"GREAT EXPECTATIONS":

COMMUNICATION BETWEEN STANDARDIZED PATIENTS AND MEDICAL STUDENTS IN OBJECTIVE STRUCTURED CLINICAL EXAMINATIONS

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Submitted to the faculty of the University Graduate School
in partial fulfillment of the requirements
for the degree
Master of Arts
in the Department of Communication Studies,
Indiana University

November 2007

Accepted by the Faculty of Indiana University, in partial

fulfillment of the requirements for the degree of Master of Arts.

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ACKNOWLEDGEMENTS

I would like to thank my committee members for all of their help and support in the completion of this degree. In particular, I especially thank my thesis chair, Dr Stuart Schrader, for his unrelenting commitment to quality scholarship. Although at times I "just wanted to be done," I deeply appreciate his persistence in pushing me to re-examine, rethink and rewrite so as to produce the best work possible. I feel as though I am already reaping the rewards of the lessons in tenacity, persistence, learning and scholarship Stuart has taught me.

I want to thank my committee members for their critical reflections of my work and their help in teaching me the art of synthesizing my thoughts, constructing my rationale, and articulating my ideas. In particular, I also thank my committee members for their continued support and encouragement of me over these past two years.

I want to thank my friends and family for all of their support as well. Especially I would like to thank my good friend, Dr Subah Packer, for all of the mentoring she has given me over the years. Subah has been a role model for me in the hard work, high ethical standards, and passion it takes to find happiness in both professional and personal realms. I would also like to thank Sue Wheeler for her kind words, understanding, humor and her ability to help me find perspective.

I also want to thank Dr. Deborah Griffith and Ms. Sara Highbaugh at the Clinical Skills Education Center at the IU School of Medicine for their help during the initial stages of this project. Sara's willingness to allow me to perform as a standardized patient across a variety of simulated exercises greatly helped me understand the benefits and challenges of using standardized patients in medical education. Debi was an incredible

help to me during the initial data-gathering stages of this project. Her willingness to allow me to share my thoughts and feelings following my interviews and taped encounters greatly helped me in later analyzing my data.

ABSTRACT

Cynthia Lee Budyn

"GREAT EXPECTATIONS": COMMUNICATION BETWEEN STANDARDIZED PATIENTS AND MEDICAL STUDENTS IN OBJECTIVE STRUCTURED CLINICAL EXAMINATIONS

In relationship-centered care, the relationship formed between physician and patient is critical to the creation of positive patient outcomes and patient satisfaction (Inui, 1996; Laine & Davidoff, 1996; Tresolini, 1994). Medical educators have increasingly utilized Objective Structured Clinical Examinations (OSCEs) to assess medical students' abilities to utilize a relationship-centered approach in clinical interviewing. OSCEs, however, have recently come under scrutiny as critics contend that the overly scripted and standardized nature of the OSCE may not accurately reflect how medical students build and maintain relationships with patients. Although some studies have looked at how standardized patients help teach medical students interviewing skills, few studies have looked specifically at how the structured nature of the OSCE may influence relationship-building between standardized patients and medical students. Therefore, this study asks the question "How is relationship-centered care negotiated between standardized patients and medical students during a summative diagnostic OSCE?"

Using an ethnographic methodology (Bochner & Ellis, 1996), data consists of an ethnographic field journal, transcripts of semi-structured interviews with SPs and medical students, and transcripts of headache and chronic cough videotaped scenarios. Using grounded theory (Strauss & Corbin, 1990, 1998), a back-and-forth thematic analysis was

conducted in discovering the saturation of conceptual categories, linking relationships, and in critically comparing interpretive categorical concepts with relevant literature (Josselson & Leeblich, 1999).

Findings suggest that standardized patients and medical students hold differing expectations for 1) diagnostic information gathering and 2) making personal connections upon entering a diagnostic summative OSCE. SPs "open up" both verbally and nonverbally when medical students "go beyond the checklist" by asking discrete diagnostic questions and when overtly trying to connect emotionally. Fourth year medical students, however, expect SPs to "open-up" during what they experience as a rushed, time-constrained, and overly structured "gaming" exercise which contradicts their own clinical experiences in being more improvisational during empathetic rapport building.

Differences between SPs and medical students' expectations and communication practices influence how they perform during summative diagnostic OSCEs. Findings may suggest the re-introduction of more relationship-focused OSCEs which positions SPs as proactive patients who reflexively co-teach students about the importance of making personal connections.

Stuart M Schrader, PhD

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INTRODUCTION

As medicine has increased in complexity, more attention has been paid to the importance of physician-patient communication as a means to improve patient outcomes and increase patient satisfaction (Tresolini, 1994). A century ago, when most people died of acute infectious diseases such as influenza and tuberculosis, the most a physician could offer her/his patient were a few encouraging words and possibly an herbal remedy to help soothe her/his discomfort (Risse, 1999; Starr, 1982). Over the past century, however, sanitation improvements and advances in technology and pharmacology have resulted in patients living long enough to develop integrative and chronic diseases such as heart disease and cancer (Risse, 1999; Starr, 1982). Therefore, diagnosis and treatment planning have become increasingly complex and so too has the clinical conversation. Clinical conversations often include physicians motivating patients to make lifestyle changes (e.g., diet and exercise planning), explaining complex drug regimens and coordinating treatment plans with other physician-specialists (Tresolini, 1994). Finally, clinical conversations have become increasingly complex as physicians and patients negotiate with healthcare insurance companies who take part in deciding treatment coverage (Friedenberg, 2000).

Diagnosing and treating complex chronic diseases within a managed care system has put tremendous pressure on physicians to be proficient in biomedical sciences, technical clinical problem-solving, behavioral sciences and communication skills, all in order to create positive clinical health outcomes (Smith, 1996; Williams, Frankel, Campbell, Thomas, & Deci, 2000). In turn, studies have shown that effective physician-patient communication results in increased patient satisfaction (Laine & Davidoff, 1996;

Larivaara, Kiuttu, & Taanila, 2001; Stewart, Brown, Donner, McWhinney, Oates, Weston, et al., 2000), decreased "doctor-shopping" (Lo, Hedley, Pei, Ong, Ho, Fielding, et al., 1994), and reduced malpractice litigation (Levinson, 1994). As a result, teaching physician-patient communication has become increasingly important in medical education over the past several decades. Medical schools have introduced various teaching and learning techniques into their curricula that aim to help students learn communication skills. For example, in many medical schools, students discuss and reconstruct actual cases to help them learn how communication with the patient and her family plays an important role in diagnoses and treatment (Chapman, Westmorland, Norman, Durrell, & Hall, 1993). Medical schools also extensively use standardized patients (SPs) in formatively and summatively assessing students' abilities to effectively communicate during medical interviews. National board examinations as of 2005 even required all medical students to successfully pass a rigorous Objective Structured Clinical Examination (OSCE pronounced OS-KEE) using standardized patients.

In order to directly learn more about how medical students are trained about communication skills, I engaged in a two year participant observation with standardized patients at Indiana University School of Medicine's Clinical Skills Education Center. Standardized patients are trained educator-actors who portray patients and/or patient's family members across a variety of clinical settings (Barrows, 1993; Wallace, 1997). In the mid 1960s, Barrows and Abraham (1964) were the first to introduce the idea of using standardized patients so that medical students could practice their clinical and interviewing skills before interacting with real patients. Standardized patients provided a way to help teach medical students about physician-patient relationships and

communication without risking patient's safety and privacy (Wartman, 2006). Since that time, the use of standardized patients in medical schools has increased across North America and the world (Hodges, 2003a, 2003b). I participated in nearly all of the typical activities of a standardized patient including the assessment of medical students as they learn how to effectively diagnose, break bad news, gain informed consent, and practice a physical examination.

The main focus of this research study involves exploring relationship-building between standardized patients and fourth year medical students during Objective Structured Clinical Examinations. In the late 1970s, Harden (Harden & Gleeson, 1979) developed the idea of using standardized patients in OSCEs to assess clinical interviewing skills. In OSCEs, students typically rotate between six to twelve case scenario stations with standardized patients who are presenting different predetermined sets of symptoms (e.g., depression) (Charlin, Tardif, & Boshuizen, 2000). Each encounter is timed and lasts between 10 to fourteen minutes (Barrows, 1993). The value in using standardized patients in OSCEs is threefold. First, standardized patients are expected to perform the same role in the same way with all medical students (Barrows, 1993; Barrows & Abraham, 1964). Standardization of the standardized patient's performance is intended to eliminate evaluation rater bias which is inherently understood to exist in traditional clinical interviewing evaluations using subjective faculty assessments of student performance (Barrows, 1993; Barrows & Abraham, 1964). Second, standardization and inter-rater reliability training allows for standardized patients to accurately and consistently complete checklisted assessments to rate medical students' performances (Diaz, Bogdonoff, & Musco, 1994; Harden & Gleeson, 1979). During

inter-rater reliability training, standardized patients rate each other as they take turns performing their case with an expert clinician. Standardized patients then compare scores and make decisions regarding how to score consistently. Third, standardized patients provide medical students with verbal and written feedback regarding how they felt the medical student did in effectively asking clinical questions, and in gathering medical, family and social history (Clark-Ucko, 2006; Wartman, 2006).

Medical students are often assessed using objective skill-based quantitative checklist rating forms that measure a medical student's ability to ask a series of a priori interviewing questions and/or nonverbal actions (Resnick, Blackmore, Dauphinee, Rothman, & Smee, 1996; van der Vleuten & Swanson, 1990; Wagner & Heslop, 2002; Wallace, 1997). OSCE evaluation instruments typically measure student effectiveness by using binary ("yes/no") question items, a few global rating scale questions (e.g., "The medical student put me at ease"), and one or two qualitative open-ended questions to assess more subjective communicative abilities such as rapport building, listening and empathy (Wagner, Lentz, & Heslop, 2002; Wallace, 1997). OSCE evaluation instruments may be completed by preceptors (i.e., physicians as expert raters), standardized patients, medical students or by any combination (van der Vleuten & Swanson, 1990; Wagner & Heslop, 2002).

The use and importance of OSCEs in medical education increased significantly in 2005 when the National Board of Medical Examiners (NBME) began requiring medical students in their fourth and final year of medical school to pass a clinical OSCE examination to become a licensed physician (National Board of Medical Examiners, 2007). Students take the exam at one of seven national testing sites. Chicago is the closest

testing site for Indiana University School of Medicine (IUSM) students. Students pay approximately $1000 for the examination plus travel and lodging expenses. The national exam is a 12-station OSCE graded on a pass/fail basis using highly standardized objective rating checklists (National Board of Medical Examiners, 2007). The NBME estimates that approximately 4% of students fail the exam each year (National Board of Medical Examiners, 2006). The overall purpose of the national OSCE examination is to detect students who do not meet minimum communication and cognitive skills standards (National Board of Medical Examiners, 2007). The national exam includes three sub-components which require the standardized patient to test the medical student on her/his ability to gather and document information (Integrated Clinical Encounter Subcomponent), build rapport, question and share information while maintaining a professional manner (Communication and Interpersonal Skills Subcomponent) and speak English clearly (Spoken English Proficiency Subcomponent). The influence of the national exam has caused medical schools to introduce the use of SPs earlier on in medical education and to begin requiring students to pass more comprehensive rigorous summative OSCE examinations as part of graduation requirements. Therefore, at IUSM, medical students at the beginning of their fourth year take a seven-station OSCE examination in preparation for the national OSCE.

Rationale

Reconstructing the OSCE to reflect students' skills in relationship-building. Despite its widespread use internationally as an assessment of medical students' clinical interviewing skills, the OSCE has come under scrutiny in recent years. The OSCEs emphasis on standardization and high stakes assessment can likely increase inter-rater

reliability. However, can this same process accurately reflect how medical students and/or physicians interact with real patients? In addition, the checklisted assessment tools typical may not effectively assess medical students' competence in building relationships (e.g., rapport) with patients.

Hodges (2003) contends that the emphasis on "standardization" within OSCEs has resulted in the creation of overly generalized and decontextualized medical scenarios which create seemingly unfamiliar and/or unrealistic working situations for medical students. For example, many OSCE cases do not integrate a team-based practice and group discussion model in simulated encounters, even though medical students are consistently trained to treat real patients from an integrative team-based approach.

In addition, Hodges (2003) contends that high-stakes summative or licensure examinations may result in students conforming to mainstream cultural and interpersonal expectations during the examination which may differ from how they may interact with "real" patients. Hodges (2003) provides the example of a Muslim woman he observed performing in a Canadian licensure OSCE. The scenario was scripted so that the female Muslim doctor was to interact with a white, male western pharmacist (the actor) who refused to give the doctor the morning-after pill for a patient. During one point in the encounter, the female Muslim doctor says to the pharmacist standardized patient, "It is not really life, it is just a ball of cells. It is not life. There is no problem. Please just give [the patient] the pills" (Hodges, 2003, p. 1136). Hodges' (2003) observation of this case caused him to consider how larger sociopolitical influences (i.e., becoming licensed as a medical doctor) may influence how students perform their roles with standardized patients. Hodges (2003) states, "I wondered what the woman really believed. Was this

how she would perform 'in the real world'? What was the effect of the white, male, western actor pretending to be a pharmacist? What was the effect of the white, female, western doctor grading her performance?" Hodges (2003) contends that the high-stakes nature of the examination may have influenced the female Muslim student to perform her role in a way that is consistent with North American culture and therefore deemed "correct" by her white male examiner. Hodges' (2003) concern is that the high-stakes nature of the OSCE does not allow students the freedom to express how their cultural differences may influence how they interact with the patient.

Also, the checklisted assessment may not capture medical students' abilities to build and maintain relationships with patients. Students' clinical medical and communication competence has traditionally been based upon the number of checklisted items they accomplish during the encounter. These checklisted items include mostly binary ("yes/no") questions which are directly presumed to causatively lead to a correct differential diagnosis (e.g., The medical student asked me about my family history of cancer). Therefore, they will immediately know to travel down this differential diagnostic path. Only a few global rating scale items pertain to the medical student's communication and interpersonal skills (e.g., Did the medical student demonstrate empathy in discussing miscarriage?) Because most checklist OSCE assessments were developed during a time when positivist views dominated social science (Hodges, 2003b), a medical student was thought of as "competent" at clinical interviewing if she/he could ask the most salient and directed biomedical questions in order to obtain a correct diagnosis. One concern is that medical students may be rewarded with good marks on OSCE exams for communication content (e.g., asking specific questions), yet still not know how to build, maintain or

sustain relationships with patients (Schirmer, Mauksch, Lang, Marvel, Zoppi, Epstein, Brock, & Pryzbylski, 2005).

Because OSCEs may only partially reflect how medical students interact with patients, Hodges (2003) suggests that studies need to examine the communicative practices and processes between standardized patients and medical students to better understand how OSCEs may or may not reflect medical students' relationship-building skills with patients. Although a few studies have looked at the standardized patient's role in helping medical students learn to build physician-patient relationships, few studies have looked specifically at the negotiation of relationships between standardized patients and medical students while performing in a summative OSCE. The purpose of this study, therefore, is to examine the negotiation of relationships between standardized patients and medical students.

LITERATURE REVIEW

This research study builds on the conceptual framework of relationship-centered healthcare (Tresolini, 1994) in recognizing and appreciating the importance of effective physician-patient relationships as a means to producing positive clinical interviewing outcomes (e.g., increased rapport, empathy, support, warmth). Because this study specifically explores the negotiation of relationships between standardized patients and medical students performing in a diagnostic summative OSCE, the first section within the literature review begins with an explanation of the importance of physician-patient relationships in diagnostic medical interviewing. The next section addresses the standardized patients' role in teaching medical students about relationship-building during standardized patient encounters. Finally, this section ends by exploring the usefulness of using a relationship-centered approach to gain insight into the negotiation of relationships between medical students and standardized patients while performing in a diagnostic summative OSCE.

Relationship-Centered Care: Physician-Patient Relationships in Diagnostic Medical Interviewing

Relationship-centered care is currently one of the most widely accepted conceptual frameworks for creating and maintaining physician-patient relationships in clinical practice (Inui, 1996; Laine & Davidoff, 1996; Tresolini, 1994; Williams, Frankel, Campbell, & Deci, 2000). The main tenet of relationship-centered care is that the relationship formed between physician and patient is critical to the creation of positive patient outcomes (e.g., correct diagnosis) and patient satisfaction (Inui, 1996; Laine & Davidoff, 1996; Tresolini, 1994). Positive physician-patient relationships are defined as

an increased trust between physician and patient, patients' greater willingness to share their story, and patients' greater adherence to recommended treatments (Inui, 1996; Tresolini, 1994).

According to relationship-centered care scholars, "All illness, care and healing processes occur in relationship" (Beach & Inui, 2006, p. S3) such that the task dimensions of diagnosing and treating patients are inseparable from the quality of relationships formed between physicians and patients (Candib, 1995; Zoppi & Epstein, 2002). Physicians skilled at relationship-building build rapport and trust with patients which, in turn, allows patients to feel more comfortable sharing information with their physicians (Tresolini, 1994; Williams, Frankel, Campbell, & Deci, 2000; Zoppi & Epstein, 2002). For example, a physician skilled at relationship-building may elicit a patient's story containing information which may lead the physician to a diagnostic hypothesis she/he may not have considered on her/his own. Furthermore, when a foundation of trust and rapport is established within diagnostic clinical interviews, physicians are better able to negotiate treatment planning specific to the patient's needs, which in turn improves the patient's adherence to recommended treatments (Tresolini, 1994). For example, if a patient who recently has been diagnosed with diabetes feels as though all of her/his questions and concerns have been heard, addressed and understood by her/his physician, she/he is more likely to adhere to the physician's recommendations for medication, diet and exercise.

This next section addresses the following elements that contribute to the development of effective physician-patient relationships in clinical diagnostic medical interviews such as the physician's ability to: (1) make a personal connection with the

patient, (2) appreciate and understand the contextualized nature of their clinical encounter, (3) implement flexible and improvisational communication styles, and (4) appreciate nonverbal language as being powerfully influential in determining conversational flow, direction and meaning.

Physician's ability to make a personal connection with the patient. Relationship-centered healthcare scholars contend that a physician's ability to make a personal connection with the patient has practical implications for gathering diagnostic information (Beach & Inui, 2005; Candib, 1995; Matthews, Suchman, & Branch, 1993; Suchman & Matthews, 1988). A personal connection between the physician and patient has to do with the patient feeling as though her/his physician is genuinely concerned about her/his subjective illness experience. A physician making a genuine effort to construct a personal connection with a patient is more likely to anticipate and ask about elements of the patient's subjective illness experience that may affect her/his diagnosis (Beach & Inui, 2005; Candib, 1995; Matthews, Suchman, & Branch, 1993). The physician's commitment toward appearing genuinely caring and concerned is then expressed in tandem by the physician not simply asking a series of diagnostic questions in a static way, but instead conducting the clinical interview in a way that shows that the physician is attentive, inquisitive and responsive to the patient's answers and interjections. A personal connection formed between the physician and the patient becomes apparent as the patient becomes more willing to "open up" and discuss her/his physical symptoms and concerns.

Appreciation for the contextualized nature of the encounter. A physician's appreciation for the contextualized nature of the encounter is also important in

relationship-building during diagnostic clinical interviews. Physicians who appreciate clinical conversations as not simply occurring in a decontextualized vacuum as back-and-forth exchanges of information between physician and patient, but instead as highly integrated systems (Frank, 1995; Inui, 1996; Tresolini, 1994), are more likely to remain attentive to the patient while simultaneously taking into consideration other contextualized factors. Physicians skilled at relationship-building recognize how the context of the encounter may change how they decide to begin the interview, order and re-order questions, and adapt their nonverbal affect to meet the patient's state of mind (Charon, 2001; Massad, 2003). For example, a physician interviewing an under-insured, high-risk, single parent obstetrics patient may spend a considerable amount of time discussing how the patient may best be able to balance her work-related demands with taking preventative measures (e.g., bed rest) to increase her chances for a full term pregnancy. By adapting the conversation to recognize and address a patient's specific needs, the physician gathers information which may help her/him in tailoring a treatment plan specific to the patient. Additionally, the relationship between the physician and the patient is also strengthened because the patient feels trust in her/his physician.

Implementing flexible and improvisational communication styles. Relationship-centered care scholars suggest that strong physician-patient relationships are built when physicians can implement flexible and improvisational communication styles. Because patients often tell stories in fragmented and disjointed ways (Hurwitz & Greenhalgh, 2001), physicians must be skilled at navigating a patient's complex story so that it makes sense to both the patient and the physician. Specifically, obtaining diagnostic information from patients involves actively listening to the patient's multiple concerns, deciding

which of those concerns to explore with more specific and directed questioning, and then synthesizing that information with their biomedical and psychosocial knowledge in developing a differential diagnosis (Frank, 1995; Inui, 1996; Tresolini, 1994).

Scholars contend that developing qualities such as mindfulness may help in flexibly communicating with patients (Epstein, 1999; Novack, Epstein, & Paulsen, 1999). Mindfulness has to do with remaining meta-aware in the moment of how the interaction between themselves and the patient influences the direction and flow of the conversation (Epstein, 1999; Novack, Epstein, & Paulsen, 1999). Epstein (1999) suggests that when skilled physicians think of themselves as both "participant and observer" within the medical interview, they maintain a position from which to listen and respond to the patient's story while remaining critically aware of how the conversation may need to be redirected to best meet the patient's needs.

Other scholars such as Charon (2001), Hurwitz (2001), and Greenhalgh and Hurwitz (1999) add that physicians best build relationships when they adopt a flexible construct in thinking about medical interviewing. Skilled physicians may build relationships with patients by also being "narratively competent" (Charon, 2001) or by having a "narrative appreciation" (Hurwitz, 2000; Greenhalgh & Hurwitz, 1999) for the clinical interview. From this view, skilled physicians allow the patient to tell her/his own story. The physician makes sense of the patient's story within the clinical conversation and during the patient charting process by delineating and categorizing salient characters, plotlines, settings, themes and sub-themes as a narrative technique in taking a more biopsychosocially comprehensive and holistic social and medical history (Charon, 2001; Hurwitz, 2000). The physician views the clinical interview as the creation of a "third"

story which resides neither with the physician nor with the patient, but instead is a unique and mutually constructed "joint narrative" (Brody, 1994, 1995).

Massad (2003) and Neuwirth and Schrader's (2004) "performance" perspective on "doctoring" emphasizes that skilled physicians may improvise "between" the scripts of negotiating biomedical information and sharing about the patient's illness experience. According to Massad (2003), skilled physicians implement flexible communication styles by critically "…valuing and responding to what is going on between patient and physician [within] the relationship-building process (and how that process contributes to outcomes)" (p. 11). For example, an experienced physician and an inexperienced physician may diagnose differently after interviewing the same patient. The two physicians may follow similar deductive diagnostic algorithms in determining a diagnosis. However, when and how each physician asks questions and/or invites the patient to share her/his story may vary considerably. The inexperienced physician will most likely ask a series of highly structured closed-ended diagnostic questions (Haber & Lingard, 2001). However, the experienced physician will be better equipped to flexibly and creatively adapt the timing and phrasing of more open-ended questions. The experienced physician's ability to do so most likely will create a stronger rapport with the patient and increase the likelihood that the patient will disclose more personal, biomedical, social and family history information. Neuwirth and Schrader (2004) suggest that skilled physicians are analogous to a skilled "soloing" jazz musician who makes momentary and spontaneous musical alterations while remaining in rhythm with the song. In as such, young and inexperienced physicians are similar to novice jazz musicians who are still "learning the notes" of the diagnostic song. Even though these scholars vary

somewhat in their specific perspectives, all agree that relationship-building within diagnostic medical interviews requires physicians to adapt a flexible communication style that allows them to improvisationally navigate the patient's story so as to assist in the forming of a cogent evidence-based diagnosis.

Nonverbal language is powerfully influential in building and maintaining relationships. Nonverbal language, in concert with verbal content, is powerfully influential in relationship-building between physicians and patients. Shotter and Katz (Katz & Shotter, 1996, 2000; Shotter, 1995, 1999, 2003; Shotter & Katz, 1998) suggest that there are organic, spontaneous, and improvisational moments within the clinical encounter that help shape and direct clinical conversations which, in turn, shape relationships between physicians and patients. These verbal and non-verbal relational "clinical moments" can be recognized in changes in intonation or a sudden aversion of eye contact. These moments, hopefully when noticed, "call out" to the physician that the patient may want, for instance, to redirect the conversation, share a part of her story, or ask a question (Katz & Shotter, 1996, 2000; Shotter, 1995, 1999, 2003; Shotter & Katz, 1998). These "moments" or "gaps," if missed in the conversation, reciprocally influence the conversation between the physician and the patient (Katz & Shotter, 1996, 2000; Shotter, 1995, 1999, 2003; Shotter & Katz, 1998).

Relationship-centered care scholars contend that a well-timed empathetic response may positively influence how the patient shares about feeling understood, relaxed, and connected with her physician, whereas ignoring the patient's actions and invitations to become more empathetic ("gaps") may make her feel misunderstood and therefore distrustful of her physician (Coulehan, Platt, Egener, Frankel, Lin, Lown, &

Salazar, 2001; Roter, Frankel, Hall, & Sluyter, 2005; Zoppi & Epstein, 2002). For example, while taking a medical history, a physician may be able to encourage a patient to amplify her/his concerns by noticing and taking advantage of an inviting moment to say to the patient, "You seem a bit concerned. Would you like to talk about it?" (Coulehan, Platt, Egener, Frankel, Lin, Lown, & Salazar, 2001). Asking a question like this could lead the standardized patient to share a piece of information about her/his symptoms or family history that could lead the conversation in a different diagnostic direction.

Standardized Patients' Role in Teaching Relationship Building

Standardized patients can help teach medical students to conduct medical interviews from a relationship-centered care approach. Standardized patients assist in teaching medical students to effectively integrate the biomedical and humanistic elements of a diagnostic interview. In the two pre-clinical years of medical school, the standardized patient is often the first "real" person that the medical student interviews in obtaining a medical, family or social history. These experiences typically come in the form of either formative (ungraded) OSCEs or other course-situated medical interviewing skills training exercises. During formative OSCEs, standardized patients typically give medical students oral feedback regarding how the standardized patient felt during the encounter. Oral feedback is typically not provided during summative OSCEs. However, standardized patients are often allowed to make written qualitative comments in the space provided at the bottom of their checklist. The literature also suggests that standardized patients provide feedback about how the medical student made the standardized patient feel during the encounter.

Most standardized patient literature focuses on the standardized patient's role in teaching medical students about how specific language choices may affect their relationship with the patient (Barrows, 1993; Clark-Ucko, 2006). For example, standardized patient literature addresses such topics as how well the medical student opened the encounter, built and maintained rapport with the patient, and phrased biomedical questions so as to effectively elicit integrative biopsychosocial information (Barrows, 1993; Barouch, 2007; Clark-Ucko, 2006; Diaz & Bogdonoff, 2004; Wagner, Lentz, & Heslop, 2002). In addition, standardized patients may tell medical students that opening the interview by shaking hands with the patient and then asking her/him how she/he would like to be addressed (e.g., "Ms Smith, how would you like for me to address you?") helps to show respect for the patient. Additionally, standardized patients may advise medical students that asking the patient about her/his life and interests going beyond the biomedical issues at hand (e.g., family, community activities, hobbies) helps to build rapport at the onset of the encounter. Finally, standardized patients may advise medical students to be mindful in how they phrase diagnostic questions (Barouch, 2007; Clark-Ucko, 2006). Standardized patients may warn medical students to not ask questions that are leading, contain medical jargon, or are compounded in nature because these types of questions may leave the patient feeling confused, misunderstood and even depersonalized. For example, a standardized patient may give a medical student feedback to be careful not to say "So you don't drink?" because it may influence the patient to answer the way she/he thinks is "appropriate." Standardized patients may also give medical students feedback suggesting that they avoid the use of medical jargon when talking to patients because patients may not understand what the physician is trying to ask

or explain (Barouch, 2007; Clark-Ucko, 2006; Wagner, Lentz, & Heslop, 2002). Finally, standardized patients may advise medical students not to ask compounded questions such as "Do you have heart disease? High blood pressure? History of heart attack? Stroke?" because the patient may not be able to separate and remember all of the questions (Barouch, 2007; Clark-Ucko, 2006; Wagner, Lentz, & Heslop, 2002).

Standardized patients also provide medical students with oral or written feedback on how the standardized patient felt during the encounter. One study by Wilkerson and Rose (2001) found that the most frequent open-ended comments written by standardized patients on medical students' assessment forms had to do with the medical students' abilities to "make a personal connection" with them. Standardized patients' comments often reflect how they generally feel about the medical student's performance by saying things like, "I felt like I could tell you anything" or "You seemed distracted the entire time" (Clark-Ucko, 2006; Wartman, 2006). Standardized patients may also give medical students feedback on how a specific action may have made them feel at a particular moment in the encounter. Typically, such comments have to do with how well the medical student recognized and responded to the patient's emotions within the clinical encounter (Blue, Chessman, Gilbert, & Mainous, 2000; Frankel, 1995). For example, standardized patients may say something like, "I felt like you really cared when you asked me how my illness was going to affect my new job."

OSCEs Need a Relationship-Centered Lens

By beginning to explore OSCEs through a relationship-centered lens we are given more insight into how medical students and standardized patients develop and maintain a relationship so as to mutually negotiate a diagnosis within the OSCE process. This is

important considering that OSCE assessment techniques may not capture the elements of relationship-centered care in diagnostic medical interviewing. Medical schools want to produce relationship-centered physicians who are skilled in fluidly building and maintaining rapport while navigating a patient's complex illness narrative so as to arrive at a mutually constructed diagnosis. OSCEs, however, rely on rigid elements of standardized performances and diagnostic checklists to assess medical students' content rather than relational clinical interviewing skills. A large investment of time, money and energy is spent on summative testing by the National Board of Medical Examiners (NBME) for professional licensure and by medical schools across the nation so as to determine medical student content-specific competence. It would, however, seem equally important to examine the dynamics of relationship-building between standardized patients and medical students during the performance of summative diagnostic OSCEs in order to learn more about how the relational and content elements of diagnosing work together during this complex comprehensive exam. As a result, this study uses a relationship-centered approach in asking the question "How are physician-patient relationships negotiated between standardized patients and medical students during a summative diagnostic OSCE?"

METHODS

Use of a qualitative research design for this study is best suited for understanding the subjective relationship-building process and experience of medical students and standardized patients during the performance of a clinical case scenario. According to Delvecchio-Good (1992), qualitative research designs are appropriate methodologies for understanding subjective experiences, interactions, meaning making and stories within certain social contexts. Qualitative research designs are best employed when "certain aspects of human experience cannot be accessed without the higher levels of awareness and consciousness that the researcher's subjectivity can bring" (Cutcliffe & McKenna, 1999, p. 376). Within health care contexts, qualitative methods help elucidate how medical meanings about diagnosis, treatment planning, convalescence, and death are constructed within medical conversations (Delvecchio-Good, 1992). Specifically, related to doctor-patient relationships, Greenhalgh and Hurwitz (1998) write that qualitative methodologies are an important method because "…patients almost invariably place their most important experiences—birth, death, grief, and illness—within very different narrative streams than do doctors" (p. 11).

Because qualitative research is often focused on the importance of contextualization for any study, this next section begins with a description of the physical and social context in which the study took place. Specifically, this section first describes a typical OSCE performance day, the grading of OSCEs at IUSM, and how standardized patients are recruited and trained. Finally, this section describes the research design of the study, including the study participants and data analysis.

OSCE Performance Day

All audiotaped interview discussions and videotaped encounters took place at the Clinical Skills Education Center at the Indiana University School of Medicine. The Clinical Skills Education Center is located about a mile from the IU School of Medicine's main campus. It is housed on the second floor of a medical professional building adjacent to one of the University's partnering hospitals. The "OSCE Center," as it is commonly called, used to be a patient clinic. However, in 2001, the space was renovated so as to house the OSCE program. Before IUSM had its own "Center," clinical examination rooms in University Hospital were used to perform OSCEs.

The OSCE Center is made up of 15 patient examination rooms, two conference rooms, and one large monitoring room. The patient examination rooms look like examination rooms found in a family practitioner's office, complete with paper-lined examination tables, sinks, and posters about blood pressure and smoking's effect on Chronic Obstructive Pulmonary Disease (COPD). Blood pressure equipment along with an otoscope and ophthalmoscope are mounted to the walls. The only major noticeable differences between the OSCE Center's patient rooms and a real physician's office is the presence of a VCR mounted underneath the supply cabinet, a laptop computer (for standardized patient assessing) and the tinted glass globe mounted to the ceiling which hides the rotating camera.

The examination rooms line two parallel hallways separated by the monitoring room. The monitoring room is located in the center of the facility. Its walls are lined with monitoring stations complete with television monitors, lab stools, headsets, and controls for zooming and panning so as to view the activities happening in the rooms in real-time.

A series of tables create a long conference table in the center of the room. The monitoring room is where standardized patients congregate before the student sessions begin and during breaks and lunch.

About 275 fourth year medical students participated in the 2005 Senior OSCE. The 2005 Senior OSCEs ran over six full days. Standardized patients were expected to arrive at the OSCE Center at 7:45 and begin their first encounter with students at 8:20. Standardized patients are expected to arrive close to an hour before the first session in case standardized patients oversleep or have problems finding childcare or transportation. Each day the Clinical Skills Education Center Coordinator would make a series of "wake-up" calls to the few standardized patients who were notorious for oversleeping and arriving late. During the time before the first session of the OSCE, standardized patients eat donuts and drink coffee while discussing current events, religion, and the latest gossip in the local theatre community. Standardized patients also share stories about their "best" or "worst" medical students, or amusing things that may have happened during their encounters.

Students arrive at the OSCE Center about 20 minutes before their scheduled time. Students are ushered into a conference room located adjacent to the main entrance door. The Interim Director of the OSCE Center conducts a brief 10-minute orientation to let them know what to expect from their experience. She holds a doctorate in Education and began her work in the OSCE Center as a Standardized Patient Trainer in 2003. Meanwhile, during student orientation, students are told that they will rotate through seven different case stations, be allowed twelve minutes to complete each station, that

they will be given a warning signaling five minutes remaining in the encounter, and that they are not allowed to bring any outside materials into the room with them.

A booming microphoned voice calls out "Rabbits in your holes!" signaling the time for standardized patients to go into their assigned examination rooms to wait for students to begin their session. In a typical day, each standardized patient sees fourteen students—seven in the morning and seven in the afternoon. The morning and afternoon sessions each include one 15-minute break after the first four medical students have completed their sessions. The lunch break lasts about an hour and a half and occurs after the morning session is complete.

After orientation, students are lined up outside of each of the doors of the rooms. An announcement comes over an intercom system which tells the students to "Please give your tape to the patient." The standardized patient stands behind the door and stretches out her/his hand out around the door so that the medical student can place the tape into her/his hand. The standardized patient then puts the tape into the VCR and presses the record button. Once the standardized patient puts the tape in the VCR machine and presses record, she takes her place either on an examination table or chair in the room. The next announcement that comes over the intercom is "Remove the folder from the door. You will have 15 minutes to complete this encounter. You may enter the room when you are ready." The folder contains a brief paragraph describing the purpose of the visit (e.g., Mr Hunt presents with a headache). The folder may also contain vitals such as the patient's blood pressure, pulse, and temperature. Medical students typically spend about 30 seconds to one minute reading over the folder before entering the examination room to begin the interview.

After 10 minutes has elapsed from the beginning of the encounter, another announcement comes over the intercom warning students, "You have five minutes to complete the encounter." The majority of students take the entire 15 minutes to complete the encounter. However, some students do finish early. At the end of 15 minutes, a third and final announcement tells students, "Please stop the encounter. Please take your tape and exit the room. You will have 10 minutes to complete your post-assessment exercise." Laptop computers are located outside each of the standardized patient rooms for medical students to complete their post-encounter exercise. The post-encounter exercise for students includes a series of questions pertinent to the case. For example, diagnostic case scenarios typically ask students to list their top five differential diagnoses and related diagnostic tests they would order.

During the 10-minute period, standardized patients complete a checklist form about the medical student who just interviewed them. The checklist is typically 20 items long and contains both binary yes/no questions related to the biomedical aspects of forming a differential diagnosis and Likert-type scale questions related to how the medical student made the standardized patient feel. For example, in a case where the standardized patient presents with a headache, one checklist question may read, "Did the medical student ask you if sound makes your headache worse?" A patient response of "yes" to this question may lead the medical student to think that the standardized patient's headache may be a migraine headache. Another question on the checklist form related to the patient's feelings and emotions during the encounter may read, "Was the medical student nonjudgmental about my use of marijuana?" Most of the standardized patients' assessment forms also have a comment box where standardized patients may

type comments to reflect medical students' strengths and areas in which they could improve. Standardized patients are encouraged by the Interim Director to type one or two positive comments reflecting the student's strengths and one to two suggestions for improvement. At the completion of the 10-minute post-assessment, a final announcement tells medical students and standardized patients to "Please submit all responses and proceed to your next station."

Grading IUSM OSCEs

At IUSM, the Senior OSCE is a pass-fail examination (D. A. Griffith, personal communication, June 1, 2007). Students are assessed based upon standardized patients' checklists and students' post-assessment exercises. Standardized patients' checklists are the primary means for determining passes and failures. At the completion of the OSCE, standardized patients' checklist scores are downloaded into statistical software for data analysis. A minimum "passing" point is determined for each of the seven case scenarios. Typically, a student who scores below a minimum point threshold in four out of seven case scenarios will be determined to have failed the OSCE and is marked for remediation. However, students who may have failed one to three case scenarios and/or exhibited unprofessional and/or inappropriate behaviors (e.g., inappropriate tone and/or language, disrespectfulness) as noted by standardized patients are also considered for remediation. For those students determined to have either failed or are being considered for remediation, the Interim Director will ask clinical faculty to conduct a review of the student's tape, the standardized patients' checklist, including qualitative comments, and the student's post-assessment response. The review is intended to help the Interim Director and Clinical Skills Coordinator understand the reasons behind the failure (e.g.,

extreme nervousness and/or poor timing resulting in failure to complete questioning). The Interim Director then meets with those students determined to have failed. She discusses reasons for the failure and provides counseling to help them improve in future OSCE performances. These students are then required to remediate by taking another OSCE.

Standardized Patient Recruiting

Fifteen standardized patients participated in the 2005 fourth-year OSCE. The age, gender, and ethnic background of the standardized patients recruited varies according to the demographics of the patient in the case. For example, even though I was 28 years old, I played a pregnant 15-year-old primarily because I am petite and look young for my age. Standardized patients are recruited and trained about two weeks prior to a particular OSCE examination date. The clinical skills coordinator recruits and hires all standardized patients. Most often the same "core group" of standardized patients are hired to perform in the Senior OSCEs. The same group is used mostly because they have flexibility in their schedules to attend all of the OSCE days. OSCEs are often not run on consecutive days/weeks, but instead are conducted two or three days a week over a three-to four-week period. OSCEs are scheduled as such in order to accommodate medical students' clinical rotation schedules as well as to help prevent standardized patients from becoming "burnt out" after seeing fourteen medical students a day for several days in a row.

Consistent with the general literature on standardized patients, most standardized patients performing in the senior OSCEs at IUSM are community actors and actresses (Barrows, 1993; Barouch, 2007; Butchy, 2006; Clark-Ucko, 2006). Despite the wide variations in age, gender, educational and cultural backgrounds, the standardized patients create a unique atmosphere of laughter, debate, and sarcasm. During breaks and lunch,

conversations of religion and spiritual beliefs are intermixed with debates over the War in Iraq and abortion and end-of-life rights.

Standardized Patient Training

At least two standardized patients are trained to perform for each of the seven scenarios. Sometimes a third person will be trained on the same scenario in case a substitute is needed. Overall, the fewer people performing the case, the better, as fewer people help keep performances and assessments similar between students. Our training was scheduled the week before the actual OSCE performance. Standardized patients performing the case are scheduled for training in one-hour increments. The Interim Director trains all of the standardized patients.

During the training session, standardized patients are given a two- to three-page case scenario which includes the case's basic objectives, scripted prompts, and assessment checklist. A standardized patient learning a medical diagnostic case would learn the medical symptoms of the ailment they are portraying and how a patient with that ailment would typically present with those symptoms. In addition, the standardized patient would learn scripted phrases, stories, and prompts which add detail to the case. These prompts and stories are important because the medical student asks the standardized patient questions to which the standardized patient must respond with her/his scripted responses.

A day or two after the training session in which standardized patients learned their character scripts, standardized patients return to the "OSCE Center" for inter-rater reliability training. During inter-rater reliability training, each standardized patient performing in the same scenario role-play the case scenario with the Interim Director.

The Clinical Skills Coordinator and the other standardized patient trained on the same case watch the performance from the monitoring room. At the conclusion of each role-played performance, the Interim Director, Clinical Skills Coordinator, and standardized patients each complete the assessment checklist. The scores among the four are compared to ensure inter-rater consistency in scoring.

Standardized patient training at IUSM seems consistent with standardized patient training literature whereby standardized patients must be "standardized" in their performances so that students receive the same testing experience (Barrows, 1993; Barrows & Abraham, 1964; Clark-Ucko, 2006; Diaz & Bogdonoff, 2004; Harden & Gleeson, 1979). "Standardization" typically requires that standardized patients open the encounter with a brief scripted prompt, volunteer symptomatic diagnostic information only when asked by the medical student, and give answers without elaboration (Barouch, 2007; Clark-Ucko, 2006; Wartman, 2006). First, as is typical in standardized patient training (Clark-Ucko, 2006), standardized patients at IUSM may be trained to reply to a medical student's opening question of "So what brings you in today?" with a direct, simple and short phrase such as "My foot hurts" or "I have a headache." Second, standardized patients are trained to wait until medical students ask them questions before volunteering diagnostic information (Clark-Ucko, 2006). Trixie Sharwood, a standardized patient living in Sydney, Australia, explains that standardized patients must not add any new symptoms to their performance and that "volunteering information is also forbidden. The students have to elicit everything from the SP" (Barouch, 2007, p. 19). Sharwood finds that "In order to not be tempted to prompt even just a little, [I] quite often find [my]self literally biting [my] tongue" (Barouch, 2007, p. 19). Third,

standardized patients are trained to answer questions without elaboration (Clark-Ucko, 2006). For example, if a medical student asks a patient "Do you smoke?", the standardized patient is trained to answer the question with a "yes" or "no." If the standardized patient's script confirms that she/he does smoke, she/he is not allowed to elaborate and tell the medical student the number of packs smoked per day or reasons why.

A significant difference, however, between standardized patients trained at IUSM versus traditional standardized patient training in the literature is that standardized patients at IUSM are told that they may elaborate upon their answers a bit if they feel as though the medical student is doing a "good job" in asking questions pertinent to their case and is making a connection with them. Standardized patients are careful, however, to not provide too much information to students for fear of "giving the case away." In addition, standardized patients at IUSM are not allowed to volunteer any *new* diagnostic information to the medical student unless specifically asked. For example, in the case scenario in which I performed as a pregnant teenager, I was scripted to be an alcohol user and occasionally smoked marijuana with my friends. If a medical student with whom I felt a personal connection asked me specifically about my alcohol use ("Do you drink?"), I might share a long and detailed story about my drinking. However, in my elaborated story to the medical student, I would not reveal that I smoked marijuana.

Research Design

An ethnographic research method was used in gathering data for this study. Ethnography is a qualitative form of research in which the researcher experiences a culture by placing herself within it in order to interpret how the everyday uses and

representations of language create meaning within that culture (Ellis & Bochner, 1996).[1] The data consists of (1) videotaped encounters between standardized patients and medical students, (2) audiotaped interviews with standardized patients, and (3) audiotaped interviews with medical students. The purpose of using several data sources is to help improve the content and face validity of the research findings (Denzin, 1978; Mathison, 1988). According to Denzin (1978), "The rationale for this strategy is that the flaws of one [data source] are often the strengths of another: and by combining [data sources], observers can achieve the best of each while overcoming their unique deficiencies" (p. 302).

In this study, I also kept an ethnographic field journal of my reflections throughout my experience (Bochner & Ellis, 2002; Ellis & Bochner, 1996). My journaled reflections consist of my observations, thoughts, and emotions while interacting with medical students during the encounters and standardized patients outside of the encounters. For example, some of my reflections consist of how I felt medical students had connected with me as a patient. I reflected on how well medical students may have attended and responded to my scripted and non-scripted verbal and nonverbal cues, and how that may have influenced the direction of the conversation and/or made me feel as a patient. In addition, I also reflected on the interactions with other standardized patients that occurred on breaks and before and after student sessions. My reflections illustrate

[1] There are a few features of ethnographic research which are important to note. First, unlike traditional deductive research which emphasizes the formation and testing of hypotheses, ethnographic research focuses upon exploring and describing social phenomena (Flick, 2002). Second, most ethnographic data is "unstructured" in that it is has not been pre-coded into analytic categories. Instead, data collection is driven by the research question and circumstances in the field (Flick, 2002). Finally, data analysis typically involves an interpretation of verbal descriptions to explain meaning making in human interaction (Flick, 2002).

insights I gained from stories standardized patients share with each other about their performances with medical students.

Study Participants

Videotaped clinical OSCE case scenario encounters. A convenience sample of 20 out of approximately 250 videotaped case scenarios involving fourth-year medical students and standardized patients who signed informed consent forms was collected. The videotaped case scenarios involved fourth-year students working through a series of seven case scenario stations. The seven stations included two adult diagnostic cases, one smoking cessation case, two pediatric cases, one informed consent case, and one case dealing with end-of-life issues.

Out of the 20 videotaped clinical case scenarios, two adult diagnostic clinical case scenarios were chosen to be analyzed. The two case scenarios I chose were the tension headache case and the persistent cough case. The tension headache case scenario is written such that a 40-year-old male patient comes to an urgent care clinic because he has been suffering from an excruciating headache for two days. The information given to the medical student on the door card reads as follows:

> You are seeing a patient in the urgent care center for evaluation of a severe headache. Vital signs are: Pulse 70, Respirations 18, Temp 37.5C and BP 120/80. Please enter the room and take a focused history and do a physical examination.

The cough case scenario is such that a 32-year-old female comes to a family practitioner's office for her persistent dry cough and fatigue which has been bothering her for the past week. The objective of the interview for the diagnostic cases is for the

medical student to elicit from the patient biomedical and social information necessary to determine a differential diagnosis. The student's door card reads:

> "Jennifer Riley is a 32-year-old female who presents to the family doctor's office with a complaint of a "bug." Task-take an appropriate history."

I chose to examine the diagnostic headache and cough cases for several reasons. Because my goal is to look at the relationship-building process between medical students and standardized patients, I wanted to choose cases that are contextually similar. Medical education scholars contend that simulated case encounters are contextually rich such that the relationship-building process between standardized patients and medical students may differ significantly across case scenarios (Rose & Wilkerson, 2001; Roter, Frankel, Hall, & Sluyter, 2005). In as such, I wanted to choose two encounters that require similar tasks by students (e.g., diagnosis), characters, medical contexts, and level of emotion. Both the headache case and the cough case are scripted such that adult patients are presenting with common symptoms (i.e., headache and cough) that could be the result of underlying disease processes varying in severity from cancer to a common cold. Also, since neither case contains a diagnostic artifact (e.g., test results) to support a definitive diagnosis, the student's task in both scenarios is to "take a brief history." I also chose the headache and cough cases because they are written such that the standardized patient is not required to specifically react in an overly emotional manner. Accordingly, even though I performed as a standardized patient in the pregnant teenager case, I did not choose the pregnant teenager case for analysis because contextual factors were too inconsistent with the other diagnostic cases. For example, the script is such that the patient is an adolescent, physical examination findings support a definitive diagnosis (e.g., pelvic exam reveals a pregnant uterus), and the script calls for an emotional response by the teenager (e.g., the teenager

cries when she finds out she's pregnant). The door card information and standardized patients' assessment checklist for the headache and cough case scenarios are located in the Appendix.

Interviews involving standardized patients. Audiotaped interviews with standardized patients were conducted to explore how standardized patients make sense of how relationships are negotiated between medical students and standardized patients. These interviews helped in comparing my own field reflections with other standardized patients' views on: (1) the ways standardized patients perform their scripted role to try to help medical students learn about building relationships with patients and (2) how standardized patients felt their performance during OSCEs compared to how they might act as a real patient. Specifically, I conducted 15-to 20-minute semi-structured interviews with standardized patients. They occurred over the course of the Senior OSCE examination sessions. Eleven out of 14 standardized patients participating in fourth-year OSCEs participated in the discussion. The following is a list of interview questions asked of standardized patients:

Standardized Patient Interview Questions:

1) How do medical students learn about physician-patient relationships during the encounter?

2) Within your scripted role as an SP, how do you try to help teach medical students about relationship communication during the encounter?

3) How do you think your role may be performed differently?

Interviews involving medical students. Audiotaped interviews with medical students were conducted to explore their views regarding (1) how standardized patients' verbal and nonverbal communication helps them learn to build relationships with patients

and (2) how the OSCE experience compares to their experiences with 'real' patients. A convenience sample of 15 fourth-year medical students were invited to participate in the interviews. My interviews with four fourth-year medical students out of the original 15 were omitted because technical problems with the audio recording equipment did not provide good quality sound for data transcription. Therefore, my semi-structured qualitative interviews included a convenience sample of 11 medical students out of approximately 250 students (Lincoln & Guba, 1985). The interviews with medical students were conducted at the end of the testing session to explore the students' views on their OSCE experience immediately following the examination. The following is a list of interview questions asked of medical students:

Medical Student Interview Questions:

1) How do medical students learn about physician-patient relationships during OSCE encounters?

2) How do standardized patients help medical students learn about relationship-communication?

3) How might you feel you may perform differently in a clinical case scenario (e.g., OSCE) versus a similar encounter with a 'real' patient?

Data Analysis

Both videotaped clinical encounters and audiotaped interviews with standardized patients and medical students were transcribed and then analyzed using grounded theory (Strauss & Corbin, 1990, 1998). Grounded theory suggests that the discovery of emergent themes within the text builds upon theory as opposed to testing it (Strauss & Corbin, 1990). The purpose of grounded theory research is "to discover relevant categories of concepts and the relationships among them; [and] to put together categories in new, rather than standard ways" (p. 49).

Grounded theory accomplishes this through the use of interpretive coding techniques where the researcher engages in a reflexive back-and-forth process of discovering conceptual categories, linking the relationships between them, and then comparing new understandings with relevant literature (Strauss & Corbin, 1990, 1998). In this study, full transcripts (Frankel, 1995) and videotapes of clinical encounters and audiotapes of interviews were analyzed in order to develop interpretive thematic coding schemes (Strauss & Corbin, 1990, 1998). Categorical themes were developed by analyzing the organization of the narrative, how one tells a tale and whose voice is being presented in order to ascertain how the medical student and standardized patient were situated within the clinical interviewing stories they were telling.

I compared themes discovered in videotaped encounters with themes discovered from interviews and within my journal reflections to gain insight into how the standardized patient's role influenced how relational medical communication is negotiated within the OSCE. Emergent themes from videotaped encounters and audiotaped interviews were compared to each other and back to the literature until theoretical saturation became apparent (Josselson & Lieblich, 1999). Theoretical saturation becomes apparent when grouping of data and enrichment of theoretical categories no longer provide new knowledge (Flick, 2002).

RESULTS

This study uses a relationship-centered lens to explore how relationships are negotiated between standardized patients and medical students performing in a diagnostic summative OSCE. Overall, findings suggest that the negotiation of relationships between standardized patients and medical students is influenced by their examination expectations. Specifically, two emergent themes suggest that standardized patients and medical students hold different expectations and understandings of 1) the diagnostic information-gathering process and 2) making personal connections in a summative diagnostic OSCE. The first emergent theme suggests that medical students expect standardized patients to "open up" and volunteer diagnostic information more like their 'real' patients. Standardized patients, however, are only trained to "open up" when medical students ask discrete questions because they view the OSCE as an assessment of medical students' abilities to know which diagnostic questions to ask and how to ask them. A second emergent theme suggests that standardized patients expect medical students to make a personal connection with them during the encounter and therefore will "open up" verbally and nonverbally with medical students who seem to make that connection. Medical students, however, report that personal connections are exceedingly challenging due to artificial, rushed and unrealistic evaluation conditions.

"Great Expectations" in Diagnostic Information Gathering

The first emergent theme suggests that standardized patients and medical students hold different expectations and understandings regarding how diagnostic information should be gathered within a diagnostic summative OSCE. Medical students expect standardized patients to "go beyond the checklist" by "opening up" and being more

improvisational and forthcoming with diagnostic information like their clinical experiences with "real" patients. For example, "real" patients are eager to talk about their symptoms, whereas standardized patients wait to share about their symptoms until the medical students ask them specific questions. Standardized patients, however, view the OSCE as a test of medical students' abilities to know how to phrase diagnostic questions in unambiguous ways and therefore expect medical students to "go beyond the checklist" by asking questions in discrete ways.

"Standardized patients are like 'difficult' patients." Medical students expect standardized patients to "open up" and share diagnostic information more like their "real patients." Nine out of 11 fourth-year medical students interviewed reported that they expect standardized patients to "open up" and volunteer diagnostic information more like their clinical experiences with "real" patients. Fourth-year medical students stated that standardized patients were like reluctant "difficult patients" because they were not forthcoming with information. Fourth-year medical students stated that standardized patients wait for "something specific" to be asked of them before offering information which would help in diagnosing the standardized patient's ailment. Medical students did not seem to understand exactly what that "something" entailed. One medical student commented, "With the OSCE patients…it's like you have to say a certain thing or you have to do a certain thing before they will open to you…so it's like once you've done that…you're gonna get the answer to your question and [so] it's just a little bit different from encounters with a real patient." Another student went on to say,

> "Normally the standardized patients are crankier and more difficult than real patients and so um you definitely have to struggle more to find the right questions to ask…And [with] the standardized patients it seems like they're waiting for that key word. You know [the standardized patient is thinking] "They have to ask that [specific question] and I will reveal this important piece of information."

Medical students stated that their experiences with standardized patients are unlike their experiences working with 'real' patients. Medical students stated that 'real' patients will typically "open up" more easily to them. One medical student stated,

> "What I found is that patients in the real world have those issues going on and they're dying to tell somebody. Even if you get close, they're willing to tell you…But the standardized patients they're trained too well, they need to target it at this certain [point]."

Another medical student said,

> "Sometimes that's the frustrating part when you're dealing with a standardized patient. You may have gotten it from a real patient because…they're not holding out something for a more specific question and then you can get them to draw it out. And with the standardized patient, it's like they're waiting for a specific cue. And if you don't do it exactly how it's supposed to be done then you don't get it."

Medical students likened standardized patients' withholding of diagnostic information until the "correct" question was asked to a "game" or a "treasure hunt." One medical student commented on his experience interviewing the patient in the headache case saying, "The guy with the headache. His eyes just kind of lit up 'oh yeah I've been having some problems at home.' So he started talking about [the stress in his life]. And so I realized [a stress headache] was the [diagnostic] direction I needed to head. Hit the right jackpot on that one!" Another medical student concurred in telling how he felt after completing the diagnostic headache case scenario. He said, "I felt like man whew I asked the correct question [about stress in the patient's life]. If I wouldn't have asked that

question the rest of the interview would have been very broad and dull. I wouldn't have gotten any specific details about anything."

At the time fourth-year medical students take the OSCE, they have completed one year of clinical rotation training which has taught them to navigate with the patient's illness narrative to arrive at a differential diagnosis by taking leads and cues from the patient. Fourth-year medical students' conclusions about how real patients typically interact with physicians are consistent with medical literature that indicates that patients are often knowledgeable about their symptoms, are eager to share their thoughts on potential causes for their symptoms, and typically share these thoughts as fragmented and disjointed narratives (Charon, 2001; Greenhalgh & Hurwitz, 1999; Hurwitz, 2000; Launer, 1999). Fourth-year medical students, therefore, expect to obtain diagnostic information from patients by listening to the patient's multiple concerns, deciding which of those concerns to explore with more specific questioning, and then synthesizing that information with their biomedical knowledge in developing a differential diagnosis (Greenhalgh & Hurwitz, 2001; Haber & Lingard, 2001; Hurwitz, 2000). As a result, most fourth-year medical students expressed frustration that standardized patients were hesitant and reluctant in that they did not openly share symptoms and personal concerns. Fourth-year medical students expect to follow the thread of the standardized patient's story and direct or redirect her story into one which makes sense for both the physician and the patient in developing a conjoint diagnosis (Katz & Shotter, 1996, 2000; Shotter, 1995, 1999, 2003; Shotter & Katz, 1998). However, standardized patients' highly scripted performances prevent medical students from engaging them in familiar conversations.

"Say the Magic Words." Standardized patients expect medical students to ask directed and jargon-free diagnostic questions. Interviews with 9 out of 11 standardized patients suggest that they "open up" and volunteer information only when directly asked specific questions. They expect medical students to know how to phrase questions in ways that best elicit the exact information the medical student seeks to gain and is least ambiguous to the patient. Nathan, a standardized patient, explains, "Word choices make a big difference…sometimes a certain question can mean something different by not asking it quite the right way." Specifically, standardized patients report that they expect medical students to phrase questions in ways that are neither too general, too specific, use too much medical jargon, nor are compounded in nature. Nathan stated, "You know [medical students] can be a little too general [in the questions that they ask]." Cassandra concurs and stated that during her performance she will give medical students "hints" that they are asking questions that are too broad. Cassandra explained, "[For example] if they say "Have you been sick?" I'm like, "What do you mean?" And then they learn to break things down [into more specific questions]." Cassandra went on to say that she will withhold diagnostic information if the medical student does not respond to the first few clues she gives them. She says, "I don't like giving them gifts…If they don't take the hint and they keep asking those big questions [then] I keep saying, "I don't know" and they settle for that and don't get [the diagnostic information they want]."

Two other standardized patients, Janie and Amy, stated that they would withhold diagnostic information if fourth-year medical students ask questions that are too specific. For example, Janie who performed in the cough case stated,

> "I won't make the juniors be quite as specific as I will the seniors. For example, in my case, the grandfather had TB…With the senior, if he was or she was to ask the question and wasn't totally specific to family history I would not give them the answer. But with a junior-I know they're trying to do the family history. If [a Junior] gives me a question that's open enough I'll try to tell them…and then in the feedback I'll tell them I was being nice."

Amy, who also performed this scenario, likened standardized patients' wanting medical students to ask specific, yet not overly narrow, questions to OSCEs as having "magic words." She said,

> "There are magic words in these [OSCEs]…You know maybe if they ask me, a lot of people will say um for family history "How about your Mom and Dad? Are they okay? Are they having health problems?" and name a few health problems off. But if they ask me again about my family history or ask in a different way, they'll find out that my grandfather died six years ago of what seemed to be pneumonia but afterwards we found out that he died of tuberculosis."

Standardized patients also stated that they will not "open up" when the medical student uses too much medical jargon which may be confusing to the patient. For example, Robin stated,

> "A lot of them are very smart but they can't express it like they need to…A lot of them use big words that nobody but other doctors would understand and when they do that I try to break it down and say, "Well can you tell me more about this word or this situation or this test or whatever it is?" I try to have them break it down so that it's simple."

Finally, standardized patients stated that medical students may sometimes ask compounded questions which also may be confusing to patients. Nathan stated,

> "[Standardized patients] find a student will ask something like, "So ah, do any, does anything run in your family?...And as you're about to answer they go "like diabetes? Do they have diabetes? Is there heart disease?" And I was like well you know I was about to tell you but…because they went on talking they changed the whole nature of the question"

Cassandra stated that she will also give "hints" to fourth-year medical students that ask compounded questions. Cassandra stated, "If [the medical student] says, um, "So do you

have coughing? Do you have a fever? Do you have any chills?" I'm like "Which one?" And by that I'm prompting them to break questions down in a manner that's going to be more successful to them."

Standardized patients' expectation that medical students should phrase questions in specific ways reflects their experiences in teaching medical students in the pre-clinical years. Standardized patients know that diagnostic questions can be easily misunderstood by patients (Korsch & Harding, 1997; Larivaarra, Kiuttu, & Taanila, 2001), so they emphasize the importance of medical students understanding that they need to phrase questions in a way that is most direct and clear to elicit the information they want.

Differences in expectations invariably exist across a headache and a cough case scenario. An analysis of taped encounters demonstrates the differences between standardized patients' and medical students' expectations in summative diagnostic OSCEs. Across two different diagnostic case scenarios, standardized patients provided diagnostic information to medical students only when prompted with specific diagnostic questions. Across all 10 headache case scenarios, the standardized patient did not volunteer symptomatic information such as the duration of pain, constancy of pain, and similarity to previous headache experiences until specifically prompted by the medical student. An excerpt from one headache case scenario illustrates this point. After the medical student enters the room and introduces himself, the encounter proceeds as follows:

Medical Student:	Do you know what brings you in today?
Standardized Patient:	Um, I have a headache that will not go away. It's the worst headache that I've ever had in my life
Medical Student:	How long has it been going on?
Standardized Patient:	Two days
Medical Student:	Have you had any other problems?

Standardized Patient:	No not really
Medical Student:	Okay. Is it constant? Does it come and go?
Standardized Patient:	It's constant
Medical Student:	Okay. Have you had any headaches like this in the past?
Standardized Patient:	No
Medical Student:	Any sensitivity to light or sound?
Standardized Patient:	No
Medical Student:	Does anything make it better or worse?
Standardized Patient:	No

In this example, the medical student begins with a typical initial open-ended question of "What brings you in today?" which was answered by the standardized patient's response, "Um, I have a headache that will not go away. It's the worst headache I've ever had in my life." The standardized patient's response is a typical scripted opening statement which the standardized patient has been trained to deliver at the onset of the encounter (Barouch, 2007; Barrows, 1993; Clark-Ucko, 2006). The medical student then asks "How long has it been going on?" to which the standardized patient replies, "Two days." The encounter then proceeds with the medical student asking a progression of short closed-ended diagnostic questions such as, "Have you had any headaches like this in the past?" and "Any sensitivity to light or sound?" to which the standardized patient responds with short "yes" and "no" answers. The narrowly confined interviewing style which emerged from the standardized patient waiting for the medical student to ask the next question supports medical students' assertions that interviewing patterns with standardized patients are unlike their clinical experiences in which patients are openly forthcoming with information. The medical student in this scenario, as evidenced by their interview data, perhaps may have expected, or at least been more comfortable, if the standardized patient performed his role such that he volunteered the symptoms of his headache.

In addition, the headache case scenario demonstrates that standardized patients do not "open up" and share diagnostic information with medical students unless medical students phrase diagnostic questions in specific ways. For example, the standardized patient is concerned that his headache may be a symptom of a stroke. In nine out of 10 headache case scenarios, the standardized patient volunteers that his mother died of a stroke when the medical student asks specifically about family history of medical problems or family history of stroke. In one typical headache encounter, the medical student asks the standardized patient, "Any sort of medical problems run in your family?" to which the standardized patient replies, "Well yeah my mom had an aneurysm. She was seventy-two." Interestingly, however, in one encounter in which the medical student asks the standardized patient a question specific to family history of *headaches*, the standardized patient does not share with the medical student that his headache may be the result of a minor stroke. In this encounter, when the medical student says to the standardized patient, "Has anyone in your family had a problem like this with headaches?" the standardized patient responds with a negative "Hm-hmm. No." Even though the standardized patient's character script is such that he is slightly concerned that his headache may be due to a stroke such as the one his mother suffered, the standardized patient does not reveal his family history of stroke until later in the encounter when the medical student asks the specific question "Do you have any family history of kidney problems or aneurysm?" to which the standardized patient then finally reveals, "Yes my mother had an aneurysm." In one of the 10 headache cases, the medical student did not ask the standardized patient at all about either family history or stroke symptoms.

Similarly, all 10 cough case taped encounters find that standardized patients will only "open up" and volunteer information when medical students ask specific diagnostic questions. Similar to the headache case scenario, the standardized patient in the cough case scenario does not really volunteer information about her cough symptoms or other symptoms related to the possibility that her cough could be a result of tuberculosis, lung cancer, lung infection, or irritation due to chemical exposure. The following excerpt from a typical cough case scenario further demonstrates that standardized patients do not volunteer diagnostic information unless specifically asked by the medical student.

Medical student:	What brings you into the office today?
Standardized patient:	Well I thought I had a bug or something. I've been coughing a lot and I've been kinda tired
Medical student:	Okay. When did it start?
Standardized patient:	About a week ago
Medical student:	About a week ago. And what did you notice first?
Standardized patient:	Ah a cough
Medical student:	Cough. And can you describe the cough to me?
Standardized patient:	Kinda dry and hacky
Medical student:	Worse in the morning? Worse at night?
Standardized patient:	Worse at night
Medical student:	Okay. Do you cough up anything when you do cough?
Standardized patient:	No
Medical student:	And this has been going on for the past week. Have you been around anyone who has been sick?
Standardized patient:	No

Similar to the headache case scenario, the standardized patient answers the medical student's initial open-ended question with the scripted response, "Well I thought I had a bug or something. I've been coughing a lot and um I feel kinda tired." Her unwillingness to lead the conversation by volunteering more detailed information about her cough and fatigue symptoms creates a narrowly filtered closed-ended interviewing pattern which continues throughout the remainder of the encounter.

The cough case scenario also demonstrates that standardized patients only share diagnostic information when medical students phrase diagnostic questions in specific ways. Once again, similar to the headache case, the standardized patient in seven out of 10 cough case scenarios waits until the medical student asks a question specific to her family history before she tells her/him that her grandfather died of tuberculosis. For example, in one typical encounter, the medical student asks the standardized patient, "In your family history, anybody have anything like lung cancer, diabetes, heart disease?" to which the standardized patient responds, "My grandfather died of what we thought was pneumonia but we found out that he had tuberculosis." By contrast, in two of the 10 case scenarios, the medical student asks the standardized patient, "Are your parents both still living?...And they're both healthy?" and the standardized patient responds, "Yeah. They're both really healthy" without revealing her concern that she may have contracted tuberculosis from her grandfather six years ago. Like the standardized patients performing in the headache case who would not share concerns that they may be experiencing a stroke, the standardized patient in the cough case chooses to not volunteer her concern regarding the possibility of contracting tuberculosis because the medical student phrased the question in a manner that was too specific to the health of her parents. In one of the 10 cough cases, the medical student did not ask anything about either family history or about tuberculosis, and the standardized patient did not volunteer information about her concern that her cough might be related to tuberculosis.

In conclusion, medical students and standardized patients enter the OSCE with different expectations regarding how diagnostic information should be gathered. Medical students expect OSCE encounters to simulate their typical clinical experiences working

with “real” patients whereby the challenge for them is to navigate with a patient’s complex story. Therefore, medical students feel unprepared, de-tooled and frustrated when standardized patients performing diagnostic case scenarios present as antithetical “difficult patients.” Medical students’ feelings reflect Hodges’ (2003) assertions that the decontextualized OSCE often leaves medical students feeling as foreigners in an encounter which is supposed to simulate their real-life experiences and test their real-life communication skills.

During my interviews with standardized patients, one standardized patient, Sarah, agreed with the medical students in stating that she felt as though her role as the mother of a sick baby was a bit “unrealistic.” Sarah stated, “…There would be more things that I would probably offer that I don’t do—I mean [in my role as a mother to a sick two-year-old] I don’t offer them anything…[For example], [medical students] normally say, “Any other symptoms?” to which I say “Symptoms like what?” and I know that if my little girl is rubbing her head I’m probably going to say, “Well, she’s rubbing her head.” I mean as a real person I think I would, [but] I understand why we don’t—why we count off for that.” Sarah’s comment that the mother of a sick child might be more willing to share information reflects medical students’ assertions that standardized patients do not openly volunteer diagnostic information.

Perhaps other standardized patients see their withholding of diagnostic information simply as part of their job as assessors of medical students’ clinical interviewing skills. Three standardized patients interviewed stated that they “open up” only when medical students ask the “correct” questions because they did not want the

examination to be "too easy" and therefore not taken seriously by the medical students. One standardized patient, Stanley, stated,

> "I feel like when I deal with a fourth-year student I'm not gonna help them. I'm not gonna make it so easy for this student to figure out what's really wrong with me. I'm gonna be real evasive so I'm gonna make them drag the questions out of me…I'm expecting [fourth-year students] to be a little more on top of their game as far as figuring out what's actually the diagnosis…I won't give them as much information without them asking for it"

Sarah thought that her performed role as a sick mother might have been more "realistic" if she were to openly divulge diagnostic information to students. She also, however, believes that medical students might not take the exercise seriously if standardized patients simply gave all the information away. Sarah commented,

> "Especially with the fourth-year [students]—there's only so much I want to coach them along…I don't mean in a trick way at all—but we should really be the least helpful…we should really be difficult because if it's too easy for them then I can see why some of them think, "We're just going through the motions here.""

A third standardized patient likened clinical interviewing to detective work whereby medical students ask questions about symptoms so as to gather "clues" that may lead to the diagnosis. David stated,

> I mean obviously you can't just give things away to them. I mean you can't just feed them the whole scenario. You gotta hope they come around and hope they ask you the right questions. I mean there's not a whole lot you can do about that. You can elaborate somewhat but you have to be really careful about doin' that…I think it's the ones who ask a lot of questions that trigger you know the good responses.

David added that "[Clinical interviewing] is like [being] a detective…Medically, they want to know…what and how did you feel…So one ailment could cause another. So um you have to back track and find out the originality of your ailment." Interestingly, Sarah, the same standardized patient who believed that in her role as a sick mother she would

most likely share information, contradicted herself by stating that medical students should be like "detectives" and know how to "ferret out" information. Sarah stated,

> "[The medical students] really should be more like detectives because the patient almost always knows a whole lot more than the patient knows that they know. So if [they] ask the right questions [they] can ferret out a whole bunch of information the patient already has, [but that] they just don't know they have it."

Interview results suggest that medical students' and standardized patients' experiences seem to drive their expectations regarding the importance of certain aspects of clinical interviewing. Although medical students seem to have a strong appreciation for allowing the patient's story to direct the conversation, medical students seem to lack appreciation for the importance of phrasing and timing questions to obtain accurate diagnostic information. Perhaps this is because as medical students become more comfortable and confident in interviewing patients, they focus more on the larger context of the patient's story and related symptoms and lose sight of the importance of carefully selecting words so that they and the patient have the same understanding about the information the physician is attempting to elicit. Perhaps fourth year medical students may benefit from being reminded of the importance of how the phrasing and timing of questions affects the information they receive from the patient. Standardized patients might be able to assist by giving the medical students specific feedback regarding how the phrasing or timing of a question led them to give a certain response.

Likewise, while standardized patients seem to value the importance of phrasing diagnostic questions, they do not seem to appreciate clinical skills involved in navigating a patient's complex story. Perhaps medical students and standardized patients have normalized the skills utilized in their daily work. For example, perhaps medical students are more aware of their need to listen and take cues from the patient because listening and

synthesizing the patient's story is more in the "foreground" of their daily clinical interactions than paying close attention to how each word is phrased. However, because standardized patients are trained to listen for how medical students ask questions before divulging information, perhaps they have normalized a "question-and-answer" pattern for clinical interviewing. This may explain why standardized patients in general do not question the "realness" of the OSCE.

"Great Expectations" in Making Personal Connections

A second emergent theme suggests that standardized patients and medical students hold different expectations regarding personal connectedness during summative diagnostic OSCEs. Standardized patients expect medical students to make an effort to develop a personal connection with them during the encounter. Standardized patients state that they will verbally and nonverbally "open up" when medical students "go beyond the checklist" by trying to "connect" with them. Medical students, however, report that personal connections are exceedingly challenging due to the artificial, rushed and unrealistic evaluation conditions.

"Treat me like a real patient." Standardized patients expect medical students to make a personal connection with them. All 11 standardized patients interviewed agreed that they expect medical students to "go beyond the checklist" by making a personal connection with them. Consistent with standardized patient literature, standardized patients commented that they expect medical students to be "friendly," "attentive," "conversational," and "get into the role with them" (Clark-Ucko, 2006; Rose & Wilkerson, 2001; Wartman, 2006; Wilkerson & Rose, 2001). Standardized patients are not satisfied with medical students who are "too businesslike," "mining for checklist

points" or "just wanting the exercise to be over with." Janet's story of her 'best' medical student serves as an example of the kind of personal connection which standardized patients seek. In Janet's encounter, the medical student was trying to get a medical consent form signed from her so as to perform a biopsy on a potentially cancerous lesion on her face. Janet explains,

> "He came in and shook my hand and pulled the chair close to me so that he wasn't sitting clear across the room from me. And during the time he was talking to me, he was looking right in my eyes with the eye to eye contact, and I could observe that he was observing my lesion…Um the main reason of that encounter was to get me to sign an [informed] consent form to have a biopsy. But he didn't get right to that. He was treating me as a person with a specific problem and was going to get to that informed consent eventually…A few students bypassed all the history, all the getting to know the patient. Just came in and said, 'Here I have this informed consent. My supervising doctor would like to do a biopsy on it.'"

Janie tells a similar story about her "best medical student ever." Janie states,

> "[The medical student] came in and I mean she was right there with me…You could tell she wasn't sitting there in her head saying, 'This isn't real'…[She treated me] as if my husband had really just died, you know. Because a lot of students you see them with this haze over themselves. Cause they know we're not patients…but she was fantastic and even shed a couple of tears with me."

Interviews with standardized patients reveal that they expect medical students to make a personal connection with them by adapting an interviewing style in which the medical student adapts to the context of the encounter. For example, standardized patients stated that they would like medical students to 1) flexibly adjust the timing and phrasing of questions so as to build and maintain rapport with the patient throughout the encounter and 2) to attend and respond to the standardized patient's spontaneous and momentary verbal and nonverbal cues indicating that they would like students to redirect the conversation.

First, standardized patients expect medical students to make a personal connection with them by flexibly adapting their questioning so as to meet the emotional needs of the patient. For example, Stanley and Nathan who perform in the headache case scenario expect the medical student to recognize and respond to their physical symptoms of pain and discomfort before beginning to ask diagnostic questions. The headache case is performed where the male standardized patient is holding his head in his hand and looking down at the floor when the medical student enters the room. Stanley and Nathan expect that the medical student will notice the nonverbal gestures indicating the standardized patient's pain and then adjust by talking more quietly, sitting down so that the standardized patient does not need to look up to interact with them, and perhaps ask the standardized patient if he would prefer to have the lights dimmed. For example, Nathan describes one exceptional medical student who

> "…started off realizing that I'm someone in pain. Ah that I've…come in here with a severe headache. So when she came in first of all she's really quiet...so she's talking quietly and she asks 'Does the light bother you?' You know right off the bat! I tell her 'No you know. It's no big deal. Sound doesn't bother me'…And then she adjusted to that."

Contrastingly, Stanley described a time when a medical student talked loudly as he entered the room. Stanley describes,

> "[The medical student] was being, you know, personable…but for me, in a situation like this, it was like my head is already hurting and you're talking really loud. And [the medical student should] realize it. And he's just "O what brings you in today?" Well, I wanted to say 'Well did you not read my chart? I have an excruciating headache. My head is already down. Can't you tell I'm in [pain] you know."

Cassandra and Robin added how they expect medical students to flexibly adapt their timing and phrasing of questions throughout the encounter so as to best build rapport with patients of different ages. In my interview with Cassandra, she stated that

when she played a belligerent teenager, she expected the medical students to flexibly adapt their questioning so as to try to connect with her as a disengaged, disinterested, non-communicative teenager. Cassandra said, "A teenager will probably be more responsive if you ask about [her] social activities and boyfriends and you know what your friends do." I performed the same belligerent teenage role as Cassandra. We performed our role such that we were sitting cross-legged on the examination table looking down at a book when the medical student first enters the room. If a student began the interview by asking us what we were reading or asking us questions such as "How is school going?" and "What activities are you involved in?", Cassandra and I in this situation would usually become "friendlier" with the medical student by increasing our eye contact and by giving more descriptive answers to the medical student's questions. However, if students approached us with an authoritative tone, and told us to put the book away, we would typically draw our knees up to our chest and look away from the medical student. We were nonverbally signaling to the medical student that his/her comment made us further not want to communicate. We would also answer the medical student's diagnostic questions with little or no enthusiasm, thereby showing that we felt personally disconnected from the medical student. Standardized patients' expectation that medical students should fluidly adapt their questioning is consistent with the relationship-centered care literature which states that skilled physicians appreciate the contextualized nature of medical encounters by adjusting their agenda so as to meet the needs of the patient (Charon, 2001; Matthews, Suchman, & Branch, 1993; Suchman & Matthews, 1988).

Standardized patients also expect medical students to make a personal connection with them by attending and responding to standardized patients' verbal and nonverbal

cues within the encounter. Standardized patients stated that they will typically "mirror" how medical students make them feel during the encounter by either "opening up" verbally and nonverbally when they feel as though there is a connection between them and medical students or by "shutting down" when they feel as though the medical student is annoying or inappropriate. Nathan explains how he uses "mirroring" in his scripted performance.

> "I will try to use facial expressions that will change when [the medical students] are starting to do something that's annoying, or I think would be annoying to the patient. [For example], I'm playing someone who has a headache for two days. So I'm a little frustrated anyway and if they're not paying attention to me then it's going to make me more agitated. So I try to use body language. I will sigh. I will drop my head and shake it if they're doing something that would be considered annoying to someone who's had a headache and is in a great deal of pain."

Similarly, Robin describes how she uses "mirroring" in her role as an elderly patient to teach medical students about dealing with elderly patients. She states, "I can be explosive. If they're hurting me [during the physical examination] I can just be explosive [by saying] "You're hurting me"…I say, "I'm a cantankerous old woman so please don't do so and so"...So I use the expressions in my voice to make them stop what they're doing or make them think about what they're doing." Amy also uses "mirroring" to let medical students know when they have said something offensive to her. Amy stated,

> "If somebody [is] standoffish or they're not treating us the way we want to be treated we can kind of shut down or come back with them in a snotty way and that lets them know 'Oh wait, maybe I'm not doing this. I'm not getting the reaction I want and so that gives me a chance to change it.'"

Sarah stated that in her case where she performs as a parent of a sick baby, medical students sometimes are "…talking before their brains [are] totally engaged…and [they] will say, "Well, what about [the baby's] immunizations? Do you know if she's up on those?" Sarah says that she will "mirror" the medical student by responding in an

annoyed tone, "'Well I'm her mother. Of course I know.'" Sarah says she "…may change my voice…Just to remind them, hey-hey, there's a mom [here]."

Standardized patients' expectations that medical students will make a personal connection with them is consistent with findings in the standardized patient literature suggesting that standardized patient satisfaction is tied to medical students' abilities to generally "express caring and concern" (Wilkerson & Rose, 2001) and more specifically respond to patients' emotions within the encounter (Blue, Alexander, Chessman, Gilbert, & Mainous, 2000). Standardized patients' expectations that medical students should actively attend and respond to their verbal and nonverbal cues is rooted in their training to let students know how they feel during encounters (Barouch, 2007; Butchy, 2006; Clark-Ucko, 2006). Standardized patients' expectations that medical students should actively attend and respond to their verbal and nonverbal cues is also consistent with relationship-centered care literature which suggests that skilled physicians are attuned to the subtle "gaps" and "moments" within clinical conversations which may "call out" to the physician that the patient wants to change the direction of the conversation, vent her/his concerns about her/his situation, or express her/his annoyance or concern with the physician (Katz & Shotter, 1996, 2000; Shotter, 1995, 1999, 2003; Shotter & Katz, 1998).

"Relationships are not realistic because OSCEs are so structured." Medical students find personal connections challenging due to the artificial, rushed and unrealistic evaluation conditions. Eight out of 11 medical students stated that personal connections are difficult to achieve because the structured nature of the OSCE creates artificial, rushed and unrealistic evaluation conditions. Specifically, medical students commented

that time constraints, the lack of an integrated team approach in making diagnostic decisions, and the pressure of obtaining checklist item points contribute to their difficulties in making personal connections with the patient.

Interviews with medical students suggest that the OSCE's time constraints create rushed rapport building which makes the OSCE seem unrealistic and therefore unlike their experiences working with 'real' patients. For example, one medical student commented that OSCEs do not allow enough time for medical students to deal with sensitive issues. She commented on her experience in the case scenario where she was to get an informed consent to remove a potentially cancerous lesion from the patient's face. She stated,

> "In a real situation, you most likely would take the time with a patient [who needed a biopsy performed.] You know this patient might seriously die if they don't have that procedure done. You're not going to spend 10 minutes in the encounter with the patient and then leave after that. You would probably take more time to explain everything. To get more information from the patient, too. That's where the encounters lack. They're not realistic because they're so structured."

Furthermore, medical students stated that the time-constrained nature of the OSCE is unlike their experiences working with 'real' patients because with 'real' patients medical students can freely exit and re-enter the room so as to either take a moment to gather their own thoughts or else give the patient time alone to process her/his thoughts and emotions. One medical student commented, "[With real patients] you're not in a time crunch for one thing. You could go back and ask a patient more questions if you wanted or give her a break. Or take a break or think about something or look up something and go back in and do it." Medical students' comments suggest that they understand the importance of sensitivity to timing in building relationships between physicians and

patients (Frank, 2002). Medical students seem to understand that physicians need to sensitively gauge when to ask questions, when to offer information, and when to allow the patient time to digest information given (Frank, 2002). Medical students' comments suggest their understanding of the sensitivity that timing plays in attenuating a rhythmic conversational flow which determines the "right" time to mention sensitive issues such as telling a teenage girl that she may be pregnant or telling a patient that her seemingly innocuous cough may be lung cancer. Just like one would expect physicians to take time (perhaps by exiting the examination room) to prepare how she/he may tell the patient that she/he may be pregnant or have lung cancer, medical students in OSCEs, however, in twelve minutes or less are expected to share this news with the patient.

Medical students also stated that time constraints coupled with the absence of team support create unrealistic conditions in which they would share potentially sensitive diagnostic information. For example, students knew that they were expected to share their differential diagnosis with the patient during the encounter. However, students did not feel as though a strong enough relationship was formed with the patient to share a potentially sensitive diagnosis such as cancer. For example, one medical student stated,

> "Like the lady with the cough. She has a dry hacking cough for the past couple days [and] no other symptoms and she's a lifelong smoker. Well a high index of suspicion might be lung cancer. No other symptoms except fatigue. It's like am I going to mention that when I'm in the room for my first 15 minutes of meeting this woman? No. In my notes okay but we need to get a chest x-ray. We need to do things [to support or deny my hypothesis of lung cancer]. But I'm not going to worry her at this point because I'm only a fourth-year medical student. I'm not going to bring it up until I've talked with my staff and my staff has looked at [her]"

Two other medical students commented that the OSCE cases involving the pregnant teenager were unrealistic because a physician would not suggest a possible

diagnosis of pregnancy to a 15-year-old until diagnostic tests had confirmed her/his suspicion.

> "Obviously you're not going to jump to the conclusion that she's pregnant. There's so much with a teenage girl being fatigued. Either she's depressed, she's anemic…So [pregnancy] is on your differential but obviously with a teen you've never seen before you're not going to be like 'Hey so what's up, are you pregnant?' you know. If you've built that relationship it's one thing but having absolutely no history and to go in there for 15 minutes and pick up that she's pregnant…It's a little questionable."

Another medical student added about the same pregnancy case, "You know you have 15 minutes and then it's like, 'You're pregnant!' You know, 'Boom. See ya later!'" Fourth-year medical students' comments regarding relationship-building during the OSCE are consistent with Hodges' (2003) contention that OSCEs often poorly reflect the circumstances in which medical students are used to practicing medicine. Medical students are used to working in team environments, so medical students may not feel comfortable sharing their diagnostic suspicions with patients too quickly before other members of their team have given their input. Most fourth-year medical students are accustomed to using time to their advantage in building relationships with patients. Medical students are accustomed to being able to take extra time when they feel as though it is necessary to help the patient feel comfortable. Medical students also are accustomed to exiting and entering the room freely to create breaks for themselves and/or the patient so as to maintain rapport.

Medical students also commented that personal connections with patients are challenging because they feel pressure to cover all of the questions on the checklist. One medical student commented, "Because it's a very structured situation, and we're also being tested at the same time, we have to think about "Well, what are we going to say?"

when we only have 10 minutes to write everything down." Another medical student concurred in stating, "You go in there and you-you're just trying to think if you're asking all the right questions because you know somebody's watching you with a checklist…to make sure you ask about every different thing." Interviews with medical students suggest that although they seem to understand the importance of relationship-building in gaining diagnostic information, the timed high-stakes OSCE makes them feel pressured to gain checklist points. As a result, medical students may forego some of their relationship-building techniques and strategies in an effort to meet what they view as their "main" goal of asking as many questions on the checklist as possible. These findings support Hodges' (2003a) assertions that high-stakes encounters may contribute to medical students conforming to the expectations of the examination. Such a conclusion raises the concern that when medical students conform to meet the examination requirements, the examination may no longer be an accurate assessment of how they interact with 'real' patients.

Differences in expectations across a headache and cough case scenario. An analysis of taped encounters demonstrates the differences between standardized patients' and medical students' expectations in summative diagnostic OSCEs. In only one out of 10 headache case scenarios and only one out of 10 cough case scenarios did the medical student successfully create and maintain a personal connection with the standardized patient. In these atypical headache and cough cases, the medical students use a flexible interviewing style so as to create and maintain their personal connections with the standardized patients. The standardized patients then respond by "opening up" and sharing more of their diagnostic story. In the eighteen encounters across the headache and

cough case scenarios, medical students conduct interviews using highly scripted diagnostic questioning patterns. In these case scenarios, the standardized patient does not "open up" and share details of her story. Instead, the conversation becomes a rote and mechanistic question-and-answer sequence. This section begins with an example of a typical case scenario whereby the medical student does not make a personal connection with the standardized patient. This example is then followed by two atypical examples of medical students who did make a personal connection with the standardized patient.

The following excerpt was taken from a cough scenario. This example illustrates a typical cough case scenario. After the medical student enters the room and greets the patient, the conversation proceeds as follows.

Medical student:	What-what's going on?
Standardized patient:	Um I've been coughing recently and I feel really tired
Medical student:	Okay. How long has this cough been going on?
Standardized patient:	Probably about a week
Medical student:	Is that your only symptom? Any fever associated with that or anything?
Standardized patient:	No
Medical student:	Just coughing?
Standardized patient:	And tired
Medical student:	Has this tired been going on for about a week too?
Standardized patient:	Probably more like ah four or five days

In this encounter, the medical student begins the encounter asking a series of biomedical diagnostic questions. The medical student does not make an effort to build rapport with the patient by chatting with the patient about issues unrelated to the medical issue. As a result, the conversation continues in a mechanistic "question-and-answer" pattern. As a result, because the standardized patient does not feel a personal connection between herself and the medical student, she is hesitant to discuss sensitive issues with the medical student such as her smoking. The following excerpt demonstrates how the lack

of personal connection between the standardized patient and the medical student affects their conversation related to her smoking.

Medical student:	Do you smoke?
Standardized patient:	Hm-hmm
Medical student:	How much do you smoke?
Standardized patient:	About a pack a day
Medical student:	And how long have you smoked?
Standardized patient:	Ah about 20 years
Medical student:	Has anyone ever talked to you about quitting? Have you tried?
Standardized patient:	Ah not really
Medical student:	Again I'm sure you've heard this before but I strongly encourage you to stop smoking. We'll work you up and take a look but I can tell you that this cough may be contributed to your smoking [sic] and everything like that. It's something with your history that when you've smoked for that long of a time it's possible to develop a cough as a result of your smoking. But there's other causes for it I can imagine. It would help with your symptoms though as far as the cough is concerned I can imagine with your shortness of breath maybe if you stop smoking. So it's just something you might want to think about okay? Do you drink?
Standardized patient:	A little bit
Medical student:	Can you tell me what a little bit is?
Standardized patient:	Occasionally

In this excerpt, after the medical student asks the standardized patient several short closed-ended questions about her smoking, he then explains to her that her cough is most likely related to her smoking. Although the medical student does try to soften his comments to her about her smoking by beginning with "Although I'm sure you've heard this before," the standardized patient's body language indicates that she is not receptive to his suggestion that she should quit smoking. As the medical student explains that her cough is most likely linked to her smoking, the standardized patient looks down at the floor and away from the medical student. The standardized patient's body language demonstrates her lack of willingness to talk to the medical student about her smoking. Additionally, when the medical student asks her, "Do you drink?", the standardized

patient gives the vague answer, “A little bit.” Then, when the medical student pushes her further by asking “How much is a little bit?”, she again answers vaguely, “Occasionally.”

In contrast to a typical cough case scenario, the medical student in one atypical cough case scenario successfully built and maintained a personal connection with the standardized patient by adopting a flexible interviewing style. The medical student in the atypical cough case scenario used a creative strategy of summarizing the patient’s diagnostic information as a means to build and maintain a personal connection. In this scenario, the standardized patient then “opens up” and shares more diagnostic information with the medical student which helps him in determining the cause of her symptoms. After the standardized patient says to the medical student in her opening scripted statement, “Well I just developed this really nasty cough. And um I’m having these coughing fits in the middle of the night. And I’m really tired,” the encounter proceeds as follows:

Medical student:	You’re really tired. Okay. And how long have you been having this cough?
Standardized patient:	A week now
Medical student:	A week? Okay and how-is the cough only at night?
Standardized patient:	No I have it during the day. It’s just more occasional. I really notice it in the evening or bedtime when I’m more relaxed. It gets really bad at night
Medical student:	It gets really bad at night
Standardized patient:	So I have it all day-
Medical student:	So you have it all day long but it’s worse at night so you notice it more at night
Standardized patient:	Yeah night time is the only time I have coughing fits.
Medical student:	Where you just start coughing and can’t stop. Are you coughing up anything?
Standardized patient:	No
Medical student:	So it’s just a dry cough
Standardized patient:	Yeah a dry hack
Medical student:	Right. Okay. And do you-you said you’ve been tired as well?
Standardized patient:	Yeah
Medical student:	Tell me a little more about that

Standardized patient:	I feel like I can't keep on my rest you know. I'm just tired. And sleepy
Medical student:	You're just tired. Okay. And sleepy. Have you been getting enough sleep?
Standardized patient:	Well I was trying to get eight hours and I haven't changed that but you know the coughing fits will wake me up two or three times a night
Medical student:	Right. So you're in bed for eight hours but you might not be getting enough good solid sleep
Standardized patient:	Exactly
Medical student:	Okay. So you've been tired for the past week as well. Have you had any fevers?
Medical student:	Has your husband been sick at all?
Standardized patient:	No. he's just tired from me (little laugh). I wake him up every night
Medical student:	And um have you had a cough like this in the past?
Standardized patient:	Not like this
Medical student:	I'm going to go over this briefly…You've had a cough for about a week and it keeps you up at night . You start coughing and you can't really stop. You have tried some lozenges, but that hasn't really helped-maybe a little bit but not that much. And you feel tired because you're not getting a solid night sleep
Standardized patient:	Yeah. I don't know if it's a symptom or just because of that

In this excerpt, the medical student uses summarization to simultaneously clarify details of the standardized patient's symptoms while building rapport with her. For example, near the beginning of the encounter, the medical student summarizes to clarify his understanding of her cough and fatigue symptoms. When the standardized patient tells the medical student that she has had the cough "for a week," the medical student responds "A week? Okay and how-Is the cough only at night?" The medical student's question asking her if the cough is "only at night?" lets the standardized patient know that he listened to her opening statement where she told him that she is "having these coughing fits in the middle of the night." Also, the medical student further uses summarizing to make sure they have a shared understanding of her definition of "coughing fits" when he says to her, "Where you just start coughing and can't stop." In

this excerpt, the medical student layers his questions and summarizes with nonverbal cues indicating that he is genuinely and personally interested and concerned in her cough. For example, when the medical student asks the standardized patient, "How long have you been having this cough?" and "Is the cough only at night?", the medical student maintains eye contact with her and moves his chair closer to her. For example, after the standardized patient has answered several of the medical student's questions, the medical student demonstrates his concern for her by checking his understanding of what she had said. He says to her, "So you have [the cough] all day long but it's worse at night" and "So you've been tired for the past week as well…You're in bed for eight hours but you might not be getting enough good solid sleep." When the medical student physically positions himself closer to the patient and checks understanding with her, the standardized patient feels as though the medical student has listened to her and understood her symptoms. The medical student's actions help to illustrate standardized patients' desire for medical students to "treat them like real patients" by flexibly adapting in the moment how they are approaching the patient. This case is written such that the standardized patient becomes frustrated if the medical student does not treat her seemingly innocuous cough as though it is a "real" problem.

Unlike the standardized patient in the example representing a typical cough case, the standardized patient in the atypical cough case continues to "open up" and share more diagnostic information with the medical student. For example, when the medical student asks the standardized patient if her husband has been sick, the standardized patient laughs and replies, "No, he's just tired from me. I wake him up every night." The medical student laughs and then uses this opportunity to again verify that he has understood

everything she has said. He says, “You’ve had a cough for about a week and it keeps you up at night. You start coughing and you can’t really stop. You tried some lozenges but that hasn’t helped—maybe a little bit but not that much. And you feel tired because you’re not getting a good night’s sleep.” His summary shortly following her joke serves as an invitation to the standardized patient to provide the medical student with another piece of information which may give him a clue into helping diagnose her cough. She says, “I don’t know if [my tiredness] is a symptom or just because of [not sleeping at night].” Because the medical student helped the standardized patient feel heard and understood, the standardized patient felt as though she could provide him with another piece of information that might help him in diagnosing her case.

Like the medical student in the atypical cough case scenario, the medical student in the one atypical headache case scenario used creative language choices to build a personal connection with the standardized patient. Specifically, the medical student successfully built and maintained a personal connection with the standardized patient by creatively and improvisationally phrasing his diagnostic questions to match the momentary and relational context of the encounter. After the medical student enters the room and greets the patient, the encounter proceeds as follows:

Medical student:	So I understand you have a little bit of a headache
Standardized patient:	Yes sir
Medical student:	Or a lot of a headache
Standardized patient:	A very big headache
Medical student:	Okay. How long has this been going on?
Standardized patient:	Gosh since Monday morning
Medical student:	Gosh since Monday morning. So what is that now? Two days? Four days?
Standardized patient:	Hm-hmm. Started Monday morning
Medical student:	Do you remember anything that brought it on specifically?

Standardized patient:	No sir. Just got out of bed and of course didn't have to work that day, and I have a family and we were going to go to the park and have a big day and that didn't turn out
Medical student:	Did you go to the race on Sunday?
Standardized patient:	No sir
Medical student:	No
Standardized patient:	Yeah listened to it on the radio
Medical student:	Did you? Woke up with it. Okay. Then it's kinda kept you out of commission then, huh?

When the medical student first greets the standardized patient, he says, "So I understand you have a little bit of a headache." The standardized patient then puts his head in his hand, shakes his head back and forth and says, "Yes sir." The medical student responds to the standardized patient's nonverbal and verbal cues indicating that he is uncomfortable and in pain by making the empathetic comment "Or a lot of a headache." The medical student's comment reassures the standardized patient that he understands that the headache is not seemingly "little" to him. Additionally, the medical student creatively phrases diagnostic questions which link the patient's subjective illness experience with his biomedical symptoms. When the medical student asks the standardized patient, "Did you go to the race on Sunday?", his question serves as an avenue for finding a personal connection about car racing while simultaneously eliciting biomedical information which may explain potential causes for the standardized patient's headache (e.g., heat stroke or dehydration from attending the race). In response to the medical student's empathetic comment, the standardized patient then "opens up" and shares with the medical student that his headache ruined his family's plans to go to the park on the Monday holiday.

Throughout the encounter, the medical student continues to creatively and improvisationally phrase diagnostic questions which build his personal connection with the standardized patient. For example, about half way through the encounter, the medical

student asks the standardized patient, “If you could have the perfect environment right now to deal with this headache, could you describe that to me?” The standardized patient then describes that his “perfect environment” is a place that is “quiet” because “It throbs so bad [that the headache] makes everything harder you know. Everything’s annoying right now.” The medical student laughs slightly as he says, “Even me?” to which the standardized patient also laughs and says, “No. No. I’m just glad I’m being looked at, honestly.” In this example, the medical student’s creative phrasing of a diagnostic question created an opportunity for him to not only gain important diagnostic information that the standardized patient feels bothered by noise and agitated and “annoyed by everything,” but it also provided an opportunity for the medical student to use humor with the standardized patient which further builds the personal connection between them. By creatively tailoring questions, the medical student gains diagnostic information from the standardized patient while building personal connections. The standardized patient feels less like the medical student is “mining for checklist points.” Instead, the standardized patient feels as though the medical student is making a genuine effort to connect with him as a patient. Additionally, about half way through the encounter the medical student makes the empathetic comment, “So [this headache you have] kinda ruined a big weekend, huh?” which is an empathetic comment once again demonstrating his interest in how the standardized patient’s headache affected his past holiday weekend with his family.

The personal connection built between the medical student and the standardized patient results in the medical student learning about the stress in the patient’s life which may contribute to his headache. The standardized patient “opens up” about the stress in

his life due to his father's Alzheimer's disease. In the following excerpt, the medical student maintains his personal connection with the standardized patient by continuing to creatively phrase diagnostic questions while attending to the standardized patient's verbal and nonverbal cues indicating that he wants to talk about his father's Alzheimer's disease. The encounter proceeds as follows.

Medical student:	Any unusual stress going on in your life?
Standardized patient:	Well, oddly enough my father has Alzheimer's you know, Doctor, and it's getting to the point where I would like to have him come stay with us
Medical student:	Hm-hmm
Standardized patient:	I kinda promised him I would do that a long time ago. And ah ehh it's not looking like it's gonna happen, so I kinda feel guilty about that and just worried about him
Medical student:	Hm-hmm
Standardized patient:	My wife's not really thrilled about the idea
Medical student:	Of him coming to live with you. And when was all this—when did all this come here lately?
Standardized patient:	Yeah
Medical student:	Here in the last week? Or last month?
Standardized patient:	Yeah
Medical student:	And work? Work goin okay?
Standardized patient:	Yeah work's fine. Just I can't convince my wife he'd be better off with us and she doesn't want to and I'm real surprised. I didn't think she'd have this reaction
Medical student:	So maybe that's kinda add-a little bit ah-a little extra to bear this week
Standardized patient:	Could be

In this excerpt, when the medical student asks the standardized patient, "Any unusual stress going on in your life?", the standardized patient responds by providing him with the scripted response, "Well, oddly enough my father has Alzheimer's you know, Doctor, and it's getting to the point where I would like to have him come stay with us." As the standardized patient is saying his scripted response, his voice drops and he looks down at the floor. The standardized patient's breaking of eye contact with the medical student and dropping the tone in his voice "calls out" to the medical student that he wants

to change the direction of the conversation from the current positive and upbeat conversation he and the medical student are enjoying to instead discuss family problems that are deeply troubling to him (Katz & Shotter, 1996, 2000; Shotter, 1995, 1999, 2003; Shotter & Katz, 1998). The medical student recognizes the patient's momentary nonverbal cues indicating that discussing his father's Alzheimer's disease is disturbing to him (Katz & Shotter, 1996, 2000; Shotter, 1995, 1999, 2003; Shotter & Katz, 1998). The medical student responds by saying, "Hm-mm" and he nods his head so as to encourage the standardized patient to continue to express his feelings about his father's Alzheimer's disease. As the standardized patient shares more of his concern that he wants his father to stay with him but that "it's not looking like it's going to happen," the medical student once again encourages the standardized patient to continue to share by saying, "Hm-hmm." In this encounter, the standardized patient continues to "open up" to the medical student as a reflection of the medical student's success at meeting the standardized patient's expectation that the medical student would recognize his invitation to talk about his problems and then encourage him to do so.

The medical student also uses his creative and improvisational interviewing style to help bridge the standardized patient's stressful situation to the possibility that his headache may be a tension headache. For example, after the standardized patient tells the medical student that "My wife's not really thrilled about the idea [of his father living with them]," the medical student says "When did all of this come here lately?...Here in the last week? Or last month?" to encourage the standardized patient to consider if the timing of his headache corresponded to his stressful conversations with his wife. After the standardized patient affirms "Yeah," the medical student probes to find out if the

standardized patient has stress elsewhere in his life by asking "And work? Work goin okay?" The standardized patient's response "Yeah work's fine" affirms to the medical student that the majority of stress in the standardized patient's life is due to his situation with taking care of his father. The medical student's concern about possible stress at work provides an invitation for the standardized patient to tell him more about his wife's lack of enthusiasm for helping his father. The standardized patient explains that "I can't convince my wife [my father would] be better of with us." The standardized patient also shares that he feels hurt because he "didn't think she'd have this reaction [to having his father move in with them]." Because the medical student encouraged the standardized patient to share his concerns over the stress in his life, both the medical student and the standardized patient gained confidence that the standardized patient's headache was most likely due to stress rather than an organic cause such as a stroke. The consensus reached that the standardized patient's headache was most likely due to stress becomes clear at the end of the excerpt when the medical student says, "So maybe that's kinda, add-a little bit, ah-a, little extra to bear this week" to which the standardized patient responds "Could be."

This medical student's performance demonstrates his skill in flexibly implementing a communication style so as to build and maintain relationships with patients. Unlike most medical students who are unable to fluidly rephrase diagnostic questions so as to build rapport (Haber & Lingard, 2001; Massad, 2003), this medical student's tailoring of diagnostic questions allowed him to seamlessly integrate diagnostic information-gathering and building relationships with patients. Overall, this medical student's performance demonstrates how physicians who are skilled at relationship-

building can possibly create more positive patient outcomes (Inui, 1996; Smith, 1996; Tresolini, 1994; Williams, Frankel, Campbell, Thomas, & Deci, 2000).

Overall, results suggest that fourth-year medical students may not yet have mastered the ability to flexibly adapt their communication style so as to build and maintain rapport in a time-constrained and stressful situation such as a summative OSCE. Findings from taped encounters suggest that medical students participating in summative diagnostic OSCEs typically focus upon asking the diagnostic questions they perceive to be on the standardized patient's checklist and forego much of the rapport-building with the standardized patient. These findings are consistent with medical student interviews stating that the stress of taking a high-stakes examination does typically cause them to focus upon trying to get as many checklist items correct as possible. These findings are also consistent with medical students' statements that making personal connections with the standardized patients is challenging because of the highly scripted and time-constrained nature of the OSCE.

In conclusion, findings from taped encounters are consistent with standardized patients' expectations that fourth-year medical students should be able to adapt their interviewing skills so as to build and maintain personal connections with standardized patients. Standardized patients, however, feel as though medical students should be able to make personal connections with them within the 15 minutes they are given for the encounter. None of the standardized patients I interviewed stated that time constraints are a barrier to medical students' abilities to create and maintain relationships with them. Standardized patients' comments focused more on the medical students' attentiveness to the standardized patients' verbal and nonverbal cues throughout the encounter as a means

for creating and maintaining rapport. Perhaps standardized patients more easily feel as though they can make personal connections than medical students simply because standardized patients are in their own environment unlike medical students who may feel as though interviewing a standardized patient feels foreign and decontextualized. However, the overly scripted and decontextualized nature of the OSCE coupled with the external pressure of needing to pass a high-stakes exam made the OSCE feel nothing like "normal" to the medical students. Therefore, medical students want OSCEs to reflect more of their experiences working with standardized patients.

CONCLUSION

Examining OSCEs through a relationship-centered lens provides a beginning for understanding how standardized patients' and medical students' differing expectations influences their performances within diagnostic summative OSCEs. Specifically, this study finds that standardized patients enter diagnostic clinical encounters expecting medical students to know how to ask clinical diagnostic questions in the "right" directed, clear and focused way. Medical students, however, become frustrated when standardized patients do not openly, improvisationally and momentarily share diagnostic information with them like their "real" patients. Standardized patients also expect medical students to make a personal connection with them during the encounter. Medical students, however, find making personal connections in OSCEs challenging because the simulated work environment feels too rushed and unrealistic from the work environments in which they are accustomed to interviewing patients. In addition, making personal connections is challenging for medical students because they view gaining points on the diagnostic checklist as the main objective of the encounter, where personal connections are something to be "added on if there is time." Perhaps one should not be surprised, however, that medical students focus upon "acing" the OSCE examination given that an "acing" mentality is typical and expected of students who want to succeed in medical school.

Overall, conclusions from this study suggest that medical students' and standardized patients' different expectations upon entering the examination influence their performances within diagnostic clinical interviews. Standardized patients adjust the amount of diagnostic information they share with medical students depending upon how

the medical students ask diagnostic questions and/or if they make personal connections with them. Medical students claim that the overly scripted and structured nature of the OSCE and the pressure to obtain checklist points causes them to interview standardized patients differently from how they interview "real" patients. Conclusions from this study may provide some insight into medical students' competence in using relationship-building to gain diagnostic information from patients. Findings also suggest that fourth-year medical students understand the importance of relationship-building in gaining diagnostic information, yet they have still not yet reached a level of competence that allows them to demonstrate their abilities in making personal connections in very constrained time limits.

Limitations

The limitations to this study are that the qualitative thematic analysis was based upon only diagnostic OSCE scenarios. An examination of other types of OSCE scenarios (e.g., patient education or breaking bad news cases) may provide more breadth and also more description in understanding how medical students and standardized patients negotiate relationships within simulated clinical case scenarios. Another limitation was that only fourth-year medical students were examined as the student population. Student populations in pre-clinical years may have different expectations for diagnostic information gathering and in making personal connections with standardized patients. Therefore, one could compare contextually similar cases across years of medical school between third- and fourth-year medical students. A third limitation of this study was that analysis was conducted by only the primary researcher without access to the reflections of medical students and standardized patients about their encounters. Perhaps the

employment of an action-oriented research methodology (Mathison, 1988) whereby the researcher goes back to the original interviewees, gains feedback on her/his initial conclusions and then incorporates that feedback into her/his final conclusions may have been useful in strengthening the validity of conclusions. Finally, conclusions stating that medical students failed to make personal connections in both headache and cough cases are possibly limited to the rote and benign context of these particular scripted encounters. Perhaps had a more emotive case been examined, differences might have appeared more evident in medical students' efforts to emotionally and relationally connect.

Future Research

Findings from this study indicate that the scripted and structured nature of the summative diagnostic OSCE may not accurately reflect how medical students build and maintain relationships with real patients. Future studies may want to continue to explore factors that influence relationship-building between medical students and standardized patients performing in OSCEs. For example, future studies could comparatively explore how medical students interview standardized patients differently from real patients in clinics or in rounds so as to better understand the differences in standardized patient versus student expectations about medical interviews.

Findings from this study also suggest that medical students who employ flexible and improvisational interviewing styles are most successful at making a personal connection with the standardized patient. Future research studies may want to explore the ways in which medical students are able to use an improvisational and personal interviewing style to build personal connections with standardized patients in limited time. A closer examination of those students who seem to have mastered the ability to

seamlessly layer diagnostic information-gathering with personalized relationship-building early in their training may provide insight into improving communication training within medical schools. This may be especially timely given that medical educators are currently seeking ways to broaden pedagogical approaches to teaching medical interviewing skills. Given that communication initiatives within medical schools are focusing on how to teach medical students to be flexible communicators (Schirmer, Mauksch, Lang, Marvel, Zoppi, & Epstein, 2005), studying the different "styles" that medical students employ may be a highly useful way to look at how medical students learn and understand clinical interviewing.

APPLIED CLINICAL EDUCATIONAL IMPLICATIONS

Re-structuring OSCEs as a More Relationship-Focused, Less Scripted Diagnostic Clinical Interview

Results from this study have practical implications for how the OSCE may be re-structured to reflect a more relationship-focused approach to clinical interviewing. Specifically, results from this study suggest that the OSCE may be restructured to reflect a more relationship-focused approach to clinical interviewing by 1) allowing standardized patients to perform their roles as "proactive" patient educators, 2) by providing for standardized patients to give medical students feedback on their performances and 3) by requiring medical students to write qualitative post-assessment exercises which explore the interconnections between their interviewing style and making a personal connection with the patient.

Standardized patients should perform their roles as proactive patients. Results from this study suggest that standardized patients could be trained to perform their roles as proactive patients as compared to the reticent and passive patient roles that standardized patients typically perform. For example, "proactive" standardized patients would perform their roles by divulging a lot of biomedical information at the onset of the clinical encounter. In doing so, the challenge for the medical student would shift from guessing which diagnostic questions to ask, to navigating through a patient's complex narrative in order to determine a differential diagnosis. Training standardized patients to be "proactive" and share a lot of information at the onset of the encounter may create a way to assess students on certain dimensions of diagnostic clinical interviewing which have always been considered difficult to both train and assess. For example, allowing

standardized patients to perform as proactive patients may provide avenues for medical educators to begin to assess communicative complexities such as a medical student's ability to simultaneously gather and synthesize information and then choose a diagnostic questioning path to follow. For example, in the headache case, if the standardized patient began by openly expressing his concern that his headache might be due to a stroke, the encounter might have played out differently. The medical student might have spent more time examining potential risk factors for stroke (e.g., high blood pressure) and might not have thought to explore stress in the standardized patient's life as a potential cause for the headache.

Standardized patients should give medical students feedback. In addition, OSCEs may be restructured to reflect a more relationship-centered approach by allowing standardized patients to give medical students oral feedback on their performances during summative OSCEs. Medical communication research scholars emphasize that patients are more willing to open up and share when physicians are able to build and sustain the physician-patient relationship through employing a flexible communication style that includes sensitivity to the timing of asking open-ended questions, providing emotional support, and inviting patients to share their stories (Massad, 2003; Neuwirth & Schrader, 2005; Zoppi & Epstein, 2002). Specifically, scholars emphasize the importance of medical students learning to attend and respond to patients' verbal and nonverbal cues in order to know how and when the patient may want to direct or redirect the conversation in order to ask a question, clarify her/his understanding, or change the subject (Shotter, 1995, 1998, 2003; Shotter & Katz, 1998).

Standardized patients could use their experience in working with medical students to help teach students how attending and responding to a patient's verbal and nonverbal cues helps patients feel heard and understood which, in turn, helps to create personal connections between physicians and patients. For example, standardized patients could help medical students understand how they might be better able to help patients "open up" by attending to the early rapport and connections through active listening, timing, middle and end ordering, mirroring, restating and summarizing of diagnostic questions.

Standardized patients could be trained to give medical students explicit feedback on their performance. Standardized patients could give specific and detailed oral feedback regarding how medical students' recognition of context, attention to nonverbal cues, and use of timing directed and re-directed a relationship-centered diagnostic clinical conversation. For example, standardized patients could give medical students specific feedback regarding how the medical student's phrasing of diagnostic questions caused the standardized patient to give a certain response. Medical students may benefit from learning how seemingly small differences in phrasing and timing of diagnostic questions may greatly affect the quantity and quality of diagnostic information shared by the patient. In addition, instead of standardized patients giving vague recommendations to medical students such as "good eye contact" and "good communication skills," standardized patients trained in a relationship-centered approach could give medical students specific and detailed examples of how verbal and nonverbal actions and responses affect the flow of making personal doctor-patient connections.

In addition, standardized patients could give feedback on how well medical students built rapport with the patient and then compare their performance to the ways in

which other medical students build rapport. The literature suggests that medical students want feedback from standardized patients to learn how to improve interviewing communication skills with standardized patients (Rose & Wilkerson, 2001; Wilkerson & Rose, 2001). Interestingly, during my interviews with medical students, almost all of the medical students commented that they enjoyed receiving oral feedback from the standardized patient and being able to learn from each other. Nine out of 11 of the medical students commented that their favorite experiences with standardized patients involved a training case where four medical students and one preceptor interviewed a standardized patient. One medical student would interview the standardized patient, and she/he could call a "time out" to ask her/his peers for thoughts/direction on how to proceed with the interview. Medical students commented that they enjoyed learning interviewing techniques from each other. One medical student stated,

> "When we worked with standardized patients with [the training exercise regarding] drinking and alcohol, some of that was beneficial to see what other people do [and] how they interview. [It was interesting to see the standardized patient's] reaction and when to ask questions or not to ask questions. And [learn] what is going to totally close the person off."

Medical students may benefit from learning how their attendance and response to standardized patients' verbal and nonverbal relational cues within the summative fourth year encounter positively or negatively affect the outcome of the encounter. Results from this study indicate that although medical students seem to understand the importance and sensitivity of timing in creating positive clinical outcomes, they felt too rushed by time constraints and too pressured to gain checklist points that they did not adopt a "caring" approach when working with the standardized patients. Results from this study have implications for how standardized patients may be able to help medical students learn

how a "caring" perspective influences how a practitioner approaches diagnostic clinical interviewing which, thereby, influences clinical outcomes.

Medical students could perhaps engage in reflective post-assessment exercises. Results from this study suggest that assessment of a medical student's ability to develop relationships with patients should perhaps not be reduced to a few Likert-scale questions. Instead a medical student could be afforded an opportunity to express her/his relationship-building experience in a post-encounter open-ended qualitative assessment format. For example, students could write a one- to two-paragraph reflection on how she/he went about building the relationship with the patient. Students could be encouraged to write about how they strategized to build rapport with the patient, picked up on "called out" verbal/nonverbal cues, how those cues were noticed and/or ignored and how they changed the direction of the conversation. Additionally, medical students could write about how language choices affected the patient and their reflections about the connections between their OSCE expectations and their lived experience, generalizations they may have made about their strengths and limitations during the OSCE.

Asking medical students to write a post-assessment reflective exercise begins to help them in framing appropriate, contextualized, momentary relationship-building from a statically generic "ideal relationship" model. Developing and assessing OSCEs from a more relationship-centered approach can reward medical students for taking risks during their OSCEs by employing questioning and personal connection choices which enhance their ultimate ability to diagnose and develop treatment plans with patients. In other words, if medical students know that they are judged on their reflections of their

performances and not solely on the net outcome of seven closed-ended checklisted questions, then medical students may be more willing to perform how they "normally" act with patients and not be reluctant because of their fear of making mistakes.

Perhaps implementing these changes would help to create a more comprehensive clinical skills assessment tool than the current content-based checklist OSCE exam model. In the current national OSCE, students only receive a score report indicating a "pass" or "fail." Two fourth-year Harvard Medical School students wrote an article about their personal experience with their national OSCE and stated that their "…score report…includes no information about areas of weakness or strength, even with crudely defined criteria, such as thoroughness of history taking, physical exam skills, or formulation of differential diagnosis. The report implies that we have met a very bare minimum requirement without providing any further information" for growth, development and/or critical reflection (Mehta & Kramer, 2005). Mehta and Kramer's critique of the United States Medical Licensing Examination (USMLE) OSCE mirrors the critique by academic physicians who state that OSCEs in general may have become a large expense for an examination with questionable validity as to how medical students perform in the "real world" with "real patients" (Papadakis, 2004; Diaz, Bogdonoff, & Musco, 2004). However, by expanding the examination to include standardized patient feedback and student reflection, the OSCE may become an opportunity for training, development and reinforcement of the relationship-centered interviewing principles critical to effective clinical interviewing.

APPENDIX

Case Name: Headache
Patient's Name: Bernie A. Hunt
Author: Ballinger
Date Create: Ballinger
ECFMG Form: Yes

Case Scenario: You are seeing a patient in the urgent care center for evaluation of a severe headache. Vital signs are: Pulse 70, Respirations 18, Temp 37.5oC and BP 120/80. Please enter the room and take a focused history and do a focused physical examination.

Patient List (*Yes/No)*

1. Student asked to rate pain on a scale of 1 to 10.
2. Student asked about associated weakness of limb.
3. Student asked about change in speech.
4. Student asked about visual difficulties.
5. Student asked about numbness, sensory loss.
6. Student asked about course of pain since its appearance.
7. Student asked about location of pain.
8. Student asked about radiation of pain.
9. Student asked what relieves pain.
10. Student asked about nausea or vomiting.
11. Student asked about dizziness.
12. Student asked about ringing in ears.
13. Student asked about unbalance.
14. Student asked whether turning head to side or back and forth worsens pain.
15. Student asked about difficulty in concentration.
16. Student examined muscle strength on both sides.
17. Student examined reflexes on both sides.
18. Student looked in both eyes with the fundoscope.
19. Student tapped on my cheeks and forehead on both sides (looking for sinusitis).
20. Student asked about awareness of time (day of the week).
21. Student asked about awareness of place.
22. Student checked for rapid alternating movements.
23. Student checked for finger to nose movements.
24. Student checked for normal balance.
25. Student discussed possible treatments.
26. Student discussed possible need for counseling to help.

Likert

27. Student had a directed, organized, logical approach to my problem.

Note: Reproduced with permission of Indiana University School of Medicine.

Case Name: Cough
Patient's Name: Jen A. Riley
Author: ASPE
Date Create: ASPE
ECFMG Form: Yes

Case Scenario: Jennifer Riley is a 32 year-old female who presents to the family doctor's office with a complaint of a "bug". Task-Take an appropriate history.

Patient List *(Yes/No)*

1. Student established the name you wished to be called.
2. Student began interview with open-ended questions.
3. Student asked when cough began and how long it has lasted.
4. Student asked about shortness of breath.
5. Student asked about nausea or vomiting.
6. Student asked about runny nose.
7. Student asked about alleviating factors.
8. Student asked about aggravating factors.
9. Student asked if I smoked.
10. Student asked about medicines I am taking.
11. Student asked whether my cough was non-productive (no sputum).
12. Student asked about bloom in sputum.
13. Student asked me to describe the cough.
14. Student asked about any pain on breathing.
15. Student asked about any back ache (or other aches and pains).
16. Student asked about loss of appetite.
17. Student asked about weight loss.
18. Student asked about pain in chest when you cough.
19. Student asked about fatigue.
20. Student asked about wheezing.
21. Student told me what he/she thought might be wrong with me.
22. Student asked about allergies.
23. Student asked about family history of this disease.
24. Student asked if I had anything like this before.

Likert

25. Student used open ended questions appropriately.

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CURRICULUM VITAE

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Kelley School of Business, Bachelor of Science in Business, 1999
Specialization: Accounting and Finance

INDIANA UNIVERSITY
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Masters of Arts in Applied Communication, 2007
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LICENSURE AND CERTIFICATION:

Certified Public Accountant, Indiana Board of Accountancy, 2003

PROFESSIONAL ORGANIZATIONS:

National Communication Association, member
Association of Standardized Patient Educators, member

HONORS AND AWARDS:

Dean's Top Graduate Student, School of Liberal Arts, 2006
Educational Enhancement Award, 2005
UROP Research Award, 2003
Delores Donchin Memorial Service Award, 2003
AUL Scholarship, Scholastic Achievement, 1998
Charles O McGaughey Leadership Award, 1997
Chester C Wynne, Scholastic Achievement/Leadership Award, 1997

RESEARCH AND TRAINING EXPERIENCE:

Facilitator, GRE Prep Course, Continuing Studies Department, IUPUI, 01/07, 06/07, 9/07
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TA, T502, Critical Analysis of Clinical Problems, IU School of Dentistry, 2006-2007
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TA, B365 Stress & Health, Department of Psychology, IUPUI, 2003-2004
TA, B104 Introductory Psychology, Department of Psychology, IUPUI, 2003
TA, B103 Orientation to a Major in Psychology, Dept of Psychology, IUPUI, 2002-2003
Peer Advisor in Psychology Advising Office, Department of Psychology, IUPUI, 2002
Research Assistant to Dr Stuart Schrader, Communication Studies, IUPUI, 2003-2006
Research Assistant to Dr Silvia Bigatti, Department of Psychology, IUPUI, 2003-2004
Research Assistant to Dr Phil Fastenau, Department of Psychology, IUPUI, 2002

PROFESSIONAL EXPERIENCE:

Department of Oral Biology, IU School of Dentistry, Indianapolis, IN 2007-Present
Program Coordinator, Tobacco Cessation & Biobehavioral Center

- Foster collaborations between faculty, practitioners, students and community advocates on tobacco-related projects
- Develop and implement strategies for financial sustainability of center
- Implement "tobacco competency" into DDS curriculum

Office of Dental Education, IU School of Dentistry, Indianapolis, IN, 2006-Present
Clinical Skills Education Specialist

- Research and write simulated clinical case scenarios and assessments used in training and assessing dental students' clinical interviewing skills
- Recruit, hire and train standardized patients to perform in simulated case scenarios

Clinical Skills Education Center, IU School of Medicine, Indianapolis, IN, 2004-2006
Standardized Patient

- Train and assess medical students' clinical interviewing skills during simulated clinical encounters

Walker Career Center, Warren Township School District, Indianapolis, IN, 2006-2007
Mathematics Tutor

- Create individual and group exercises to teach math skills to students pursuing GED

BKD, LLP, Indianapolis, IN, 1999-2001
Staff Accountant

- Performed auditing procedures on financial statements and benefit plans for manufacturing/distribution
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CONFERENCES ATTENDED:

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Budyn, C. & Schrader, S. (2007, June). Instructional use of dental SPs: Constructing culturally competent worlds. *Poster presentation at the Association for Standardized Patient Educators,* Toronto, Ontario.

Budyn, C. & Wheeler, S. (2006, April). Re/Framing Disaster: A Social Constructionist Analysis of the Katrina Disaster. *Presentation at Central States Communication Association* Conference. Indianapolis, IN.

Budyn, C., Neuwirth, Z., & Schrader, S. (2004, September). Performing physician-patient relationships: Reflexivity during OSCEs. *Presented at the European Association for Communication in Healthcare* Conference, Bruges, Belgium.

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