REASSESSING DOCTOR-PATIENT COMMUNICATION TO REFLECT A

CONTEXT-BASED COMMUNICATION COMPETENCY PERSPECTIVE: THE

BEHAVIOR CHANGE AND ERROR DISCLOSURE INTERVIEW

by

SARAH KATHRYN COMER

(Under the Direction of Jennifer L. Monahan)

ABSTRACT

While physicians' medical interviewing skills are developed in medical school, prior research finds training and assessment of these skills are often misaligned. The goal of the thesis was to provide a context-based format to identify competent context-based communication behaviors and modify existing assessment so that the teaching and assessment are consistent. Two contexts, the behavior change interview (BCI) and error disclosure (ErD) were examined. Tapes of medical students interacting with standardized patients in BCI and ErD contexts and assessments made by their instructors were examined. Extant BCI assessments focus on medical immediacy whereas the revised assessment includes immediacy (validation, active listening, and friendliness) and inhibitory behaviors (surprise, judging, premature change talk and blaming). Extant ErD assessments were revised to explicitly assess verbal behavior (e.g., stating the error, apology, and rectification). These two assessments offer guidance towards a context-based approach to teaching and evaluating communication skills.

INDEX WORDS: Context-based approach, behavior change interview, error
                 disclosure, medical school assessment tools, Motivational
                 Interviewing, Transtheoretical Model

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SARAH KATHRYN COMER

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Major Professor:		Jennifer L. Monahan
Committee:		Jennifer Samp
		Tina Harris

Electronic Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
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CHAPTER 1

Factors Impacting the Study of Medical Communicator Competence from a

Context-Centered Approach

Communication competence can be an elusive term within the context of physician-patient interactions; however, it is most often defined using the constructs of appropriateness and efficiency. Appropriateness is characterized by the relational sensitivity used in the communication whereas efficiency is characterized by how successfully the tasks within the consultation are accomplished in a timely way. Communication training programs generally focus on patient-centered communication as the most efficient and appropriate way for a doctor to conduct a medical interview, yet such a perspective can represent a sometimes unattainable expectation that a physician should know his/her patient well enough and have enough time to adapt to the personal preferences for each patient. Such a perspective is particularly difficult to use in medical school training where first and second year students have little experience with patients.

Rather than the patient-perspective, some medical schools have begun to focus on the different contexts of medical interviewing to develop communication training curriculum based on the distinct qualities of each context. I propose communication researchers may be of the most use to medical practitioners by focusing research on the *specific contexts* that occur within medical interviewing (i.e. breaking bad news, diagnosis discussions, palliative care talk, etc.) to define competent communication and to inform the development of curriculum and assessment for medical school training.

Focusing on different contexts present diverse opportunities to develop communication curriculum to medical students to better handle the patients' needs by adapting to the context rather than by attempting to discern each patient's preferences. Additionally, it must be a priority to *accurately* assess the context-specific skills in a way that is meaningful to the student and through an assessment tool that matches the skills that are taught in medical school. I argue that it is more logical to use context as a compass for developing curriculum and assessments that will equip medical students with the knowledge and ability to communication more appropriately and efficiently. Teaching and assessing skills based on context can help shed light on specific behaviors that contribute to the varying perceptions of competency. As a result, medical students can practice appropriate and efficient communication and feel confident in their ability to handle difficult patient interactions in a variety of contexts. Thus, the purpose of my thesis is to first identify prescriptive behaviors for competent medical interviewing in the contexts of error disclosure and behavior change interviewing and then to provide corresponding assessment tools for the use in training medical students and physicians[1].

    In the following section of the thesis, I define communicator competency, argue that it is best examined within medical interviewing as a state and as one that is best assessed as a behavior rather than a set of cognitions. Second, I summarize how communicator competency is examined within the medical interview literature. Third, I

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[1] The GHSU Medical Partnership at the University of Georgia graciously allowed me to examine their internal communication training assessment tools to help inform this thesis. My hope for this project was to correlate their assessment tools with the ones I am proposing; however, as we were working with a new medical school, dual IRBs, new training initiatives, it simply was not feasible within the time restraints for this thesis.

argue that communicator competency may be most effectively taught to medical students as a set of contextually defined behaviors.

Based on these theoretical foundations, I will then examine context-specific communication competency in the following two contexts: Behavior Change Interview (BCI) and Error Disclosure (ErD). There are necessary pedagogical improvements for communication training in the BCI and the ErD. For the BCI, if many medical schools' current focus on immediacy behaviors was enough, patients would be more likely to comply and accurately disclose (Wanzer, Booth-Butterfield & Gruber, 2004); however, research reveals that patients are censoring information on involvement risky behavior (see e.g., Greenfield et al., 1995; Lau, Yeung, Mui, Tsui, & Gu, 2011). Similarly, in ErD, new physicians are fearful of lawsuits and their training (or lack thereof) does not currently provide the necessary skills to fully disclose error in an efficient and appropriate way and a new focus on context can help the medical students feel more confident in their ability to disclose error in a productive way. I will then propose measurement tools for the assessment of competent communication behaviors, the Comer Behavior Change Competency Assessment (CBCCA) for the BCI, and Competent Error Disclosure Communication Assessment (CErDCA) competent behaviors for the ErD. Finally, I will provide a discussion of the contexts and suggestions for future research.

Communicator Competence from an Interpersonal Perspective

Past communication research has identified different types of competency (e.g., relational, communication, social competency) in an attempt to create more specific parameters for contextually defining competence (Spitzberg & Cupach, 1989). Building from the existing communication literature, the physician-patient interaction offers a

meaningful context to explore the nuances of context-specific competencies within medical interviewing. More importantly, by comparing how competency is theoretically defined by communication scholars and medical researchers, a more collaborative communication teaching model can be created to enable medical schools to produce more communicatively competent physicians.

Spitzberg and Cupach (1984, p. 63) broadly define communication competence "as the ability to adapt messages appropriately to the interaction context" in reference to both knowing how to perform a particular communicative action and possessing the ability to perform the action. Fridhandler (1986) further defines competency by delineating two fundamental classes of communication competency: trait and state. A state describes a situational response to a particular context whereas a trait refers to a personal disposition or combination of a multitude of personal characteristics. A trait is further defined by tendencies reflecting the communicator's disposition and typically spans across time, place, and even context (Spitzberg & Cupach, 1984). On the other hand, when examining communicator competency as a state, Wiemann and Backlund (1980, p. 189) define it as a set of critical skills "acquired through training and are improved by practice [and] require strategic judgment." As Parks (1985) notes, whether competency is conceptualized as trait or state depends on the purpose of the researcher and thus, to examine competence as a teachable skill set for the purpose of improving physician-patient communication, I examine competency as a state. By conceptualizing competency as a state, choice and skill development within a specific context can be introduced to the definition of competency.

Communicative competence can be assessed using a cognitive or behavioral perspective. The cognitive perspective conceptualizes competence as a mental phenomenon that can be separated from behavioral performance and captures the potential capability an individual has for competent communication. The cognitive perspective, thus, focuses primarily on the underlying cognitive structures that manifest behavioral action (Weiman & Backlund, 1980). In contrast, a behavioral perspective outlines specific situational behavioral manifestations of competence and specific behavioral prescriptions for more effective communication. Other researchers have coined the term "adaptive effectiveness" to reflect this behavioral perspective. Similar to the conceptualization of competence as a state, the behavioral perspective posits choice as an essential criterion for competence. Choice must be accounted for in the attempt to encourage physicians to employ contextually appropriate communication skills. The behavioral view "not only seeks an idealized set of rules, but focuses on a repertoire of skills appropriate to a variety of relationships and contexts" (Weimann & Backlund, 1980, p. 188). Spitzberg and Cupach (1984) argue that conceptualizing competence by the cognitive process is most consistent with personal traits or dispositions and the behavioral perspective explains the choice the communicator has to adapt or accommodate during interactions. Thus, with the importance of choice and adaptability, I examine physician communication skills training as a state through the lens of the behavioral perspective.

The behavioral perspective is often utilized by researchers in the medical discipline as the basis for communication skills training for medical students. An example of teaching competent communication through the behavioral perspective is the

SPIKES protocol (Baile et al., 2000) which outlines key communication techniques that doctors should perform within the context of delivering "bad news." Behaviors like managing time constraints and interruptions, addressing the patient's emotions with empathetic responses, and assessing the patient's perception are behaviors emphasized as indicating competent communication. Similarly, in this thesis, competence is examined through the behavioral theoretical perspective to emphasize competence as a skill set that can be refined and is manifested through choices for behavioral action within the clinical setting.

This thesis uses Spitzberg's (1984) model of communication competence focusing on two primary dimensions of competency: effectiveness and appropriateness. In effect, communication competence is displayed through balancing efficient and appropriate behavior. Effectiveness has roots in control and reflects the achievement of particular goals and tasks. This dimension aims at maximizing the rewards of behavior and minimizing the costs of the communicator (Spitzberg & Cupach, 1984). On the other hand, appropriateness encompasses politeness and tact, what the medical field refers to as "bed-side manner." Appropriateness is defined by how one avoids violating expectations and other social norms held by the message receiver. The concept of appropriateness also implies a degree of choice when selecting particular behaviors to enact in particular contexts. Research on communication competency within the field of communication reflects a pursuit to explain a behavioral state that is reached through having the knowledge, motivation, and ability (Spitzberg & Cupach, 1984) to engage in both appropriate and efficient communicative behavior.

Communicator Competency within the Medical Field

After examining current doctor-patient literature, it is clear that there are many similarities to communication research in defining competency, yet little collaboration between communication and medical scholars exists in the development and instruction of clinical communication skills curriculum. Cegala and Broz (2002) note that the communication research cited within the medical field is often conducted by healthcare practitioners and psychologists rather than interpersonal communication researchers (see also, Ong, et al., 1995). For collaboration to occur, it is necessary to examine how the medical field both conceptualizes and operationalizes communication competency in order to provide a bridge to communication research.

In medical training, fundamental competency (e.g. proficient knowledge of diseases, thorough medical examination skills, specialized medical techniques, etc.) is typically separated from communication/relational competency (see e.g., Siminoff & Step, 2011). Additionally, the physicians' communication skills are further segmented into instrumental skills and relational skills (Siminoff & Step, 2011). Instrumental behaviors include the physician checking for understanding, giving clarification, taking the patient's medical history, etc. Relational behaviors include reflection of feelings, eliciting emotions from the patient, and giving encouragement (Wolraich et al., 1986). Instrumental and relational communication skills are in many ways comparable to the communicator competency dimensions of efficiency and appropriateness. However, rather than teaching communication as a *balance* between these two needs, many medical institutions traditionally focused on standardizing medical care. In doing so, they

deemphasized appropriateness and more heavily valued efficiency, losing the balance needed to produce competent communication in medical interviewing.

In the 1990s, a shift in medical student training occurred; while prior training emphasized efficiency, training in the 1990s and 2000s added an emphasis on the relational dimension of medical communication competency by focus on patients' emotional needs and encouraging emotional expression (Duggan, 2006; Watson & Gallois, 1998). This newer emphasis on relational skills was a result of earlier research demonstrating a positive correlation between physician's expressions of relational concern (e.g. expressing empathy, eliciting emotions, etc.) and higher levels of patient satisfaction (see e.g., Cegala et al., 1996) as well as research showing patients are more likely to comply with treatment regimens suggested by physicians with higher relational competency (Thompson, 1994). Medical training in the past two decades has thus emphasized the importance of teaching relational communication skills and understanding communication competency as trait, a teachable skill that can be learned through training and practice (Coulehan & Block, 1992).

Assessment and Feedback from the Medical School

Equally as important as the conceptualization of competent communication and curriculum development for training is the method of assessment for these programs. Medical school communication training assessments must evaluate specific behaviors that are taught in training and must also provide context-specific direction for competent communication. Each medical school differs in approach to communication training but often times, communication skills are grouped into a "Clinical Skills" curriculum in which community members and faculty members lecture and facilitate discussion about

communication topics. For example, the GHSU medical partnership at UGA, one objective in the clinical skills curriculum includes lecturing on how to ask questions and common question flaws to avoid. While much of the medical schools' curriculum is well-founded, Cegala and Broz (2003) exposed that current medical training includes "apparent or blatant mismatching of skills and assessment instruments" (p.104). Thus, the purpose of my thesis is two-fold. I hope to identify prescriptive behaviors for competent medical interviewing within the behavior change and error disclosure contexts while also contributing something beneficial to the feedback process that occurs from assessment offered in the medical school training.

I will be focusing on the communication assessment following training using standardized patient encounters. Standardized patients (SPs) include trained participants, sometimes professional actors, who act as the patient in a simulated scenario for training purposes. These SPs are given a script before a simulated encounter including details about a particular health issue and their attitudes about the issue. The SPs are generally instructed not to give information they would not normally give the physician without being asked in order to more accurately gauge the physician's effectiveness, especially in examining contexts focusing on information seeking behaviors (i.e. behavior change interviewing). Incorporating standardized patients also reflects a new methodology of teaching medical students communication skills in a way that allows necessary feedback from multiple sources representing multiple perspectives within the physician-patient communication interaction. Research has shown that the standardized patient, if used in the communication skills training program, can offer valuable feedback to the medical student from the perspective of the patient (Howley, 2007). Many medical schools have

utilized this avenue of feedback because it does not require "practicing" on actual patients where the psychological and medical consequences of poor performance could be detrimental.

Following a simulated patient encounter, an instructor evaluates targeted behaviors and feedback is given based on the score assigned to the student. Additionally, the standardized patient often gives feedback from the "patient's" perspective to add dimensionality. Many medical schools have designed a training environment that provides a simulated health care physician-patient interaction for the medical students with meaningful feedback from their instructors but the training is still not flawless and needs more theoretical grounding and contextual organization to facilitate learning competent communication skills.

There are several popular evaluation tools have been used for rating the medical students' communicative ability in simulated or real scenarios. For example, the SEGUE framework is a checklist rating scale to aid in giving feedback and assessing the medical student's performance (Skillings, Porcerelli, & Markova, 2010). Assessment of communication skills is not universal to all medical schools but in working towards a more prescriptive assessment, we can incorporate context-specific competent communication skills into the assessment and feedback process. In addition to an evaluation tool such as checklist ratings, instructor feedback has become an important component to the communication skills training process. Researchers have found that feedback given to young doctors on their performance in communication interactions usually produces long-term benefits for interviewing skills (McGuire, Fairbairn, & Fletcher, 1986; Deveugele et al., 2005).

Many medical schools' communication assessment tools identify a variety of desirable behaviors that evaluators emphasize when giving feedback to the student after completing a simulation. However, an effective training program must focus on a context-specific (content based skills) philosophy for teaching appropriate and efficient communication skills and should include modified evaluation tools, reading assignments, and standardized patient cases to highlighting specific contextually competent behaviors. The underlying assumption for teaching context-specific communication competency is that there are some communication behaviors that are efficient and appropriate across all contexts but there are also very important context- specific skills that must be addressed as well.

For the purpose of this thesis, I will be focusing on two specific communication contexts, The Behavior Change Interview (BCI) and the Error Disclosure Interview (ErD). My goal is to generate an assessment for each of these contexts to use in evaluating standardized patient encounters. I propose we think of communication less as a trait characteristic and more as a state characteristic that can be translated into prescriptive behavior for competent medical interviewing within the BCI and ErD. Furthermore, as mentioned previously, recent research on training medical students has now shifted to an emphasis on the *context* as an important way to teach communicator competency. Context based communication skills work off the premise that basic skills can be taught and then as each medical context is covered, new skills or emphases are added. However, context must be further defined to provide a clear foundation for the creation of a context-based assessment tool for medical encounter interactions.

Context as a Critical Variable in Communicator Competency Training

The context in which a particular medical interview occurs produces expectations, social rules, and the need for particular skill sets. There are many contexts within medical interviewing such as preventative health check up, diagnosis, treatment decision-making, etc., Previous examinations of the doctor-patient interpersonal relationship have neglected to identify the process of situational communication adaptation as a component of contextually competent communication. Street (1991) expressed that "in spite of its importance, the *process* of communicating in medical consultations remains largely unexplicated" (p. 131). When explicating this "process," I argue that there are definable, contextually competent communicative behaviors that are specific to medical scenarios. Consequently, it is necessary to identify these combinations of appropriate and efficient communication skills to incorporate specific training per context within the medical school setting. Before moving forward, it is necessary to explicate "context" as it defines the heart of this thesis.

Researchers commonly differentiate between the terms *context* and *setting*. Setting refers to the social and physical space assigned to the interaction and is included as a dimension of context but should not be used interchangeably with context (Duranti & Goodwin, 1992). Setting encompasses the place of interaction as well as proxemic conditions but does not take into account pre-existing expectations or experiences. Context refers to more than just the setting of the communication interaction by encompassing organizational and content expectations shaped by the patient's expectations for appropriate and efficient communication for the interaction. For example, the expectations for a physician's communicative behavior while delivering

end-of-life news are very different from the expectations for a time when the physician is initiating a treatment plan for the patient. The setting for the two interactions is the same (a hospital room where the physician and patient are sitting fairly close) but the context of the interaction includes different confines on what is deemed competent communication. Empathy may be valued and expected from a patient within the context of end-of-life care whereas within the treatment plan conversational context, the patient may expect and value enthusiasm and hope.

Another important factor defining the parameters of the context is the goal of the interaction (i.e. for behavior change, the goal is to get the patient to disclose accurate information about the behavior). Duranti and Goodwin (1992) argue that communication "cannot be properly understood, interpreted appropriately, or described in a relevant fashion, unless one looks beyond the event itself [communication] to other phenomena (for example speech situation) within which the event is embedded" (p.3). The event, or communicative behaviors, is embedded within the field of action, which refers to the situational environment, and becomes increasingly important when conceptualizing communication through a contextual lens. Scholars examine two components of context when defining the situational environment surrounding the communicative action: institutionalized framing and emergent processes of talk.

Institutionalized framing refers to the "group-derived prescriptive norms" (p. 294) that provides the foundation for the interaction based on duties and responsibilities of the communicators within a particular space (Duranti & Goodwin, 1992). Similarly, for a medical interview, there are expectations based on the responsibility of the physician within the interviewing process. Medical researchers highlight a similar notion

of "complementarity" describing the balance between regulating communication control and role performance and the responsibility of the individuals involved in the interaction (Street, 1991; Stiles, et al., 1984). Within the medical context, the institutionalized framing component (or complementarity) accounts for the expected roles within the consultation and how the interaction is performed. Patient compliance has been found to be higher when the physicians conform to the expectations outlined by the contextual appropriateness of role performance. As will be discussed later, different medical scenarios require different "appropriate" role performances.

The emergent "processes of talk" component is comprised of the expectation for typical content involved in the contextual interaction and the way it is communicated. For example, when a physician is engaging in error disclosure, it is expected that the physician will offer some type of apology and will offer that in a way that is appropriate to the situation. It is necessary to be aware of both components of context to identify situationally-appropriate communicative behaviors for specific medical interviewing contexts.

Medical Encounter Contexts

With the understanding that context accounts for institutional expectations (doctor-patient roles) as well as a content governed environment, I argue that a competent communicator should adapt to different medical scenarios. Factors contributing to the process of doctor-patient communication that are frequently examined (e.g. empathy, immediacy, affective display, etc.) are helpful in understanding competent communicative behavior in medical interviews in general but are insufficient guides to truly competent communication when they are not viewed through the lens of context

specific competence. If physicians are encouraged to adapt to each individual patient instead of focusing on context as the guiding force for adaptation, it will be nearly impossible to accommodate infinite variations of patients' preferences within the dyadic interactions (Street, 1991). Studies on patient preferences have identified some generally desirable communicative behavior but have been counterproductive in prescribing patient-based competent behavior due to the variability between patients. For example, some studies have confirmed that immediacy behavior demonstrated by the physician (e.g. forward lean, touch, etc.) is linked to patient satisfaction while others have disconfirmed this claim and found no correlation (Street & Buller, 1987). A possible explanation for these conflicting findings is whether the immediacy behaviors were actually appropriate given the context.

Instead of focusing on the individual patient, communication needs to be appropriate and efficient given the goal of the interaction based on the context (e.g. for behavior change, the goal is to get accurate and full information from the patient about risky behavior as well as getting the patient to begin thinking about change) to define prescriptions for the competent communication. Some researchers in the health communication discipline have started to focus on certain medical communication situations such as "Breaking Bad News (BBN)" (e.g. Baile et al., 2000) but have not focused on context as the guiding force for communication adaptation during medical consultation. Depending on the gravity of the consultation, perhaps whether it is a regular checkup or a diagnostic interaction, typical behavioral variables per context become noteworthy guides for communication adaptation. The situational context exposes

different expectations within medical encounters scenarios as evidenced by Street and

Buller (1988):

> In medical consultation in which the patient is highly anxious about the
>
> medical condition [serious health issue consultation], both the doctor and
>
> patient may display high levels of involvement through directness of body
>
> orientation, forward body leans, gaze toward partners.... In a routine
>
> medical exam with no complications and little need for personal
>
> involvement between the interactants, there may be lower levels of
>
> intensity such as less social touching, more gazes away from partners,
>
> more indirect body orientations, less facial expressiveness, less intimate
>
> talk, more task activity and more abrupt topic changes. (as cited by Street,
>
> 1992, p. 140-141).

Thus, I suggest that it is not the uniqueness of the patient that is the most significant

guide for identifying these behaviors for new medical students but rather the situational

context in which the interview occurs. Street (1992) argues patients who come in for

routine medical checkups may approach to consultation situation more socially with

expectations for appropriate communication behavior to include smiling, small talk,

facial and gestural animation, etc. Conversely, in scenarios addressing more serious

issues (e.g. diagnosis), the roles of the patient and physician are more rigid and the

physician may exhibit more involvement due to the uncertainty surrounding the issue

(Applegate, 1986). There is merit to a context-based communicative model for

prescribing competent communication behaviors for physicians but this perspective is

still in need of further conceptualization and empirical attention. For this thesis, I will

conceptualize two medical contexts with distinctive goals, the behavior change interview

(BCI) and error disclosure (ErD), which warrant differing sets of communication

behaviors and assessments.

CHAPTER 2

The Behavior Change Context

To provide a context to examine contextually based information-seeking communication competence, I first examine the challenging "behavior change" medical interview. The behavior change medical interview (BCI) is a medical consultation in which the physician explores a patient's engagement in some type of risky behavior (e.g., high alcohol consumption, too much caffeine, unprotected sexual behavior, etc.). The BCI hinges upon providing a communicative environment in which the patient feels comfortable disclosing his or her engagement in the risky behavior. First, the Trans-theoretical Model and Motivational Interviewing techniques are used to understand this competent behavior during a behavior change interview (BCI). Then, I examine a basic assessment tool used by medical school instructors use to evaluate medical students in the BCI interview, keeping in mind the necessity to align with the skills desired within this context. Third, I argue that basic assessments of the BCI are too heavily weighted towards immediacy behaviors and neglects assessment of potential inhibitory behaviors.

The Comer Behavior Change Competency Assessment (CBCCA) is proposed which assesses appropriate medical immediacy (friendliness, validation talk and active listening) and inhibitory communicative behavior (anxiety, surprise, blame and judgmental behavior, too early introduction of change talk). Measurement for the CBCCA is based on items taken from Relational Communication Scale, RIAS, MIAS, MIPS, Motivational Interviewing as well as items generated by the author. To do so, this

thesis focuses on information-seeking communication behavior within the behavioral change interview in which the medical students are challenged to ask the patient about his/her involvement in a particular risky behavior revealed within the interview. The Stages of Change Model and Motivational Interviewing are used to guide an argument for what communicative behaviors are considered competent in the behavior change interview.

Information-Seeking for Behavior Change

The purpose of the BCI is for the physician to gather information about the patient's experience with the behavior and also to potentially motivate the patient to consider changing the behavior in the future. In medical school, the behavior change interview is commonly divided in two parts: Information gathering (e.g., What is the risky behavior? How involved is the patient? Is the patient willing to think about a change?) and the behavioral change intervention (e.g. formulating a behavior modification plan, discussing long term goals, etc.). This thesis specifically examines the process of gathering information concerning risky behavior.

Risky behavior includes any behavior that the patient is choosing to engage in but could negatively influence that patient's health. As risky health behavior often is potentially embarrassing for the patient to admit (i.e., engaging in illegal drug use, smoking, poor exercise/eating habits), patients are more likely to test how accepting the recipient of the information will be or may under report the behavior altogether to preserve avoid confronting an awkward situation. In studies relying on self-report measures for behaviors such as drug use, alcohol use, and sexual behavior, researchers have found that patients are reluctant to disclose accurate information about their

behavior because they perceive it may be frowned upon in the medical field. For example, several studies comparing self-report measures to more objective measures such as biological markers find patients under-report socially undesirable behaviors such as unprotected sex, alcohol use, drug use, and caffeine use (see e.g., Greenfield et al., 1995; Lau, Yeung, Mui, Tsui, & Gu, 2011). Patients may censor information about their behaviors based on the desire to portray themselves in a more socially desirable way while also avoiding lifestyle judgments and embarrassment with the physician (Saltzman et al., 1987). Thus, teaching a physician how to communicate in such a way to make the process more comfortable and welcoming for a patient disclosing about risky behavior is essential.

According to medical school communication assessment tools, the process of information-seeking within the BCI occurs across the following segments: initiating the session, gathering information, and closing the session. These three segments serve as the skeleton for the medical encounter. The physician begins the BCI by initiating the session with a greeting, handshake, etc., to help establish trust and rapport and ideally the initiate session will result in a patient feeling safe to disclose information about his/her behavior.

The bulk of the information-seeking interview is the second segment: gathering information. Information gathering is a part of most medical interviews but becomes most significant for discussing behavior change because the way the physician communicates with the patient may determine the amount and accuracy of the information disclosed about the risky behavior. The information gathering component also sets in motion a patient's possible motivation to change. In some behavior change scenarios, information gathering may also incorporate some type of standardized

questionnaire (e.g. when a physician suspects alcohol abuse, he or she will use the

Alcohol Use Disorders Test-AUDIT) or questions developed by the physician to assess

the patient's attitude and involvement in the behavior.

Medical school instructors typically watch the standardized patient encounter

from another room via cameras. He or she evaluates the student's behavior, typically on

scaled measures. For example, it is typical for instructors to evaluate medical students on

immediacy type behaviors such as how friendly he or she acts with the patient. For

example, the GHSU medical partnership at UGA uses a 12-item Likert type measure to

evaluate the extent of immediacy behaviors the medical student engages in during the

BCI interaction.

Closing the session is the last segment in the information-seeking phase and is

especially important following the patient's disclosure of his/her experiences and

emotions surrounding the risky behavior. The "primacy" and "recency" effects help

explain the importance of the opening and closing of information-seeking sessions. The

primacy effect refers to the instance in which the information the physician

communicates first becomes most salient (opening) and the recency effect refers to when

the information communicated last or most recently (closing) becomes most salient and

in effect, the best remembered (Ong et al., 1995). Within the context of behavior change,

it is possible that the physician's communication competency at the end and the

beginning of the interview are equally as important as the actual information gathering

due to the perceptions of the patient. The information-seeking phase of behavior change

offers a unique context to examine the behaviors that facilitate or inhibit the patient to

make steps toward awareness of his/her risky behavior or perhaps even start

contemplating change.

As Zimmerman and colleagues note, "A few minutes spent listening to the patient

and then appropriately matching physician intervention to patient readiness to change can

improve communication and outcome" (Zimmerman, Olsen, & Bosworth, 2000, 1413).

This conceptualization of competent, information-seeking communication provides the

charge to develop a communication model to address behavior change information-

seeking based on theories and constructs offered by previous literature (i.e. Stages of

Change, physician's interviewing style, etc.). When looking at the context of

information-seeking about behavior change, I begin with the Trans-theoretical model to

understand the patient's identification with the stages of change. Through first identifying

the patient's attitude about the behavior (stage of change), behaviors will be suggested

that are both appropriate and efficient within the information-seeking stage of the BCI.

Trans-theoretical Model

The Trans-theoretical Model describes the process individuals go through when

they decide (and even before they actually make the decision) to engage in behavior

change (Prochaska & DiClemente, 1983). The major theoretical claim made by the

Trans-theoretical Model is that individuals go through four specific "stages of change"

when reflecting on their behavior and beginning to consider behavioral change. The

stages occur in the following order: pre-contemplation stage, contemplation stage, action

stage, and maintenance stage. The pre-contemplation stage occurs when the individual is

unaware of his/her involvement with a particular risky behavior or is simply uninterested

in making a change. Contemplation describes the stage in which the individual realizes

he/she is engaging in problematic behavior but is unsure of committing to changing the behavior. For the purpose of this thesis, I am grouping these two stages together as they are both indicating a lack in readiness to change, and labeling them the Precontemplation/Contemplation (PCC) stages. The action stage is the turning point in which the individual actively decides to make a change in the behavior. Finally, the maintenance stage refers to the individual's internal struggle to continue to commit to the behavior change they enacted. I will be focusing primarily on the PCC stages as patients identifying with those stages provide the most challenge to physicians when engaging in information seeking communication.

Identifying the patient's placement within the stages of change can be especially helpful with encouraging lifestyle change to prevent disease (i.e. diabetes, lung cancer, etc), promote healthier behavior, and for patients with addictions (i.e. alcohol, drugs, etc., Zimmerman, Olsen, & Bosworth, 2000). Using a "stage-based" approach for modeling physician-patient communication paired with talk-time with the physician has been proven to be as effective as longer doctor visits (Zimmerman, Olsen, & Bosworth, 2000). "Patients, as they go through this cycle [stages of change], think about their problem differently as they go through each stage and therefore will respond differently to different counseling techniques" (Putnam, 2002, p. 219). If patients are responding differently depending on how they identify with a stage of change paired with the way the physician is communicating, it is essential to determine which specific communication behaviors are most appropriate per stage of change with the goal of educating medical students.

When physicians are interviewing patients in the pre-contemplation and contemplation stages, the physicians are often tempted to try to simply "convince" the patient to engage in behavior change by enacting an "instinctive scolding model" which can create resistance during the information-seeking interview (Putnam, 2002). Research has identified that the best way to reach these patients is to use empathetic communication that encourages the patient to contemplate personalized risk (Putnam, 2002). The wording physicians use when engaging in information-seeking with their patients in these stages can be important (Zimmerman, et al., 2000). The Motivational Interviewing literature is helpful in identifying the ways in which physicians might word questions and physician's nonverbal behaviors that encourage patients in the BCI interview to be open. Thus, to further understand interviewing to encourage disclosure as well as promote contemplation about a particular behavior, relevant strategies offered by Motivational Interviewing are reviewed below.

Motivational Interviewing

Motivational Interviewing (MI) is a style of interviewing that focuses on the autonomy of the patient, avoids imposing change, encourages collaboration, and seeks to evoke the patient's own ideas and thoughts to facilitate behavior change (www.motivationalinterview.org). The basic approach to Motivational Interviewing can be summarized with the acronym OARS: Open-ended questions, Affirmations, Reflections, and Summaries. Open-ended questions are important to assess the patient's disclosure of past behavior and to initiate thought about the possibility of change and allow for a more robust understanding of the patient's experience with the risky behavior. It is important to note that Affirmation does not mean that the physician should affirm the

engagement in the risky behavior but should affirm the patient in telling more about the behavior and creating a safe space to share the information. I will discuss this particular construct within Motivational Interviewing more in depth later when I elaborate on prescribed competent communicative behaviors within this context. Reflection refers to reflective listening and is strategically used to help the physician demonstrate empathy and show the patient that the physician understands his/her perspective. Summary includes the recap of what the physician and patient have discussed and becomes increasingly important as is may be the closing conversation in the consultation (www.motivationalinterview.org).

Motivational Interviewing hinges upon the goal of competently handling a patient's potential resistance by avoiding a negative confrontational approach. Additionally, MI aims to elicit the motivation for change from the patient, which is why this technique has been used to help navigate the Stages of Change process and assist in moving the patient through the change process (Miller & Rollnick, 1991). The initial identification of a risky behavior usually means that the patient will most likely identify with the pre-contemplation or contemplation stage within the framework of the Stages of Change during the information-seeking phase of the interview. According to Motivational Interviewing literature, physicians communicating with patients in these stages should: validate the patient's expression of his/her experience, explore potential concerns about behavior, emphasize that the decision to change is the patient's, and focus on the motivations of the patient.

Behavior change may not happen over the course of only one consultation but an essential first step occurs when the patient voices his/her participation in the risky

behavior to the physician in the information-seeking segment of the interview. The goal

for Motivational Interviewing for patients in the pre-contemplation/contemplation stages

is to move the patient from not thinking about the behavior to "I need to think about the

behavior/I'll think about changing" (Miller & Rollnick, 1991). Based on the

conceptualization of context previously discussed, context is defined by the goal of the

interaction. Keeping the aforementioned goal in mind, the objective is to use appropriate

and efficient communication skills to create this motivational environment. If the

physician is too forceful or imposes confrontation while seeking information, the patient

may be thwarted from considering change or even expressing accurate information

(Miller, Benefield, & Tonigan, 1993). As Putnam writes, "If I use harsh, judgmental,

authoritarian words, as I am tempted to do in moments of frustration and fatigue, I waste

my time because the results will be the opposite of that I want [the patient will not

consider behavior change]" (Putnam, 2002, p. 224).

Based on our knowledge of the context of behavior change, specifically for pre-

contemplative/contemplative patients, and what MI in collaboration with the Trans-

theoretical Model suggests, the physician should be friendly, use active listening

techniques, and validating statements to create an environment that welcomes self-

disclosure from the patient. Additionally, the physician should be careful to not signal

negative affect about the patient's behavior as such displays may inhibit patients from

fully disclosing information. More specifically, I argue that the physician should monitor

his or her nonverbal displays of anxiety and surprise as well as refrain from judgmental

statements to prevent the patient from closing the physician off from any information and

therefore stifling their potential motivation to change.

Assessment of Behavior Change Interview

An examination of items from a medical school's assessment tool indicates a focus primarily on the immediacy behaviors of physicians. Most of the evaluative measures focus on the presence of immediacy behaviors (positive) on one end of the scale and the absence of those behaviors (negative) at the other end (e.g. for example, "Adequately responds to feelings with empathic language" on the positive side and "Lack of response to patient feelings" on the negative side). Such an emphasis seems one-sided as there is more to being competent at the BCI than just engaging in immediacy behaviors. A physician can be very friendly but at the first instance of inhibitory communication (e.g. judging), the physician's negative communication behavior becomes more salient for the patient and the current medical school communication assessment tool does not account for that possibility.

I will argue it is as important to focus on the negative behaviors that may potentially affect a patient's decision to disclose information and to discuss possibilities of change with a doctor as it is to examine immediacy behaviors. Such a shift in emphasis would have implications for training medical students as well. In addition to discussing the positive, desirable behaviors to exhibit within a medical interview, it is just as important to training the physicians on what types of behaviors they should *not* engage in, especially within the context of BCI. It may be that patients consistently under report risky behavior because of a doctor's inhibitory cues rather than because the doctor is not properly reflecting immediacy behavior.

A second weakness of many medical schools' assessment tool is the lack of an assessment of the physician's appropriate use of change talk, an important concept in

both Trans-theoretical model and motivational interviewing. It is important for the physician to offer suggestions for change and question the patient's willingness to do so but it is equally important that the physician not offer that advice prematurely. If the patient does not feel that he or she has expressed the whole story and that the physician has an understanding of how difficult the situation is, it is likely that the introduction of change talk to soon can shut down the patient in two ways: (1) he or she will not self-disclose any more information and (2) he or she will be less likely to contemplate change. Therefore, it is crucial to capture this ordering of behavior in the competency evaluation.

Thus, according to the literature on effective interviewing within behavior change situations, I argue that medical schools should assess immediacy, inhibition, and change talk behaviors. Below, I begin by providing a rationale for the proposed method of conceptualizing and analyzing the three medical immediacy behaviors and three inhibitory behaviors as well as incorporating appropriate change talk taken from Motivation Interviewing.

Key Communication Behaviors for the BCI

The critical communication interaction within the BCI is the doctor seeking information about the risky behavior. Information-seeking is defined as the process or activity of attempting to obtain information. When examining information-seeking within an interpersonal relationship, researchers often examine behaviors associated with intimacy, reciprocation, affection, conflict, etc. (Knapp & Miller, 1994) but within the confines of a medical interview, these information-seeking behaviors may manifest differently. For example, reciprocity and affection are not key constructs in a structured doctor-patient interaction as compared to an interaction between dating partners. Rather, I

argue that the physician's information-seeking behavior within the BCI are competent to the degree that the physician's behavior (a) encourages the patient to be open and honestly disclosive about potentially embarrassing behavior and (b) does not serve to inhibit the patient's discourse.

In developing assessment items to measure competent information seeking behaviors within the confines of the doctor-patient relationship, it is important to keep in mind that medical schools use standardized patient interviews to both train and assess students in behavior change interviews. For example, a standardized patient may disclose he or she cannot seem to sleep at night. If the medical student asks the right questions, the standardized patient will admit that he or she takes caffeine pills and drinks three cups of coffee every day (risky behavior). Another example of a standardized patient scenario used for training and assessment is alcohol related. A college age standardized patient comes to an appointment with a sprained ankle. After the right questions from the medical student, the patient discloses he or she drinks eight alcoholic beverages more than four times a week). In both examples noted above, the job of the physician is to ask the correct questions to obtain the information about the risky behavior. Thus, to productively assess desired information seeking behavior (e.g. asking the right questions), we must identify key communication behaviors while considering the unique needs of the BCI.

As will be argued below, we can usefully consider physician's behavior as reflecting *immediacy* (e.g., acting friendly, engaging in active listening, and using validating talk) or as *inhibitory* (e.g., acting surprised, anxious, judgmental or blaming, and being prescriptive too early). As stated earlier, institutional framing creates different

rules for this relationship and a different set of challenges to providing support and withholding judgment. The key for communication within the BCI is to not invalidate the patient's self-image through creating embarrassment, shame, or humiliation for the patient. The goal instead is to manage the interaction in a way that promotes perceived reassurance, affirmation to self-image, and acceptance (Albrecht, Burleson, & Goldsmith, 1994). The physician needs to communicate that the behavior is risky while also not sounding judgmental. Thus, if the physician is too immediate or not immediate enough, the patient may perceive low levels of competence, or he or she may simply not share the critical information. Based on the review of literature, the following section will explicate suggested dimensional behaviors for more efficient and appropriate communication within the doctor-patient BCI.

Medical Immediacy

Immediate behaviors communicate interest, warmth, and friendliness to a conversational partner (e.g. smiling, nodding, forward leaning, etc.) These behaviors generally aim at reducing psychological distance between the interactants (Guerrero, 2005). Within medical interviewing, immediacy functions to create a comfortable environment for the patient to disclose information. In a typical, nonreactive medical interview (e.g. history-taking), it can be relatively easy for an individual to engage in immediate behaviors, such as validating or affirming the patient (Fruzzetti & Iverso, 2004). Specific to the BCI, I argue that competent medical immediacy is comprised of three focal behaviors: validation, friendliness, and active listening. Note, I do not suggest these are the *only* three medical immediacy behaviors but rather that these are three essential ones.

Validation. Validation has been defined as "the expression of understanding (and implicitly or explicitly acknowledging the legitimacy) of a target experience or behavior (emotion, want, thought, sensation, action, etc.) of another person" (Fruzzetti & Iverso, 2004). For this thesis, validation is not defined by the feeling experienced the recipient of validating communication but instead is defined by the *expression* of validation, in other words the behavior of the communicator. Validation is examined as a behavioral expression from the communicator (physician) intended to make the recipient (patient) feel understood and valued. It is not measured by the feelings it elicits from the patient but instead by physician's employment of validating communication.

Validation takes several forms within the information-seeking BCI: emotional, cognitive, and behavioral. Emotional validation included affirming that the patient is experiencing valid emotions (e.g. "I understand it is embarrassing") and the cognitive dimension includes validating the person's thoughts (e.g. "It is tough to think about"). Emotional or cognitive validating communication hinges upon the medical student affirming that the patient is valid in feeling the emotions that he/she is expressing. An important component of this variable is the extent to which the medical student elicits emotional insight from the patient. The medical student must be aware of the patient's feelings about the risky behavior in order to express affirmation that the feelings are valid.

Behavioral validation includes expressing understanding of the individual's behavior (e.g. "I can imagine it is difficult not to drink when you are out with friends). Furthermore, behavioral validation also encompasses validation of the patient's future potential (e.g. expressing confidence in the patient's strengths, reframing of the issue, etc.

(Adler, 1946). When the physician engages in behavioral validation, the physician expresses confidence in the patient's ability to enact behavior change while also expressing an understanding that the patient's struggle with the risky behavior is valid.

For the behavior change medical interviewing context, validation manifests as the physician explicitly expressing that the patient's emotions, thoughts, desires, struggles, etc. are legitimate. In doing this, the physician is communicating that the patient is a valued human being with legitimate struggles and experiences. It is necessary to distinguish between accepting the individual's struggle with a risky behavior and accepting the risky behavior itself. Scholars identify this type of validation as "acceptance in balance with change" meaning that the physicians should express acceptance of the person as a catalyst for effective changes to occur (Fruzzetti & Iverso, 2004).

Friendliness. The perception that a physician is friendly is a key measure of medical immediacy and friendly behavior can be a catalyst to encouraging disclosure (Beck, Daughtridge, & Sloane, 2002). Friendliness is rarely conceptually defined but most dictionary definitions agree that friendly behavior is behavior that indicates one is favorably disposed; inclined to approve, help, or support or showing kindly interest and goodwill (Merriam-Webster online dictionary). Within the context of interpersonal relationships, research suggests that we disclose more information to those that we like and to those who seem open and friendly (Beck, Daughtridge, & Sloane, 2002). The motivational interviewing literature stresses the need for the interviewer to use a friendly and open communication style (Moyers et al., 2008).

Friendliness is a critical measure within the patient-provider literature, and it has been positively associated with health related outcomes such as patient satisfaction, compliance and comprehension (see e.g., Beck, Daughtridge, & Sloane 2001; Buller, 1987; Wanzer, Booth-Butterfield & Gruber, 2004). While acting friendly is a key immediacy behavior in many physician-patient interviews it may be especially key for the BCI where, as reviewed above, research demonstrates patients often feel reserved about sharing intimate details with a physician and thus under-disclose. Agne, Thompson & Cusella (2000) provide evidence that stigmatized patients (e.g., those who are HIV positive) were more likely to disclose their stigmatized condition to care providers who made them feel comfortable. Roberts and Aruguete (1999) also found high levels of socioemotional behavior of the physician increased measures of patient self-disclosure and trust. Thus, perceptions that a physician is friendly may result in higher levels of disclosure in the BCI. Friendliness is often examined as an overall indicator of how a physician acted with an emphasis on nonverbal behavior (see Roter & Hall, 2004) such as tone of voice, eye contact, forward leaning, smiling, etc. (Guerrero, 1997).

Active Listening. Active listening is a behavioral communication skill that medical communication training as well as Motivational Interviewing (MI) focus on to encourage patient disclosure. According to the MI medical literature, the key components of active listening include paying attention (e.g. making eye contact), using body language and gestures to communicate attention (e.g. nodding, smiling, encouraging the patient with backchannels such as "yes," "uh-huh," etc.), providing feedback (e.g. clarifying what the patient said and summarizing), and deferring judgment (e.g. allowing

the patient to finish with no interruptions) (www.motivationalinterview.com; Miller &
Rose, 2009).

Providing feedback and deferring judgments would be easy to overlook within
active listening but are significant contributors to the active listening process. Providing
feedback does not necessarily mean giving advice but instead could be shown through the
physician verbally summarizing the patient's story back to the patient. In doing so, the
physician can also offer encouragement for disclosure by repeating back what emotions
the physician believes the patient to be experiencing. The recognition of the patient's
emotions concerning the risky behavior/difficulty in changing behavior are essential in
the medical student engaging in active listening. Active listening can promote helping the
patient to identify the risky behavior, disclose private experiences, and can promote a
more accurate expression of self from the patient (Fruzzetti & Iverso, 1994).

Furthermore, active listening implies a shift in the power dynamic usually in place
within a doctor-patient encounter (Ford et al., 2000). Intuitively, one may think that the
patient should do most of the listening within the medical consultation; however, to
facilitate as much disclosure about sensitive topics as possible, the patient must feel some
control and security within the interviewing session (Ford et al., 2000). Similar to the
concepts discussed within validation, the physician must enact an open and eager to listen
attitude to engage in active listening.

Another component of active listening can be observed through the physician's
attentiveness and involvement within the interaction. Burgoon and Bacue (2003)
conceptualizes this form of immediacy behavior as altercentrism. Within this context,
Altercentrism refers to the involvement of the physician within the interaction. Physicians

who are engaging in active listening should also display altercentric behaviors such as showing focus, being alert, interested, involved, and attentive. Additionally, the physician can offer confirmation of active listening through summarizing accurately what the patient has disclosed (Ford et al., 2000). Furthermore, Roter and Larson (2002) define empathy within the medical context as "statements that paraphrase, interpret, recognize, or name the other's emotional state" (p. 249). Conversely, if the physician is inaccurately recounting the patient's information or repeating questions that have already been asked, it is obvious to the patient that active listening is not occurring.

In summary, these three medical immediacy behaviors (validation, friendliness, and active listening) create a welcoming environment that facilitates patient disclosure about risky behavior. However, it is not simply the amount of immediacy communicated that enables disclosure, it is also the absence of presence of particular inhibitory communicative behaviors that defines the amount and accuracy of information the patient feels comfortable disclosing.

Inhibitory Communication

Inhibitory communication describes behaviors that "create a sense of distance emotionally, socially, and psychologically" (Burgoon & Hale, 1987, p. 23). Within the confines of the doctor-patient relationship, inhibitory communication creates an unwelcoming environment that may discourage patient disclosure. Displaying anxiety or surprise, blaming, judgmental and prescribing behavior change too early in the interview are forms of inhibitory communication focused on for this thesis. These behaviors are relevant when examining the BCI because if the patient feels distanced from the physician, he or she may be less likely to truthfully disclose about the risky behavior.

As noted above, a number of studies in a variety of research domains demonstrate that patients are most likely to under report alcohol use, drug use and risky sexual behaviors to doctors (see e.g., Greenfield et al., 1995; Lau, Yeung, Mui, Tsui, & Gu, 2011). One reason that patients may under report their substance use is if they fear being judged by the doctor or if their doctor signifies in the interaction that their behavior is somehow unexpected or outside of the norm. The physician may create an atmosphere where patients feel uncomfortable reporting their actual use by engaging in judgmental communication, anxious behavior, exhibiting shock or surprise, and engaging in blame. Anxiety and surprise are both implicit inhibitory behaviors in that they do not explicitly express disapproval but signal to the patient that there is something shameful or uncomfortable about the information he or she is disclosing. Blaming and judgmental communication are explicit forms of inhibitory communication. Finally, if the medical student recommends behavior change before the patient has adequately expressed his or her concerns, the patient is less likely to disclose all relevant information about the behavior. By engaging in one or all of these behaviors, the physician is directly communicating his or her personal evaluation on the patient's behavior in a negative way, which inhibits further disclosure.

Anxiety and Surprise. Anxiety is an expression of nervousness that is expressed verbally and nonverbally. Anxiety is an implicit manifestation of inhibitory communication in that if a physician is uncomfortable requesting information from the patient about his or her behavior, the discomfort implies that there is something within the conversation that will ensue that should be embarrassing for the patient. Some examples of anxiety include the frequency of vocalics, nervous paralanguage that

accompanies the physician's message (e.g. verbal fillers, stuttering, etc.) Additionally, nervous gesturing and fidgeting can indicate anxiety (Guerrero, 1997). Displays of anxiety indirectly create an unwelcoming environment for patient-disclosure. The MIPS (Ford et al., 2000) outlines nervousness as a measure of communicator competence. MIPS further examines "busy versus relaxed hands" to capture the amount of nervous movement occurring within the interaction. Anxiety cues within the BCI context could include (but are not limited to) playing with the writing pen, wringing hands, moving around in chair (hot seat), and frequent swiveling the rolling stool they are sitting on. Prior research suggests that when physicians display anxiety, patients view them as less empathic (Halpern, 2003).

Similarly, another related implicit manifestation of the inhibitory dimension is what the medical literature labels "disconfirmation" (Siminoff & Step, 2011). Disconfirmation can be expressed when the physician displays surprise to the patient's disclosure of behavioral information, a patient may see the physician as denying or criticizing the patient's account of his or her life choices. Surprise is suggested in the Generalized Medical Interaction Analysis System as a negative expression of the physician's internal states of emotion (Barton Laws et al., 2008 as validated in Wilson et al., 2010). Analogous to the display of anxiety, the expression of surprise indicates that the behavior the patient is disclosing is abnormal and shockingly outside of the norm.

When this thesis refers to anxiety and surprise, both verbal and nonverbal dimensions are assessed. When a physician displays anxious movement nonverbally, tense body position and nervous movement displays can be observed. When anxiety is expressed verbally, the physician may stutter or have long, awkward pauses. Surprise can

be observed nonverbally through behaviors including the physician rolling his or her eyes, making big eyes in reaction to information, etc. or expressed verbally through statements such as "Wow, that's a lot" or "Whoa!"

Blaming. Blaming communication refers to conversations in which the physician implies that it is the patient's fault that the sickness, injury, or other reason for medical attention occurs (Thornea et al., 2004). Blaming behavior can result in a patient feeling guilty (rather than motivated to change) and can result in a patient sharing less information about his or her circumstances that surround the behavior. Blame manifest in nonverbal behavior such as when a physician uses a condescending tone of voice and patronizing nonverbals (e.g. cocking head to the side with furrowed brows, pursed lips, etc.) can indicate blaming. Blaming communication can also be expressed verbally. Blaming language includes accusatory statements asserting that the patient is the culprit for the health problem. For example, if a physician asked a patient, "Why are you incapable of sleeping?", instead of asking, "Do you think there is anything influencing the trouble you are having sleeping?", the patient may feel like the physician is blaming him or her for the trouble with sleeping.

Especially in the BCI, it is important for the physician to recognize that generally, the patient is trying to cope with his or her illness in a complex life. Therefore, to increase the chances of the patient fully disclosing accurate and honest information about his or her behavior, lifestyle discussions and even history-taking must be done in a non-blaming manner (Teutsch, 2003). For example, if a patient were to disclose that he or she is not sleeping well at night and the physician responded with, "Well, what types of behaviors are you engaging in that make you incapable of sleeping through an entire

night?", blaming communication is occurring. Now, if the physician had instead asked, "Have you noticed that any type of behavior worsens how much sleep you are able to get in a night?" the patient may be more willing to disclose and will not feel blamed for the lack of sleep. Blaming communication is any verbal or nonverbal expression of faulting the patient for a particular health problem. I will be assessing a global judgment of blaming communication as well as the frequency of blaming communication using both verbal and nonverbal displays.

Judgmental. Judging communication is a problematic process that occurs when an individual expresses feelings or discloses experiences and a recipient who rejects the validity of the other's feelings and experiences in a critical way (Fruzzetti & Iverso, 1994). Judgmental communication can encompass the simple expression of disapproval of the behavior as well as the physician giving a critical opinion. Judgmental communication can be expressed both verbally and nonverbally, for example, the physician expressing indifference, one-sided laughter, and denying the patient's struggle (Siminoff & Step, 2011). Judgmental behavior may not directly disconfirm the patient's viewpoints but it trivializes the patient's perspective and in doing so, communicates the physician's judgment.

When a physician engages in information-exchange with a patient in the absence of judgmental communication, respect is established. "Respect means to value individuals' traits and beliefs despite one's own personal feelings about them, to see patients' habits or feelings as their [current] best adaptation to their illness or life circumstances" (Coulehan & Block, 1992, p. 23). Consequently, judgmental communication manifests as an absence of respect for the patient. Some examples of

disrespectful behaviors include: losing patience with the patient, not sitting at the patient's level, the physician not introducing him/herself, and imposing personal beliefs as standards for the patient's lifestyle choices (Coulehan & Block, 1992). Furthermore, disrespect for the patient through judgmental communication represents a power dynamic in which the physician holds more power than the patient. For example, when a physician uses medical jargon that the patient cannot understand (e.g. "hypertension") the physician is using judgmental communication to assert that he or she is more capable to make decisions.

If the patient perceives the physician to be judging or disrespectful, communication can rapidly shut down (Teutsch, 2003). The patient could begin to consider contemplation once he/she has been able to vocalize his/her choice about the risky behaviors but the patient would be unlikely to share the same information if a judgmental environment is established. When the medical student expresses disapproval concerning the particular risky behavior the patient is engaging in, the patient is less likely to vocalize details about his or her risky behavior. In summary, judgmental communication refers to any communicative behavior that conveys a negative opinion of the patient's behavior. I will assess judgmental communication through the nonverbal (paralanguage) and verbal dimensions (patronizing communication). Additionally, I will also assess the extent to which the physician is not putting him or herself in a position of power by using medical jargon.

Premature Use of Change Talk. The measures of immediacy and inhibitory communication are essentially aimed at creating an open environment where the patient feels free and at ease to talk. They are in many ways general measures (e.g., one can

assess "friendliness" in almost any type of doctor-patient interaction, thus it is not actually *context specific)*. According to MI and stages of change, the BCI context specific communication behavior of making specific recommendations for change *too early* and asking questions about change too early in the interview process shutting the patient down. "Too early" in this context refers to a time when the physician does not allow the patient to explain why he or she is engaging in the risky behavior and how it is affecting the patient's life before the physician gives advice or recommendations for change. According to the MI literature, allowing the patient to verbalize the entire narrative about the behavior is essential to creating a patient's self-motivation to change.

I am not proposing that change talk is inherently a negative behavior. It is neither an inhibitory nor immediate behavior in and of itself but the *timing* of the physician's introduction of the behavior change talk can either facilitate contemplation for change or inhibit further disclosure of behavior. It is important to measure when the change talk, if ever, appears within the medical interviewing session noting if the change talk follows the physician asking information regarding the patient's readiness to change. If the physician does not ask the patient about his or her lifestyle and inquire if the patient has ever contemplated change, the patient would be less receptive to advice on behavior change (specific recommendations for change). For example, if the physician discovers that the patient drinks excessive amounts of coffee everyday and does not ask the patient questions regarding his or her reasons for engaging in behavior (e.g. "Do you feel like you need caffeine to get work done?), offering change talk at this may inhibit the patient from continuing to talk about the risky behavior or to listen to the physician's recommendations.

New Assessment for Behavior Change Interview

In developing systems of observational analysis within the medical context, Ford et al. (2000) suggest that an ideal system would take into account the context of the interaction (the BCI for this section), incorporate a method of observation that captures multiple types of behaviors (e.g. video recordings), and be logical and user friendly. Ford et al. (2000) developed the Medical Interaction Process System (MIPS) with these objectives in mind for cancer care communication training , thus MIPS is specific to teaching communication skills to oncologists. MIPS takes a more patient-centered approach (the physician responding to patient cues instead of responding to the context), whereas I am proposing a context-centered approach. Similarly, the Generalized Medical Interaction Analysis System (GMIAS) is a coding system adapted from both the RIAS and MIPS that adds the physician's expression of internal states (e.g. anxiety, negative perceptions such as surprise and anxiety, judgment, and blaming) which adds a significant aspect for the adaptation for my measure. Using these three medical specific measures, I have adapted my measure to reflect concepts outlined in each previously tested measures to capture the purpose of this thesis.

Based on my earlier conceptualizations of medical immediacy and inhibitory communication behaviors, I adapted items from other observational measures to examine the BCI focusing solely on the medical student's communication behavior. I will be using a combination of Likert type items for global measures as well as several behaviors to be coded on occurrence (as suggested by MIPS). Additionally, "Common modes of assessment found in the [observational] health-care literature include using a checklist or Likert-type scale to evaluate dimensions of the interaction in real time, or shortly

thereafter." (Carlson, Feldman-Steward, Tishelman, Brundage, 2005). I have created a measure that will facilitate observational ratings for friendliness, validation, and active listening (medical immediacy) and anxiety, surprise, blaming, and judgmental communication in order to compare my ratings with those of the medical school evaluators.

Coding Scheme for CBCCA

Immediacy Behavior

Immediacy behaviors are well studied in both interpersonal communication and in the doctor-patient literature. Thus, items were adapted from previously validated measures. The items discussed below can be found in Appendix A.

Friendliness. Three items are used to assess the physician's friendliness. From the MIPS (2000), the coders provide a general assessment of how friendly the physician appeared on a 3- point scale (not at all, a little, very). From Guerroro's Immediacy Scale, (1997), coders indicate on a 5-point scale how often the physician smiled. Finally, both the MIPS and the Immediacy Scale assess eye gaze on a 5-point scale (looked at the patient a little to a lot).

Validation. Four items are used to assess the physician's validation behaviors. From the MIPS (2000), the coders provide a general assessment of how validating the physician appeared on a 3-point scale (not at all, a little, very). From Burgoon and Hale's (1987) Relational Communication Scale, coders indicate on a 5-point scale how sincere the physician seemed and to what extent the physician expressed similarity with the patient. Finally, the coders will be making a judgment on a 5-point scale about the extent to which the physician validates the patient's verbalized feelings based on a similar

measure from the MIPS.

Active Listening. Three items are used to assess the physician's active listening. From both Motivational Interviewing and the Relational Communication Scale (Burgoon & Hale, 1987) the coders provide a general assessment of what extent the physician appeared engaged in active listening on a 3-point scale (not at all, a little, very). From the RIAS, (Roter & Larson, 2002) coders indicate on a 3-point scale (never, once, more than once) how often the physician named the patient's emotional state. Finally, the coders will be making a judgment on a 3-point scale (never, once, more than once) based on the conceptualization given by Motivational Interviewing. The judgment includes recording how often the physician summarizes what the patient is saying.

Inhibitory Behavior

Unlike immediacy behaviors which are often measured in the extent literature, several inhibitory behaviors are not captured by validated coding schemes. Prior work instead has focused on non-immediacy behaviors (e.g., not being friendly) rather than examining inhibitory behavior (e.g., acted surprised). When validated measures exist (e.g., for anxiety), they are used; otherwise the author generated items consistent with the conceptualization of the inhibitory behaviors.

Surprise/ Anxiety. Five items are used to assess the physician's levels of surprise and anxiety. From the MIPS (2000), the coders provide a general assessment of how anxious the physician appeared on a 3-point scale (not at all, a little, very). The coders must then indicate on a 5-point scale how tense the physician seemed when talking to the patient and how much nervous movement physician expressed during the BCI; also taken from the MIPS.

The coders are then asked to rate on a 3 point scale (not at all, a little, very) to what extent the physician seemed shocked or surprised (adapted from the GMIAS, 2008). Finally, the coder is asked to record the number of time the physician expresses surprise (on occurrence).

Blaming. Two items are used to assess the physician's engagement in blaming communication. From the GMAIS (2008), the coders rate the physician's communication on what degree the physician seems blaming towards the patient on a 3-point scale (not at all, a little, very). Additionally, I am interested in extending the GMAIS measure of surprise to include an occurrence code of how often the physician vocally assigns fault to the patient (on occurrence).

Judgmental. To assess judgment, three items were adapted from coding concepts offered by the GMIAS (2008). First, coders are asked to make a general judgment of the physician on a 3-point scale (not at all, a little, very). For this item, coders are asked to consider both verbal and nonverbal displays including rolling eyes, making judgmental sighs, and crossing arms. The second measure examines whether the physician uses plain language that is easily understood by the patient on a 1-5 strongly disagree to strongly agree scale. Use of 'non' plain language implies the physician is asserting more power and judging the patient's ability to be in control. Finally, using the same 5-point scale, coders assess how patronizing the doctor seemed when discussing the patient's risky behavior. Again, for this item, coders are asked to reflect on both verbal and nonverbal behavior of the doctor. The GMIAS offers conceptual support for the judgmental items but the author generated the specific items after watching SP encounters.

Verbal Change Talk. This measure is informed by the Transtheoretical model and Motivational Interviewing literature. The coders are asked to record whether or not the physician "made specific recommendations for change" (e.g. you should quit smoking, cut back on drinking alcohol, etc.). This code is a behavioral code to be recorded (2) made specific recommendation for change or (1) did not make specific recommendation for change. Additionally, the coders are asked to record each time the physician questions the patient regarding the patient's readiness to change or if the patient has contemplated change (i.e. Have you ever thought about quitting?")

Ultimately, it is my goal to investigate not only what underlies each measure but how we can improve the assessment tool based on what we know are important skills within the BCI medical encounter. I am adding a focus on measuring inhibitory behaviors to discover if inhibitory behaviors are predictors of competent BCI communication. Since inhibitory behaviors are not currently accounted for within the medical school's assessment tool, I will investigate if the medical school faculty evaluators' assessments can be improved by separately classifying the occurrence of inhibitory communication behaviors to provide more directed feedback reflecting the medical students' potential use of blaming, surprise or anxiety, judgmental communication, and premature introduction of change talk.

Summary

In summary, competent communication within the context of the behavior change interview, results in full disclosure from the patient about a particular risky behavior. Competent communication in the BCI requires consciousness of specific immediacy and inhibitory behaviors to make the patient feel comfortable disclosing personal information

accurately. Immediacy behavior (friendliness, validation talk and active listening) and inhibitory behavior (premature introduction of change talk, anxiety, surprise, blame and judgmental behavior) are critical in determining a doctor's competency in a behavior change interview and must be taught and measured accurately in medical school training. Based on my review of literature and theoretical backing, I propose items for the creation of an assessment tool to assess these specific behaviors. These items for the most part are taken from Relational Communication Scale, The Roter Interaction Analysis System (RIAS), the Generalized Medical Interaction Analysis System (GMIAS), the Medical Interaction Process System (MIPS), and Motivational Interviewing (MI). Thus, I am combining items from prior research in interpersonal communication, medical communication and motivational interviewing to create the Comer Behavior Change Competency Assessment (CBCCA).

It is the goal of this thesis to provide research from a communication-centered approach to advance communication training programs to teach a more context specific set of communication skills. The BCI offers a context in which the primary focus of the interaction is seeking information from the patient. Further, the goal of the BCI is to not only get the patient to disclose information about his or her engagement in a particular risky behavior but also to make the patient feel comfortable enough to disclose fully and accurately. Competent communication in this context, therefore, reflects the physician's ability to seek information from the patient in a way that invites disclosure without the fear of being judged or reprimanded. However, a focus on competent information-seeking is specific to BCI and is not the only communication skill set that should be considered for training medical students and new physicians. Competent physician

information provision skills are equally important within other medical contexts. In order to provide a second context in which to examine communicator, specifically information provision, I will explicate the communication skills needed within the Error Disclosure (ErD) context. The ErD context is governed by unique patient expectations, and a physician must be trained to address these expectations in a way that provides information with remorse and professionalism to avoid negative consequences. In the following section of this thesis, I will further discuss the ErD with regards to creating a more context-centered outline of competent communication behaviors as well as suggestions for the assessment of these skills.

CHAPTER 3

The Error Disclosure Context

Disclosing that he or she made a medical error can be one of the most uncomfortable interactions for physicians. Bonnema et al. (2012) suggest the physician's discomfort is in part due to their minimal communication skills training and lack of confidence interacting in the often emotionally charged atmosphere of error disclosure. Disclosing an error can carry severe consequences including medical malpractice lawsuits, loss of respect from patients and colleagues, and adverse health outcomes for the patient. Error disclosure is a critical concern: statistics show that almost 100,000 patients die preventable deaths every year due to medical error (Kohn, Corrigan, & Donaldson, 2000). While most medical professionals agree that it is important to disclose errors, many practitioners do not know how to disclose error appropriately and efficiently (Bonnema et al., 2012).

Medical error and medical mistake are similar terms, and although some researchers have differentiated between the two. However, for the purpose of this thesis, I will use medical error and medical mistake synonymously to define medical error based on the following criteria: (a) has a range of severity (Allman, 1998), (b) can cause a negative health outcome for the patient, (c) is rules, skills, or knowledge based (Reason, 2000), and (d) is a decision reflecting a physician's choices that involves liability (Hannawa, 2009).

Medical errors have further been defined as an "unanticipated negative consequence of a medical intervention" (Mizrahi, 1984, p. 135). Medical errors can range from severe (e.g. careless surgical behavior) to minor (e.g. not calling in an appointment for a patient). Allman (1998) suggests that medical errors are often conceptualized differently by patients than by physicians (see also Fein et al., 2007). For example, it can be difficult for a patient to differentiate between the physician's inability to cure the disease (e.g. cancer) with the physician making a mistake with the treatment that could have been avoided (e.g. confusing patients' prescriptions). While some researchers suggest that patients are aware that medical errors are inevitable, patients report that they are fearful of errors happening to them, and they have strong expectations that someone will take the responsibility for the error (Gallagher et al., 2003). Furthermore, research suggests that with a recent emphasis in patient rights and increasing medical technology, societal expectations reflect the patient's entitlement to medical perfection, which in effect also creates a patient's expectation of flawless practice from his or her physician (Petronio, 2006). If a physician deviates from the expectation of perfection, patients may attribute the error to "aberrant mental processes such as forgetfulness, inattention, poor motivation, carelessness, negligence, and recklessness" (Hannawa, 2009, p. 9). Due to differing definitions of medical error between patients and physicians regarding the impetus for the error, it is important for the physicians to communicate clearly about what specific actions caused the error beyond negligence. A clear explanation is required for a physician to communicate that the error was not intentional and to maintain a sense of responsibility for his or her previous action that led to the negative outcome for the patient (Fein et al., 2007).

An error disclosure inevitably begins with the physician's decision to provide information about a medical error to the patient. The error disclosure context differs from most other physician-patient interactions as the physician begins by providing information instead of seeking information from the patient. Studies suggest that residents and new physicians often do not provide information about medical error because of a lack confidence in their ability to communicate effectively (Mizrahi, 1984; Bonnema, Gonzaga, Bost, & Spagnoletti, 2012). Consistent with the occurrence of medical errors, a study reported that 98% (182/185) of medical residents surveyed reported involvement in or having made an error in their medical career. Additionally, White et al. (2008) finding that only 34% of medical students involved in those errors actually disclosed the error to the patient supports new physicians' lack of confidence in their communication skills. Based on the frequency of the occurrence of error and the gravity of the physician's decision to disclosure the error as the gatekeeper of that information, the ErD context warrants unique attention and training.

While medical schools are moving towards more interactive learning approaches to teach communication skills error disclosure instruction is in its nascent stages (Bonnema, Gosman, & Arnold, 2009). Some medical schools teach full disclosure techniques and appropriate apology strategies. Similar to the BCI, standardized patient interactions are becoming more useful for teaching error disclosure by providing medical students and trainees the opportunity to practice disclosing error without fear of consequence such as a lawsuit (White et al, 2008; Chan et al., 2005). An example of a simulated patient encounter for ErD training might include the medical student telling the patient that he or

she confused the patient's lab results with another patient's and therefore needs to conduct new tests.

Through practice with scenarios like the one mentioned above, medical students and young physicians gain more confidence in deciding to disclose error, which in turn, facilitates the developments of a more transparent and collaborative relationship with the patient. While a host of studies have examined the decision to (or not to) disclose medical errors, that decision-making process is not the focal point of this thesis. Rather it is the communication that occurs following the decision to disclose that most affects the patients' perceptions of physician competency and thus, is the focus of this thesis. Appropriate and effective communication behaviors must be defined within ErD to prescribe behaviors enacted after the physician's decision to disclose that meet the needs and goals of both the patient and the physician.

For this context, I first explain the expectations of the physician as guiding principles for defining competent error disclosure. Then, I will identify current models of error disclosure and propose an operational bridge from a well-formulated conceptual model to inform prescriptive, competent error disclosure (ErD) behaviors. Finally, I will also propose items of measurement to be used to create a more appropriate and effective training assessment tools for medical communication training.

Expectations and Goals of the Error Disclosure Interaction

Patients and physicians not only have differing expectations of error disclosure based on their differing conceptualizations of error (Fein et al, 2007), but also patients in particular may have changing expectations during the ErD interaction. The patient is often unaware of the impending focus of the ErD interaction at the onset, which is a

unique element of this context. To account for the patient's evolving expectations, I define existing and emerging expectations. Existing expectations include those expectations the patient has coming into any medical appointment. A patient's existing expectation could be that the patient expects the physician to act professionally and that the patient will leave the appointment with something that will make his or her illness better. On the other hand, emerging expectations describe the patient's expectations as a response to events occurring within the consultation. A patient's emerging expectation could include the expectation of discussing treatment plans after being diagnosed with cancer. Emerging and existing expectations are different due to their time of initiation and I will further explain the contextual significance of the emerging expectations.

The distinction between existing and emerging expectations is illustrated through the following example: If a patient was meeting with a physician for a follow-up consultation after getting his or her tonsils removed, the patient's existing expectation is that he or she will give the physician information about progress and leave the appointment in a timely way. However, if the physician tells the patient that he or she accidentally mixed the patient's charts with someone else's and in fact, the patient's tonsils did not need to be removed, the patient's emerging expectations will reflect a developing focus on information-gathering rather than information provision. The emerging expectation reflects the desire for an explanation and apology to be provided by the physician concerning the error. This emerging expectation in ErD denotes a shift from information provision to information-seeking by the patient. This shift contributes to the uniqueness of the ErD context because the focus becomes the physician's communicative competence in providing information to the patient about the error.

The physician's ability to identify the patient's emerging expectations becomes increasingly important for fulfilling the patient's expectations and thereby, engaging in.competent communicative behavior. Furthermore, competent communication within the ErD requires physicians to not only be aware of patients' expectations but also to investigate specific needs and incorporate contextually relevant responses to essentially fulfill patients' expectations. Patients' expectations, and therefore perceptions of competence, may differ within the ErD; however, a general a set of behaviors can be prescribed to meet patients' contextually relevant needs during ErD. In the following paragraphs, I will provide insight into patient's expectations during error disclosure conversations and discuss the physician's goals for the interaction for the purpose of providing the foundation for creating a more succinct and accurate ErD communication competency assessment tool.

Patients' Expectations during Error Disclosure

Hobgood et al., (2002) surveyed 258 adult patients and families reported that patients expect full and timely disclosure from their physician concerning any medical error. Gallagher et al. (2003) surveyed 52 adult patients who were active users of health care who reported wanting information provided about the error on the basis of why the error occurred, how the error will be fixed, and how the error will be prevented in the future. Gallagher and colleagues (2003) further note that patients desire full disclosure that accounts for any divergence from standard medical care which includes inadequate quality of medical care and incompetent interpersonal skills. Furthermore, some patients felt that non-preventable adverse events should also be accounted for in error disclosure. Some patients would expect error disclosure regarding any unexpected adverse health

outcome. For example, patients may expect error disclosure if the medication they were prescribed caused an allergic reaction even though the allergy was not previously known to either party. In essence, the overwhelming pattern for patients' expectations includes the desire to feel fully informed about any medical error (Gallagher et al., 2003). In fact, "full disclosure" is a term most patients use that is under-explored by physicians. Therefore, it is essential for us to define what types of information patients expect when requesting to be fully informed to create shared meaning between patients and physicians.

Several definitional distinctions must be made to differentiate the types of error disclosure provided by the physician. Patients' expressed expectations generally reveal that they wish for full disclosure (see Hobgood et al., 2002; Gallagher et al., 2003; Wu et al., 2009); however, many physicians do not consider the communicative elements that differentiate full disclosure and partial disclosure. As part of a curricular innovation study, Fein et al. (2007) qualitatively analyzed twenty focus groups consisting of hospital administrators, physicians, residents, and nurses to identify six elements that must be present for full disclosure: (1) Admission, (2) Discussion of the event, (3) A link to proximate effect, (4) Explanation of proximate effect, (5) A link to harm, and (6) Explanation of harm. The first element, admission, refers to the physician's initial acknowledgment of an error occurring while the second element, discussion of the event, calls for the physician to actually discuss in more detail the occurrence of the error. The link to proximate event includes the physician explaining the link between the error and the negative consequence for the patient, which highlights responsibility as a key element to full disclosure. An example of providing a link to proximate event would be if a

physician told a patient, "Because of an error on my part, you were prescribed medicine that caused your blood pressure to rise." The physician is making the link between the outcome (high blood pressure) and the error (wrong prescription). Furthermore, describing the proximate effect to the patient includes more precisely telling the patient what the first immediate consequence of the error was (e.g. "Because of your increase in blood pressure, your heart became weaker and more strained). The link to harm, then, provides a connection between the initial adverse effect and the actual harm that was caused for the patient. The link to harm, like the link to proximate effect, also highlights responsibility in the error. For example, "I believe the medicine I prescribed to you caused your high blood pressure which ultimately caused you to have a heart attack." The physician is acknowledging the link between the error and the ultimate harm caused to the patient. Finally, explanation of harm occurs when the physician gives a detailed account of the ultimate adverse effect of the error and provides information about future action.

All six of these elements must be present in order to provide full disclosure to the patient (Fein et al., 2007). The physician's acknowledgment of responsibility (see also Wu, Huang, Stokes, & Provost, 2009) and the physician's clarity on what exactly occurred as a result of an erroneous decision seem to be at the core of the elements for full disclosure. If the six elements for full disclosure are not present, particularly the link to proximate effect and link to harm, the patient may perceive partial disclosure. Fein et al. (2007) categorizes three forms of partial disclosure as connect-the-dots, misleading, and deferring disclosure that physicians frequently and mistakenly consider "disclosure." The connect-the-dots approach omits the causal connection between the error and the

outcome (e.g. linking the error to the proximal effect or harm). This form of partial disclosure assigns responsibility to the patient and family to deduce the relationship between the physician's error and the adverse outcome. Misleading disclosure treats the error as if it led to a natural clinical outcome. Misleading disclosure infers that an adverse effect was simply a result of an underlying condition and was unforeseeable, when the physician in fact knows it was an outcome of an erroneous decision. Finally, deferring suggests that there are many possibilities contributing to the particular outcome instead of acknowledging the known source: the error. This approach intends to pass blame to other possible sources with no intention of providing closure by disclosing responsibility of the error directly (Fein et al., 2007).

I argue that these three forms of partial disclosure should be avoided as patients view physicians unfavorably when they feel that the physicians use any of these three types of partial disclosure (or no disclosure at all), and may be more inclined to change physicians or even seek retribution through lawsuit (Helmchen, Richard, & McDonald, 2010; Mazor et al., 2006). Mazor et al. (2006) conducted a study involving four hundred and seven health plan members with the goal of reporting if the perception of the presence of absence of full disclosure would affect patients' action following error disclosure The researchers created scenarios varying in degrees of error severity, and participants were asked to self-report the likelihood of seeking legal action, changing physicians, and the impact on level of trust in the physician. The results indicated that upon witnessing nondisclosure, participants reported an increase in the likelihood of changing physicians and a decrease in levels of trust for all degrees of severity. In one scenario, the participants also reported an increased likelihood in seeking legal advice. To

combat patients' negative perceptions and actions following an error, it is necessary to use the differentiation in full disclosure and partial disclosure approaches when evaluating and assessing physicians' competence in error disclosure.

Finally, a reoccurring theme of expectations within full disclosure for most patients is the necessity of an apology accompanied by a commitment for change to be included in the apology (Wu, Huang, Stokes, & Provost, 2009). Gallagher et al., (2003) summarized it well by noting:

Patients also desire a sincere apology by their physician that recognizes their suffering and indicates remorse, expect their physician to be sensitive and responsive to their needs, and want to be sure that the health care team learned from their error and will prevent similar events from happening again. (p.1001)

The patient's desire for the healthcare team to express that they have learned from the error and will take precautionary measures to make sure this error does not occur again is especially critical for facilitating perceptions of competency. Discussing plans for error prevention allows the patient feel a sense of intrinsic significance knowing that he or she did not experience the repercussions of a medical error in vain because it will prevent other patients in the future from suffering the same consequences. However, physicians often neglect to address this important patient need. In a study conducted by Chan and colleagues (2005), thirty full-time academic surgeons participated in two standardized patient encounters in which they were asked to disclose that an error had occurred in an assigned case. Of the sixty cases recorded, only 8% (5/60) of the cases included the

physician discussing how the error would be reviewed and the actions that would be taken to prevent the same error in the future.

The patients' expectations for full error disclosure are met with multiple barriers that affect the physician's motivation to fully disclose. These barriers include a lack of communication training (Mizrahi, 1984; Bonnema, Gonzaga, Bost, & Spagnoletti, 2012), anxiety about patient's potentially negative reaction to disclosure (White et al., 2008), and of course, fear of medical malpractice (Levinson, 2009). Consequently, these barriers inhibit satisfying the patient's expectations for an explanation of the link between the error and harm, emotional support, and discussions of future implications for medical practice.

Physician's Goals

While there is an extant and robust literature on patients' expectations within the error disclosure interview, there is little existing literature indicating physicians' goals. However, we might draw inferences about the goals of physicians based on what physician researchers study when examining the error disclosure interview. The overwhelming focus of research on error disclosure is how to communicate appropriately to avoid a lawsuit or future negative consequences (Helmchen, Richards, & Timothy, 2010; Mazor et al., 2006; Brennen, Sox, & Burstin, 1996). Fear of negative consequences (e.g. loss of patient trust, malpractice, or discomfort in the interaction) most likely stems from how psychologically difficult it is for physicians to admit a failed attempt at healing a patient (Levinson, 2009). Additionally, this fear manifests in a preoccupation with concern about lawsuits. Therefore, we can conclude that important goals for physicians

within ErD are not necessarily individually-focused but instead focus on avoiding

lawsuits concomitant with preclusion of increases in their malpractice insurance.

Additionally, physicians also report being constantly worried about making and

disclosing a medical error because they are worried about the potential loss of their

colleagues' respect, the damage to their relationship with the patient, and potential health

repercussions for future patients (Gallagher et al., 2003; Chan et al., 2005). This

expression of fear is likely fueled by physicians' desire to maintain a positive face.

Positive face refers to the "desire for the self-image to be appreciated and approved of"

(Brown & Levinson, 1978, p. 66). An example of the patient affirming the physician's

positive face within a healthcare setting would include acknowledging and appreciating

the skills of the physician (Hannawa, 2009). By disclosure medical error, the physician

may feel a threat to maintaining his or her positive face causing apprehension about

actually disclosing the error, and thus resulting in partial or nondisclosure (Fein et al.,

2007). If physicians felt more confident in their ability to communicate error in a way

that facilitated maintaining a positive face, more occurrences of disclosure would likely

occur and less fear would be associated with the decision to disclose.

In summary, physicians worry about lawsuits, lost of collegial respect, and damage to

their relationship with their patient. Patients' expectations are centered on being fully

informed (without any misleading), receiving emotional support, receiving an apology,

and for the physician to articulate a plan of action to reduce the likelihood of repeating

the error. The commonalities between physician and patient goals are scant but we do see

an overlap in that both the patient and the physician desire to resolve or fix the error with

the least amount of negative consequence. While the consequences of a medical error

may look very different for the patient (e.g. unnecessary physical suffering) and the physician (e.g. losing positive face), the common communicative goal is to create the best plan for the patient following the disclosure of the error. Recognizing the common goal within ErD and understanding the patient's contextual communication expectations can formulate a more direct outline of desirable communicative behaviors. Therefore, based on the knowledge that physicians are most worried about lawsuits and malpractice following ErD, and using the previously defined expectations expressed by patients in ErD, I will use Fein and colleagues' (2007) conceptualization of full disclosure as well as a model of Physician Error Disclosure (Hannawa, 2009) to guide my construction of an operational training assessment tool for competence error disclosure behavior.

Models of Physician Error Disclosure

Physician Mistake Disclosure Model. Physician error disclosure has been a new focus of research in the 2000's and a model of error disclosure was developed most recently by Hannawa (2009). Hannawa conceptualizes the cognitive process the physician engages in when deciding whether or not to disclose an error as a cost-benefit analysis in a model called the Physician Mistake Disclosure (PMD) model. I use this model as a starting point in an effort to capture the complexity of the disclosure process but with the goal of providing more operational guidance in creating a more definable communication training and assessment tool.
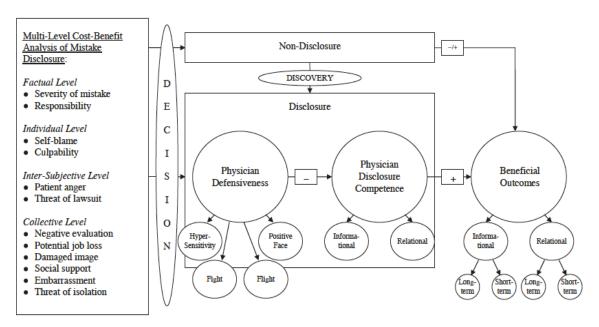
FIGURE 1 A physician mistake disclosure model.

As shown in Figure 1, the PMD model presents a four-level theoretical

framework for the cost-benefit analysis of disclosure. The four levels include the factual

level (what happened and what is the severity), the individual level (how much am I to

blame), the intersubjective level (how upset will the patient be), and finally, the collective

level (how negatively will colleagues respond). Figure 1 provides definitions or examples

of each of the four levels of costs to the physician for disclosing error. An example of

focusing on the level of factual costs includes when a physician considers the severity of

the mistake and his or her responsibility for the mistake when deciding whether to

disclose the error whereas if a physician were focusing on the inter-subjective costs, he or

she considers how angry the patient might become and the potential actions of the patient

following disclosure. Physicians can and may reflect on all four levels of costs when

making the decision to disclose.

While all four levels (factual, individual, and collective costs) clearly can

influence a physician's decision to disclose an error, I argue the intersubjective level is

most noteworthy in helping us understand how the physician goes about disclosing the error once he or she has made the decision to do so. The intersubjective level of cost begins to capture the physician's preoccupation with fear of patient reactions to ErD and warrants further attention in developing an effective and appropriate communication assessment tool as the focus on patients' expectations should ultimately guide the physician's behavior within disclosure. The intersubjective level hints at the significance of the relationship between the physician's communication and the reactions of the patients within ErD. However, physicians' communication in this context is often shaped by the fear of patient's emotional and legal responses to disclosure, which often leads to partial or no error disclosure. Therefore, teaching competent ErD communication must focus on the inclusion of the components of full disclosure with attention given to the intersubjective level of cost. Because this model was developed within the last few years, there have not been empirical applications of the model for research purposes. This model is explanative in terms of cognitive processing leading to the decision to engage or avoid error disclosure but lacks insight into definable communicative behaviors needed to produce effective and appropriate ErD communication. For the purpose of this project-I am moving in a more specific direction towards a more prescriptive behavioral proposal targeting observable teachable behaviors after the decision to disclose has been made. Thus, I am using the model as an underpinning to the measure I am creating for the purpose of communication assessment.

Micro-Model of Physician Error Disclosing. While the cost-benefit focused Physician Mistake Disclosure Model (PMD) is primarily describes the pre-disclosure process consisting of the physicians' perceptions of reasons to (or not to) disclose,

Hannawa (2009) also created a micromodel (see Figure 2) to better capture the communication process of disclosing.
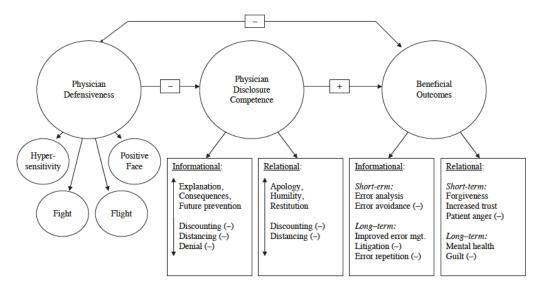

FIGURE 2   A micromodel of physician mistake disclosure.

Note that the micromodel begins with the concept of physician defensiveness. Defensiveness within the ErD context has been defined as, "hypersensitive affective, cognitive, and interactional tendency to react with exaggerated flight or fight reactions to perceived disrespect" (Hannawa, Sills, & Spitzberg, 2006, p. 3). Hannawa et al. (2006) argues that the latent construct defensiveness manifests in the following four behaviors: Hypersensitivity (taking patient's criticism personally), Positive Face (reflecting a need to be included and regarded in a positive light), Fight (the desire to retaliate), and Flight (withdrawing from the conversation). Physicians who respond to patients' with hypersensitivity, prioritizing positive face, fight, or flight tend to incompetently disclose error. Flight, for example, can be paralleled to the earlier discussion of Fein et al. (2007) definition of "deferring," a form of partial disclosure that occurs when the physician suggests the possibility of other sources at fault for the error when the actual source of the error is known. Similarly, prioritizing the maintenance of positive face fuels another type

of partial disclosure, specifically misleading disclosure which describes the physician's attempt to infer that the adverse health outcome was caused by an underlying health condition and not an error (Fein et al., 2007). Defensiveness does seem to be at the root of partial disclosure methods and thus warrants a refocused attention in training and assessment for medical students.

The second important concept in the micro-model is disclosure competence. Two dimensions categorize disclosure competence: Informational and relational. Relational disclosure competence refers to an emphasis on both the motivation and ability to perform appropriate behaviors with concern for the patient. Relationally competent disclosure includes such behaviors as friendliness, validation, and eliciting emotions from the patient. Asking the patient what types of emotions he or she is experiencing after an error is disclosed is an example relationally competent disclosure behavior. Informational disclosure competence, on the other hand, is defined as an emphasis on efficiency and factual information exchange. Some examples of informational disclosure behaviors include checking whether the patient understood the disclosure, explaining the information in a way the patient can understand, and appearing knowledgeable and prepared for the interaction. Hannawa's work theorizing relational and information disclosure competence relies heavily on prior conceptual work done by Cegala and colleagues (e.g., Cegala, McGee, & McNeilis, 1996) as well as work on communicator competence by Spitzberg and Cupach (1984).

Finally, the third major component in Hannawa's (2009) model is beneficial outcomes. The goal of competent error disclosure is to produce beneficial outcomes, meaning that the patient experiences positive effects resulting from the physician's

communication about error. Beneficial outcomes are also categorized by two dimensions: Informational and relational. I define informational outcomes as the outcomes reflecting the fulfillment of the patient's expectation for efficient, factual information provision of the patient and relational outcomes are defined by the fulfillment of the patient's interpersonal expectations of physician appropriateness and support. Furthermore, outcomes are further delineated by positive and negative valence as well as long or short-term effect. Negative short-term informational outcomes include error avoidance and negative long-term informational outcomes include the possibility of error repetition as well as possible litigation. Additionally, destructive communication (e.g. defensiveness) can lead to negative long-term relational outcomes such as losing the patient's trust or prolonged feelings of guilt for the physician and can also lead to negative short-term relational outcomes such as initiating patient hostility about the error. On the other hand, in the absence of destructive physician communication tendencies, positive short-term information outcomes can occur and include processing the error with the patient to create an immediate plan as well as positive long-term informational outcomes such as creating a long-term error correction plans. Similarly, beneficial long-term relational outcomes include increased levels of openness between physician and patient as well as beneficial short-term relational outcomes such as immediate patient forgiveness (Hannawa, 2009).

Hannawa (2009) presents a simple linear relationship among concepts in her model. Specifically, defensiveness has a direct negative effect on both communicator competence (informational and relational dimensions) and on beneficial outcomes (long-term and short-term informational and relational dimensions). Further, she posits that

defensiveness has an indirect affect on beneficial outcomes as mediated by patient's

perception of competence. Research does support the components of the PMD model and

the relationships between the components but the model is limited by the lack of

empirical testing exclusively testing the PMD. However, Hannawa's (2009) PMD model

is supported by research demonstrating that defensiveness tends to produce negative

outcomes (both long and short term) within the both relational and informational

dimensions whereas withholding defensive behaviors leads to more beneficial outcomes

(Hannawa, Sills, & Spitzberg 2006). Additionally, Stamp, Vangelisti, and Daly (1992)

support that defensiveness is indeed embedded within the relational component of

competent communication in that the effect of defensiveness is in fact mitigated by the

perceptions of the patient in relation to the physician. In their study, 501 undergraduate

students were surveyed regarding perceptions of defensiveness. When participants

indicated that they felt close relationally to the other person involved in the interaction,

the negative effects of defensive behaviors were minimized. Participants reporting

positive relational perceptions also reported awareness of sensitivity to the topic

discussed as well as reported they were less likely to feel attacked by defensive behavior.

These findings provide important support for Hannawa's (2009) for several reasons.

First, it reveals the importance of defining the relational dimension of competent

communication and highlights the relationship between positive perceptions of the

relationship and higher perceptions of competent communication. Secondly, it supports

that the perceptions of the relationship with the physician may help predict the positive or

negative outcomes after error disclosure. Defensiveness is a cornerstone for the PMD

model and for good reason. However, since this model is new and there are no empirical

tests currently, I am suggesting extending the focus from defensiveness to also include a more thorough investigation of statement of error, apology, assessing the patient's feelings, and rectification to add to the highlighted defensive component.

Problems with Previous Models

Hannawa (2009) maps the cognitive, internal process rather than external, observable behaviors. If the PMD model represented the manifest behavioral actions, it would be easier to apply the concepts to prescriptive competent ErD behavior. Thus, we need to translate the conceptual model to one that focuses on the physicians' behavior beyond the decision to disclose.

A second weakness of the model is that it begins with defensive behavior. Assuming that all communication begins with defensiveness (or lack of defensiveness) is a significant assumption made by Hannawa that I think is better redefined by examining defensiveness as a mediating factor. Defensiveness should serve as a behavioral category that can influence the outcome of the interaction with the patient but does not have to be an omnipresent factor in the ErD if it is not enacted by the physician. While defensiveness is an essential communicative behavior to examine, Hannawa (2009) defines defensiveness as a trait characteristic that some physicians are more predisposed to enact, while I argue that defensiveness should be reconceptualized as a state characteristic whose negative effects can be minimized with training and the creation of an effective communication assessment tool.

A third problem with research on error disclosure (including Hanawa's PMD model) is that studies have primarily focused on conceptualizations, categorizations, and/or causes of medical mistakes (Hanawa, 2009), yet little work on error disclosure

indicates specific behaviors to guide the training and assessment process for medical schools. While defensiveness is a significant behavioral element, I argue above that it is not necessarily the starting point for a model of communication competence. Moreover, even if we assume that a physician will feel (and act) defensively, defensiveness should be considered a state variable, one that can be modified. In other words, research is needed to translate the current conceptualization of defensiveness into an accurate training and assessment.

Fourth, much of the foundational communication training research reviewed by Cegala and Broz (2003) reflects a misalignment in the communication assessment tool and the actual skills that are taught to the physician. For example, a study conducted by Greco et al. (1998) reported results from a communication intervention designed for physicians in their first three months of practice. The focus of the intervention was patient-centered interviewing but no specific skills were outlined. In fact, the patients evaluated the physicians with items like "satisfaction with the visit" and "would recommend physician to a friend," both items with no evaluation of a specific skill that can be targeted for development. Cegala and Broz note that "Perhaps even more important…is better alignment between communication skills that are taught and the instruments and procedures for assessing the learner's performance" (2003, p. 104). These researchers call for much more support in specifically identifying communication skills that influence perceptions of competence within doctor-patient interactions as well as producing effective assessment measurement tools to accurately evaluate the medical students' skills. Thus, one purpose of this thesis is to help improve medical skills training curriculum by bridging the conceptual processes that occur in ErD with accurate

evaluative measures targeting prescriptive behaviors that can be taught in medical

schools and hospitals.

A final problem with ErD research is that the research generally targets

communication as it relates to the likelihood of future lawsuits for medical malpractice.

However, it seems that the behaviors that have been studied in regards to ErD are not

sufficient in predicting rates of lawsuits after disclosure, and thus signifying that there is

a disconnect between behaviors that are studied and the behaviors affecting patients'

perceptions of competency (e.g. Wu et al., 2009). In the Wu et al. (2009) study, adult

volunteers evaluated videos of physicians disclosing error and assessed seven aspects of

the ErD, most notably, "trust in the physician" (including items measuring the patient's

perception of the physician prioritizing what is best for the patient above self) and

"likelihood of suing the physician." The results revealed that ratings of greater trust in the

physician were not associated with a decrease in the likelihood to sue. Thus, the

communicative behaviors that are currently studied are not enough in predicting the

patients' perceptions of competency and in effect, the likelihood of lawsuit. Perhaps the

likelihood of pursuing legal action varies with each patient; however, I suggest that we

can better predict patient perception of competency by studying more specific

communicative behaviors that are targeting fulfilling the patient's emerging expectations

within the context of ErD.

In 2009, Hannawa's PMD model maps the cost-benefit cognitive processing

involved in the decision to disclose medical error in addition to providing a micromodel

of the relational and informational outcomes of error disclosure, which like many other

ErD models, includes the likelihood of seeking legal action. The models illustrate the

cognitive processes, which I think theoretically is on the right path, but my goal is to translate the PMD model into a more prescriptive assessment for behavior during ErD. As such, I am proposing we look specifically at the statement of error, the apology, assessment of the patient's feelings, and the rectification of the error to identify behavioral prescriptions for communication and assessment.

Using Hannawa's (2011) research on error disclosure as a catalyst to hone in on the specific behavioral components involved in competent error disclosure, I argue that more prescriptive competent communication components can be articulated to help translate conceptual processes of error disclosure and in effect, can be more accurately assessed within the error disclosure context (Kaldijan et al., 2007). The problems with the current PMD model reflect an overly-exclusive focus on lawsuit litigation at the expense of not outlining specific behaviors perceived as competent by the patient in addition to the downfall of not offering direct guidance for specific competent behaviors for ErD. In a response to the call for formulating a more accurate assessment tool (Cegala & Broz, 2003) and to align training with evaluation, I will discuss key communicative behaviors that are specific to the error disclosure context to inform my proposed measurement.

Key Communication Behaviors in the Error Disclosure Context

Research has shown that patients consistently desire a common set of components during ErD including "a statement that an error occurred, what the error was, why the error happened, how the error will impact their health, how reoccurrences will be prevented, and an apology" (Hannawa, 2009, p.395). As will be argued below, we can usefully conceptualize the physician's communication within the ErD in terms of four content-based categories: stating the error, apology, assessing the patient's feelings, and

rectification. The key for ErD is to grant full disclosure to the patient while navigating through these four segments, in a way that is not defensive or misleading but instead is truthful and sensitive.

As discussed earlier, the institutional framing of the ErD context governs the expectations formed by patients, which shapes the meta-goal for appropriate and effective communication. More specifically, the goal for this context is to create a joint-goal between the patient and the physician to manage the effects of the error (Hannawa, 2009). The physician needs to be truthful while maintaining his or her authority in a way that facilitates support and joint-decision making. Thus, if the physician does not engage in behaviors in each of these four segments, the patient may feel deceived (e.g. if the error is not stated), may feel like the physician is not sincere (e.g. if the physician does not offer an apology), may not feel supported (e.g. if the physician does not assess the patient's feelings), or may feel like the physician did not learn from his or her mistake (e.g. if the physician does not address how he or she will change practices to avoid this error happening again). Based on the previously defined patient expectations and the goals of the physician and using several components of the PMD, I have developed four primary behavioral dimensions in my creation of the Competent Error Disclosure Communication Assessment (CErDCA) scale measuring contextually-prescriptive competent communicative behaviors: stating the error, apology, assessing the patient's feelings, and rectification.

As Hannawa (2009; see also Hannawa, Sills, & Spitzberg, 2006) suggest, defensiveness plays a large role in the ErD process and its presence (or absence) must also be noted in the assessment of communicative behavior within this context. I will

start by explicating each of the four components to competent ErD (stating the error, apology, assessing the patient's feelings, and rectification) as it is necessary to engage in all four behaviors to have competent ErD. Then I will further define the role of defensiveness as an overall mediator to the ErD interaction.

Stating the Error

Stating the error is an informational dimension of behavior (see Cegala, McGee, & McNeilus, 1996) that is focused on the physician's effective provision of information to the patient. Giving a clear, explicit explanation of the error is crucial to providing full disclosure to the patient. For the physician to practice competent information provision specifically for stating the error, he or she must engage in the elements of full disclosure. As discussed earlier, these six elements include: admitting the error, discussing the actual event that occurred, providing the patient an explanation of how the error is connected to the health outcome, providing the link between the error and the harmful outcome, and finally, providing a clear description of the harm that was caused by the error (Fein et al., 2007). Additionally, "stating the error" must include the following components: admitting the error (Fein et el., 2007), the use of the word "mistake" or "error" (Bonnema, Gosman, & Arnold, 2009), and the link between the error to harmful outcome.

Stating the error is a crucial component of the ErD interaction because the other three components depend on the execution of the presentation of the actual error occurrence. Although stating the error is so important, it is often difficult for physicians to clearly admit the error. Research done by Chan et al. (2005) indicated that the terms "error" or "mistake" was used by physicians in only 57% (34/60) of the cases studied. If

the physician is not clear about the error by stating it directly, research shows that patients are more likely to change physicians and will lose trust in the physician (Hannawa, 2011). Thus, it is important to circumvent habits of partial disclosure when stating the error and necessary to measure the presence of partial disclosure when it occurs. If the characteristics of full disclosure are not present in the physician's ErD, an assessment should capture the partial disclosure technique utilized instead of full disclosure. Connect-the-dots (no link between the error and effect is given and the patient must deduce what the connection is), misleading (giving the impression that the effect of the error was a natural complication not caused specifically by an error), and deferring (suggesting other sources or responsibility for the error when the actual source is known) are forms of partial disclosure that can create mistrust in patients and ineffective ErD interactions (Fein et al., 2007) and therefore must be accounted for in communication training assessments.

Apology

Offering an apology is a relational behavior (see Cegala, McGee, & McNeilus, 1996) that focuses on the appropriateness component of communicator competency (see Spitzberg & Cupach, 1984). An apology should consist of the expression of regret (Gillies, Speers, Young, &Fly, 2011), the acceptance of responsibility (Gallagher et al., 2003; Wu, Huang, Stokes, & Provost, 2009), and granting a full apology (Wu, Huang, Stokes, & Provost, 2009).

Expressing regret lays the groundwork for the patient to hear and accept the physician's apology for the event (Gillies, Speers, Young, & Fly, 2011). Expressing regret mainly manifests as a verbal, content-focused communicative behavior. For

example, verbally expressing regret for the negative outcome would include when a physician says, "I should have reported your bug bite to the attending physician but I did not think it was relevant to your flu concerns, and I am very sorry that my mistake will cause some scarring for you." Expressing regret helps the patient to feel that the physician is not taking the error lightly but views the error and the relationship with the patient, as important.

In addition to expressing regret, it is necessary for the physician to explicitly state acceptance of responsibility for the error (Gallagher et al., 2003; Wu, Huang, Stokes, & Provost, 2009). Accepting responsibility can often be a very scary component for many physicians due to the fear of litigation but honesty about the fault for the error can produce a closer relationship with the patient (White et al., 2008). It is when patients feel misled about the responsibility of the error that they are most likely to resort to lawsuit or future action against the physician (Helmchen, Richards, & McDonald, 2010). It is also important not to mislead the patient by using the word "but" when explaining responsibility (Bonema, Gosman, & Arnold, 2009). For example, if the physician said, "I was your primary care physician BUT hindsight is 20/20 and probably no one would have caught your symptoms either," the physician is deferring responsibility to an unknown source to avoid blame. Another way the physician can more explicitly communicate responsibility is by using I-language instead of you-language. For example, using I-language, the physician would say, "I am sorry for the mistake that I made in prescribing you the wrong medicine" but if the physician used you-language, he or she would say, "It is unfortunate that you did not express your allergy to the medicine and in effect, were prescribed the wrong medication."

Finally, providing a full apology to the patient is another way to provide assurance to the patient that the apology is sincere. A full apology, according to Wu et al. (2009) consists of personal and specific components. To make the apology personal, the physician can offer specific details about the occurrence specific to the patient (e.g. "I am truly sorry I was responsible for you missing you your daughter's dance recital but you were still in the hospital due to my error in prescribing your medication). A specific apology reflects a more precise expression (e.g. "I am very sorry that you have experienced so much pain in your right leg and right hand due to my error"). By communicating a specific and personal apology, the patient is more assured that he or she is an important case to the physician.

Assessing the Patient's Feelings

Assessing the patient's feelings is vital to the healing process and is often overlooked in standardizing medical care. Assessing feelings represents the relational context mentioned in the PMD (Hannawa, 2009) and is defined as the recognition that the patient is experiencing a certain emotion (Bonema, Gosman, & Arnold, 2009) and validating that those emotions are legitimate (Hannawa, 2009). The components of assessing the patient's feelings that must be enacted for competent ErD include: directly eliciting concerns from the patient, communicating an appropriate response to patient's questions/emotions (Bonnema, Gosman, & Arnold, 2009; Gillies, Speers, Young, & Fly, 2011), and communicating empathy (as defined by Roter & Larson, 2002 and Bonnema, Gonzaga, Bost, & Spagnoletti, 2012).

Directly eliciting concerns from patient is at times the only way to discover the patient's emerging expectations/emotions. The physician obviously cannot address the

patient's concerns or competently respond to emotions if the physician does not know them. Sometimes due to a lack of training, the physicians do not ask the direct questions even though the patient is exhibiting upset, worried, or anxious behavior. With proper training, the physician could address the patient's concerns directly instead of leaving the patient uneasy. A physician can elicit emotions by simply asking, "What concerns do you currently have that I could address now?" to open a dialogue about the error.

In addition to giving the patient an opportunity and space to express emotions and concerns, physicians must also respond appropriately to these expressions and show empathy. One method of responding appropriately to emotional reactions is to incorporate the NURSE acronym offered by Bonnema, Gosman, and Arnold (2009) which includes: Naming the emotion, Understanding the feeling (empathy and validation), demonstrating Respect for the patient, offering Support to the patient, and Exploring any other concerns. By naming the emotion (e.g. "I can see that you are upset…"), the physician acknowledges that he or she is actively listening to the patient during the interaction. Naming a patient's emotions can also be a way of showing empathy. Roter and Larson (2002) define empathy as, "operationally defined in the RIAS manual as statements that paraphrase, interpret, recognize, or name the other's emotional state…The emphasis in the definition is on a direct naming of the other's emotional state" (p. 249). While it is difficult for a physician to genuinely communication a sense of "I know how you feel" in the ErD context, it is important to communicate empathy more from the perspective of "I can imagine how you feel."

Next, when the physician demonstrates an understanding of the patient's feelings, the patient feels validated and legitimized. A physician might show understanding by

saying, "I can understand why you may be feeling upset…" (Bonnema, Gosman, & Arnold, 2009). Understanding can also be realized through perspective-taking (Gillies, Speers, Young, & Fly, 2011). Furthermore, respect communicates an appreciation for what the patient has gone through as a consequence of the error. For example, if the physician said, "You are so strong and I know you will get through this because you have persevered through so many things already," the respect communicated facilitates a positive relational environment that can facilitate collaboration.

Support is an important factor in communicating about the patient's emotions. Not only does support communicate a commitment to care for the patient, but it also creates a sense of partnership between the patient and physician, which reduces the likelihood of the patient feeling abandoned by the physician. For example, using the phrase, "We will work together to figure out a plan to get you feeling better as soon as possible," can create an environment of support for the patient. Finally, exploring any future concerns is key to helping the patient leave the appointment feeling a sense of resolve. A simple statement like "Is there anything else that is affecting you during this experience" can give the patient an opportunity to voice any other worries that have not been addressed before closing the interaction (Bonnema, Gosman, & Arnold, 2009).

Rectification

Providing rectification for the error is a primarily informational dimension that includes two communicative behaviors that are generally enacted towards the end of the interaction but are very important to the competent ErD. As was discussed earlier in this paper, the recency effect can influence the patient's perception of competence (Ong et al., 1995). The two dimensions include communicating a promise that this mistake will

potentially spare other patients from being victim to the same error and also a discussion about compensation for the error.

More and more, patients are finding importance in knowing that the error that negatively affected their health will ultimately serve a more significant purpose than their suffering (Chan et al., 2005). More clearly stated, patients do not want their suffering to be in vein. Instead, it is absolutely crucial that the physician communicates that the pain or inconvenience imposed on the patient will make a significant difference in the physician's practice (Bonnema, Gosman, & Arnold, 2009; Mazor et al., 2006). For example, if the physician prescribed two medicines that negative interacted, the physician could express that because of the error and the pain that the patient went through, he or she will make sure to double-check the prescriptions every time with the pharmacy to make sure this does not happen to anyone else in the future. This aspect of rectification is, I argue, one of the most important for the patient. There is something inherently defeating for patients when it feels like the pain he or she is going through from a medical error will not be meaningful in any way. In an extreme case, if the patient was placed in palliative care based on a medical error, the only redemption is to communicate with the patient about how this mistake will not be repeated and his or her life will mean something to the future patients treated by that physician.

Another important part to the rectification dimension is talking with the patient about whether he or she will be compensated for the error (e.g. the co-pay being waived for a patient who had to come in to address the error of receiving the wrong prescription). Many times, for less severe errors, patients feel content in knowing that at least the financial burden from the error can be corrected. In more severe cases where the

consequences were more health focused than financial, immediate compensation maybe less important but still an important discussion for the patient and physician.

Defensiveness

Unlike the previous four dimensions, defensiveness may not be present in every ErD interaction. Defensiveness is a relational dimension what consists of state behaviors that encompasses when a physician feels the need to take a strong stance in supporting the decisions that were made regardless of whether the decision resulted in an error. As discussed earlier, Hannawa et al. (2006) outlines four destructive behaviors that can result from a physician's defensiveness: Hypersensitivity (taking patient's criticism personally), prioritizing the maintenance of Positive Face (reflecting the desire to maintain a positive reputation), Fight (the desire to retaliate), and Flight (withdrawing from the conversation). For example, a patient may confront a physician about forgetting to call in his or her prescription, and the physician could respond, "Well, you just don't understand how much stress I'm under when I'm at work (hypersensitive)" or "I am a very qualified doctor and this mistake could have happened to anyone (positive face)," or "You could have called to check on the prescription but you must have forgotten, too (fight)" or even "I got it now and there's no use in continuing to talk about it (flight)". I argue that defensiveness is an overarching state behavior that can dictate the patient's perception of competent within the ErD context.

Defensiveness has been discussed at length earlier in this paper and defensiveness continues to have an important role in the outcome of the ErD. "A physician's inherent defensiveness is expected to decrease communication competence in the event of disclosure, eliciting negative short-term and long-term outcomes such as

litigations, repeated errors, and prolonged feelings of guilt" (Hannawa, 2009, p. 392).

Defensiveness is in essence, a barrier to moving forward after a medical error as a

collaborative team and can cause harmful relational and informational

misunderstandings.

New Assessment for Error Disclosure

By outlining specific behavioral dimensions (stating the error, apology, assessing

the patient's emotions, and rectification), medical schools can more accurately assess the

medical student's ability because the more finite behaviors are identified. In order to

espouse specific communication assessment items to be used in communication training,

I used theoretical backing from Hannawa's PMD model (2009), Fein's conceptualization

of full disclosure (2007), Bonnema, Gosman, and Arnold (2009) outline of competent

disclosure behaviors and other additional ErD research to inform my measurement.

Additionally, by assessing defensiveness, we may be able to pinpoint what types of

physician concerns are resulting in poor ErD interviewing skills. Using previous

knowledge about patient's perceptions of competency, I am proposing the following

items to be included in CerDCA (See Appendix B) to more accurately guide assessment

for communication skills training within the context of ErD

Coding Scheme for CErDCA

Statement of the Error. Four items are used to assess the physician's ability to

state the error. A behavioral occurrence coding system is used for this dimension. From

Fein et el. (2007), the coders provide a general assessment regarding if the physician

provided a full disclosure of the error. If the physician does not provide a full disclosure,

the coder is asked to identify which type of partial disclosure is communicated. The coder

will identify the occurrence of the following types of partial disclosure: Connect-the-dots (no link between the error and effect is given and the patient must deduce what the connection is), misleading (giving the impression that the effect of the error was a natural complication not caused specifically by an error), or deferring (suggesting other sources or responsibility for the error when the actual source is known. Then, from Bonnema, Gosman, & Arnold (2009), coders indicate whether or not the physician uses the worked "mistake" or "error" while disclosing to the patient. The coder is also asked to identify if the physician stated the error without being prompted by the patient. Finally, if applicable, the coder codes whether or not the physician provided a link between the harmful outcome and the error.

Apology. Three items are used to assess the physician's apology. From Gillies, Speers, Young, & Fly (2011), the coders are asked to indicate (1) no or (2) yes in response to if the physician verbally expressed remorse. From Wu, Huang, Stokes, & Provost (2009), coders specify if the physician offered a full apology. If the coder indicates that full disclosure is not enacted, the coder must identify what type of apology is offered. Finally, from Gallagher et al., 2003 and Wu, Huang, Stokes, & Provost (2009), the coders provide an assessment of whether or not the physician accepted responsibility for the error.

Assessing the Patient's Emotions. Three items are used to assess the physician's ability to assess the patient's emotions. From Bonnema, Gosman, and Arnold (2009) and Roter and Larson (2002), the coders provide coders indicate on a 5-point scale (strongly disagree to strongly agree) how empathetic the physician seemed. From Gillies, Speers, Young, and Fly (2011), the coders must indicate if the physician directly asked if the

patient had any concerns. Finally, the coders are asked to code on occurrence when the physician engages in any of the following behavior: Naming the emotion, Understanding, Respecting the patient, Support, and Exploring future concerns.

Rectification. Two items are used to assess the physician's rectification behavior. From Bonnema, Gosman, and Arnold (2009) and Mazor et al. (2006), the coder is asked to code whether or not the physician explains how he or she will avoid making the mistake in the future. Also, the coder is asked to code if the physician does or does not talk about compensation for the patient.

Defensiveness. One behavioral occurrence code is used to measure defensiveness. From Hannawa (2009), the coder is asked to record any time the physician engages in hypersensitivity, saving face, flight, or fight during the interaction. The coder is also able to indicate that no defensive behavior occurred.

In conclusion, the ErD provides a unique context in which to study physician information provision through appropriate relational and effective informational dimensions. The patient expects full disclosure coupled with support and emotional understanding and if the physicians are not trained in how to handle those expectations, long-term consequences may ensue. In an effort to provide insight into what specifically can be included in communication training for ErD as well as what can accurately be assessed, I am proposing the CErDCA to guide medical schools and continuing medical education programming. CErDCA is based on theoretical work mapping the ErD process and important factors (e.g. defensiveness, apology, etc) that influence the patient's perception of communication competency. It is my goal that this proposal will be helpful

to the streamlining of communication training for new physicians and students as well as

the faculty evaluators.

CHAPTER 4

Discussion

Despite the agreement that medical school training is of critical importance in achieving patients' perceptions of competent communication, the formation of communication training curriculum is still limited by a lack of clarity in specific communication skills to include in training and assessment. Since there is no national consensus on what should be included in the clinical skills curriculum, the inclusion of communication curriculum is largely dependent on the medical school (AMMC, 2004). In fact, surveys conducted by the Association of American Medical Colleges reported only twelve of sixty-two medical schools (19%) specifically target communication skills training within the clinical skills curriculum. Moving forward, as we are on the cusp of major change and potential healthcare revolution in the United States, there is no better time to reexamine our training and evaluation processes for medical school curriculum. Thus, the implications of the creation of the Comer Behavior Change Competency Assessment (CBCCA) and Competent Error Disclosure Communication Assessment (CErDCA) fuel the progressive reorganization of communication assessment tools by redefining competent communication based on context. The CBCCA and the CErDCA were designed to meaningfully streamline the number of items included in a communication assessment tool and not to create an impractical amount of judgments for the evaluators.

The CBCCA offers a new argument that some communication assessment tools, particularly for medical interviews such as the behavior change interview (BCI), are too heavily weighted towards immediacy behaviors and neglect the assessment of potential inhibitory behaviors. Immediacy behaviors are necessary in promoting open communication between the patient and physician, but it may only take the occurrence of one inhibitory behavior (e.g. judgment, surprise, or blame) to shut a patient's communication down. Since the goal of the BCI is to seek full disclosure from the patient, communication skills training programs must incorporate curriculum to teach the avoidance of the inhibitory behaviors. Furthermore, the use of "change talk" prematurely in the behavior change interview can also inhibit the patient's disclosure and is therefore accounted for in the CBCCA. The implications of including the inhibitory behaviors in assessment and curriculum development include altering the way medical schools teach competent communication and creating a more meaningful method of assessment.

The assessment tool for proposed for the BCI, the CBCCA, provides a way of measuring the extent of inhibitory and immediacy behaviors that could affect patients' perceptions of competency and in effect, opens more productive avenues of feedback in communication training. Similarly, for the Error Disclosure context, the creation of the CErDCA has implications for the training and assessment new physicians or medical student communication training. It has been reported that a majority of new physicians have not received any training for disclosing errors to patients (Chan et al., 2005). In effect, new physicians' lack of confidence can result in the physician deciding not to disclose error to a patient (Mizrahi, 1984; Bonnema, Gonzaga, Bost, & Spagnoletti,

2012). The primary way to combat this lack of confidence is to provide opportunities for practice and direction for improving context-specific skills. Through the CErDCA, the four elements of competent error disclosure, statement of error, apology, assessing the patient's feelings, and rectification can be more accurately evaluated by training programs. By providing a more context-focused approach to communication skills training, medical school can more feasibly teach and assess competent communication in ways that are meaningful to the contextual expectations.

This project further illuminates contextual differences in medical communicator competency with the goal of producing more accurate communication assessment tools for medical school training. I took on the task of answering the call from Cegala and Broz (2003) to create communication training assessment tools that would not only match the skills that are taught in medical schools but also provide direction in what behaviors should be considered when teaching efficient and appropriate behaviors across varying contexts of medical interviewing. I used the Behavior Change interviewing and Error Disclosure contexts to illustrate the need to adapt to contextual differences to produce perceptions of competency.

These two contexts represent fundamentally different needs for specific communication skill sets to be successful communicators. The ErD and BCI contexts were used to address the feasibility of adapting assessment tools centered on context-specific behaviors. The goal is to use context as a compass for assessment and in effect, teaching competent behavior in a way that will not add more to the already overwhelming set of skills that must be taught in medical school but rather to provide a clearer, more streamlined guide for behaviors that should be enacted to produce positive

communication outcomes (e.g. accurate disclosure, increased trust, etc.) as well as behaviors that should be withheld to avoid negative communication outcomes (e.g. negative perceptions of competency, inaccurate information provision, lawsuits, etc.). To further discuss the implications of this redefined focus on context for medical communication training, I will discuss the specific differences and contributions to the BCI and the ErD as it relates to assessment and prescriptive curriculum development. Finally, I discuss the limitations of this study as well as suggestions for future research.

Contextual Similarities and Differences

Competent error disclosure (ErD) communication is dimensionally different than competent behavior change (BCI) communication based on the goals each of the contexts of interaction. These two contexts represent different goals from both the patient's and physician's perspectives, which, as argued in Chapter 1, is what ultimately frames the definition of competent communication within a given context. In the BCI, the goal is to get the patient to accurately and fully disclose information regarding his or her engagement in risky behavior to motivate behavior change. However, in ErD, the goal is not to seek information in a nonverbally sensitive way but instead is to fully-disclose content information concerning a mistake to fulfill the patient's expectations of an apology, an acceptance of responsibility, and an attempt at rectification. With such fundamentally different goals, the specific behaviors needed to produce perceptions of competency are substantially different.

As previously stated, the primary goal of the BCI is for the physician is to get the patient to disclose accurate information about risky behavior. Inhibitory behaviors provide an example here for the critical nature of a contextually significant design of the

assessment tool. The success of the physician's information seeking behaviors is significantly affected by the physician's inhibitory behaviors (e.g. judging the patient or talking about behavior change too soon). The inhibitory behaviors are not contextually appropriate for error disclosure because they describe behaviors that must be avoided to promote full disclosure from the patient, which is not a goal of the ErD. Teaching awareness and monitoring of inhibitory behaviors within the BCI is necessary for efficient information seeking outcomes.

Error disclosure, on the other hand, focuses on the information given by physician, which shifts the goal of the interaction to competent, full information provision instead of information-seeking and must be assessed differently. Providing full disclosure about an error may seem risky to some new and experienced physicians due to the fear of malpractice lawsuits if they admit they were responsible for an error. However, the US Joint Commission on Accreditation of Healthcare Organizations announced in 2001 an ethical standard requiring disclosure to the patient about any "unanticipated outcome." Although each hospital is given the responsibility to define "unanticipated outcomes" individually, some hospitals will support doctors in their admittance to what they define as an unanticipated outcome. Additionally, in response to a physician's skepticism about disclosing error, it is necessary to examine reasons why patients feel the need to sue that can potentially be avoided through appropriate communication. Patient advocates suggest patients often sue physicians because they want to know that their experience will make a difference in the physician's practice or for future patients' standard of care, not necessarily because they want a financial gain from the lawsuit. If we can teach physicians how to communicate with the patients that

the error matters and that they did not suffer in vain, and then assess their competency

with this skill (rectification), perhaps we will see a decrease in lawsuits encouraging more

physicians to engage in full disclosure.

Assessment

The explicit differences in goals for the ErD and the BCI provide justification for

the creation of different assessment styles and items for communication behaviors in

different contexts. The differences in assessment must reflect the primary communicative

focus in each context. In adapting the assessment items for each context, adding items

does not mean adding more labor for the evaluators but will instead include substituting

items that are not relevant for particular contexts making the number of total items for

each comparable and feasible. There are different styles of assessment that will be best

suited for different medical contexts and will reflect a more accurate alignment with the

skills I propose am proposing for each context.

Measuring competency in the BCI must be heavily weighted on nonverbal behaviors

such as prematurely talking about behavior change or expressing shock, to accomplish

the physician's goal of making the patient feel comfortable disclosing fully and

accurately in the interview. Items should reflect scaled judgments that specifically target

one dimension of medical immediacy or inhibitory behaviors. Conversely, the ErD

assessment must primarily focus on the verbal content of communication to produce

perceptions of competency. Content is much more important to measure in the ErD

because the patient's expectations in this context center on how much information is

disclosed and what exactly is included in the disclosure. Items should reflect nominal

judgments on the presence of behaviors within the four dimensions of competent error

disclosure behavior: Stating the error, the apology, assessing the patient's feelings, and rectification. Through observation and research, I discovered that it is not only the content of the evaluation but also the method of evaluation that matters in capturing the essence of the BCI and the ErD. The nominal method of assessment for the ErD best captures the presence or absence of certain content behaviors that factor into producing perceptions of competency in the same way that the scaled method of assessment for the BCI captures necessary nonverbal behaviors affecting levels of competency. By delineating the dimensions within ErD and BCI and designing items that target those specific behavioral dimensions, the evaluation process becomes much clearer and more easily assessable for the medical evaluators. Instead of conflating many context-specific skills into assessment items that could all be used across contexts, medical evaluators are better able to identify, assess, and give feedback on the important skills for each context using items like the ones proposed in this thesis.

I recommend assessing error disclosure requires the use of nominal-level measures, indicating the occurrence (or absence) of certain content behaviors. For example, the measurement for the "stating the error" dimension consists of three items measuring the presence of the initiation of error talk, using the actual words "error" or "mistake" and whether or not full disclosure was given. These three items can be summarized as an index of error statement where a score of 3 reflects a fully stated error based on the presence of those specific behaviors. More directly stated, the nominal measurements for ErD are defined by the presence or absence of content behaviors within one category that can be summarized into an index whereas the BCI must utilize interval measurements (Likert-type items) to capture the extent of nonverbal behaviors enacted.

This distinction matters because the assessment items guide the feedback process for the communication training, and it is of most help to assess the students in a manner that would reflect the way patients are influenced by the communication within the interaction. Furthermore, based on previously cited research, we also know that patients are most affected by the nonverbal behaviors in the BCI and the verbal, content behaviors in the ErD, and thus confirm the need for items designed based on scaled items for the BCI and nominal items for the ErD.

Prescriptive Curriculum Development

The purpose of this thesis is primarily to provide matching assessment items with contextually significant communicative behaviors so it is an important next step to ensure that the teaching component reflects the same focus. Thus, I would like to extrapolate a bit on how to train students to match the proposed assessments using the Georgia Health Sciences University (GHSU) Medical Partnership at the University of Georgia as an example. The GHSU trains students using "curriculum blocks" that are organized by medical scenarios corresponding with the students' scientific coursework when possible. The first scenario, history-taking, provides a context in which the students learn the basics of medical interviewing. During this block, students are taught the over-arching competent skills like professionalism, medical immediacy, and process skills, which include how to ask about symptoms and identifying illness. As medical school progresses, the emphasis turns to specific diagnoses (such as cancer or substance abuse), and I suggest that is where contextually-specific communication behaviors are best taught.

Using standardized patients (SPs) has been a supported method of communication training (Howley, 2007) and is important to the success of the proposed evaluative tools. SPs can provide substantive behavior for differing contexts which creates the ideal environment to teach the behaviors outlined in each of the assessments (the CBCCA and the CErDCA). Georgia Health Sciences University (GHSU) Medical Partnership at the University of Georgia appears to have a good model of teaching communicative skills by developing the SPs program. GHSU medical partnership provides a script for the SP to help target the medical student's particular context skills but GHSU does not have clear evaluative tools to assess these behaviors. For example, for the BCI, in response to a patient disclosing about unhealthy consumption of caffeine, the medical student is evaluated on 15 scaled items that do not provide insight in how to improve on particular behaviors. An example of an item from the BCI assessment tool is "Monitors and responds to patient's nonverbal cues." Because this item, among others, is so vague, teaching specific behaviors, such competent responses to the patient's nonverbal cues like affirming and validating communication, may become conflated by an ambiguous assessment tool.

While I observed an evaluation session, I noticed the evaluator giving specific verbal feedback about where the medical student could improve within the particular categories evaluated on the 15-item assessment. However as the written evaluation is the key teaching instrument, there must be better concurrence between teaching the desired behaviors and evaluating them specifically and accurately. Thus, this thesis offers a unified, substantial way of reinforcing contextually-centered curriculum through assessing the specific skills that are important for each context. If medical schools shift

teaching to reflect specific assessment (like the assessment tools proposed in this thesis), medical students will have a clearer path to sharpening contextually-significant skill sets and competently communicating with their patients.

Limitations and Suggestions for Future Research

This study is limited by the lack of empirical testing for the assessment tools proposed. While the conceptualization is a necessary first step in the improvement of the training curriculum and assessment, empirical tests are needed to explore the validity and relationships between the behaviors outlined in the CBCCA and the CErDCA. This is a limitation affecting both contexts. Error disclosure is a more recently studied communication topic and with this new research, there is a limited amount of empirical evidence supporting significant models like Hannawa's (2009) Physician Mistake Disclosure Model. Similarly, some assessment tools have been investigated in the BCI using components from Motivational Interviewing but have not included tests on the inhibitory dimension of communicative behavior. Additionally, it should be noted that the assessment items proposed in this thesis are in the first draft and will likely be tightened to an even shorter assessment tool after field-testing. Future research should investigate the items in the CBCCA and the CErDCA and eliminate any items if necessary.

Future communication research in both the BCI and ErD should triangulate the patient's assessment, the evaluator's assessment, and the physician's self-report to assess any discrepancies in the three perceptions of competency and in the behaviors that were enacted within training. It would be worth exploring the three different perspectives in refining the model of competent, context-centered communication for training practices.

Furthermore, testing a model that would link behaviors outlined in the CBCCA and the CErDCA and communication outcomes, such as patient satisfaction, full disclosure from the patient (BCI), and likelihood of pursuing a lawsuit (ErD), is necessary. It is also important to consider conducting these causal tests outside of the lab setting to examine the communication outcomes in a more natural setting.

Recommendations for Improvement

In the following section, I make recommendations based on my research and conceptualizations for practical communication training implementation. My recommendations for teaching and assessing context-specific behaviors aim to produce efficient and appropriate use of time and energy from the physician. Ideally, if the behaviors I outline for the BCI and ErD are enacted, the physician will have more efficient and better relational outcomes with their patients. For the BCI, my measure promotes more disclosure from the patient (appropriateness) while also getting to the truth about risky behavior faster, eliminating the need for several follow-up appointments to get accurate information, and motivating the patient to reflect on his or her behavior (efficiency). Similarly, in the ErD, my recommendation to train medical students to become more confident in fully disclosing a mistake while also offering a clear apology cultivates efficiency. Efficiency in ErD can manifest through hopefully reducing the number of medical lawsuits in the future and potentially saving money by eliminating the need for patient advocates. I will discuss in further detail several recommendations for teaching and assessing medical communication in the medical school setting based on needs I perceive in the training process.

I first recommend that medical immediacy needs to be taught and assessed as a skill needed throughout all medical encounters. Patients consistently report that a good physician will be friendly, will express care or concern, and are polite. In fact, in a study conducted by Makoul and colleagues (2007), patients were asked what behaviors they would like physicians to engage in during a medical consultation and the most common responses from patients included smiling behavior, friendliness, respect, attentiveness, and eye contact, all of which are immediacy behaviors. It is advantageous for medical schools to teach immediacy behaviors to their students because we know that patients report higher levels of satisfaction when physicians express empathy (Cegala et al., 1996), are more likely to comply with suggested treatment regimens when physicians display relational concern (Thompson, 1994), and are more likely to disclose information when the physician is perceived as friendly (Beck, Daughtridge, & Sloane 2001).

Medical schools are already teaching some immediacy skills in their communication training programs, but it is important to actually assess the performance of such behaviors in simulated training interactions throughout the student's time in medical school. Immediacy behaviors are state (rather than trait) skills that may not come naturally to all students and need to be developed over time. Teaching students that immediacy is vitally important on the one hand, and then providing insufficient training on the other hand may mislead physicians to later engage in inappropriate immediacy behaviors (e.g. being too personal or engaging in unwelcomed touching behavior). In such cases, patients may be put off by the physician's attempt at immediate behavior. To ensure that physicians are appropriately engaging in immediacy behaviors, I recommend emphasizing the continuation of assessing immediacy throughout medical students' four

years as it is a base level of communication skill that can then be built off when teaching more contextually-based communication skills. To implement this recommendation, I suggest including four key immediacy behaviors on every assessment form across all training encounters, which I will further discuss below.

Each context measurement tool must first take into account the behaviors that are likely to be important regardless of context to provide a foundation for the interaction. Since general immediacy behaviors are often taught early in medical school through the assessment of the history-taking context (e.g., initiating a medical interview with an introduction, wording questions in understandable ways, maintaining eye contact with the patient, etc., Lichstein, 1990). In the first semester of medical school, these basic clinical skills are generally taught and as I suggest, should be continuously assessed in each context. Without adding an onerous number of items for each assessment, the assessments should include a small section comprised of global ratings for skills that transcend all contexts to appear on all assessment tools (e.g. a code for eye contact, a code for smiling, a code for friendliness, and a code for relational concern).

However, it is important not to over-focus only on immediacy. Along with assessing immediacy, some behaviors should be taught and assessed to produce perceptions of communicator competency based on the needs of each context. The BCI and the ErD serve as exemplars for outlining varying communication behaviors that are most affective in producing perceptions of competency.

As my next recommendation, I suggest focusing on the communication channels that most affect perceptions of competency in each context. Competent communication in the ErD is mainly affected by verbal channels and content-based communication. Thus,

curriculum must reflect a focus on what to include in an apology and how to provide full error information through verbal channels. A pedagogical example would be teaching medical students how to say, "I'm sorry" by actually using the word "mistake" or "error" in the apology. I also recommend future research compare encounters where physicians engage in partial disclosure or full disclosure to track the likelihood of a lawsuit to further justify the focus on verbal communication. We need to follow patients who report that their physician fully disclosed all information about an error and compare to patients who report that their physician only engaged in partial disclosure to accurately assess if the amount of disclosure leads to an increase or decrease in likelihood to sue.

In contrast, the most influential communication channel within the BCI is nonverbal communication. Thus, teaching competent behaviors for the BCI must focus on teaching awareness of immediate and inhibitory nonverbal behaviors. Most medical schools are not currently teaching inhibitory behaviors and I recommend examining how these skills can actually be taught and developed. I acknowledge that some may be skeptical about conceptualizing nonverbal inhibitory behaviors as teachable state-type behaviors and think teaching students to "not" look anxious or to "not" feel surprised may boomerang, making medical students hyper-vigilant about all nonverbal affect display. However, I argue that a more sensible way to teach students about inhibitory behavior is to focus on self-monitoring. Snyder (1974) defines self-monitoring as "self-observation and self-control guided by situational cues to social appropriateness" (p. 526). Demonstrating to students how inhibitory behavioral cues by a doctor may lead to less accurate information from a patient and then focusing on how to monitor one's own displays of feelings is a more productive way to equip students with the communication

skills to exercise control over displaying inhibitory behaviors. A way medical school could teach this is by using video examples to show how patients respond to doctor's use of blaming language, anxiety and surprise in contrast to when doctors monitor their inhibitory behaviors. Balancing working on immediacy and inhibitory behavior gives physicians a bigger communication toolbox to manage challenging interactions such as the behavior change interview.

Finally, I am recommending a practical way to ensure that medical schools account for students who may need follow-up assessments on certain communication behaviors that may need additional improvement. With the time demands in medical school, it is possible for a student to score poorly on a skill set but then not be assessed again within the same context for another year. By that time, a different set of instructors may serve as evaluators or the evaluators may not be aware of previous struggles with certain behaviors. For example, if a student scored poorly on engagement in inhibitory behaviors in the BCI, there needs to be a way to keep track of areas needing improvement to really create an effective communication training experience. Thus, I propose each assessment tool provide a place for evaluators to note if the student needs additional help on a particular skill and follow-up can occur in two ways. The first way could include the evaluator talking with the student to explain necessary improvements and then marking that the student must participate in the next year's BCI simulated encounters to ensure improvement. The second way includes the evaluator making note skill areas needing attention on the assessment form. At the end of each year, the evaluators can compile information on any outstanding areas of needed communication improvements so during

the students' second communication encounters, the evaluators can make sure to focus on areas that may have been problematic in the past.

By ensuring that students are not simply passed through training programs with no follow-up, my recommendations aim to give practical advice for the implementation of teaching and assessment methods to improve the curriculum and assessment tool development for communication skills training in medical schools nationwide.

Conclusion

In conclusion, medical communication training must focus on context when prescribing efficient and appropriate communication behaviors during medical school and new physician training. By taking the contextual specifics into consideration, competent communication behaviors can target addressing the context-governed expectations of the patient instead of trying to focus on the individuality of the patient. Through careful examination of the Behavior Change Interview and the Error Disclosure contexts, this thesis has outlined the necessary behaviors to provide a balance of efficient and appropriate communication needed to facilitate perceptions of competence. Finally, specific measures are proposed to guide the assessment of the outlined competent behaviors for the BCI and ErD. The measures proposed for each context provide a more succinct and feasible way of evaluating and teaching necessary skills sets to competently adapt communication per context.

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Appendix A

Assessment for Key Communication Behaviors in Behavior Change Interview

Medical Immediacy

The following items are adapted from Guerrero's Immediacy Scale (1997) (found in Guerrero, 2005), Burgoon and Hale's (1987) Relational Communication Scale, and the items from MIPS. The UGAMSP also informed some of the items as some of the target communication behaviors also correspond with items on the medical school's evaluation form.

Medical Immediacy

I. Validation

The medical student:

      1a. Was validating:
            (1) not at all (2) a little (3) a lot

      1b. Tried to show that he/she was similar to the patient
            Strongly disagree   1   2   3   4   5   Strongly
Agree
(Burgoon and Hale, 1987, Relational Communication Scale)

      1c. Seemed superficial
            Strongly disagree   1   2   3   4   5   Strongly
Agree
            Ex: "The medical student made the conversation seem superficial"
(Burgoon & Hale, 1987)

II. Friendliness

The medical student:

      2a. Was friendly:
            (1) not at all (2) a little (3) a lot

Ex: The physician's posture (MIPS, p. 559)

2b. Smiled very little   1   2   3   4   5   Smiled a lot
(Guerrero, 1997 in The Sourcebook of Nonverbal Measures)

2c. Looked at the patient   1   2   3   4   5   Looked at patient
    a little   a lot
(Guerrero, 1997 in The Sourcebook of Nonverbal Measures; Also adapted from MIPS)
Ex. Medical student took notes on clipboard instead of looking at the patient

III. Active Listening

The medical student:

3a. Engaged in active listening:
      (1) not at all (2) a little (3) a lot
Ex: Did not repeatedly ask questions the patient had already answered
"The medical student was willing to listen to me"
 (Burgoon & Hale, 1987, Relational Communication Scale)

3b. Named the patient's emotional state
      (1) Never   (2) Once   (3) More than once
(Roter & Larson, 2002-RIAS)

3c. Summarized what the patient said
      (1) Never (2) Once (3) Twice or more

<u>Inhibitory Communication</u>

The medical student:

I. Anxiety and Surprise
(MIPS, Ford, et al., 2000)

1a. Was anxious:
      (1) Not at all (2) A little (3) A lot

1b. No nervous movement   1   2   3   4   5   Lots of nervous movement

1c. Expressed Surprise (on occurrence) _____
Ex: "Wow," "That's a lot!"
(GMIAS, 2008, Conversational Management)

II. Blame
(GMIAS, 2008, Complain/Criticize: E.g., "You aren't trying hard enough")

The medical student:

2a. Seemed blaming towards the patient:
(1) Not at all (2) A little (3) A lot

2b. Assigned fault to patient (on occurrence) _____

III. Judgmental
(GMIAS, 2008, Disapprove of: The speaker reinforces or discourages an action the speaker has indicated she/he intends to take or has already taken.)

The medical student:

3a. Was judgmental of the patient:
(1) Not at all (2) A little (3) A lot
(Includes verbal and nonverbal displays of judgment. Nonverbal displays include rolling eyes, making judgmental sighs, crossing arms, etc.)

3b. Used plain language that the patient can understand
Strongly disagree   1   2   3   4   5   Strongly Agree
(informed by watching video)

3c. Was patronizing when discussing the patient's risky behavior (verbally/nonverbally)
Strongly disagree   1   2   3   4   5   Strongly Agree

IV. Premature Change Talk

The medical student:

4a. Made specific recommendations for change (1) no (2) yes
Ex: Cutting back vs. quitting

4b. Asked questions pertaining to the patient's readiness to change: _____ times (occurrence)

Additional Measure

1. The medical student was: (1) Female (2) Male

Appendix B

Assessment for Key Communication Behaviors in Error Disclosure

I. State the error

1. The physician provided full disclosure of the error to the patient (1) no (2) yes
If (1), which of the following characterizes the physician's type of disclosure:
      (11) Connect-the-dots
      (12) Misleading
      (13) Deferring
      (14) Non-disclosure
(Fein et el., 2007)

2. The physician uses the word "mistake" or "error" when disclosing events to the patient
  (1) no (2) yes
(Bonnema, Gosman, & Arnold, 2009; Gillies, Speers, Young, &Fly, 2011)

3. The physician stated the error without being prompted by the patient (1) no (2) yes
(Introducing error disclosure: Bonnema, Gosman, & Arnold, 2009; Hobgood et al., 2002)

If applicable:
The physician provided a link between harmful outcome and error (1) no (2) yes
(Fein et al., 2007)

II. Apology

1. The physician verbally expressed remorse for the error (1) no (2) yes
(Gillies, Speers, Young, &Fly, 2011)

2. The physician offered a full apology to the patient (1) no (2) yes
If (1), Did the physician offer:
      (11) A specific apology but not personal
      (12) A personal apology but not specific
      (13) Neither personal nor specific apology
(Wu, Huang, Stokes, & Provost, 2009)

3. The physician clearly accepted responsibility for the error (1) no (2) yes
(Gallagher et al., 2003; Wu, Huang, Stokes, & Provost, 2009)

III. Assessing Patient's Emotions

1. The physician was empathetic to the patient

   Strongly disagree   1   2   3   4   5   Strongly agree
(Bonnema, Gosman, & Arnold, 2009; Roter & Larson, 2002)

2. The physician directly asked if the patient had any concerns (1) no (2) yes
(Gillies, Speers, Young, & Fly, 2011)

3. The physician engaged in the following behaviors:
(to be coded on occurrence)
___ Naming the emotion
___ Understanding
___ Respecting the patient
___ Support
___ Exploring future concerns

IV. Rectification

1. The physician explains how he or she will avoid making this mistake in the future
 (1) no (2) yes
(Bonnema, Gosman, & Arnold, 2009; Mazor et al., 2006)

2. The physician discussed any compensation for the error (1) no (2) yes

V. Defensiveness
   1. The physician engaged in: (*to be coded on occurrence*)
          (1) hypersensitive behavior
          (2) positive face maintenance
          (3) fight behavior
          (4) flight behavior
          (5) no defensive behavior
(Hannawa, 2009)