients and concerned about their well-being. "He [the student physician] established rapport right off by looking at her [Jenny] and not just listening to the mother and knowing that she [Jenny] had an opportunity to

...speak as well.” (A.03.80-81) Others concurred and added they also felt the student physician was truly listening to Jenny’s responses to his questions as he asked her whether she was currently in pain. The respondents appreciated the student physician giving credence to the reality that Jenny was in pain. In other words, he did not negate the fact that her pain was real even in light of known medical history that did not indicate a source or cause for such pain. As one respondent stated, “I was glad that he [the student physician] did confirm that there was a reality of pain; that it wasn’t just in her [Jenny’s] mind. I think sometimes that puts a patient on the defense mode, whenever they think that the doctor thinks that it’s all in my mind and it’s not really happening.” (A.03.213-216)

Two respondents noted the student physician’s ability to interview Jenny and her mother in a way that brought a calm presence to the encounter.

I just noticed how many times he [the student physician] would say, is that ok with you [Jenny], is that ok with you...so he was going step by step, kind of took the emotion out of it. He [the student physician] wasn’t judgmental. So whatever his tone of voice, I just thought, boy, he’s really smooth about the way he’s asking this question; that he allowed silence in between so that if they wanted to add anything else...sometimes that’s more telling than the actual first answer. Giving that amount of time so that they can process what they said and then think, ‘ok, is there anything else in addition I need to share with the physician’. His [the student physician’s] questioning skills were impeccable. (A.03.49-56)

Two of the focus groups perceived the subtle manner in which the student physician was able to extract information from Jenny about the family dynamics in the home. One specifically noted,

He [the student physician] really did a good job at checking family safety. He asked the appropriate questions once he had the patient [Jenny] alone and without being alarming. As a mandated reporter, you could tell he [the student physician] was going through a checklist of questions in his mind; however, he didn’t ask them like he was a mandated report. The questions were well thought out...asking whether

she felt safe in the home or not. There is an alcoholic father in the home and he recognized that pretty quickly. He [the student physician] needed to make sure that the situation wasn't something that he needed to look further into and he did it, I thought, in a really great way. He reassured her [Jenny] by asking 'are there other siblings there in the home and what are their ages' and 'when the father gets upset or when he's drinking and they fight, are you at risk'? The [student] physician was very thorough. (A.03.58-69)

Along this similar thread, three respondents in one focus group were concerned the student physician did not address confidentiality issues. One respondent stated,

One thing that I thought was really surprising was when the mother was invited back in and the doctor [student physician] started exposing what had been discussed with Jenny...that she [Jenny's mother] so quickly seemed to get on board with the problem and I found that to be very difficult to understand. Most mothers, it seems to me, would be much more defensive of their family – of the husband and the children. She [Jenny's mother] just kind of said, 'oh, so that's what it is' when the [student] physician shared his diagnosis as being stress from the family dynamics. (A.04.97-101)

There was a rebuttal from another respondent who thought this might be an example of the mother knowing where the medical issue stemmed from but was not secure enough to make the statement on her own. "It was almost like a defense mechanism that she [Jenny's mother] continued to take her daughter to various doctors trying to get a diagnosis. I think she [Jenny's mother] knew it all the time [that the abdominal pain was stress related] and she [Jenny's mother] was relieved that the doctor [student physician] said, 'I think this might be the problem'." (A.03.218-219) Yet another respondent thought the mother may have been too quick to agree with the doctor's diagnosis. "I think her [Jenny's mother] reaction would have been, 'well, it couldn't be that. That seems to simplistic.'" (A.03.222) However, as another focus group member stated, "This [student] physician was very astute in his interview capabilities. Sometimes one person can reveal a whole thing that's going on. It just takes one different perspective that can be

enlightening to a problem and can get you thinking in an entirely different way.”  
(A.03.225-226).

In summary, the respondents reviewing Jenny’s case extracted two primary components of a patient-centered clinical encounter. The first was the delicate balance of the physician and patient relationship coupled with the influence and sometimes interference of a third party. The second was the respect a physician must have for the patient and for the process and time required in order to appropriately extract information pertinent to an accurate diagnosis.

*Janie*

Janie is a 71-year old woman who was recently diagnosed with pancreatic cancer. This diagnosis came directly from an oncologist, and Janie has now returned to her primary care physician in a state of confusion and shock, and is quite anxious about the diagnosis. The expectations of the student physician in this scenario is that he/she should express emotional support and empathy to Janie, while reinforcing the prognosis made by the oncologist. The student physician should simultaneously encourage Janie to prepare for her ultimate demise from this disease.

Several overarching themes emerged from the focus group interviews. The first is the concept of the “whole” person and how essential it is for a physician to address the patient and his/her concerns instead of just treating the illness. Additionally, several comments were made with regard to the honesty of the physician in light of a terminal illness, and how vital honesty is when sharing the reality of a fatal disease. The last distinction of patient-centered care noted by the respondents is the need for appropriate,

timely and honest communication that provides hope but not unrealistic expectations in light of the terminal illness Janie is diagnosed with.

*Attending to the Patient and Not Just the Disease.* Of the five scenarios shared with the various focus groups, this encounter invoked the most emotion from the respondents. In each focus group, there was at least one person that had been personally affected by a cancer diagnosis of his/her own, a family member or close friend. One respondent whose father was recently misdiagnosed with pancreatic cancer was particularly enlightened by this encounter.

A lot of what she [the student physician] did, did not happen in my dad's case...so I just kept thinking, my goodness, this is wonderful that she's talking about what can be done and what the next steps are. Because that's what I asked the physician when he was saying palliative care...that is all he would say. I said, 'palliative is a word that my parents don't know, first of all'...and we're all standing there in front of my dad and they basically were going to let us leave without telling us anything else that could be done. They basically said, he's got pancreatic cancer and that was that...I was wanting them to navigate me through, so those were the things I was writing down while I was watching this case in terms of patient-centered care is first you want people listening to you. I think the case shows that she [the student physician] really did listen to her [Janie] to hear what the situation is...and what was the confusion? The confusion was first she [Janie] was mistrusting the doctor [the oncologist], which I think is very true, especially for elderly people, at least from my perspective when I've been around any elderly people. I thought she [the student physician] did a good job of really talking to her [Janie] and finding out what the issue was in the first place. This was a second opinion and then she [the student physician] explained she had seen what the other doctor had said and then she [the student physician] confirmed it [the diagnosis]. But the critical element was that she [the student physician] offered suggestions on things Janie could do in the meantime. (A.03.283-291)

Other respondents emphasized how well the student physician acknowledged the options Janie shared regarding surgery and alternative medicine, but then eloquently stated those options were not viable for Janie's condition. As one participant stated,

Janie had become so preoccupied with what seemed like a negative experience at the oncologist. She [Janie] was confused and scared, and looking for ways to beat this diagnosis. This [student] physician successfully redirected her [Janie] away from that negativity and options that just would not work for her like surgery and alternative medicine. (A.03.330-334)

Similarly, “I think she [the student physician] did a really good job at helping her [Janie] understand that it was a terminal illness; that this was not something she was going to walk away from...sort of getting a grasp on the enormity of this issue.” (A.03.336-338)

Yet another,

I found that these very difficult things need to be brought out and I've always been grateful for physicians when they did say, ‘this is the situation and we're going to try to do this, but you need to know that there's no sure answer and the situation doesn't look good’.  
(A.04.171-173)

Others concurred and agreed Janie came to this visit in denial as to the severity of her diagnosis, and the student physician was able to help her face the reality of a horrible situation. The student physician did this by exuding compassion toward Janie through her words and nonverbal communication. “She [the student physician] really gave Janie a sense of control of her situation by letting her know there are things such as the advanced directive that she could be thinking about and making choices about how best to move forward for she [Janie] and her family.” (A.04.177-179) Another respondent attended to the small, yet important detail of how the student physician put her hand on Janie. “I thought that was comforting and was an appropriate way to show her [Janie] concern.” (A.04.181-182) One respondent noted and others concurred, “I think she [the student physician] did a really good job of explaining things using examples. She also used different terms when she needed to like saying an oncologist is a cancer specialist.” (A.03.418-421) Several respondents also commented on the camaraderie the student

physician provided through statements such as ‘We’re in this together. I’m going to go through it with you. When you’re ready, we need to talk about next steps; about what we’re going to do to help you from this point forward’ and she did so while reiterating and reinforcing the crucial facts about her diagnosis.” (A.03.276-279) Stated best,

The [student] physician was quite skillful in the way she handled this patient and the unfortunate diagnosis with a positive approach. It was like she [the student physician] was telling Janie, ‘ok this is what you have, but we’re going to move forward and these are the things we’re going to do and you have a whole support system; not only your family, but me too. You’re in good hands and even though this isn’t good news, we’re going to help you through this journey’. I mean that’s beautiful. That’s what elderly people and their family want to hear even if it’s not good news. They want to know what are you going to do for me between now and the end. I think it’s such a personal thing when you find out that you’re going to die that you want someone to make you feel as though there are some things we can do; we can control what we can control and not the other stuff, but here are some things we can do to get our minds on what we can control for the rest of our life. (A.03.442-447)

Stated most succinctly, “when you can deliver bad news and a patient knows they’re going to die and they still want to be associated with that particular doctor’s office, that’s incredible.” (A.03.655-657)

Several respondents also remarked how the physician recognized early in the conversation that while working with Janie at the beginning of the diagnosis and addressing Janie’s fears and concerns at this initial stage of denial, the physician also acknowledged the need for a second visit. “I liked the fact that she recognized that trying to explain options to this patient wasn’t going to be successful. She could do it, in this visit, but she probably needed to have a second visit to reinforce the message.” (A.03.344) Likewise, “I love that she’s going to have a second visit and include Janie’s husband and maybe the daughter.” (A.03.348) All respondents were in agreement the



inclusion of other family members was critical to taking care of Janie's emotional needs and addressing the need for the family's support.

*Communication Skills.* Most respondents agreed the pace of the interaction, pausing for clarification and nonverbal gestures were all critical to the success of the encounter. For example,

I like the fact that she [the student physician] checked her [Janie's] understanding. She [the student physician] checked in to make sure Janie was understanding what she [the student physician] was saying, and I sort of liked her gentle touch. I like that she touched her [Janie] on her leg. I think she [the student physician] was very appropriate in her mannerisms. As a physician, when you have an older person with some cognitive issues and emotions, a longer silence is ok. I think they need a little bit more time to process. I have a few cognitive issues and so I need a little bit longer silence and I'm not old!" (A.03.360-365)

Another thought the physician's silence was not as appropriate. She stated,

There was a point at which I thought there was a little too much silence and I thought that maybe she's [the student physician] trying to get the patient to react and allow her [Janie] to express her feelings; however, I have to say, in this situation I would want to know right away what my options were. Instead, this felt more like the doctor was just looking at her [Janie] and basically saying you have cancer and then waiting for the next question from the patient. It just felt a little like the [student] physician was waiting on cues from the patient to move forward versus offering suggestions. (A.03.294-302)

Additionally, this respondent also believed this might be a moment where the student physician should ask if Janie has any questions or if there is something the student physician had said that is not making sense before moving on.

One respondent, a former oncology nurse, was quite disturbed by this scenario.

She stated,

I was having trouble with this whole scene. The patient [Janie] appeared to be the one in control. I think that the primary care [student physician] should have been a little stronger at first – point blank stated that she concurred with the oncologist's diagnosis. She [Janie] came in and she

really wanted confirmation of her cancer. I had the feeling she [Janie] was trying all the time to make the doctor feel better about having to give her this grave diagnosis. Also, it was my experience as an oncology nurse that you wouldn't go back to your primary care doctor as a 'second opinion'. That seemed backward to me. (A.04.242.246)

Furthermore,

She also left her with no hope whatsoever. There's hope in everything; there's hope in having a good death...so she [the student physician] left her with 'you have cancer and there's nothing we can do about it. We'll try to keep you comfortable'. You know, there are five stages... denial, anger, bargaining, depression, acceptance...she [Janie] seemed to go right from denial to acceptance in this scenario. All she [Janie] really wanted was somebody to say, 'I believe this diagnosis is accurate and you do have pancreatic cancer'. Don't let a patient walk out of there without some kind of definite hope. Strange things happen and when a doctor says, 'oh you have six months to live' those are the patients who always live the longest. (A.04.290-294)

Another reoccurring theme that evolved as a subtheme within communication was the overuse of acronyms - medical jargon that may be uncommon to patients and verbiage used to convey the difficult message of a terminal illness. Noted one respondent,

I did find the term "terminal" to be used early in the discussion. I don't know exactly when I would have used that term, but it popped out there once at a point that I thought I wasn't quite ready for that word. Again, I've not had a discussion like that, but that's a rough word to use when confirming that you really do have cancer. She [Janie] just found out the diagnosis was confirmed and now the [student] physician uses the word terminal. (A.04.202-206)

Another member did not object, but did suggest, "I see your point; however, when would you ever want to hear the word terminal? Never." (A.04.208) Another cautioned, "I think if a doctor quote, 'plays games' with you about your situation, that some place a little further down the line you might be a little resentful that he or she wasn't a little more honest with you from the very beginning of the discussion." (A.04.225-228)

*Follow-up.* An overarching theme for this encounter was the respondents would like to have had an opportunity to watch a follow-up encounter wherein the physician would meet with the patient and her family. The majority of the respondents believed if there was an opportunity to see that interaction with the second visit, their concerns would have been alleviated with regard to the student physician presenting options for advanced directives and end of life care. There was a general concern from several respondents that this discussion took place too quickly and should have actually occurred with the additional family members in the room, and after Janie had an opportunity to come to terms with her diagnosis. As one respondent stated,

Well the second part would be very different from this first part because I cannot imagine that the husband would have a believing feeling about the thing as she did. I mean, we're talking about her life, but husbands can get very defensive about their spouses lives and what we're going to do. (A.03.682-685)

Similarly, "He may demand a lot of things. That would be a very different conversation than what we just saw." (A.03.687)

*Summary.* Several facets of patient-centered care were addressed by the respondents viewing the case of Janie. The first was the belief that patient-centered care begins with the ability to address the patient as a whole person and not just their disease. Secondly, is the importance of honesty and integrity when providing answers to the patient's questions coupled with the ability to also provide hope in light of the dire circumstances surrounding a terminal illness. Finally, the medical terminology a healthcare provider uses is extremely critical in creating a healthcare environment wherein the patient and his/her understanding of the illness is of utmost importance.

There was one notable element believed to be absent from this encounter, the introduction of a religious component. Several respondents noted the number of occurrences wherein Janie shared a concern for ‘what is on the other side,’ and it was believed that the offering or suggestion of a minister or other spiritual leader would have been appropriate. “Several times Janie mentioned her concern about her fear of the ‘unknown.’ I think something like a chaplain visit would be in order...or at least asking the question of whether she feels she would benefit from such a visit.” (A.03.694-695) Another agreed, “I don’t know when religion comes in or if the doctor [student physician] could have said, ‘well do you have a minister that you could talk to,’ but that might help her.” (A.03.697-698) This led to further discussion about the cultural considerations of patients from varied backgrounds, ethnicities, and religious beliefs. The members of one focus group concluded the cultural biases should be addressed and suggested that be considered for future case scenarios as it relates to patient care and the decisions made therein.

### *Matt*

The scenario involving Matt is a complex case of a 41-year old man being seen for a follow-up visit. Matt injured himself in a psychotic episode, and the student physician has the task of checking Matt’s wounds. To further complicate the scenario, the student physician is also accompanied by a resident designed to be a distraction to the student physician.

The primary theme that emerged from the respondents was the necessity for the student physician to build trust with Matt – develop a rapport wherein Matt would allow the student physician to take care of his wounds. Many respondents commented on the

patience the student physician possessed in her responses to Matt and the techniques she implemented to accomplish her goal in taking care of Matt's wounds. There were also several comments shared with regard to the lack of patient-centered care exhibited by the resident and the response of the student physician to that behavior. Discrepancies were noted with some respondents believing the student physician responded appropriately by ignoring the resident and continuing on with Matt's needs keeping her focus on the patient. Others believed the student physician should have dealt with the resident's behavior during the simulation. Finally, there was concern expressed for the patient's safety and that of the student physician in light of Matt attending this clinic session alone. Several comments were expressed with empathy for Matt and his condition, but also for the student physician attending to his physical needs in his agitated state of mind. Each of these general themes is addressed in more detail below.

*Physician and Patient Relationship.* Across the various focus groups that viewed the case of Matt, the most common statement was about the importance of building trust with Matt. Given Matt's psychotic diagnosis, he could not be approached in the same manner as other patients. For example, one respondent noted,

The student physician asked Matt 'well, how do you think we should go about getting the staples out' and you could tell that she knew that telling him how they were going to do it was not going to work with that type of patient. She knew she needed to ask him what he thought in order to build the trust. (A.02.45-47)

The respondents also noted the physician's ability to work toward the goal of checking his wounds. Many respondents observed how the student physician took her time asking Matt questions about his previous doctor's appointments, medications he was taking and his general sense of well-being without jumping to the real task at hand. It was believed

taking such a straight forward approach would have only served to stall the progress toward removing the staples. Several respondents interpreted the student physician's slow pace and questioning technique as being a more compassionate physician. "She came across as caring to me. I thought she did a good job of knowing that her patient wasn't comfortable and trying to still do her job but make him as comfortable as possible." (A.02.105-107) Others noticed the student physician's attempt to remain calm in less than desirable circumstances. "She sat down and tried to approach Matt very slowly. Baby steps toward the end goal was the only way she was going to have any success with this patient." (A.02.109-110) Likewise, "she did not rush the patient in any way. He didn't want her to touch him, but she managed to get the bandage off to the point that she could look. She was extremely patient and kind and took all the time he needed." (A.02.122-123) Others agreed and said she was very patient, empathetic, spoke slowly and didn't move fast so as not to agitate the distraught patient.

All respondents were quite agitated by the behavior of the resident. All respondents equated her behavior with an environment that was not patient-centered. As one respondent shared, "I think the resident would have been better to stay out of the room totally. She was just rude; very rude." (M.02.12-13) Others commented the resident physician acted totally disinterested and like she could not care less about Matt and his needs and concerns. This behavior not only invoked disdain for the resident, but also empathy for the student physician having to work through the case scenario with said resident. As one respondent commented, "I think she [the student physician] should have actually addressed the other doctor in the room. If this was a real life scenario, and in terms of providing patient-centered care for Matt, I think she had every right to ask the

resident physician to leave or at the very least report her behavior to an authority after the patient encounter came to an end.” (A.02.65-69) Two respondents suggested the student physician responded appropriately in that she did not bring any more attention to the resident physician and her behavior. Others agreed and commented the student physician responded appropriately by maintaining her focus on the patient and directing all of her attention to Matt’s needs. In this way, the student physician was mimicking patient-centered care in not letting the distractions of the resident physician detract from the care the patient needed.

She kept moving forward with her responsibility which was the patient, regardless of the resident’s behavior. Think about the time factor and how little she has with the patient as it is. I wouldn’t expect her to take time out and direct it toward an unruly resident. She stayed focused and I thought that was important. Besides, the patient encounter isn’t the time to deal with a superior’s bad behavior. (A.02.74-79)

Others questioned whether a patient with this degree of mental illness would have tolerated the behavior of the resident physician or whether the encounter would have ended right away. The majority of respondents believed in a real world setting, a patient like Matt would have just “shut down.” One respondent stated,

I’m not a schizophrenic patient and she drove me up the wall being in there because she wasn’t doing anything or even acting like she was interested in the patient because mentally she was off someplace else. To me, if you’re going to have two doctors in there, or even if it’s a doctor and a nurse, they both need to be focused on the patient or why are they in the room? (A.02.87-91)

Another concurred, and addressed the nonverbal behavior of the resident physician,

If it is a true mental patient, she should have addressed the patient and said something like, ‘ok, I’ve got to step out’ at the same time she was addressing the student physician. Instead, she just turned her back on the patient and left. That, in itself, is problematic. As a doctor, they should be instructed never to turn their back on a mental patient anyway. That was done several times. (A.02.95-99)

*Patient Safety and a Support System.* There was also resounding support for the idea that a patient in this mental state should not be allowed to participate in a clinical visit by himself. The majority of respondents shared comments such as, “She [the student physician] shouldn’t ever have been in there alone with him. Plus he should not have come alone. He [Matt] shouldn’t have been there by himself.” (M.02.28-29) It was clear to the respondents the patient could very easily cause additional harm to himself or to the student physician. Several others expressed concern that the student physician was left in the room alone with Matt. “It was very obvious from the very beginning that the patient was mentally disturbed and they needed somebody else in there besides those two physicians especially since they were female.” (M.02.96-97) For everyone’s protection, they agreed there should be a protocol to follow wherein this scenario would not be allowed to occur. One respondent pointed out,

If we are looking at this case from a patient-centered perspective, then I would say abandoning him is not very patient-centered. I don’t know whose fault that was, but there should have been someone with him. One thing that could have been done is the resident physician definitely, but even the med student [student physician] could have said we need someone else to come in with us. To be patient-centered, that is something that would have been important; centering on that patient and having someone else in there as an assistant. (M.02.153-159)

It was evident the respondents considered the inclusion of a patient advocate or assistant as a necessary component in order to provide patient-centered care for someone in Matt’s situation. To do otherwise, was considered substandard health care according to the opinion of these respondents.

*Summary.* It was clear from the focus group responses that the behavior of the resident was a realistic difficulty, but they had disagreement in how to best handle that negative conduct. Since I did not provide the respondents with specific detail about the



resident's role, I believe they initially became focused on her behavior and less attentive to the student's response. However, when their attention was directed at how to best overcome that type of interference in light of providing patient-centered care, they were able to redirect their attention to the student physician's reactions to the resident and focus on how she [the student physician] overcame and attended to Matt's medical concerns. Other overarching elements of patient-centered care reflected in this case were the professional behavior, empathy and courteous response of the student physician. There was an overwhelming concern from all respondents as to the safety of the patient and the student physician in that neither one had any assistance throughout the clinical encounter. This was believed to be the antithesis of patient-centered care.

### Conclusion

The preceding sections provide various facets respondents identified as most critical when ascertaining a patient-centered care healthcare environment. The descriptive details were outlined according to the five individual simulated encounters in order to highlight the nuances of each according to the specific PCC descriptors they were individually designed to address. In the next chapter, the respondent feedback provided in Chapter 4 will be discussed in terms of general findings as they relate to the two research questions addressed in this research. I will also discuss the findings as they relate to the literature, as well as research, policy and practice implications for consideration.

## CHAPTER 5

### DISCUSSION

#### Introduction

In this chapter, I present a discussion of the primary themes that emerged from the findings of my research as well as the salient literature that lends its support. Patient-centered care as defined by the literature is discussed followed by five defining characteristics chronically ill patients used to describe patient-centered care within the context of the following research question: Given the stated focus of each Patient-Centered Care Objective Structured Clinical Examination (PCC OSCE), how do the student physicians interact with patients and their families in a patient-centered way as defined by patients with chronic illness? Next the findings are discussed as they relate to my second research question: How do the data obtained in the research compare with the descriptors obtained through the Stemmler research? I begin with a review of the descriptions the respondents shared prior to viewing the simulated encounters (see Table 2, pgs. 65-66) and compare those findings with the original descriptors established via the Stemmler project as outlined in Appendix B. The global ratings the respondents noted for each case will also be shared in light of whether or not the respondents believed the elements of patient-centered care were addressed. Chapter 5 will also discuss the implications identified in the areas of research, policy and practice.

#### Overarching Characteristics and Concepts

##### *Patient-Centered Care*

McWilliam (2009) suggests this approach to medical care is an “objective, concrete *method* of communication, a technique for *doing*, specifically, for identifying

the content to which the practitioner needs to attend to achieve patient-centered care” (p. 278). There were five primary themes that emerged from this research and fit within the context of McWilliam’s suggested approach to medical care: a) communication, b) nonverbal cues, c) overuse of medical jargon, d) team approach, and e) and systems.

*Communication.* Communication in this context is not only the ability to articulate clearly, but perhaps more importantly communication that conveyed a feeling of trust and support by the student physician and confidence in the student physician’s ability to care for the patients’ needs. When espousing a patient-centered model of care, communication between the patient and the student physician was the element most referenced by the respondents. Secondary to the patient/physician communication was that of the student physician and the patients’ family members. Patience, honesty and respect by the student physician were also highlighted as subsets of communication wherein the patient has an opportunity to express his/her concerns and not be rushed through the encounter. Furthermore, positive reinforcement by the student physician was deemed necessary for PCC to be accomplished that would include assurance from the patient that he/she can be compliant. Additionally, conveying a message of hope to the patient that he/she can have a quality life while facing a chronic illness was deemed critical to patient compliance and well-being.

Effective communication also involves an adept questioning technique with carefully crafted questions conveyed by the student physician to the patient followed by the student physician intently listening to the patient’s responses. Literature suggests one important strategy for educating and questioning patients is to have the patient restate information or instructions to ensure they understood and were listening (Schollinger et

al., 2003). This technique also allows for the physician and patient to discuss concerns over the approach to the patient's care. In the simulated encounters, this began with the student physician introducing himself/herself upon entering the patient's room, extended throughout the clinical encounter through a mutual question and response, and continued beyond that particular encounter with follow-up questions from the patient and family after the in-person visit had concluded. The respondents believed each of these facets was an indication of whether or not the student physician was really interested in that patient as a person and not just focused on the illness to be treated. This two-way communication was viewed by the respondents as an opportunity for the student physician to exude compassion in a non-judgmental manner.

*Nonverbal cues.* The pace of the conversation and the nonverbal gestures and cues were also addressed by the respondents throughout each of the simulated patient encounters. A simple pause in the conversation to ask the patient if he/she understood what had been discussed thus far was an indication of providing patient-centered care. An extension of a touch by the student physician at the appropriate time throughout the encounter and consistent eye contact were also attributes the respondents identified as patient-centered.

*Overuse of Medical Jargon.* A third recurring theme was an underlying concern for the amount of medical jargon used by the student physicians and the importance of making sure the overuse of acronyms and other medical terminology was kept to a minimum or at least articulated and described in such a way the patient could still understand what was being said. Providing patient-centered care involves the student physician sharing information with the patient. If the patient cannot comprehend the

incoming information, the discussion has been for naught. The medical terminology and language a physician uses can either reinforce the belief the patient has in the physician, or provide a barrier to understanding and create a distance between patient and physician (Bedell, Graboys, Bedell, & Lown, 2004). Putting medical concepts into a layperson's terms and even supplementing the verbal discussion with visual aids conveyed an even more positive message.

*Team Approach.* A fourth global concept was the idea of a team approach to patient care. Ogrinc and Headrick (2008) shared their perspective of teams in the realm of quality improvement work in health care. They suggest patients and their family members are often included as critical members of the improvement team because of the perspective only they can share about the care of their loved one. Each member of the team is integral to the success of the patient encounter. Knowing when to defer to appropriate team members is critical. Furthermore, the Institute of Medicine recommends that "All health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches and informatics" (Greiner & Knebel, 2003, p. 32). From the discussions of these focus groups, a team is an all-encompassing term used to define the inclusion of members of the health care system (e.g., physicians, nurses, etc.), and also members of the patient's "team" (e.g., the patient and his/her family members). The respondents iterated the need to have a relationship with their physician that reflected a partnership instead of an 'us' and 'them' mentality; a relationship in which physician, patient and family members worked together as a network of support. This support

system provides the patient with a multitude of resources at their disposal at various times throughout their health care journey.

*Systems.* The health care system was also addressed in light of the demand placed upon physicians' time. The respondents clearly wanted to feel like they were really cared about as patients and had adequate time to spend with the physician having their questions and concerns addressed. However, most were apprehensive to say where that line of demarcation should be drawn due in large part to time constraints placed upon physicians and the health care environment in its entirety. In essence, the respondents were attuned to the role the environment or the system itself played in how physicians conducted themselves in a patient-centered way. Additionally, the acuity of the patients the student physicians were tending to makes the standardization of clinic time difficult to set. Patients with chronic illnesses sometimes merit additional time with their physicians and that allowance for additional time is simply not built into the existing scheduling system. This can potentially lead to less desirable health care experiences and a tendency for PCC to be less than top priority. Flexibility in the scheduling of each patient visit would allow the patient to feel more individualized in his/her treatment which was also noted as being more patient-centered. During the past decade, open-access scheduling has been pushed to make physicians more accessible to patients, improve quality and reduce emergency department use. Open access scheduling promotes patient-driven scheduling in lieu of pre-arranged appointments and has been proposed as a more patient-centered appointment method (Rose, Ross, & Horwitz, 2011). However, switching a practice from traditional scheduling to open access can be difficult and the amount of time required of all members of the health care team making the transition to open access is sometimes insurmountable.

## Patient-Centered Care Case Descriptors

### *Comparison with Stemmler Descriptors*

The second question this research addresses compares the descriptors obtained through the Stemmler project with the respondent data acquired through the current interviews. Two approaches to comparison of the descriptors were performed. First, initial descriptions of patient-centered care were acquired from the interview respondents before the simulated encounters were viewed. Descriptions were obtained in this manner so as not to influence the responses based on the factors evident in the cases. Those responses are shared in Table 2 of Chapter 4 and have been summarized as: a) communication, b) answers questions adequately and listens, c) compassionate and non-judgmental, d) focused on the patient as a whole and not just the illness, and e) individualized care – e.g., not all diabetic patients have the same needs and concerns. The summary of these classifications can be found in Appendix D.

Comparison of this summary with the descriptors provided through the Stemmler project showed almost a direct correlation. Over the course of all five simulated cases, communication is identified as a key component of patient-centered care both in the Stemmler descriptions and those acquired in the current research. One could argue answering questions adequately and listening could be enveloped into the overall theme of communication. However, due to the repeated importance of the questioning technique and ability to listen intently, I viewed them as their own separate entity. Compassion and a non-judgmental approach were also expressed as elements of patient-centered care. Elements of these characteristics are also identified in the Stemmler descriptors of all five cases as are the remaining two summary points of focusing on the patient as a whole and

the provision of individualized care. The correlation of my respondents' comments for what constitutes patient-centered care and the Stemmler descriptors is undeniable. I believe asking the respondents to participate in this pre-work was critical in obtaining a small picture of what pre-conceived notions they had of patient-centered care as a concept, and as an indication of what elements they may be more inclined to pay attention to in the simulation encounters (i.e., looking for the elements they are identify with as being patient-centered).

A second comparison of the Stemmler descriptors was made based on the feedback received from respondents after viewing the simulated encounters. The descriptors as defined by the Stemmler project are outlined in Appendix B and comparisons from the respondent data obtained through this research have been integrated into that table. A description of the data is categorized below according to each individual simulated encounter.

*Andy I.* The descriptors as defined by the Stemmler research primarily rest with communication, the ability to deliver information about a patient's health in an understandable manner that is easily understood by the patient and his/her family members while being sensitive to the needs of the patient and family. Additional descriptors indicated the medical student should thoroughly explain the diagnosis to the patient while being sensitive to the patient's concerns. The observations made at the conclusion of this research indicate it was clear the student physician exhibited compassion toward the patient and his family, and allowed sufficient time for each to absorb the information regarding the diagnosis. Furthermore, the student physician established a relationship with the patient and family by getting to know each on a



personal level with appropriate questions being asked at the appropriate time. The respondents also indicated the communication was effective in that the student physician provided an opportunity for the patient and the family to ask follow-up questions during the visit, but also encouraged follow-up questions as they arose. The student physician also extracted information from the patient and family using a conversational mode of discourse that allowed a mutual sharing of information instead of what the respondents called an “authoritative” approach, wherein the physician would have just told the patient what he/she needed to do from this point forward. In lieu of that approach, the respondents suggested the student physician conducted the visit in a more positive manner while still sharing the most critical elements of the diagnosis and treatment.

*Andy II.* The descriptors developed through the Stemmler work were identical for the preceding case of Andy in the hospital setting and this follow-up visit with Andy in the clinic. The majority of respondents noted even though communication was the common thread between the two Andy cases, there were certain nuances unique to this visit with Andy that were not present in the first. For example, given that Andy has now had time to process the diagnosis that was made, the communication between the student physician and Andy was quite different. The respondents noted the ease with which the student physician approached the conversation with Andy not as an authoritative figure, but more like partners in his care. The student physician also provided explanations to the various questions Andy raised about his disease, and was cognizant of the medical terminology she used so that in the event Andy or his family member didn’t understand certain concepts, she would approach the explanation in a different manner. When asked about the possibility he might die, the student physician was honest in saying that was a

possibility, but she also took a more positive approach in identifying the adjustments Andy could make to his lifestyle immediately that would lead to more positive health care outcomes.

*Jenny.* Stemmler descriptors for Jenny's case primarily address the need for the medical student to provide an opportunity for the patient to contribute to the exchange of information, and to effectively listen to the patient so she feels she has been heard and understood. Additionally, the medical student is expected to use appropriate body language to promote a therapeutic exchange of information in a relaxed environment, as well as to create an atmosphere wherein the patient feels like high priority to the medical student. The respondents identified several factors in this case that were demonstrated by the student physician and aligned well with the Stemmler patient-centered descriptors. The majority of the respondent comments related to positive aspects of physician-to-patient communication. There was adequate use of active listening skills, particularly with regard to the physician's ability to extract nonspecific details from the patient. These could have easily been missed by a less astute physician as they were not inherently characteristic of the physical complications Jenny initially expressed. The physician made the additional effort to make the patient feel that she was being heard, and that her comments were critical to the encounter, even when her mother dominated the conversation and overpowered Jenny's voice in the interaction. Finally, many of the respondent comments also attended to the relaxed atmosphere and respectful demeanor of the physician when addressing the patient and her mother. The respondents were attuned to the intent of the interaction between the physician, the patient and the mother, and appreciated the manner in which the physician spoke to them with respect and empathy.

*Janie.* The descriptors obtained through the Stemmler project identify the need for medical students to share a dialogue with Janie that includes effective communication of the diagnosis, prognosis, and treatment options as well as a follow-up plan. Additionally, the medical student needs to have empathy and compassion when addressing Janie's concerns while using effective listening skills and appropriate physical touch. The medical student should also utilize the coping strategies needed with patients and family members when dealing with the stages of a life changing illness. When reviewing the respondents' comments in light of these descriptors, the majority indicated they were addressed when attending to the aspects of patient-centered care. The dialogue between the physician and the patient revolved around confirmation of the original diagnosis, the review of viable treatment options, and the best way to approach the end of Janie's life with a specific follow-up plan. The respondents were insightful as to the nuances of this case and clearly saw the intent of patient-centered care as it pertained to Janie's encounter. The student physician expressed empathy for Janie's situation and expressed the need and desire for them to work together as partners to tackle the diagnosis together. The student physician provided a safe environment wherein Janie was able to express her fears, concerns, and doubts while also alleviating the uncertainty of Janie's future by putting a process into place that involved Janie's family members. The pace of the encounter was also noted as being very patient-centered in that ample time was allowed for Janie to share information, express her doubts, offer her suggestions for approaching the illness, and also have her questions addressed. Other attributes the respondents acknowledged as patient-centered was the appropriate touch of the student physician to

Janie's hand as an indication that she was concerned for Janie and wanted Janie to know she was not alone.

*Matt.* Descriptors for Matt's case were identified as the need for the student physician to demonstrate leadership as appropriate for his/her role in the health care team. Additionally, communication that shows respect toward the patient and other colleagues were identified as critical elements of this case in light of a patient-centered approach.

There were several examples of patient-centered care identified and agreed upon by all respondents, and that do coincide with the descriptors set forth in the Stemmler work. First was the approach the student physician took in addressing Matt. The student physician exhibited a calm demeanor, and she spoke with authority and confidence but not in such a way that overwhelmed Matt. Additionally, she sat down giving the appearance that she and Matt were on equal ground, and was ultimately successful in viewing Matt's wounds which was her ultimate goal of this encounter. The ability of the student physician to remain patient throughout the entire visit with Matt was also noteworthy from several respondents and was identified as one a critical component of a patient-centered environment. The student physician also remained respectful of Matt throughout the encounter and was willing to allow him to take ownership as to the pace of the visit and she did not allow his behavior to distract her.

#### *Additional Observations from Current Research*

Additional observations were shared by the respondents wherein they believed patient-centered care was not adequately addressed, or could have been more directly stated and brought to the forefront.

*Andy I.* One example is the uncertainty of the physician's response to certain questions regarding the diagnosis of diabetes. At one particular point in the encounter, a question was posed by the patient regarding insulin levels and the student physician prefaced her response with "I think." The respondents noted that this may not be the recommended option and it would be better to provide accurate information at a later date than share incorrect information. Secondly, there were several concerns regarding the student physician as an advocate for the patient in navigating the health care system. With a diagnosis such as diabetes, the respondents believed there would most likely be a team approach to the patient's care and that may be difficult for the patient and family member(s) to handle appropriately. Guidance from the student physician as to the specific health care provider that would be addressing the various components of the patient's care would have been more patient-centered. The respondents even suggested other members of the health care team could have been brought into the simulated encounter to modify the dynamics of the case and would provide an additional layer of support with regard to patient-centered care. Additional concerns rested with the idea of patient-centered care as it relates to competency of any given physician. If given a choice between a physician who is competent and one that has a "good bedside manner," the respondents as a whole would choose competency as if the two concepts are at opposite ends of a spectrum and the selection of one, automatically negated the other. Although the above-mentioned are suggestions in complicating the encounter, the overall message of communication as one critical component of patient-centered care was clearly observed and addressed by multiple facets within the simulated encounter.

*Andy II.* Although the student physician addressed many of Andy's questions in a clear and concise manner, the respondents would like to have seen the student physician offer additional written materials, web site addresses, support groups or diabetic courses that could all be used to supplement the discussion; something Andy could refer to on his own time when he has additional questions. Similarly, the respondents also wanted to see more attention given to Andy's emotional well-being particularly around his questions regarding death. The responses from the focus groups on this issue were varied in that some believed she adequately addressed the point and others wanted her to really speak more about the very specific lifestyle adjustments Andy could make to avoid negative repercussions. For example, many respondents commented on the missed opportunity by the student physician to address specific snack options that would be more beneficial to him given that he spends a great deal of time at school with access to vending machines. Additionally, there was a general sense from the respondents that there should have been more discussion about Andy's support system both at home and within his circle of friends. The members of the focus groups really wanted the student physician to direct attention to the importance of having at least one or two friends know what an adverse effect of diabetes looks like so in the event something goes awry while they are with Andy, they would know the best way to respond. Finally, while the respondents believed the student physician addressed a great deal of the communication issues they believed to be important for a patient-centered experience, they wanted to see the student physician "close the loop" and just simply ask Andy if there were any aspects of their discussion that he was unclear about or needed to hear one more time. The respondents suggested

that would have brought the experience full circle and left Andy with a final opportunity to ask any remaining questions.

*Jenny.* Two specific concerns were identified by the respondents that extended beyond the descriptors established through the Stemmler research. The first is the absence of a discussion about confidentiality between the student physician and the patient, Jenny. Several respondents believed this should have evolved in the case as the discussion progressed particularly with regard to the interaction the student physician had with Jenny while the mother was out of the room. Secondly, the respondents were hesitant to believe the mother would be so willing to believe Jenny's abdominal pain was due to the difficult family situation at home given the amount of time spent going to various other doctors and the severity of Jenny's pain. Many respondents were hesitant to believe Jenny's mom would be inclined to agree that family dynamics were the root cause of Jenny's abdominal pain. However, others suggested Jenny's mother most likely knew that was the issue, but could not express that concern herself due to embarrassment or even self-preservation.

*Janie.* A few elements of this encounter left some respondents wanting additional details and a follow-up visit. Respondents noted the five stages of life changing illness as cited in the Stemmler descriptors (denial, anger, bargaining, depression and acceptance), but were not able to clearly depict each stage in the simulated encounter. They believed Janie began with denial, but then went straight to acceptance and thought the student physician should have been more attentive to the inclusion of all stages. The respondent was specifically concerned with the manner in which Janie seemed to be the person in charge, almost as if Janie was trying to make the physician feel better for having to

confirm Janie's grave diagnosis. Several respondents also noted the feeling that Janie was left with no hope. They would like for the student physician to have taken an opportunity to express that there is hope in everything; even hope in having a good death. It was believed this would have been a more patient-centered approach and was one element that was missing from this encounter.

Additional comments suggested the use of the word "terminal" was using much too soon in the discussion. However, others cautioned that is most likely a term one would never want to hear, so the point at which it is used would most likely be irrelevant to whether or not your care is patient-centered. Another concern was the absence of a religious component. The respondents noted several occasions wherein Janie mentioned her fear of the "unknown" and "what is on the other side." It was at that point in the encounter the focus group members would like to have seen the student physician suggest a visit with a spiritual leader of Janie's preference. Furthermore, this would also have been a time for the student physician to address any cultural considerations there might have been with Janie to include any special religious beliefs she might have that should be taken into consideration during the course of her illness. Finally, all respondents wanted an opportunity to see "phase 2" of this encounter in which family members would be brought in with Janie. The respondents believed the addition of Janie's husband and children would have brought another element of reality to the scenario and would have been a perfect segue into the discussion of next steps in Janie's care.

*Matt.* This was a complex case and generated a very different response from the focus group members than the other simulated encounters. The inappropriate behavior by the resident and the response from the student physician received mixed responses.



Several believed the student physician responded in a patient-centered way by keeping Matt's needs in the forefront and largely ignoring the resident's behavior. Others strongly disagreed and voiced concern the student physician did not address the resident's behavior as the incident occurred. Respondents wanted to see more reaction from Matt and believed that a patient with his level of irritability would have most likely responded to the interchange between the resident and the student physician in frustration, or perhaps would have become despondent and closed down to the student physician completely.

Another concern was the lack of a patient advocate. This is not a descriptor identified by Stemmler, but many respondents were concerned for Matt's safety as well as that of the student physician particularly upon the departure of the resident. All respondents agreed the presence of an advocate with whom Matt was familiar and spent time with may have provided him with a sense of comfort and also served as a witness for the student physician in the event Matt became violent.

### Conclusion

This research provided evidence that supports the validity of the Stemmler work in the global areas of communication, active listening, compassion and non-judgment, treatment of the whole person, and individualized care. However, additional concepts were identified as subsets of the above mentioned global areas the respondents believed would enhance the descriptors and were important elements of patient-centered care. First, patient advocacy was identified as necessary to the overall approach of a patient-centered care environment. This was of particular importance with a simulated encounter like the case of Matt wherein the patient is not equipped to address his needs. This also

provides a safe environment for the health care professionals attending to a patient's health concerns. A second concept is related to communication, but focuses on the presentation of information and the need for providing a variety of materials for patients. For example, some patients may comprehend written materials better than verbal communication. Having access to these types of visual aids at the time of these simulated encounters was thought to be necessary by the respondents of this research. Third, the concept of confidentiality and how it relates to the conversations a student physician has with a patient was not broached as a subject with any of these cases, but was believed to be a topic that would be experienced by all medical professionals. Finally, cultural and religious perspectives were not identified as specific descriptors through the Stemmler project. The respondents in this current research wanted to see those factors addressed particularly when mentioned by the patient.

At the conclusion of each interview, each respondent was asked to provide a global rating for the two patient-centered encounters they viewed indicating their overall assessment of each case with a satisfactory or unsatisfactory rating. This rating was based on their individual assessment of each case and whether or not each encounter was patient-centered in their own opinion. Those results are reflected in Table 3.

Table 3

*Global Ratings by Individual Respondents*

Case	Satisfactory	Unsatisfactory
Andy 1	7	2
Andy 2	9	0
Emily	10	0
Janie	9	3
Matt	6	2

The interpretation of the global ratings is difficult given that the responses to the cases as demonstrated in the preceding chapters indicate a higher rate of satisfaction with all cases. It is my belief the discrepancy rests with an ‘all or nothing mentality.’ In other words, some respondents indicating gaps in a case like Andy, may have selected an unsatisfactory rating if all of his/her thresholds of patient-centered care requirements were not met; whereas, another respondent may have indicated a satisfactory rating if the majority of his/her requirements were addressed. Additionally, the faculty members evaluating the medical student performance for these simulated encounters are asked to provide a global rating; thus, asking this of the respondents for this current research provides another layer of comparison that may be used for further research. The difference between the faculty ratings and those of the respondents could be based on the viewing experience of each. For example, the faculty might have a more global perspective due to the number of video session they watch and grade. They see a broader range of student performance; whereas, the patients participating in this research were limited to viewing two videos each. Those limited observations may have led to the patients identifying one specific concern that by their definition was not patient-centered and led them to select an unsatisfactory rating. Regardless, asking the question and receiving this feedback is beneficial if only in a cursory way.

#### Implications for Research

This study directs us to five important questions for future research. First, what are the primary characteristics chronically ill patients identify as indicative of patient-centered care and how are they best integrated? For most patients in my study, the first requirement is clear, concise communication from physician to patient and vice versa.

PCC also requires a great deal of patience and compassion from the health care staff, and from the patients they serve. These characteristics were identified as natural precursors to a PCC environment that is built upon mutual trust and respect. A PCC environment then is one in which all players work together as a team; the care becomes a partnership wherein all parties have clear roles and responsibilities. Developing a patient-centered model of care also requires attention to the design of the existing health care system, and the degree to which that system is created to embrace and even demand patient-centered care. The system must model patient-centered care throughout the entire enterprise and not just speak to the inherent qualities of said care. Further study regarding the ways in which other academic medical institutions specifically interpret each element and then implement and integrate these characteristics into the entire spectrum of medical education would be useful.

Second, how do the cultural, religious and ethnic considerations of a diverse patient population affect the development of a patient-centered environment? The respondents in my research had difficulty identifying any of these elements in the simulated case encounters, but suggested they would be important considerations for a PCC environment. Respondents suggested the addition of these would increase the level of difficulty for the simulated patient encounters and make them even more realistic to situations student physicians would most likely encounter as our population becomes more diverse. Additional research is needed to address how each of these elements can be adequately managed in a patient-centered environment in which the whole person should be addressed and attended to.

Third, to what degree does a patient-centered environment get influenced by the development of the health care environment itself? What system factors contribute to the ability of an institution to implement a patient-centered care environment? The systems perspective is important to consider in light of future medical practice regarding patient-centered care as it envelopes the “whole” unit of healthcare and not just one specific scenario as conveyed by each of the individual encounters addressed above. The systems perspective is unique as it shifts the focus from one particular unit of health care (e.g., one physician, one clinical encounter, etc.) to the very structure or foundation of the environment and the players therein. How does a physician balance the demands of the health care system with the needs of his/her patients and create a patient-centered environment wherein the patient takes an active role in his/her care?

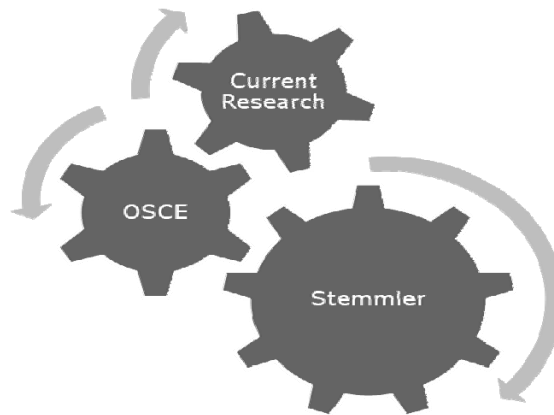
Fourth, through the evolution of the Stemmler project and my research that built from that work, is the list of descriptors and contributing elements of patient-centered care highlighted from these two bodies of work exhaustive? What other elements are yet to be identified. This process is an example of the PDSA cycle proposed by Langley (1996) in which many iterations come together to make the work more complete, but it is never an all-encompassing, exhaustive list of resources.

Finally, medical education is an expensive undertaking, and like all other aspects of health care, consideration must be given to the cost of undertaking a simulation approach to medical training. Such research is needed to enable educators to justify the cost and effort involved in simulation and to highlight the benefits of this learning modality. The need for outcomes-based education is increasingly accepted in medical education and clinical skills learning, and simulation is no exception. Having defined

outcomes facilitates the exploration of educational interventions intended to produce learning and the achievement of these outcomes (Bradley, 2006).

### Implications for Policy

Three areas pertinent to policy implications became evident through this research. The first is the movement toward patient-centered care and how critical this concept is for the future of health care. From the literature, as well as this research, it is clear patient-centered care should reside at the core of every decision made in medicine. Policies should be written that empower the patient as an integral member of the health care team. The patient and the physician would become true partners in addressing the health care needs of that patient. A second policy implication is the idea proposed by the respondents of this research that suggest dichotomizing the competence of health care providers and patient-centered care. In the discussion of what demonstrates a patient-centered care environment, several respondents noted they believed they had to choose between competency and PCC. Furthermore, if they had to choose, they would opt for the competent physician. Perhaps policy should be implemented wherein these two concepts are actually integrated resulting in a health care environment that demands competency but not at the price of patient-centered care. Finally, this current research demonstrates consistency and a match with the descriptors created through the Stemmler research and the subsequent OSCE that was developed, and indicates a high level of fidelity with the competencies. I have provided a visual representation of how these elements work together and complement each other.



We now must ask ourselves what is the next iteration of this work and what policies could be implemented to best support that investment of resources.

#### Implications for Practice

This study guides the reader to consider two implications for practitioners. In academic institutions that are integrating patient-centered care teaching models for their medical students, what changes will need to be implemented in graduate medical education (GME) and continuing medical education (CME) so those that are teaching the medical students are adequately trained in addressing patient-centered care in their own practice? While academic medical centers are implementing curriculum changes to reflect models of patient-centered care for the medical students, how do the current residents and faculty integrate changes in their continued education so they are adequately prepared to assist students with their training? More research in this area is needed to address the multiple approaches available to reach the ultimate goal of full integration of PCC philosophies into the spectrum of medical education.

Second, once a PCC has been fully integrated into the full educational spectrum how does the academic medical center continue to keep these principles at the forefront of every patient encounter? What does a health care institution need in place in order to

not only create a philosophy of PCC, but have that philosophy become so interwoven into every facet of health care that patient-centered care becomes the “way we do business” and not treated as an additional requirement? The creation and integration of a patient centered medical home model may be one possibility with distinguishing attributes such as a team-based care model, care coordination/integration, quality and safety as hallmarks of care, enhanced access to care and the creation of an ongoing relationship between a patient and his or her personal physician (David & Baxley, 2011). The evolution of the patient-centered medical home is in its infancy and much opportunity exists for further research in this area.



## Appendix A: University of Missouri Key Characteristics of Graduating Students and Residents

### **Able to deliver effective patient-centered care**

Our graduates are able to deliver care that improves the health of individuals and communities. Patient-centered care reflects a respect for individual patient values, preferences, and expressed needs. This care is grounded in the best available evidence and conserves limited resources. It depends on shared decision-making and active patient participation. Our graduates' care will be marked by compassion, empathy and patient advocacy.

### **Honest with high ethical standards**

Our graduates' behavior reflects honesty in relationships with patients, colleagues and societal systems designed to support health care. In practice our graduates understand and adhere to the basic principles of medical ethics including justice, beneficence, non-maleficence, and respect for patient autonomy.

### **Knowledgeable in biomedical sciences, evidence-based practice, and societal and cultural issues**

Graduates possess a fund of knowledge that reflects the current understandings in basic biomedical sciences, clinical disciplines, and social issues that impact patient care. Their knowledge is judged as excellent by faculty and exceeds the expectations of the public and of next-level mentors.

### **Critical thinker, problem-solver**

Problem solving and critical thinking engage three interdependent components: knowledge base, processing skills, and insight (metacognition). From a strong knowledge base, our graduates process and modify information through intellectual curiosity and by questioning the status quo.

### **Able to communicate with patients and others**

Our graduates demonstrate competence in verbal and nonverbal communication skills with patients, families and health care providers in order to establish professional, caring relationships and to facilitate the delivery of high quality, compassionate patient-centered health care.

### **Able to collaborate with patients and other members of health care team**

Collaboration is a process through which patients and members of inter-professional teams see different aspects of a problem, explore constructively their differences and search for and implement integrative care solutions that transcend their own limited vision of what is possible. The collaboration process is achieved through mutual cooperation, respect, exchange of information and meaning, sharing resources, and enhancing each other's capacity for mutual benefits.

### **Committed to improving quality and safety**

Collaboration is a process through which patients and members of inter-professional teams see different aspects of a problem, explore constructively their differences and search for and implement integrative care solutions that transcend their own limited vision of what is possible. The collaboration process is achieved through mutual cooperation, respect, exchange of information and meaning, sharing resources, and enhancing each other's capacity for mutual benefits.

### **Committed to life-long learning and information mastery**

Our graduates are committed to self-assessment and improvement. They continually appraise and assimilate scientific evidence to keep abreast of changes in medical knowledge and practice. Graduates know the basics of how information is organized as well as how to access it effectively. They are competent in synthesizing this information and communicating the knowledge gained from this process.

Appendix B: Table Depicting Comparisons of Case Descriptors and Patient Observations

**CASE #1:**

**ANDY (hospital) – a 15-year old boy admitted to the hospital the night before for extreme fatigue and dehydration. The attending is called out of the room after delivering the diagnosis, and the student must answer the patient and families questions and explain the diagnosis and family’s concerns and preferences.**

○ Competency 1

**Patient Observations from current research:**

- Student physician exhibited compassion and patience - allowed adequate time to convey information and for that information to then be processed by the patient and his/her family
- Established a relationship with the patient and the family members present
- The physician should get to know the patient on a personal level with relational questions and empathize with their situation

○ Competency 2

**Patient Observations from current research:**

- Effective communication must be encouraged with an opportunity for patients to ask questions now and later
- Make the interview/discussion conversational in nature
- Health literacy - student physician sharing information in manner the patient and his/her family can comprehend

○ Competency 3

**Patient Observations from current research:**

- Holistic approach to care versus just treating the illness
- Develop a two-way communication which the patient expresses concern about his/her illness and the physician shares his/her knowledge about the best medical approach
- Positive reinforcement, encouragement for success and hope for the future

**CASE #2:**

**ANDY - return clinic visit with incomplete home records of elevated blood sugars**

○ Competency 1

**Patient Observations from current research:**

- Physician relaxed and “in sync” with patient
- Addressed patient and family member appropriately - very patient-centered vs. mother-centered discussion

○ Competency 2

**Patient Observations from current research:**

- Health literacy - student physician sharing information in manner the patient and his/her family can comprehend

○ Competency 3

**Patient Observations from current research:**

- Developed a partnership with the patient and his family with mutual sharing of information
- Physician was supportive and made suggestions on how to modify Andy's care plan to meet his needs - suggested ways to modify the food log to accommodate his schedule
- The physician spent time addressing potential social awkwardness of the disease and reinforcing the good decisions Andy was making; very encouraging

**CASE #3**

**JENNY (EMILY) – 14-year old who presents with her mother (Emily) to discuss Jenny's abdominal pain and sleeping difficulty. The student must create a relaxed and empathetic environment in order to encourage Jenny to share her stress about abuse issues in her family.**

○ Competency 1

**Patient Observations from current research:**

- Diplomatically asked the mother to leave the room in order to create an environment of trust with Jenny and to allow her to share her concerns in a non-threatening, one-on-one environment. He was able to do this in a respectful way and was tactful in his approach
- Allows silence in between questions so if the patient wanted to add other details she had an opportunity to do so
- Impeccable questioning skills

○ Competency 2

**Patient Observations from current research:**

- Respectfully listened to the mother, but adeptly realized when the mother was monopolizing the conversation and it was time for her to exit the room
- The student physician brought a calm presence to the encounter by continually asking Jenny if what he was suggesting was okay with her and he did so in a non-judgmental way

○ Competency 3

**Patient Observations from current research:**

- The student physician established immediate rapport with Jenny by looking at her directly when asking questions and listening for her responses particularly when asking about Jenny's pain level. The student physician gave credence to the fact that Jenny was in pain and even though that is an ambiguous symptom, he did believe that her pain was real - not just in her mind

○ Competency 4

**Patient Observations from current research:**

- The student physician maintained good eye contact with the mother (Emily) and the daughter (Jenny). This provides the sense that the student physician is vested in their case, and he is really paying attention to their concerns

○ Competency 5

**Patient Observations from current research:**

- Upon entering the room, he asked if it was okay for him to come in which gave Jenny some control over the encounter which in turn gives the patient the impression the student physician respects the patient and he is empathetic to her situation
- Was very reassuring and showed appropriate empathy for the patient and concern for other siblings in the home

○ Competency 6

**Patient Observations from current research:**

- The student physician “peeled away” layers to get to the crux of the problem masked as non-specific abdominal pain
- Was subtle and cautious in his approach to extracting information regarding family dynamics in the home - was able to check on family safety without placing judgment and without causing undue stress

**CASE #4**

**JANIE- Janie is 70-years old. She has metastatic pancreatic adenocarcinoma known to providers and to the patient. Janie is upset, shocked and worried and has come with her family for a second opinion. The student should elicit the patient and family’s values, goals and wishes, provide emotional support and empathy, while describing continuing care and its expected nature goals and outcomes.**

○ Competency 1

**Patient Observations from current research:**

- Clearly listened to the Janie and expressed empathy for her concerns over her diagnosis
- The student physician supported/confirmed the diagnosis of the oncologist, but skillfully offered suggestions of things Janie could control in the meantime and facilitate getting “things in order” - i.e. advanced directive
- Janie was clearly scared and confused and the student physician showed empathy and compassion while still providing Janie with the facts of her illness - she would ultimately die
- Touched Janie on the hand as appropriate as a means of consoling and compassion
- The student physician took much of the medical jargon and turned it into common terms Janie could relate to; also used examples to help in explaining various aspects of the illness
- Student physician indicated clearly to Janie they were in this together - a partnership in her care
- The pace of the conversation was ideal with appropriate pausing for clarification opportunities
- Addressed the “whole” person and did not just focus on the illness

○ Competency 2

**Patient Observations from current research:**

- Empathized with Janie’s denial of the cancer diagnosis and worked to alleviate the confusion Janie had over the finality of her situation

- The student physician listened intently to Janie share her thoughts about alternative medicine and surgical options, but she was clear in her message to Janie that neither was a viable option for her.
- Realized early in the visit that Janie was going to need a follow-up visit with her husband and/or children present in order to grasp all of the details of how best to move forward

**CASE #5:**

**MATT-- a 41-year old male being seen for a follow up visit after hurting himself in the course of a psychotic episode. The student must interact with a resident making inappropriate comments while showing empathy and respect for the patient's concerns.**

○ Competency 1

**Patient Observations from current research:**

- Student physician clearly took control of the encounter, but also kept Matt engaged at appropriate times so as to build a level of trust with him

○ Competency 2

**Patient Observations from current research:**

- The student physician was very patient
- Appearance of empathy and respect for Matt's particular needs
- Sat down and approached Matt with extreme caution and very slowly - took baby steps to reach her goal of checking his wounds so as not to agitate Matt who was already vulnerable

○ Competency 3

**Patient Observations from current research:**

- Student physician largely ignored the resident's inappropriate behavior which was received well by some respondents. Others believed she should have addressed the resident's behavior at the time of the encounter.

○ Competency 4

**Patient Observations from current research:**

- Very caring with Matt and took her time in getting him to a point where she could check his wounds

○ Competency 5

**Patient Observations from current research:**

- Respectful in that she largely ignored the resident's inappropriate behavior
- Student physician maintained her composure well and focused on Matt

Global Rating:  
 Satisfactory  
 Unsatisfactory

Appendix C: Information Sheet For Focus  
Group/Individual Participants

Please complete the following information:

Age \_\_\_\_\_ (years)

Gender  Male  Female

How would you describe the frequency of your interaction with the health care system?  
*Please mark the statement that best reflects your experience*

Three to four times a year

About monthly

Several times a month

In what location(s) have you interacted with the health care system?  
*Please mark each statement(s) that applies*

Doctor's office

Emergency Room

Hospital

Over the telephone

Other. Please explain:

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When you hear the words, "patient-centered care", what is the first thing that comes to your mind?

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## Appendix D: Summary of Patient-Centered Care Definitions as Shared by Participants Prior to Viewing Simulation Cases/Encounters

### Communication

- A provider that listens to my concerns; allows time to address my questions and concerns and explains things to me in a way I can understand and relate
- reviews next steps
- personal interaction
- Doesn't overuse medical jargon
- Maintains good eye contact

### Answers Questions Adequately and Listens

- Making sure the patient is comfortable and their questions are answered
- the physician actively listens to the patient's concerns, then applies the best and appropriate care available
- listens carefully to needs before prematurely making a diagnosis; attentive to patient
- Care that allows the patient to participate in the decision making
- A caring physician who will answer questions from the patient

### Compassionate and Non-Judgmental

- There is a focus on the patient - their pain/symptoms, what they want for treatment or given many options; care about patient not just fixing the problem and send out for next patient to get in/out
- Patient-centered care is non-judgmental care delivered in a caring, compassionate manner

### Focus is on Patient and Not Just the Illness

- Focus on the person not just their problem or "systems"
- interested in their patients as human beings, not just cases or diseases
- Each patient's care is different and therapy is individualized
- Personalized rather than statistical or general population
- Treating the patient holistically rather than his/her illness
- Care that has been given after discussion with the patient
- The patient comes first
- Care givers involving themselves with the patient to deliver high quality care and develop a relationship
- A holistic approach – not just treating the illness

### Individualized Care

- Concerned about me as an individual
- A sharing of information wherein the patient's needs are at the center
- Medical staff that are there for me
- Every patient treated as an individual and requires an individualized treatment plan that covers the needs of that particular patient
- Connecting with the patient and not being in a hurry; not making the patient feel rushed



## Appendix E: Questions and Information Used to Guide Think Aloud Process

### **Research Questions**

- 1) Given the stated focus of each Patient-Centered Care Objective Structured Clinical Examination (PCC OSCE), how do the students interact with patients and their families in a patient-centered way as defined by patients with chronic illness?
- 2) How do the data obtained in the research compare with the descriptors obtained through the Stemmler research?

### **Focus Group Opening Remarks**

At the University of Missouri School of Medicine we are committed to educating the best possible doctors to care for the citizens of Missouri. In previous research, we received specific feedback from faculty, medical students and patients as to specific characteristics they believed good doctors should have. The culmination of this information resulted in the current Patient Centered Care assessment form. We are now asking for your assistance in closing up any remaining loose ends. Specifically, we are asking that you carefully review two digitally recorded simulated activities. The focus of your review should remain on the activity itself within the constraints of a patient-centered care focus and whether or not you believe we have captured the essence of patient-centered care; not on the “performance” of the student physician. Again, we are trying to determine whether we have incorporated the essential elements of patient-centered care within these simulated scenarios designed for that specific educational purpose. Our goal is to provide better patient care and you can help inform us as to if we have developed an appropriate method for doing that.

In completing the Information Sheet, please understand your individual comments will not be identified by name. We will conduct several focus groups with patients and we will combine all the information and identify themes that permeate these focus group discussions. We do not need for you to indicate your name.

I have a colleague in the room with me today. We think it is very important to accurately reflect what the group tells us today. She is here to help listen and to make sure that I don't miss some of the things you are trying to tell us. You may see them taking notes on things that I should do differently next time, or questions I should be sure to ask during our session today. Your participation today is strictly voluntary and if at any point you no longer wish to participate, that is perfectly fine.

This study has been approved by the MU Health Sciences Institutional Review Board (IRB).

Before we begin, please write down your definition of patient-centered care on the Information Sheet I provided. Think about the specific characteristics you would use to define patient-centered care. The information you share will remain anonymous and please remember there is no right or wrong answer. This definition is strictly based on your own personal experience and the care you desire to receive or have received from a physician.

### **Guiding Questions for Think Aloud**

- When you hear the words, “patient-centered care”, what is the first thing that comes to your mind?
- What parts of the video really make you think, “*that* is patient-centered care”?
- What did you expect to see in these cases that you are not seeing?
- Based on the description of patient-centered care you wrote down and your own personal experience, do you identify any variables that are missing that you believe should be highlighted and integrated into our student training?
- Answer the next question based on how you think of patient-centered care and your life experience. What things are missing from our student training that you feel should be added?
- These are all medical students. If they were your doctor, what would you tell them about the care you want to receive as a patient?

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