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Examining the Connection Between Spirituality and Embodiment in Medical Education

Katie Bellamy
Columbia College Chicago

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EXAMINING THE CONNECTION BETWEEN SPIRITUALITY AND EMBODIMENT IN
MEDICAL EDUCATION

Katie Bellamy

Thesis submitted to the faculty of Columbia College Chicago in partial fulfillment of the
requirements for
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in

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Department of Creative Arts Therapies

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Committee:

Susan Imus, MA, BC-DMT, LCPC, GL-CMA
Chair, Department of Creative Arts Therapies

Laura Downey, MA, BC-DMT, LPC, GL-CMA
Thesis Advisor and Research Coordinator

Kris Larsen, MA, BC-DMT, LCPC
Reader

Abstract

The purpose of this study was to explore and analyze the experience of spirituality for students of Western medicine as reflected in writing assignments for an elective course on embodiment and empathy building skills. Questions included: What is the relationship between embodiment and spirituality for students of Western medicine? How does (re-)embodiment lead to reflections on spirituality? Does mind-body awareness lead to mind-body-spirit awareness? How can incorporation of embodiment techniques into physician training foster spirituality as it relates to physicians' professional healing roles? Based in a constructivist paradigm, this study used a qualitative grounded theory methodology to generate theory about the relationship between spirituality and embodiment for students of Western medicine. This study used pre-existing archived data in the form of academically assigned reflection papers written by students at a prominent medical school in Chicago, Illinois. Data were analyzed using Chesler's sequential analysis method. Results suggested that decreased cognitive control, aided through experiential learning, allows for increased awareness of the relationship between the self and other, including the non-verbal expression of empathy and spirituality. Results suggested this can be applied to Western medicine to enhance the therapeutic doctor-patient relationship and lead to more effective care and healing.

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Chapter 1: Introduction

This study was inspired by a personal interest in medicine and holistic healing. As a dance/movement therapy (DMT) intern on a pediatric unit at a prominent hospital in Chicago, I witnessed the benefit of spending time with patients and hearing their stories. I witnessed the positive and healing aspects of medical attention. It was my experience that the use of the body-mind connection and embodiment enhances the inherent spiritual connections that exist in healing. As a dance/movement therapist, I have experienced the use of the body as a way to bring my experience of spirituality into the present moment and make a fleeting exchange more intentional. This study emerged from my experiences as a DMT intern; my DMT education and understanding of how to use the body to express empathy non-verbally fueled this study. In sum, the concepts discussed and studied are based in my education and experience in DMT and the purpose of this study was to understand if and how similar concepts are experienced in the medical field. This study began as a way to create conversation about holistic healing and to discover, in a more concrete way, if and how spirituality exists in the world of medicine.

To begin to explore these concepts, essays written by second-year medical students as part of an elective course on embodiment were examined. This course was taught by DMT faculty from Columbia College Chicago's Department of Creative Arts Therapies. The course, entitled "Embodiment: A Way of Knowing Your Patients," aimed to "move participants toward greater understanding of their patients' experiences in and from their bodies in illness and in healing" (Downey, Imus, Lengerich, Rothwell, & Young, 2012). Five clear course objectives were noted in the 2012 syllabus: "students will examine the role that movement plays in the therapeutic relationship, students will examine assumptions about their own body-mind and that

of their patients, students will identify their own movement preferences, students will learn to attune and identify mis-attunement in their therapeutic relationship, [and] students will examine self-care and its effect on their practice” (Downey, et al., 2012). These learning objectives aligned with the purpose of the study and the pre-existing data derived from this embodiment course served as the context for this study’s exploration.

Embodiment, spirituality, and empathy are three distinct, though interwoven concepts. As understood in this study, embodiment is a means of expressing empathy, and expression of empathy is a spiritual process. For the purpose of this study, spirituality is defined as a universally transcendent experience that seeks to create meaning and wholeness (Galanter, 2005; Miller & Thoresen, 1999; Kurtz, 1999; Lines, 2006). As noted, this definition was derived from four different literature sources and based on the initial understanding of spirituality that prompted this study. Upon exploring how spirituality was defined by the data, an emerging understanding of spirituality includes an aspect of relationship, that it can be experienced in many ways and contexts, that it can be experienced through embodiment, and that is inherent to our being. There is a gap in the literature in terms of explicitly discussing the spiritual connection between the doctor and the patient. Empathy is operationally defined as an interactive process that reflects understanding and awareness of the feelings and behavior of another person (Riiser Svensen & Bergland, 2007). Embodiment is a way of “attending ‘with’ and attending ‘to’ the body” (Csordas, 1993, p. 138) and includes various techniques, including mirroring and attuning. Mirroring is a way of expressing empathy non-verbally and involves “participating in another’s total movement experience, i.e., patterns, qualities, emotional tone etc” (Sandel, 1978, p.100). Attunement is “the ability to hear, see, sense, interpret, and respond to the client’s verbal

and non-verbal cues in a way that communicated to the client that he/she was genuinely seen, felt, and understood” (Sykes Wylie & Turner, 2011, p.8). While distinct concepts, spirituality, empathy, and embodiment are intertwined. As the concepts relate to this study, embodiment techniques can be used to express empathy, which is a spiritual process and experience.

The existence of spirituality in medicine, perhaps enlivened by the use of embodiment and expression of empathy, relates to a more general goal of healing and easing suffering. Healing is to make sound or whole and is derived from the root *haelan*, the condition or state of being *hal*, whole (Egnew, 2005). A goal of medicine, beyond eradication of disease, is the ease suffering, which is defined as the personal experience of illness and/or disharmony (Sulmasy, 1997); pain in the soul (Olson, 2006). A deeper understanding of how spirituality exists in medicine and the role of empathy and embodiment may lead to application of holistic medicine, which is “the art and science of healing that addresses the whole person - body, mind, and spirit” and “the unlimited and unimpeded free flow of life force energy through body, mind, and spirit” (Principles of Holistic Medicine, para. 1). Western medicine includes treatment of symptoms, disease, and illness in order to achieve health and the absence of disease or symptoms (Norwood, 2002). However, the aim of this study is to more fully understand Western medicine and medical education and examine if and how spirituality exists in the process of healing suffering through medical practice.

Chapter Two: Literature Review

Part of effective patient care is a therapeutic doctor-patient relationship. The doctor-patient relationship is enhanced by empathy, which has been described as an “emotional form of knowing” (Halpern, 2003, p. 670). Further, a therapeutic doctor-patient relationship has a positive impact on patient compliance and satisfaction (DiMatteo, Hays, & Prince, 1986; Soo Kim, Kampowitz, & Johnston, 2004). However, physicians tend to avoid discussing emotional content and have “perceived certain aspects of the patients’ lives as too sensitive to bring up” (Lumma-Sellenthin, 2009, p. 530), perhaps due to the emphasis on scientific approach, objectivity, and detachment (Suchman, Markakis, Beckman, & Frankel, 1997). Studies have also suggested that, if taught, medical students can learn and practice empathic skills (Kemper, Larrimore, Dozier, & Woods, 2006) and indicated medical students’ interest in learning to be empathic (Kemper et al., 2006; Poloi, Frankel, Clay, & Jobe, 2001).

Both empathy and spirituality encompass intrapersonal and interpersonal aspects and involve the relationship between the self and other (Riiser Svensen & Bergland, 2007). Dance/movement therapy (DMT) works with and through the mind, body, and spirit (adta.org). The use of various DMT concepts, including mirroring and attuning, can bring awareness to the processes of empathy (Hackney, 2002; Sandel, 1978) and thus spirituality.

Empathy and Medicine

Physician training influences the experience of the doctor-patient relationship, an important facet of medical care. An ambiguous term, studies have defined the process of empathy in various ways (Gallop, Lancee, & Garfinkel, 1990; Halpern, 2003; Soo Kim et al., 2004; Stepien & Baernstein, 2006; Suchman et al, 1997). Halpern (2003) described empathy

with four facets: following the emotional flow of conversation, attuning non-verbally, facilitating trust, and decreasing burnout by increasing meaning. Suchman et al. (1997) described the skills for empathy as emotional recognition, invitation of emotional expression, acknowledgement of feelings, and effective expression of understanding. Similarly, Gallop, Lancee, and Garfinkel (1990) described the process of empathy to include three phases: (a) the inducement phase, (b) the matching phase, and (c) the participatory-helping phase. These phases are characterized by (a) observation of personal expression, (b) conscious and unconscious relating to the expression, and (c) course of action, ideally demonstration of understanding (Gallop et al., 1990).

Empathy, defined and implemented in a variety of ways, is important in medicine as it impacts patients' experiences and relationships with their doctors. Studies have found that the expression of empathy leads to positive patient experiences (DiMatteo, Hays, & Prince, 1986; Soo Kim, Kamplowitz, & Johnston, 2004). However, despite the benefits in the doctor-patient relationship and medical care that empathic communication provides, studies have shown that physicians often refrain from acknowledging patients' affective clues as well as direct expressions of emotion (Suchman et al., 1997), perhaps due to a lack of training (Lumma-Sellenthin, 2009; Pederson, 2010).

Students of Western medicine have expressed interest in learning to be empathic physicians (Kemper et al., 2006; Poloi, Frankel, Clay, & Jobe, 2001). Existing literature proposed this is possible (Fleming 2008; Kemper et al., 2006; Poloi et al., 2001), despite lower empathy scores compared with students in the fields of mental health and education (Finn, 2003) and a decline in empathy during medical school (Chen et al., 2007; Croasdale, 2008, Rosenfield & Jones, 2004).

Doctor-Patient Relationship and Empathy. Empathy and non-verbal communication are important facets of the doctor-patient relationship. Although studies have found that physicians who have experienced illness themselves can then relate to the various emotional aspects of patienthood (Fox et al., 2009), others described the ways in which all physicians, regardless of personal illness experience, can understand and enhance their empathic responses to patients and enhance medical care (Halpern, 2003).

Once experiencing patienthood themselves, physicians identified the themes of “sharing experiences, developing empathy, and practicing empowerment” as important to their process of illness (Fox et al., 2009, 1582). Fox et al. (2009) described the disempowering aspects of illness that led participants to experience uncertainty, anxiety, and loss of control. As not all physicians or medical students have experienced patienthood, it is also important to consider other ways of improving understanding between doctor and patient. Studies have found that physician empathy, specifically affective empathy, has a significant positive impact on patient compliance and satisfaction (Soo Kim, Kamplowitz, & Johnston, 2004; DiMatteo, Hays, & Prince, 1986) and leads to fewer unrescheduled appointment cancellations (DiMatteo et al., 1986). Thus, establishment of an empathic doctor-patient relationship has an important impact on the experience and quality of medical care.

In order to understand how to effectively communicate empathy, authors distinguished between “knowing how” versus “knowing that” (Halpern, 2003, P. 671) and between cognitive versus affective empathy (Soo Kim et al., 2004). Halpern’s (2003) distinction implied there is a difference between understanding an experience from a holistic view versus having intellectual knowledge of facts. With this distinction, Halpern (2003) clarified that “the function of empathy

is not merely to label emotional states, but to recognize what it feels like to experience something” (p. 671). In other words, there is a difference between knowing that a person is experiencing a certain emotion and understanding the experience. According to Soo Kim et al. (2004), cognitive empathy is the accurate recognition and reflection of a patient’s emotional state while affective empathy is the physician’s own response to and improvement of this emotional state. Stepien and Baernstein (2006) further distinguished between types of empathy and described the four components of empathy to include emotive, moral, cognitive, and behavioral. Each of these components requires a physician to enact different skill sets – the ability to imagine a patients’ experience, the activation of his/her motivation to express empathy, the cognitive ability to recognize and understand affective perspectives, and the ability to effectively express all of this to the patient (Stepien & Baernstein, 2006). While a physician may cognitively understand the process or importance of empathy, it requires a different ability to effectively communicate empathy in a relationship.

Despite the benefits in the doctor-patient relationship and medical care that empathic communication provides, studies have shown that physicians often refrain from acknowledging patients’ affective clues as well as direct expressions of emotion (Suchman et al., 1997). Suchman et al. (1997) suggested this may be due in part to the aspects of objectivity and control that are emphasized in medical training. Therefore, physicians may have difficulty expressing empathy effectively; the language and expressions valued in Western medical training may not be experienced by patients as empathic. Though research has shown the positive impact an empathic doctor-patient relationship has upon medical care (DiMatteo, Hays, & Prince, 1986; Soo Kim, Kamplowitz, & Johnston, 2004), there is a void in the type of training provided and

skills valued in medical education as research indicated that physicians tend to avoid discussing emotional content (Lumma-Sellenthin, 2009). Lumma-Sellenthin (2009) found that “all students” (n=23) in the study “reported difficulties in gaining their patients’ trust,” “...exploring their life situations,” and “perceived certain aspects of the patients’ lives as too sensitive to bring up” (p. 530). Further, “although science and medicine strive to achieve objectivity, medical practice always includes human understanding and interpretations;” the scientific and human aspects of the practice of medicine are interrelated and inseparable (Pederson, 2010, p. 595). Thus, including empathy education in medical student training is crucial in order to develop and/or preserve students’ ability to relate emotionally to their patients and to counter the limiting impact of the emphasis on scientific approach to patient care.

Empathy and Medical Education. Many studies have examined medical students’ ability to empathize with their patients. In general, research has indicated that medical students have lower empathy scores compared to students of other helping professions (Finn, 2003), vary in empathy according to medical specialty (Chen, Lew, Hershman, & Orlander 2007), experience a decline in empathy during medical school (Chen et al., 2007; Croasdale, 2008, Rosenfield & Jones, 2004), and face stressors that encourage this decline (Rosenfield & Jones, 2004). However, studies also suggested the potential for medical students to acquire empathic skills (Kemper, Larrimore, Dozier, & Woods, 2006) and indicated medical students’ interest in learning to be empathic physicians (Kemper et al., 2006; Poloi, Frankel, Clay, and Jobe, 2001), highlighting the benefits of including empathy education in medical training.

For example, a study of 244 undergraduate students found that though different career interests did not result in significant differences in cognitive empathy, students planning careers

in medicine “were significantly less empathic than those planning careers in nonmedical mental health or education” (Finn, 2003, para 8). Similarly, Chen et al. (2007) found that “students preferring people-oriented specialties as a career have higher empathy than students preferring technology-oriented specialties (114.6 vs. 111.4, $P=.002$) (p. 1437). In addition to variances in empathy according to type of field and specialty, several studies found that medical students’ empathy decreases during the third of year of medical school, which correlates with the introduction of clinical practice (Chen et al., 2007; Croasdale, 2008, Rosenfield & Jones, 2004). Similar to Halpern’s (2003) distinction between “knowing how” versus “knowing that” (p. 670), Rosenfield and Jones (2004) suggested that medical school fosters “too much knowing” (p. 930), which then leads to poor communication and a lack of understanding between physician and patient. Rosenfield and Jones’ (2004) study offered the perspective that a decline in empathy in the third year of medical school may be a defense mechanism enacted by the medical student to “resolve anxiety” (p. 929) and “to remain detached and objective” (p. 931). Potentially already entering medical school with an empathy deficit, as compared to students in other helping professions, the medical student then faces pressures to achieve academically and to fulfill the objectivity and control emphasized in Western medicine.

Other studies have looked at the lack of and decline in effective empathic communication more specifically. Lumma-Sellenthin (2009) found that all medical student participants ($n = 23$) reported issues in gaining trust from patients, assessing emotional content, and avoiding discussion of psychosocial stressors. The hesitance to engage in discussion of emotional and psychosocial content was discussed further by Poloi et al. (2001). In a study of 20 medical students who reflected on their experience with patients, Poloi et al. (2001) identified three

stressors: students' fear around enacting the role of physician, patients' death and dying, and racial issues. Especially related to death and dying, students had emotional reactions to not being able to alleviate a patient's reported suffering (Poloi et al., 2001). The objectivity and control that is emphasized in medical education often leads a medical student to then feel inadequately prepared to discuss and relate to a patient's subjective experience of suffering (Suchman et al., 1997).

However, when included in education, studies have suggested that it is possible for medical students to learn and practice empathy skills. Kemper et al. (2006) analyzed the impact of seven training sessions on compassion and touch for second-year medical students (n=8). The training sessions in Kemper et al.'s (2006) study were part of an elective course for second-year medical students, entitled "Cultivating Compassion and Comforting Touch" (p. 49) that included "various meditative practices" (p. 49) and training on "therapeutic touch (TT) or healing touch (HT)" (p. 47). Through pre- and post- surveys, this study found a significant increase from "1.7 before to 8.0 after the course ($p < .01$)" on a ten- point scale in "confidence in skills of being peaceful, calming, and reassuring" as well as the potential for developing empathic skills, confidence, and optimism (Kemper et al., 2006, p. 50). Poloi et al. (2001) also suggested the potential for medical students to increase their emotional self-awareness and concluded that integrating biopsychosocial experiences into medical education is crucial to foster appropriate, effective medical practice. Fleming (2008) related learning empathy to acquiring other medical skills, and stated empathy skills, like diagnostic skills, improve over time. Finally, medical student participation in elective courses that addressed empathy skills indicated that medical students are not only capable but interested in learning empathic communication (Kemper et al.,

2006; Poloi et al., 2001). Despite a decline in empathic expression during medical school, it is possible for students to learn and practice empathy development. There is a void in the awareness of issues and potential implementation and emphasis on the importance of the practice of empathy in Western medical education.

DMT and Empathy. DMT is “based on the empirically supported premise that the body, mind and spirit are interconnected” (adta.org). DMT encompasses aspects of spirituality and incorporates the spirit into its definition. Beyond any more general means of expressing empathy as therapists, dance/movement therapists use two body-based techniques to foster a therapeutic knowing and understanding between therapist and client: mirroring and attuning (Berrol, 2006; Sandel, 1978). Both mirroring and attuning occur non-verbally and aim to understand another’s experience and to reflect that understanding back (Berrol, 2006; Sandel, 1978).

As described by Sandel (1978), “*mirroring*, which may occur as part of the empathy process, involves participating in another’s total movement experience, i.e., patterns, qualities, emotional tone etc” (p.100). When mirroring a patient, the therapist embodies his/her physical and emotional qualities both to better understand the patient’s experience as well as to express empathy. More current research has highlighted the neurobiological importance of mirroring. Mirroring engages the mirror neuron system, which “is activated in relation to a stimulus or stimuli outside the self, that is, in relationship to another” (Berrol, 2006, p. 307). Mirroring is one non-verbal technique encompassed by DMT that fosters expression of empathy and also relates to spirituality in that it is a fluid intrapersonal and interpersonal exchange of understanding. Attunement is another DMT technique that aims to express empathy non-verbally. Attunement is “the ability to hear, see, sense, interpret, and respond to the client’s verbal and non-verbal cues in

a way that communicated to the client that he/she was genuinely seen, felt, and understood” (Sykes Wylie & Turner, 2011, p.8). In DMT, attunement includes non-verbally aligning with patients and expressing empathy by joining in their experience (Sandel, 1978). Both mirroring and attunement are examples of DMT techniques that are crucial to expression of empathy and can facilitate a shared understanding on a visceral level.

DMT and Medicine. DMT “is effective for individuals with developmental, medical, social, physical and psychological impairments” (adta.org). DMT concepts can be utilized in medicine and provide benefits, including integration of mind, body, emotions, creativity, and spirituality; inclusion of relaxation, breath work, and imagery within the therapeutic process; use of touch, mirroring, synchrony, and body empathy; facilitation of new ways of physical and emotional coping; and promotion of emotional healing (Melsom, 1999). Western medicine primarily focuses on eradication of disease and the correlating physical and biological processes. DMT in the medical setting provides an in-road to the other aspects of personhood and suffering and addresses mind, body, and spirit to provide holistic patient care.

Spirituality

A vast, immeasurable, and dynamic concept, defining spirituality is a difficult task. Analyzing and describing spirituality poses two challenges: how to define “which experiences *are* spiritual” and “empirical description of the experiences themselves” (Miller and Thoresen, 1999, p. 8). Galanter (2005) discovered various definitions of spirituality, including, “a way of life” (p. 6), “a search for existential or transcendent meaning...a highly personal issue” (p. 5), and “wrestling with and creating meaning in one’s life” (p. 6). The experience of spirituality is both incredibly personal and subjective as well as communal (Galanter, 2005). According to Galanter,

though “each person is his or her own expert on its definition,” (p. 5) it is still communal and universal as it is an experience common to all.

In an effort to describe the multiple dimensions of spirituality, Miller and Thoresen (1999) discussed three domains of spirituality: practice, belief, and experience. The practice of spirituality includes “overt observable behavior” (p. 7). Beliefs include various perceptions of transcendence, the soul, afterlife, and the “concept of God” (Miller & Thoresen, 1999, p. 8). Finally, the experience of spirituality include daily “versus exceptional spiritual and mystical experiences” (p. 8). A phenomenon that moves beyond words (Miller & Thoresen, 1999), these three domains offer a guide to discussing spirituality.

Spirituality and Health. Miller and Thoresen (1999) pointed out, “long before there were science-based health care professionals, people were served by culturally defined healers” and “the functions of healing were often blended with those of spiritual leadership within the community” (p. 3). Further, the emphasis was placed on healing versus solely eradication of disease, as compared to modern Western medicine (Miller & Thoresen, 1999). Miller and Thoresen (1999) described three domains of health: “the continuum of suffering” (p. 5), “*functional ability* versus degree of impairment” (p. 5), and “a subjective sense of *inner peace*” (p. 5). In viewing suffering as a continuum, Miller and Thoresen (1999) emphasized the importance of not only the absence of disease, impairment, or suffering, but the inclusion of positive experiences and emotions. Further, the second domain of health takes one’s personal and subjective experience into consideration; an impairment may be viewed as disastrous to one person and insignificant to another, depending upon their own perception and personal experience (Miller & Thoresen, 1999). Finally, the third domain of health according to Miller &

Thoresen (1999) alluded to a more spiritual subjective experience that focuses on “quality of life” (p. 8), including a search for meaning and/or wholeness and positive emotions and experiences. In defining spirituality as it relates to health and medicine, it may be considered as the uniquely personal experience of seeking meaning and wholeness as it relates to a personal experience of suffering.

Similarly, Kurtz (1999) described how “spirituality is best glimpsed in synonyms such as *sanity, sanctity, serenity, health, wholeness, holiness*: It is, simply, that for which all persons strive” (p. 21). Not only is this sense of wholeness a universal human desire, the healing professions, including “medicine and religion, therapies and ritual, each aim to ease access to that reality” (Kurtz, 1999, p. 21). Addressing suffering holistically calls for spiritually-centered healers to “engage in a therapeutic process of being with being, and to respond to their clients in a reciprocal engagement as though both are on a continuing journey of transcending Self” (Lines, 2006, p. 2). Within medicine, spirituality includes a simultaneous intrapersonal experience of suffering and the interpersonal process of healing that aims to not only eradicate disease but to alleviate of suffering, discover meaning, and instill a sense of wholeness.

Spirituality and Medical Education. While medicine clearly cannot exist in the absence of science, it envelops different ideals and purposes and thus must be practiced differently than science. Meldrum (2012) separated science and medicine, distinguishing between curing and healing. As one of the physician participants in the study stated, “I think a person who has a disease in many cases can be cured. But some people have illnesses that require healing” (Meldrum, 2012, p. 175). Though physicians like those participating in Meldrum’s (2012) study acknowledged a difference between science and medicine and alluded to need for a more holistic

practice of medicine, in 2003 a mere 23% of 1144 practicing physician members of the American Medical Association reported receiving training in religion, spirituality, and medicine (Rasinski, 2011).

Current literature highlights the incongruence between Western medical students' goals and desires to become spiritually knowledgeable practitioners and the actual instruction received on spirituality. In Rabow's (2009) analysis of 100 student mission statements from ten medical schools across the United States, three salient themes emerged: appeals to professional skills, personal qualities, and scope of professional practice. Despite the potential argument that addressing the spiritual nature of medicine is beyond or unrealistic to the scope of practice, these students' mission statements argued otherwise. In analyzing the third theme of scope of professional practice, Rabow (2009) reported that not only did many students include healing within that scope, but many also believed that spirituality was inherent to the scope of practice.

Similarly, Olson (2006) found that third-year family medicine residents acknowledged a connection between spirituality and health, yet a dissonance in their feelings of adequacy and competence in addressing spirituality. Olson (2006) further suggested a need to address medical students' conceptions of themselves as healers as well as the importance of their own worldview, specifically relating to spirituality. Ultimately, since physicians' personal spirituality directly impacts their conceptualization of spirituality in their practice (Seccareccia, 2009), it is logical that exploring ways to increase spiritual awareness within the culture of Western medicine begin with physicians' increased self-awareness, especially related to spirituality and the mind-body connection.

Self-awareness in physician training can be accessed with education on Mind-Body Skills (Saunders et al, 2007). In a qualitative content analysis, Saunders (2007) discovered that an eleven-week course on Mind-Body Skills, which was “designed to give students the opportunity to learn about and practice a variety of specific mind-body skills” (p. 779), resulted in themes of connections, self-discovery, learning, stress relief, and medical education. The skills taught included “relaxation techniques; slow, deep breathing; autogenic training; biofeedback; guided imagery; and several forms of meditation” (Saunders, 2007, p. 779). These themes indicated that experiential education on the mind-body connection fosters self- awareness and self-reflection, which are crucial aspects of the ability to engage in self-care (Saunders et al, 2007). Self-awareness also includes emotion recognition since emotions have body-based origins (Hindi, 2012). These studies alluded to the importance of self-care, which requires self-awareness, in order to care for and heal patients and relate empathically. Thus, mind-body experiential learning during medical education may support students’ desires to increase self-awareness and their ability to express empathy.

Spirituality and Empathy. Beyond engaging in self-reflection and self-care, the ability to increase self-awareness is important in developing the ability to empathize, a key feature of any therapeutic relationship (Riiser Svensen & Bergland, 2007). As described by physiotherapy students, empathy is “interactive and reflects understanding and awareness of the feelings and behavior of another person” (Riiser Svensen & Bergland, 2007, p. 44). Riiser Svensen & Bergland (2007) found that verbalization of bodily experiences is one way to learn empathy. Anderson (2006) also found verbalization is beneficial in increasing awareness and overall health and wellbeing. Awareness of body sensations, including those that originate from within and on

the surface of the body as well as in response to the environment, not only leads to personal health (Anderson, 2006) but also provides a gateway into the fundamental self-understanding necessary for empathy development (Riiser Svensen & Bergland, 2007). As described by Kurtz (1999), “in every society, there has been the realization that this making whole takes place both within the individual sufferer and in that person’s relationships with the larger world” (p. 21). Self-awareness of the body and body-mind-spirit connection and the ability to verbalize and empathize in relationship is important for medical practitioners as it fosters personal and professional growth as empathic healers.

Spirituality and Dance. Dance, a discipline of the body-mind, has been shown to incorporate the missing linking of spirit in mind-body practices (Ravelin et al, 2006). When studying mental health nursing, Ravelin (2006) found that dance aided in the experience of wholeness, provided a mode of nonverbal expression, and allowed individuals to discover new dimensions of oneself. The wholeness accessed through dance includes mental, physical, social, and spiritual as well as discovery and modification of the body image (Ravelin et al, 2006). The use of dance and embodiment techniques not only inspire access to the self-awareness and self-understanding discussed earlier but further incorporate wholeness and access to individual spirituality (Ravelin et al, 2006).

Conclusion

The current culture of Western medicine emphasizes cognitive control of disease and perpetuates a culture where students and physicians may be unable to fully enact their desire to meet patients’ holistic needs (Rosenfield & Jones, 2004; Suchman et al, 1997). An effective doctor-patient relationship is founded on an empathic interchange (Halpern, 2003) and students

of Western medicine feel inadequately prepared to provide empathic and emotional responses to patients (Lumma-Sellenthin, 2009). When patients feel heard and understood and recognize empathy, it leads to improved satisfaction and patient compliance (DiMatteo, Hays, & Prince, 1986; Soo Kim, Kampowitz, & Johnston, 2004). Despite the emphasis on scientific practices in Western medicine, physicians believe spirituality exists in medical practice (Olson, 2006; Rabow, 2009). Spirituality can be accessed through movement and dance (Ravelin et al, 2006) and concepts of DMT explore this interpersonal and interpersonal experience (Berrol, 2006; Sandel, 1978). Mirroring and attunement relate to the dynamics between the self and other and how one exists in the world (Berrol, 2006; Sandel, 1978). There is a gap in the literature regarding a direct linkage between embodiment, spirituality, and the practice of medicine. Thus, this study seeks to explore the following questions: What is the relationship between embodiment and spirituality for students of Western medicine? How does (re-)embodiment lead to reflections on spirituality? Does mind-body awareness lead to mind-body-spirit awareness? How can incorporation of embodiment techniques into physician training foster spirituality as it relates to physicians' professional healing roles?

Chapter 3: Methods

This study was conducted using a constructivist paradigm and incorporated a grounded theory approach to establish theories about the relationship between spirituality and embodiment, as it emerged in written reflections by second-year medical students. The main principle of socially constructed realities, which is central to the constructivist paradigm, was adopted in this study (Mertens, 2005). Stemming from hermeneutics, the philosophical “study of interpretive understanding or meaning” (p. 12), constructivists aim to understand experiences and phenomena through an active, value-laden role in the research process (Mertens, 2005). As such, objective realities are rejected in this paradigm; instead, multiple realities, explication of values, and confirmation of accuracy remain key aspects of constructivist studies (Mertens, 2005). This inductive approach to studying phenomena aligns with qualitative methods and, specifically, the grounded theory methodology used in this study.

Grounded theory aligns with the constructivist paradigm and its basis in the ontology of multiple, socially constructed realities as it acknowledges that “the researcher creates the categories and concepts as a result of interaction with the field” (p. 243), rather than discovering inherent theories (Mertens, 2005). A grounded theoretical approach was appropriate for this study as its goal was to move beyond description and to generate or discover a theory (Creswell, 2007). Developed in 1967 within the field of sociology, grounded theorists hold that theories ought to be grounded in data from the field (Creswell, 2007). Grounded theory aims to create theory about a particular topic or experience based on in-depth research or study of that phenomenon (Forinash, 2012). As described by Mertens (2005), “the defining characteristic of grounded theory is that the theoretical propositions are not stated at the outset of the study” (p.

242). Rather, the data is approached inductively and theories emerge from the collected data and ensuing analysis (Mertens, 2005). Also termed “the *constant comparative method*” (p. 242), other key characteristics of a grounded theoretical approach include continued interaction with the data, the use of theoretical sampling, conceptualization of a systematic coding process, and acknowledgement of complex relationships between the variables in a given study (Mertens, 2005).

The purpose of this study was to utilize data from the field of medical education, the dis-identified student response essays, to conduct an in-depth analysis of the students’ experience of experiential learning and education on the mind-body connection in order to generate theory related to the mind-body-spirit relationship. Because the goal of this study was to discover if and how reflections on spirituality were manifested following embodiment education, it was logical to begin with the data and approach it inductively. No theories were assumed prior to data analysis; rather, a constant interaction with the data and questions of the study was cultivated within a systematic process of coding.

Population. There were no participants in this study. This study used pre-existing archived data generated by second-year medical students enrolled in an embodiment course between 2009 and 2013 at a medical school in Chicago, Illinois. The students who elected to enroll in the embodiment course represented a small sample (<8%) of the larger student body. Complete demographic data was unavailable, as it was not collected during this course. However, the faculty teaching the seminar engaged in a constant process of curriculum evaluation and took note of trends in the population. For example: each cycle of the class consisted of nine to twelve students from various cultural backgrounds; experience and comfort

with movement, embodiment, and the mind-body connection also varied; most of the students were highly cognitive and evaluative; and for many of the students, this embodiment course was their first experience in a small group experiential setting during their medical education.

Current demographical information for students attending this medical school includes a total of 712 doctor of medicine (MD) students. For the classes of 2013-2017, there is an average class size of 164.2 students, a mean age of 23.2 years, with 56.54% males and 43.46% females. Regarding ethnicity, average percentages for the 2013-2017 years are White (75.6%), followed by Asian (47.2%), Hispanic (15.4%), African American (13.4%), did not self-identify (12.6%), and Native American (1.4%).

Procedure. Data collection occurred prior to this study in the form of essays generated as assignments during a five-week elective course on embodiment. The data were collected over a span of five years, from 2009 to 2013. Data were separated by chronological year; it should be noted that there were two cycles of the course in 2013 for second year medical students included in this study. The essays were responses to the following prompt: “Describe what you have learned about yourself and implications for your future role as a medical practitioner. In your synthesis, focus on your feelings, thoughts, emotions and kinesthetic responses to support your statements.” Upon Columbia College Chicago Institutional Review Board approval, access to the archived data was granted by one of the Columbia College Chicago faculty members who taught the embodiment course at the medical school.

Data analysis methods. Sequential analysis (Chesler, 1987) was used to analyze the data. As outlined by Chesler (1987), the data analysis included the following steps:

“Step 1. Underline key terms in the text.

Step 2. Restate key phrases in the margin of the text.

Step 3. Reduce the phrases and create clusters.

Step 4. Reduction of clusters...and attaching labels.

Step 5. Generalizations about the phrases in each cluster.

Step 6. Generating theory: memo writing that poses explanations;

Step 7. Integrating mini-theories in an explanatory framework” (p. 9-12).

The first two steps were completed simultaneously to permit repeated checking of the accuracy of the initial reduction of information. Step three was repeated several times in a constant comparative fashion, trying different combinations and clusters, comparing the different combinations, and concluding with a number of distinct clusters. Also termed pattern-coding, the fourth step involved reducing the number of clusters to create meta-clusters, while continuing the process of constant implicit and explicit comparison. In the final steps, existing literature was used as a framework and was applied to the original clusters, pattern codes, propositions, and memos and a central theme/theory was developed.

Validation Strategies. This study utilized Creswell and Miller’s (2000) validation strategies of disconfirming evidence and prolonged engagement in the field. Both of these strategies are congruent with a constructivist paradigm (Creswell & Miller, 2000). Disconfirming evidence is the process of establishing themes “and then search through the data for evidence that is consistent with or disconfirms these themes” (Creswell & Miller, 2000, p. 127). The themes in this study were generated from the data and then validated through constant comparison. This process included verifying the existence of these themes as well as checking for disconfirming evidence.

This study also utilized prolonged engagement in the field as a strategy for validation. Also congruent with a constructivist paradigm, prolonged engagement involves emerging in the field of study (Creswell & Miller, 2000). Creswell and Miller (2000) described that “researchers can check out the data and their hunches and compare interview data with observational data” and that this “is not a process that is systemically organized” (p. 128). This study applied this strategy in two ways. Firstly, before analysis of the dis-identified student essays, the researcher attended and observed one cycle of the elective course on embodiment at the medical school. It should be noted that none of the dis-identified essays were written by students that the researcher observed. However, observing students enrolled in the elective course allowed comparison of themes in the study to observations made of the students and their comments and experiences in the course. Secondly, the strategy of prolonged engagement applied to the process of data analysis, which included constant comparison of themes numerous times for each year of essay responses.

Chapter 4: Results and Discussion

Defined at the outset of this study as a universally transcendent experience that seeks to create meaning and wholeness (Galanter, 2005; Miller & Thoresen, 1999; Kurtz, 1999; Lines, 2006), the operational definition of spirituality guided the analysis of the data. Empathy was understood as interactive and reflective of understanding and awareness of the feelings and behavior of another person (Riiser Svensen & Bergland, 2007). The students who generated the data in this study were being trained as physicians in a system that follows the medical model in the sphere of Western medicine, defined here as the treatment of symptoms, disease, and illness in order to achieve health and the absence of disease or symptoms (Norwood, 2002). The second-year medical students in this study were taught embodiment techniques as part of an elective course; embodiment is a way of “attending ‘with’ and attending ‘to’ the body” (Csordas, 1993, p. 138). These techniques, to which the students alluded in their reflections, were attunement, which is “the ability to hear, see, sense, interpret, and respond to the client’s verbal and non-verbal cues in a way that communicated to the client that he/she was genuinely seen, felt, and understood” (Sykes Wylie & Turner, 2011, p.8), and mirroring, which is part of the process of empathy; “participating in another’s total movement experience, i.e., patterns, qualities, emotional tone etc” (Sandel, 1978, p.100). The use of embodiment techniques may promote the expression of empathy and the understanding of spirituality in medicine.

The results of this study may be applied to the use of holistic medicine, defined as “the art and science of healing that addresses the whole person - body, mind, and spirit” and “the unlimited and unimpeded free flow of life force energy through body, mind, and spirit” (Principles of Holistic Medicine, para. 1). Ultimately, the results demonstrated the

importance of healing in medicine, which is defined as to make sound or whole and derived from the root *haelan*, the condition or state of being *hal*, whole (Egnew, 2005). Results suggested ways of using embodiment to express empathy, foster therapeutic relationships, and promote healing.

Results showed a number of themes related to increased awareness and spirituality. In short, after participating in seminars on embodiment techniques, medical students reflected on a sense of increased awareness of their mind-body connection and frequently related this to a desire to improve their ability to care for and heal patients. The concept of spirituality was most relevant in themes that emerged about the non-verbal expression of empathy, the balance between self and other, and a sense of freedom when focused on the non-verbal, versus intellectual or cognitive, connection to others.

Essentially, the results demonstrated how the connection between the mind and body, which was explored through experiential learning, highlights the aspects of spirituality and empathy within medical practice. The theories presented emphasize the idea that medical care encompasses more than a scientific practice of diagnosing disease (Lines, 2006; Meldrum, 2012). Further, the results support studies that indicate that spirituality is inherent to the field of medicine (Rabow, 2009; Olson, 2006).

Theories. The main theory generated from the sequential analysis of the pre-existing data is as follows: Decreased cognitive control, aided through experiential learning, allows for increased awareness of the relationship between the self and other, including the non-verbal expression of empathy, which can be applied to medicine to enhance the therapeutic doctor-patient relationship and lead to more effective care and healing. All of the research questions

were answered. Eight sub-theories, which support the main theory, were also found. Three of these sub-theories presented were derived deductively and were based on course content. All sub-theories are organized according to the study question(s) that they answer and how they were derived (See Table 1).

Table 1: Theories and Study Questions

MAIN THEORY:	Decreased cognitive control, aided through experiential learning, allows for increased awareness of the relationship between the self and other, including the non-verbal expression of empathy, which can be applied to medicine to enhance the therapeutic doctor-patient relationship.
QUESTIONS:	SUB-THEORIES:
What is the relationship between embodiment and spirituality for students of Western medicine?	Expression of empathy is a spiritual process because it involves using the self to understand and care for another. Western medicine has become formulaic and does not emphasize spirituality and connection.
Does mind-body awareness lead to mind-body- spirit awareness?	Spirituality involves a balance between the self and other and an understanding of the self within the world. Humans are inherently spiritual beings.
How does (re-)embodiment lead to reflections on spirituality?	Decreased control and cognitive stress, which is aided by harmony between the body and mind and experiential learning, leads to: feelings of freedom and comfort; childhood memories; and group harmony/ cohesion, including expression of empathy and positive emotions.
How can the incorporation of embodiment techniques into physician training foster spirituality as it relates to physicians' professional healing roles?	The relationship between the self and other, including the use of the body, involves: self-care; the capacity to express empathy/understanding; increased awareness, which leads to the capacity to express empathy; and balance between self and other.* The body and non-verbal expression of empathy, through mirroring/attuning, can be used to balance out time constraints and demonstrate understanding as well as adjust approach to individualized needs.* A therapeutic doctor-patient relationship involves: trust; empathy; effective communication, which includes non-verbal communication; and addressing and balancing out the power differential.* <i>*derived deductively</i>

What is the relationship between embodiment and spirituality for students of

Western medicine? Expression of empathy is a spiritual process because it involves using the self to understand and care for another. Students reflected on how empathy involves using one's own experience to relate to another's. For example, one student reflected on applying an understanding of self to improve empathy in all interactions: "Understanding not only my own preferences, but the preferences of my peers as well as my patients, will aid me in being a better physician as well as a team member by being more tolerant and accommodating of others." Another student reflected on an interpersonal exchange: "Through my body language, I showed her that I thought what she was telling me was important and that I wasn't judging anything that she was doing or saying."

The data also revealed a theme of reflection on the formulaic nature of the students' medical education, which does not emphasize the spirituality and connection they were experiencing during the elective course on embodiment. A second sub-theory found was that Western medicine has become formulaic and does not emphasize spirituality and connection. For example, two students reflected on the impact their medical education had on their emotional state: "I felt a complete sense of peace and calmness that I rarely feel these days due to all the studying we have to do" and "Aside from the stress of medical school, I was reminded that I am a content and relaxed person at baseline. Rather, it is in the context of my medical training program that I often feel distressed and overwhelmed."

Others reflected on the impact of the formulaic nature of medicine on their ability to practice effective communication and healing. One commented, "We have spent years learning how to communicate with our scientific jargon and advanced calculations that we forgot the

basics of communicating without these languages.” Another student reflected, “Medicine is uniquely centered on the human body and its inner workings, yet in our education we ironically learn to dissociate ourselves from the true physicality of medicine as patients become mere textbook cases in a list of diseases to be memorized...patient care can feel formulaic and disembodied.”

While previous research described the interactive nature of empathy (Riiser Svensen & Bergland, 2007) and that the spiritual process of wholeness occurs in relationship (Kurtz, 1999), the results of this study suggest empathy and spirituality are interrelated and cyclical. This study found that the expression of empathy is a spiritual process because empathy, also a simultaneously personal and universal experience, involves a seeking of meaning and wholeness and healing. Future research is needed to test this theory and explore the relationship between empathy and spirituality; for example: how are empathy and spirituality interrelated? How are empathy and spirituality different? Is empathy, as this study suggests, a spiritual process?

The sub-theory about the culture of Western medicine and its emphasis on certainty and formula is supported by existing literature regarding a culture of control, a lack of addressing expression of emotions in patient care (Suchman et al., 1997), and a decline in empathic responses over the course of medical education (Chen et al, 2007; Croasdale, 2008; Rosenfield & Jones, 2004; Lumma-Sellenthin 2009). This study supported the idea that students enter the medical field with a desire to provide holistic healing and become overwhelmed by the need to memorize facts and cure disease. Further, students of Western medicine are primarily evaluated based on their cognitive abilities rather than their ability to relate empathically to their patients. The results of this study emphasized that although expression of empathy leads to improved

patient satisfaction and compliance (Soo Kim, Kamplowitz, & Johnson, 2004; DiMatteo, Hays, & Prince, 1986), the emphasis on scientific knowing in Western medicine leaves students of Western medicine feeling overwhelmed and unprepared to relate empathically to their patients. Future studies may examine ways to broaden the culture of Western medicine to more explicitly include the aspects of patient care that are most valued. Future research may also explore the inclusion of experiential learning in medical education to balance out the emphasis on disembodied memorization of facts. Future studies may explore ways to include embodiment techniques into all aspects of medical education to promote holistic learning, which may result in holistic care.

How does (re-)embodiment lead to reflections on spirituality? This study found that decreased control and cognitive stress, which is aided by harmony between the body and mind and experiential learning, leads to: feelings of freedom and comfort; childhood memories; and group harmony/cohesion, including expression of empathy and positive emotions. For example, two students reflected that "...it [the experiential] made me feel a lot more primitive. For some reason, I felt more childlike" and "I felt free and nothing was forced any longer. I was able to move naturally, it felt quite pleasant." Another student reflected on the impact of his/her career choice, noting "sometimes I am too analytical...maybe because of my choice of career or lifestyle...the pressures of life restrict me from doing so. The experience...served as a reminder to let go sometimes and just enjoy." Another student linked this freedom to an ability to relate with others, noting, "It's as though free, uncensored, playful movement is in essence a way of authentically communicating with others and a means of self-empowerment." Three others reflected on their experiences of the group: "We couldn't stop smiling the whole time and that

energy helped create an atmosphere of trust and reciprocity;” "I also found myself more willing to follow if I had been followed. It made me feel a greater sense of ‘attachment’ to the group, thus, more willing to ‘aid’ the group;” "I realized that I was able to move more freely only after seeing my whole class move around...”

This theory supports other literature that described an over-emphasis on a scientific, cognitive approach to medicine (Halpern, 2003; Rosenfield & Jones, 2004; Suchman et al., 1997), which can lead to an inability to express empathy and provide holistic care (Suchman et al., 1997). Further, this theory illuminates a benefit of experiential learning and attention to body awareness and the non-verbal experience. By focusing on the body-mind as one, students experienced feelings of freedom and a theme of childhood memories and reminiscence emerged. This relates to how increased self-awareness leads to increased emotional recognition (Hindi, 2012) as well as how movement patterns are both fundamental and developmental (Hackney, 2002). This theme of childhood memories was not initially considered as an aspect of spiritual awareness. However, if and how developmental movement patterns are related to the ability to understand emotions in both self and other is a potential area for future research. Based on the results of this study and the link between decreased cognitive control and increased body-mind-spirit awareness, there is a potential connection between spirituality and childhood experiences (including freedom, innocence, and worldview).

Does mind-body awareness lead to mind-body-spirit awareness? This study found that spirituality involves a balance between the self and other and an understanding of the self within the world. Students discussed spirituality in terms of the relationship between the self and other. For example, students reflected on the use of the body as a way to connect to others and

the world: “...our bodies are also vessels that serve as the medium to our connection with the world around us;” “...embodiment can be summarized as both comprehending the internal workings of your body and the dichotomy of how your body interacts with the outside world and how the outside world acts upon your body.”

Another sub-theory that answered this research question found that humans are inherently spiritual beings. Students reflected on how human beings are inherently spiritual and exist in relationship to the world and others. One student directly linked this to the use of movement and intention: “Because there is consciousness in voluntary movement, there is also intention in that movement, whether we acknowledge that intent or not. By doing and seeing different types of movements, we transmit and receive that intent, creating an energy...that is fundamental to us as humans.”

Many of the experiential exercises in the seminars involved work in dyads as well as a group format. Using experiential learning to increase awareness of the mind-body connection with and through others led to reflections on spirituality. Spirituality is a universally transcendent experience that seeks to create meaning and wholeness (Galanter, 2005; Miller & Thoresen, 1999; Kurtz, 1999; Lines, 2006). It involves both intrapersonal and interpersonal relatedness; although subjective, it is a universal concept and the students in the embodiment seminars reflected on the benefits of using experiential learning to explore and experience these relationships. Both spirituality and empathy occur in relationship (Riiser Svensen & Bergland, 2007; Kurtz, 1999) and as described by the results in this study, spirituality also has a cyclical relationship with empathy. The results of this study discovered that education on the mind-body connection, through experiential learning, led to increased self-awareness as well as awareness of

others, which promoted relationship. Future applications may include explicitly educating on spirituality and/or explicitly naming it as a potential benefit and/or goal of experiential learning. Future research may explore how spirituality is connected to the mind and body.

How can the incorporation of embodiment techniques into physician training foster spirituality as it relates to physicians' professional healing roles? The three sub-theories that answer this research question were all derived deductively from the data. The themes and theories that emerged were based on course content. The themes were derived from students reflecting on ways to apply course content to enhance patient care and healing.

This study found that the relationship between self and other, including the use of the body, involves: self-care; the capacity to express empathy/understanding; increased awareness, which leads to the capacity to express empathy; and balance between self and other. This theory was derived from reflections on the importance of self-care and self-awareness and the resulting application to the expression of empathy and relatedness to others. Two students related the ability to care for oneself as critical to their ability to care for their patients: "...I believe that if I can calibrate myself both emotionally and kinesthetically to the patient, I will be a better physician overall;" "...taking care of myself will be crucial to my ability to care for others in the future." Others reflected on the development of a therapeutic relationship and its impact on healing: "The ability to relate and elicit patient responses starts with a healthy and solid relationship;" "The development of the relationship is an important progression in the healing process." One student poetically related his/her experience of empathy with classmates in the seminar course to medical practice:

“If we are able to extrapolate our relationships with our patients from the clinic setting and into a similar blanket of love [as experienced in class], and are able to realize that we must move harmoniously so no one feels like they are being pulled around - we can remind ourselves that in the future each of our patients is like adding another person to our blanket, and keep ourselves empathetic and open.”

Related to how empathy and spirituality are both intrapersonal and interpersonal, this study found that effective empathic responses toward others require a healthy relationship with the self. As described in existing literature, self-awareness is crucial to self-care and can be fostered by experiential learning (Saunders et al., 2007). This study found that increased awareness leads to the capacity to express empathy and includes a balance between inner and outer understanding and expression. Future applications of this finding could include incorporating self-care practices and education into medical training and practice.

Another sub-theory based on course material centered on how the body and non-verbal expression of empathy, through mirroring/attuning, can be used to balance out time constraints and demonstrate understanding as well as to adjust approach to individualized needs. Students reflected on the fast-paced culture of medical practice and discussed how use of embodiment techniques, such as mirroring and attuning, can balance out these time constraints. One student commented “...although it might be possible to keep patient visits under a certain time limit, that doesn’t mean the interaction has to work at an increased pace.” Two others related what they learned from the course to future application with patients: “Specifically the idea of using movement (especially on entering the patient’s room) to put a patient at ease and project feelings of calm despite potential time constraints” and “I need to make sure that I have the skill and

resourcefulness that *even when* I have limited time (which I always will), I know how to make the patient feel good.”

Students also reflected on a desire to adjust their approach to medical practice to attune to individual patients’ needs. One student reflected on the importance of adjusting approach to foster relationship: “...I can adapt my communication methods with my future patients and ultimately form strong therapeutic relationships.” Another reflected on how changing approach would impact power differential: “Making adjustments such as these in order to bring myself to the same level as my patients will result in more effective interactions.” Students also discussed the impact of embodiment techniques and the mind-body connection on effective communication: “...can enable them to be more ‘embodied’ and create better physician-patient relationship via better and more genuine empathy and catering to their patients concerns and needs;” “I never realized the power of movements and how it can be used to communicate different feelings and emotions;” “I am now able to better use embodiment for successful communication.”

The eighth and final theory was derived deductively from reflections on various aspects of a therapeutic doctor-patient relationship. This theory found that a therapeutic doctor-patient relationship involves: trust; empathy; effective communication, which includes non-verbal communication; and addressing and balancing out the power differential. Students reflected on the inclusion of non-verbal communication to form therapeutic relationships: “Body language and picking up on non-verbal cues are things that can contribute to a more effective form of communication in the patient-physician relationship;” “If I can connect with my patients on a bodily level first, I trust that strong therapeutic and emotional relationships will follow;” “It

really shows that by picking up on other people's body motion and cues, one can create a therapeutic relationship and make one feel comfortable with what is going on, even without saying anything;" "By using both nonverbal and verbal communication in my interactions with patients, I will be able [to] establish deeper and stronger relationships with them;" and "I have learned the immense importance of movement in a therapeutic relationship."

Students also reflected on trust and the power differential within the doctor-patient relationship: "...patients...value a doctor who takes the time to get to know them to better help them, even if they expect the doctor to be dominant in the relationship;" "The scientific basis of medicine is best delivered and best received when both practitioner and patient strip off their titles and expected roles and work to find resonance to the various modalities to the patient-physician relationship;" "When the patient-physician relationship is build on trust, the roles of leader and follower are more easily taken on and better received by both patient and physician;" and "...effective communication can really only occur when both parties are the same level."

A salient theme throughout the essay responses, the embodiment techniques of mirroring and attuning can be applied to medical practice and medical education to counteract the negative impact, both on physicians and patients, of the current culture that emphasizes speed, efficiency, and generalized disease. First, just as other studies have described, embodiment techniques provide increased awareness that, as described above, is linked to expression of empathy and self-care (Saunders et al., 2007). Secondly, this study suggests that mirroring and attuning to patients provides an efficient way of relating to patients that both satisfies the needs of the current culture of Western medicine as well as patients' needs for relationship and healing. Future research may focus on if and how mirroring and attuning, when applied to medical

practice, decreases any negative impact of a science-based practice and increases access to the spiritual and healing roots of medicine.

Based on the results of this study, it is proposed that embodiment techniques can be applied to medical practice to improve the doctor- patient relationship. Engaging in a non-verbal spiritual dynamic between self and other may increase ability to utilize different components of empathy (described by Stepien and Baernstein, 2006), especially the ability to both recognize and reflect emotional content. Attuning to and mirroring back to patients fosters gathering information and data about patients by observing verbal and non-verbal expressions (Sandel, 1978). Future research may focus on effective ways of teaching these embodiment techniques to physicians to fully incorporate them into medical practice.

Conclusion. New considerations were illuminated, specifically a potential relationship between spirituality and childhood, freedom, and decreased cognitive control. Major themes of balance between the relationship with the self and the relationship with other emerged and relates to the processes of spirituality and empathy within medical practice. Future research is needed to further explore a possible connection between embodiment, empathy, and spirituality. While the elective course in this study explicitly taught on embodiment and empathy, future courses may more explicitly explore and inquire about students' perspectives on and experience of spirituality.

Overall, this study found that, for medical students, embodiment techniques and experiential learning provided an opportunity to decrease an emphasis on cognitive approaches and increase mind-body-spirit awareness, which led to reflections on spirituality, empathy, and healing. This study found relationships between empathy and spirituality, between self-care and caring for others, and between use of embodiment techniques and a goal to improve patient care.

Although not initially considered, future research could examine a potential link between childhood and freedom and spirituality. Future studies may also examine ways to broaden the culture of medicine and aspects of patient care, including decreasing emphasis on efficiency and promoting expression of empathy. Future research is still needed to further understand how spirituality is connected to the mind and body. The results of this study may be applied to explicitly educating on spirituality and/or explicitly naming it as a potential benefit and/or goal of experiential learning. The results may also include incorporating self-care practices and education into medical training and practice and teaching these embodiment techniques to physicians to fully incorporate them into medical practice. Dance/movement therapists, trained in a holistic mind-body-spirit approach, may be uniquely suited to provide such embodiment education to medical students and physicians. Further, dance/movement therapy may be used in the medical field to more explicitly address patients' psychosocial and spiritual needs in order to promote holistic healing.

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Appendix A

Definition of key terms.

Attunement. “The ability to hear, see, sense, interpret, and respond to the client’s verbal and non-verbal cues in a way that communicated to the client that he/she was genuinely seen, felt, and understood” (Sykes Wylie & Turner, 2011, p.8).

Embodiment. A way of “attending ‘with’ and attending ‘to’ the body” (Csordas, 1993, p. 138).

Empathy. Interactive; reflects understanding and awareness of the feelings and behavior of another person (Riiser Svensen & Bergland, 2007).

Healing. To make sound or whole; derived from the root *haelan*, the condition or state of being *hal*, whole (Egnew, 2005).

Holistic medicine. “The art and science of healing that addresses the whole person - body, mind, and spirit” and “the unlimited and unimpeded free flow of life force energy through body, mind, and spirit” (Principles of Holistic Medicine, para. 1).

Mirroring. Part of the process of empathy; “participating in another’s total movement experience, i.e., patterns, qualities, emotional tone etc” (Sandel, 1978, p.100).

Spirituality. A universally transcendent experience that seeks to create meaning and wholeness (Galanter, 2005; Miller & Thoresen, 1999; Kurtz, 1999; Lines, 2006).

Suffering. The personal experience of illness and/or disharmony (Sulmasy, 1997); pain in the soul (Olson, 2006).

Western medicine. Treatment of symptoms, disease, and illness in order to achieve health and the absence of disease or symptoms (Norwood, 2002).