

Pace University

**The Role of Mindfulness in Cultural Intelligence:
Impact on Culturally Congruent Patient Care**

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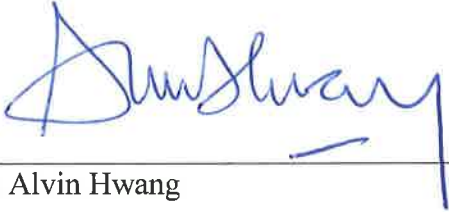
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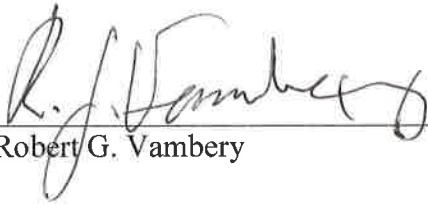


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Abstract

The purpose of this study is twofold: to explore the role of mindfulness in cultural intelligence (CQ) with the development of a CQ mindfulness model that builds on the CQ and mindfulness literatures, and to test the model's ability to predict culturally congruent patient care. Data was collected from 215 registered nurses working in a variety of health care settings in a highly culturally diverse urban environment. The study results support the presence of three essential and distinct facets of mindfulness: empathy, open-mindedness, and using all senses, and the key role played by mindfulness in cultural intelligence. The data indicate strong relationships between mindfulness and total mental CQ (cognitive CQ and metacognitive CQ), and between mindfulness and behavioral CQ. Study results also support the significant influence of mindfulness on culturally congruent patient care and the influence of behavioral CQ on culturally congruent patient care. The data does not support the hypothesized influence of total mental CQ on culturally congruent patient care. These findings contribute to the management literature by adding to the burgeoning CQ research on the antecedents of CQ and on the interactions amongst the different CQ facets; this study also contributes to the cultural competence literature in health care with the introduction of the CQ mindfulness model as well as a new instrument to measure culturally congruent patient care. This research on CQ and mindfulness in health care proposes a novel insight as to why some nurses may be more effective than others at providing culturally congruent patient care. Findings offer timely managerial implications for health care organizations.

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Chapter 1

Introduction

“As a source of exchange, innovation and creativity, cultural diversity is as necessary for humankind as biodiversity is for nature. In this sense, it is the common heritage of humanity and should be recognized and affirmed for the benefit of present and future generations.” (UNESCO, 2002)

The early twenty first century work environment is characterized by an increasing cultural diversity of stakeholders who interact virtually, if not physically, on a daily basis. The ability of individual leaders, professionals, and staff to work effectively in this increasingly diverse environment is of critical importance to individual and organizational success. Executives who have demonstrated success in global assignments are likely to end up in top management positions (Adler, 2008). Academics in a range of disciplines, including international business, psychology, and communication, have contributed to our understanding of individual capabilities that result in successful cross-cultural interactions in business environments by emphasizing expatriates' adjustment outcomes (Black, Mendenhall & Oddou, 1991; Mendenhall & Oddou, 1985; Morley & Cerdin, 2010) and personality trait testing (Caligiuri, 2000; Ones & Viswesvaran, 1999; Phillips & Gully, 1997). The international business literature and the inter-cultural communication literature tend to focus on cultural

differences based on national origin and language, and often categorize individuals on the basis of cultural dimensions attributed to their country of origin (e.g. Hofstede, 1980; House, Hanges, Javidan, Dorfman, & Gupta, 2004). This approach presumes cultural homogeneity within a given country, which is misleading given the growing incidence of “brain circulation” that results in diversity of educational, functional, and geographical experience of the workers involved and contributes to intra-national diversity (Tung & Verbeke, 2010). Understanding intra-national diversity “can be more nebulous and challenging when compared with deciphering cross-national distance in cultural dimensions because so many more variables—such as ethnicity, age, gender, generational differences, and religion--can come into play in affecting the values, behaviors and practices of people in a given country” (Tung & Verbeke, 2010) and a given organization. Indeed, culture can be defined as “something that is shared by all or almost all members of a given social group, ...something that shapes behaviors...and structures one’s perception of the world” (Adler, 2008, p. 19). On the other hand, the workforce diversity literature traditionally focuses on personal characteristics such as gender, race, and ethnicity, which are at the core of the anti-discrimination legislation in the U.S. Furthermore, the presence of diverse, and at times intersecting, subcultures, such as communities of interest and communities with common needs, contributes to the unique, complex cultural makeup of each individual (Schim, Doorenbos, Benkert, & Miller, 2007). In a review of the literature across the international business, workplace diversity, and intercultural communication domains, Johnson, Lenartowicz, and Apud (2006) note the lack of adequate conceptualization of cross-cultural competencies.

Addressing this need, Earley and Ang (2003) introduced a novel theoretical framework with the construct of cultural intelligence or “CQ” that has become prominent in the last ten years. CQ is a multidimensional construct grounded in the theory of multiple loci of intelligence (Sternberg & Detterman, 1986) that can be defined broadly as the ability to assess an unfamiliar cultural environment and adapt oneself for success in that environment. CQ has brought a more dynamic explanation of global managers’ effectiveness by looking at the active use of potential capabilities. Ang and colleagues (2007) argue that CQ addresses several gaps in the existing literature as it is conceptually distinct from personality traits, from other types of intelligences, and from other cultural competencies. CQ provides a theoretically precise construct that systematically assesses four aspects of intelligence and is not specific to one particular culture. CQ also allows a broader appreciation of culture that encompasses not only different nationalities and cultures, the traditional foci of the international business literature, but also different gender, religions, races, and ethnicities, from the workplace diversity literature, and other individual and organizational characteristics that contribute to what Thomas and Inkson (2009) call an individual’s “psychological fingerprint”: education, socio-economic background, and professional background (including both functional background and organizational and departmental experience). This broader characterization of culture is consistent with that used in the U.S. in the health care sector with the concept of cultural competence. The definition of cultural competence in health care is framed in the context of workforce diversity in the U.S. and refers to cultural subgroup classifications by gender, age, ethnicity, race, religion, and sexual orientation (Johnson et al., 2006). Similarly to CQ, cultural competence in health care is

an ongoing learning process. Johnson and colleagues (2006) also note that cultural competence in health care requires strong institutional support. Health care organizations need to demonstrate their ability to meet the standards of cultural competence mandated by government and accrediting agencies. The Joint Commission on the Accreditation of Healthcare Organizations (“JCAHO” or the “Joint Commission”) whose accreditation is considered the gold standard in health care defines cultural competence as “the ability of health care providers and health care organizations to understand and respond effectively to the cultural and language needs brought by the patient to the healthcare encounter. Cultural competence requires organizations and their personnel to do the following: 1) value diversity; 2) assess themselves; 3) manage the dynamics of difference; 4) acquire and institutionalize cultural knowledge; and 5) adapt to diversity and the cultural contexts of individuals and communities served” (Joint Commission, 2010, p. 91). The health care literature counts several models of cultural competence, starting with Leininger’s seminal model of transcultural nursing care (Leininger & McFarland, 2006), Campinha-Bacote (1999, 2002), Purnell (2000), and Schim and colleagues (2007). These models have been used in health care agencies to assess and develop cultural knowledge, skills, and awareness. The CQ construct provides a novel and useful framework for health care agencies to assess the cross-cultural abilities of their workforce and help them develop these capabilities using instruments that have been validated in the business sector.

In a recent yet growing body of empirical studies, CQ has been linked to adaptability and performance of individuals in culturally diverse settings. Earley and Ang (2003) initially defined CQ as a three-facet construct: cognitive CQ, motivational

CQ, and behavioral CQ, a system of interacting abilities whereby each of the three facets is integral to CQ, each facet reinforces the other two, and the interaction amongst them creates CQ. Thomas (2006) proposed a similar three-facet CQ model and argued that mindfulness is the motivational influence in CQ and a metacognitive link between knowledge and behavior.

The interaction among the different facets of CQ has not been studied extensively (Gelfand, Imai, & Fehr, 2008). This research study builds on Thomas' (2006) theory by exploring the facets of mindfulness in the CQ construct. Consistent with Earley and Ang's (2003) and Thomas' (2006) theories, this study proposes that mindfulness, as one of the CQ facets, is simultaneously a predictor of CQ and an integral part of CQ. This dissertation begins with a review of the mindfulness literature and a delineation of three key facets of mindfulness—empathy, open-mindedness, and using all senses—which are developed in order to better understand the interactions amongst these three facets and how these interactions contribute to the relationships between mindfulness and the other facets of CQ, i.e. total mental CQ (cognitive CQ and metacognitive CQ) and behavioral CQ. The CQ mindfulness model is then tested for its ability to predict practices recommended by the Joint Commission in order to meet the new accreditation standards of culturally competent, patient- and family-centered care. Data was collected in a large metropolitan University in the Northeast of the U.S. from graduate nursing students, nursing faculty, and alumni who work for a variety of health care organizations in a highly culturally diverse urban environment. This provides a new disciplinary setting for CQ research, i.e. health care, as the majority of empirical studies to date have been conducted with business students and professionals. Hypotheses were

tested using a combination of several existing instruments with demonstrated validity and reliability in international business (from the CQ literature) and in psychology (from the mindfulness literature), as well as a new scale developed with actual statements from the Joint Commission's accreditation standards and recommendations for advancing effective communication, cultural competence, and patient-and family-centered care (Joint Commission, 2010).

This study attempts to answer the call for more research on the antecedents of CQ and on the interaction amongst the different facets of CQ (Gelfand et al., 2008; Ng, Van Dyne & Ang, 2012;). By examining the nature of mindfulness in CQ and identifying three key facets of mindfulness, this study helps gain a better understanding of what makes certain individuals more effective in culturally diverse settings. In turn, the insight gained on the interaction among the three facets of mindfulness contributes to the research on the development of individual CQ, given the iterative nature of CQ development whereby cross-cultural knowledge, mindfulness, and behavior reinforce one another with each new cross-cultural interaction (Thomas, 2006). Ng and colleagues (2012) noted the applicability of CQ to many disciplinary areas and opportunities for interdisciplinary research. To that effect, the use of a new research setting for CQ – health care agencies – provides a first opportunity to measure CQ with a diverse group of nurses and opens up several potential research avenues for CQ, for instance, with respect to the relationships between CQ and patient satisfaction, clinical outcomes, and health status. Studies have shown that “incorporating the concept of cultural competence and patient- and family-centeredness into the care process can increase patient satisfaction and adherence to treatment” (Joint Commission, 2010). Health care offers a

rich and timely research setting for CQ given the decade-old national mandate to provide culturally competent care (Office of Minority Health [OMH], 2001), the Joint Commission standards (Joint Commission, 2010) which have been in effect since July 2012, and the myriad of initiatives undertaken by health care agencies to address these standards. Finally, this study provides an opportunity to test a new instrument developed with three distinct subscales from the psychology literature to measure the three facets of mindfulness. As recommended by Ng and colleagues (2012), CQ research will be strengthened with the development of complementary measures of CQ based on different assessment methodologies.

The study results help inform management practice in health care agencies and in other culturally diverse organizations. The ability to better understand what makes individuals more culturally intelligent has important implications for hiring, developing, transferring, and promoting staff in culturally diverse organizations. By identifying three key facets of mindfulness and developing a valid instrument to measure these facets, individuals will be able to focus on specific areas of self-development using training strategies geared at strengthening each of these three facets. In order to encourage the development of individuals' CQ in an organization, the findings suggest that management should encourage the development of empathy, open-mindedness, and the use of all senses with specific training emphasizing the development of these skills in addition to existing CQ training and more traditional cultural competence programs in health care.

The limitations of the study include the use of a convenience sample, the collection of data at only one point in time, and the exclusive use of self-report scales to

measure the different variables, potentially contributing to inflated scores. Ideally, random samples, multiple measures, and multiple methods of data collection should be used to strengthen the validity and reliability of the results.

Chapter 2

Theoretical Background and Hypotheses Development

Cultural Intelligence

Cultural intelligence (CQ) can be defined as “a specific form of intelligence focused on capabilities to grasp, reason, and behave effectively in situations characterized by cultural diversity” (Ang et al., 2007, p. 337). Cultural diversity manifests itself both within and among cultures (Adler, 2008). Culture can be defined as “something that is shared by all or almost all members of a given social group, ...something that shapes behaviors...and structures one’s perception of the world” (Adler, 2008, p. 19). In their expert panel report on cultural competence to the American Academy of Nursing, Giger et al. (2007, p. 100) define culture as “a learned, patterned behavioral response acquired over time that includes implicit beliefs, attitudes, values, customs, norms, taboos, arts, habits, and life ways accepted by a community of individuals. Culture is primarily learned and transmitted within the family and other social organizations, is shared by the majority of the group, includes an individualized worldview, guides decision making, and facilitates self-worth and self-esteem”. CQ allows an individual to distinguish among a vast variety of individual cultural diversity characteristics. Indeed, individuals with high CQ are able to describe people and events in terms of many different characteristics and are able to see the many links among these

characteristics; they are able to see past stereotypes that a superficial understanding of national cultural dimensions (e.g., Hofstede, 1980) provide (Thomas, 2006). High CQ individuals are able not only to distinguish the multiple characteristics of another individual, but also to identify which of the many possible relevant roles or identities is relevant to understanding and behaving in a particular encounter. In other words, CQ relates to the capability to infer a person's trait hierarchy and to act accordingly (Earley & Ang, 2003). Likewise, in organizational environments, high CQ individuals have a greater capability to operate in a wide variety of organizational cultures (Earley & Ang, 2003) and are able to grasp the relevant meanings and values of the multiple subcultures of an organization (departments, divisions, professions, and geographic regions) and adapt effectively (Earley & Mosakoski, 2004). "A high CQ person observes various interactions and determines the dominant role identities for each team member, how these identities lead members to interact mutually, and how the work context of the team might make certain identities more salient than others" (Earley, 2002, p. 288).

Anchored in Sternberg and Detterman's (1986) theory of multiple loci of intelligence, CQ encompasses mental capabilities—cognitive CQ, metacognitive CQ, and motivational CQ— that reside within the head, and behavioral capabilities or overt actions—behavioral CQ. CQ shares some attributes with other types of multiple intelligences, such as social and emotional intelligences, in that it is inherently multidimensional, it is complementary to cognitive intelligence (IQ), and it involves both behavioral and cognitive facets (Thomas, 2006). Yet CQ is distinct from social and emotional intelligence in that it is not culture-bound: it is transferable across cultures and uniquely explains variability in coping with a culturally diverse setting (Ang & Van

Dyne, 2008). Social and emotional intelligences refer to certain abilities to decode and manage emotions and social signals, which tend to be symbolically constructed and historically transmitted within a culture; hence these capabilities do not automatically transfer to other unfamiliar cultures (Earley & Ang, 2003). An individual who is emotionally intelligent in one culture may behave in a totally inappropriate manner when exhibiting the same behavior in a different culture. Empirical research provides strong support for the distinctiveness of CQ from other forms of intelligence (Moon, 2010; Ng et al., 2012; Rockstuhl, Seiler, Ang, Van Dyne, & Annen, 2011).

CQ consists of several sets of mental functions (memory, recall, logic, deduction, and categorization) that are etic in nature, that is, universal, at the supra-societal level, and that operate across cultures. However, Earley and Ang (2003) stress that CQ also has aspects that are emic, that is, situational, at the contextual level, and culture-specific: specific mental functions unique to each individual, and to a particular culture. CQ is a state-like individual capability that can develop over time through experience, education, and training, as opposed to personality characteristics which are a trait-like construct, that is, not specific to a particular task or situation and tend to remain relatively stable over time (Ang, Van Dyne, and Koh, 2006; Moon, 2010).

How does one develop CQ? Although some aspects of CQ appear to be innate (e.g., general cognitive abilities, self-efficacy, and self-control), aptitude for languages and appropriate behaviors in other cultures can clearly be improved through training programs (Earley & Peterson, 2004). CQ is learned over time through an iterative process with multiple intercultural interactions: each new cross-cultural encounter reinforces the learning of new knowledge and behavioral repertoires, which mindfulness

enables, hence producing more culturally intelligent behaviors (Thomas, 2006; Thomas et al., 2008; Thomas & Inkson 2009).

The fast developing CQ research has identified several antecedents of CQ primarily centered on personality traits and international experiences. These include: language acquisition and ability, previous international work and non-work experiences, multicultural experiences, and certain Big Five personality traits, most notably openness to experience, extraversion, agreeableness, and conscientiousness (Ang et al., 2006; Ang & Van Dyne, 2008; Ng et al., 2012). Earley and Ang's (2003) pioneering work in arguing for the role of CQ in cross-cultural interaction success has gained increasing acceptance over the years as they have shown the ability of CQ to predict cross-cultural performance success. Even though empirical research is still continuing on the role and impact of CQ, there is growing support for the validity of CQ as expressed through appropriate cultural behaviors (behavioral CQ) in explaining individual success in culturally diverse environments (Ng et al., 2012). Ang et al. (2006) found CQ to predict executive performance over and above demographic characteristics and general cognitive ability. Templer, Tay, and Chandrasekar (2006) found a positive relationship between the motivational component of CQ and successful adjustment in a foreign assignment amongst 157 global professionals in Singapore. Ang and colleagues (2007) found CQ to be a unique predictor of cultural judgment and decision-making, cultural adaptation, and task performance in culturally diverse environments from three separate samples (foreign professionals, international managers, and undergraduate students). Taking an experiential learning perspective, Ng and colleagues (2009) suggest that CQ represents a critical set of learning behaviors which facilitates transformation of

experiences into experiential learning outcomes, such as global leadership efficacy, flexibility of leadership styles, and ultimately, global leadership effectiveness. Indeed, CQ can be described as an essential learning capability “that is required to transform international experiences into effective experiential learning in culturally diverse environments” (Ang, Van Dyne, & Tan, 2011, p. 591). According to Black and colleagues (1991), social learning theory is a useful framework for understanding cross-cultural learning and training because it integrates social, behavioral, and motivational aspects with the concept of self-efficacy. Earley and Ang (2003,) note that “self-efficacy plays an important role in CQ because successful intercultural interaction is based on a person’s general sense of confidence for social discourse in a novel setting” (p. 75). However, self-efficacy is domain- and context-specific, whereas CQ, and particularly motivational CQ, functions across settings (Earley & Ang, 2003). Beyond the outcomes of traditional cross-cultural training—cognitive, affective, and behavioral knowledge--CQ training aims to address the motivational and metacognitive aspects of cross-cultural training. In their study of foreign subsidiary support and cultural distance across 31 foreign subsidiaries, Chen, Kirkman, Kim, Fahr and Tangirala (2010) showed that expatriate cross-cultural motivation (similar to motivational CQ) is positively related to work adjustment, which in turn is a predictor of job performance. From responses of 218 expatriates of a Taiwanese multinational corporation operating in at least three countries, Lee and Sukoco (2010) found support for the relationships between CQ, cultural adjustment, and performance. Additional CQ outcomes recently identified include: cross-border leadership effectiveness in the Swiss military (Rockstuhl et al., 2011), negotiation effectiveness (Imai & Gelfand, 2010), and interpersonal trust in

multicultural teams (Rockstuhl & Ng, 2008). Therefore there is increasing evidence on the usefulness of CQ as a construct in explaining cross-cultural adjustment and executive success in unfamiliar cultural environments. Moderators of CQ's relationship to performance include cultural distance (Ang & Van Dyne, 2008) and organizational culture (Earley & Ang, 2003). CQ also has been shown to mediate the relationship between intercultural contact and international leadership potential (Kim & Van Dyne, 2012). Table 1 highlights some of the key contributions to CQ research, in terms of definitions, facets, antecedents, and outcomes.

Since their landmark publication on CQ ten years ago (Earley & Ang, 2003), Earley, Ang, and various colleagues have substantially developed the CQ model and positioned it as an important construct for the cross-cultural management research community. However, there is still much to uncover in CQ research given the rich multi-dimensional nature of CQ. Notably, Ang and various colleagues (Ang et al., 2006; Ang et al., 2007; Ang & Inkpen, 2008; Earley & Ang, 2003; Ng et al., 2009) were the pioneers in articulating the three componential structure of CQ (cognitive CQ, behavioral CQ, and motivational CQ) that have been adopted in the CQ literature.

While acknowledging the works of Ang and colleagues, Thomas (2006) has proposed an alternative CQ model with three components: (1) knowledge of culture (content) and cross-cultural interactions (process), (2) behavioral ability (the ability to perform), and (3) mindfulness. The major difference between the Earley and Ang's (2003) conceptualization and the Thomas' (2006) conceptualization of CQ is in replacing the "motivational" component of the early CQ model with a "mindfulness" component. According to Thomas (2006), mindfulness is the key element that links the

[Table 1]

[Table 1]

[Table 1]

other two components of cross-cultural knowledge and cross-cultural behavior, and is the most novel aspect of CQ.

Mental CQ and Cross-Cultural Knowledge

Cognitive CQ reflects declarative knowledge or the knowledge of different cultures through their norms, values, practices, and conventions, including the knowledge of economic, legal, religious, and social systems. Cognitive CQ also incorporates knowledge of self. Van Dyne and colleagues (2012) distinguish between culture-general knowledge that captures broad comparisons across cultures, and context-specific knowledge that refers to manifestations of culture in a specific domain or context. Metacognitive CQ is the mental capability to acquire and evaluate cultural knowledge (Van Dyne et al., 2012). Metacognitive CQ focuses on process or procedural knowledge and involves higher order cognitive processes, such as creating mental maps and different categories. It can be described as the capability to reformulate self-concept (and concept of others) in new complex configurations (Earley & Ang, 2003). The first component of Thomas' (2006) CQ model is the knowledge of cultural differences (content) and cultural processes through which culture influences behavior. This component parallels the cognitive facet of Earley and Ang's (2003) CQ, that is, the cognitive ability to absorb culture-specific knowledge, and consequently develop an approach to operate within a new culture. According to Kayes, Kayes, and Yamazaki (2005, p. 588) "...cross-cultural knowledge absorption is primarily a process of learning from individual experience and translating that experience into organizational knowledge". Thomas and Inkson (2009) stress that cultural knowledge is "the foundation of CQ because it forms the basis for comprehending and decoding the

behavior of others and ourselves” (p. 128). Cognitive CQ and metacognitive CQ are highly related with each other, and there is therefore a possibility of a higher order construct, total mental CQ. This study uses *total mental CQ* in a broad sense, that is, encompassing process or procedural knowledge (also referred to as *metacognitive CQ* by Ang and colleagues) as well as content or declarative knowledge (*cognitive CQ*).

Behavioral CQ

The behavioral ability component in Thomas’ (2006) model is consistent with Earley and Ang’s (2003) behavioral CQ, i.e. an individual’s capability to display verbal and nonverbal behaviors in a manner consistent with a particular environment’s cultural norms. Behavioral CQ requires a wide and flexible repertoire of behaviors including appropriate words, tone, gestures, and facial expressions (Ng et al., 2012). Individuals with high behavioral CQ will exhibit situationally appropriate behaviors based on their broad repertoire of verbal and nonverbal capabilities (Ng et al., 2012). The importance of behavioral CQ is seen in the way that managers who are sensitive to their environment express appropriate behaviors that produce better interactions with others than those who are not (Adler, 2008).

Thomas (2006) agrees with Earley and Ang’s (2003) idea that CQ is multifaceted and that the interrelated facets of CQ actively reinforce one another to create CQ. The four CQ facets are qualitatively different facets of the overall capability to work effectively in a culturally diverse setting (Ang et al., 2007). In other words, overall CQ represents an aggregate multidimensional construct that includes dimensions (cognitive CQ, metacognitive CQ, motivational CQ, and behavioral CQ) at the same level of conceptualization as the overall CQ construct and these same CQ dimensions make up

the overall CQ construct (Ang et al., 2007). According to Thomas' (2006) model, the link between CQ cross-cultural knowledge and CQ behavioral ability is mindfulness, a specific metacognitive process otherwise described as "a heightened awareness and enhanced attention to current experience or present reality" (Thomas, 2006, p. 94).

Motivational CQ and Mindfulness

Motivational CQ is defined as an individual's propensity and commitment to act and persevere in order to adapt effectively to new cultural surroundings (Earley & Ang, 2003) or an individual's self-efficacy and intrinsic motivation in cross-cultural situations (Ang & Van Dyne, 2008). While Earley and Ang's (2003) motivational component reveals an individual's inclination and confidence to act appropriately in cross-cultural encounters, Thomas' (2006) replacement for the motivational component, the mindfulness component, reveals a deliberate consciousness of an encountered cross-cultural phenomenon. Another way to view differences between Earley and Ang's (2003) motivational component and Thomas' (2006) mindfulness component is to understand their roles in cross-cultural experiences. Thomas' (2006) mindfulness component could be viewed as a deliberate consciousness of a cross-cultural encounter and is a likely precursor to Earley and Ang's (2003) more active motivational component that steps in to engage the cross-cultural experience. This is so because before one could be motivated to engage in a cross-cultural experience, one has to realize that a cross-cultural experience is in the making. Therefore, some kind of deliberate consciousness of that experience is a necessary first step. Also, since the mindfulness component is a deliberate consciousness rather than an inclination to engage in cross-cultural interactions, the mindfulness component does accept the

possibility that an individual could be conscious of cross-cultural situations but have the option to choose to engage or not to engage in a situation, as the individual deems best for himself or herself.

According to Thomas (2006), mindfulness is itself a complex construct that involves a range of qualities:

Being aware of our own assumptions, ideas, and emotions; and of the selective perception, attribution, and categorization that we and others adopt; noticing what is apparent about the other person and tuning in to their assumptions, words, and behavior; using all of the senses in perceiving situations, rather than just relying on, for example, hearing the words that the other person speaks; viewing the situation from several perspectives, that is, with an open mind; attending to the context to help to interpret what is happening; creating new mental maps of other peoples' personality and cultural background to assist us to respond appropriately to them; creating new categories, and re-categorizing others into a more sophisticated category system; seeking out fresh information to confirm or disconfirm the mental maps; using empathy - the ability to mentally put ourselves in the other person's shoes as a means of understanding the situation and their feelings toward it, from the perspective of their cultural background rather than ours. (p. 85)

Thomas and Inkson (2009) contrast mindfulness with “cultural cruise control”, i.e. automatically judging a situation by one’s own cultural standards and values, by projecting one’s own norms for behavior onto others. Thomas and Inkson (2009) advocate breaking out of cultural cruise control by practicing mindfulness, i.e. looking at

the context, such as the economic situation or resources of the person encountered, and carefully considering the culture or subculture that drive their behavior. In cross-cultural interactions, mindfulness means simultaneously paying attention to the external situation, monitoring our own thoughts and feelings, and regulating the knowledge and skills we use (Thomas & Inkson, 2009). To that effect, we need to know our own cultural background, its biases and idiosyncrasies and the way they affect our own perception and behavior.

Clearly, Thomas' (2006) definition of mindfulness reveals its multi-faceted nature – one in which a deliberate consciousness of specific threads in cross-cultural interactions are related back to re-categorizing processes of one's mental map on the one hand, while at the same time, mental models of appropriate cultural behaviors are developed for appropriate interactions on the other. Baer and colleagues (2006, 2008, 2011) share the conceptualization of mindfulness as a multifaceted construct with both state-like and trait-like qualities. Baer (2011) warns that Western psychology literature may not capture accurately the original Buddhist conceptions of mindfulness. Buddhist scholars refer to mindfulness as a practice (e.g., meditation) or process, rather than a trait, involving different stages of awareness (Grossman & Van Dam, 2011). Mindfulness in Western psychology reflects the Buddhist construct, yet definitions of mindfulness vary greatly (Baer, 2011; Grossman & Van Dam, 2011). Nevertheless, an examination of research in the broader social sciences shows a few dominant facets of mindfulness. "Mindfulness involves observing experiences with an attitude of acceptance and loving kindness" (Baer, 2011, p. 245). In mindfulness practice (or meditation), individuals learn to observe and appreciate experiences with curiosity,

experiential openness, acceptance, and without judgment or automatic reactivity (Baer, 2011). According to Levinthal and Rerup (2006), mindfulness has high sensitivity of perception and high flexibility of behavior to respond to diverse, changing stimuli, and involves the conversion of experience into reconfigurations of assumptions, frameworks, and actions. Mindfulness also can be defined as a receptive attention to, and awareness of, present events and experience (Brown, Ryan, & Creswell, 2007; Brown & Ryan, 2003) or as the process of drawing novel distinctions (Langer & Moldoveanu, 2000). This mindfulness process should lead to greater awareness of one's environment, more openness to new information, the creation of new categories for structuring perception, and enhanced awareness of multiple perspectives in problem solving (Langer, 1989; Langer & Moldoveanu, 2000). Mindfulness is, in essence, awareness, and central to the cultivation of mindfulness is a spirit of self-inquiry and self-understanding (Williams & Kabat-Zinn, 2011). Based on Thomas' (2006) multi-faceted mindfulness concept in his CQ model and the broader literature on mindfulness, mindfulness is likely to develop from first, a consciousness of external stimuli and sensitivity of differences between environments, before developing a mental map to effectively navigate in different cultural environments. Therefore, an important requirement of mindfulness is the ability to integrate new cultural knowledge and categories with the old, and to infer similarities and differences (Brown et al., 2007; Brown & Ryan, 2003; Langer & Moldoveanu, 2000), while developing new behavioral routines that will meet the demands of different cultural settings (Levinthal & Rerup, 2006).

Arising from the highly integrated roles of mindfulness, cultural knowledge, and adaptive behaviors in Thomas' (2006) CQ model, an individual with high CQ is therefore likely to demonstrate relationships amongst these three constructs.

Mindfulness: Empathy, Open-Mindedness, and Using all Senses

There is abundant theoretical and empirical research on the nature of mindfulness and its underlying traits (Baer, 2003; Brown et al., 2007; Brown & Ryan, 2003; Bryant & Wildi, 2008; Kabat-Zinn, 2003; Langer, 1989; Langer & Moldoveanu, 2000; Levinthal & Rerup, 2006; Weick & Sutcliffe, 2006; Williams & Kabat-Zinn, 2011). Out of the mindfulness literature, three qualities have been consistently identified as essential facets of mindfulness. These three qualities of mindfulness are: using empathy, using all senses, and viewing situations with an open mind (open-mindedness) or from multiple perspectives (Brown & Ryan, 2003; Langer, 1989; Langer & Moldoveanu, 2000). In addition to examining the concept and underlying qualities of mindfulness from the works of others in this field, the review of the literature also showed these three qualities to be clearly distinguishable along three different domains: internal logic (for empathy), kinetic senses (for using all senses), and type of approach or angle (for perspectives) (Brown & Ryan, 2003; Langer, 1989; Langer & Moldoveanu, 2000). Arising from the literature, this study proposes an expanded Thomas' (2006) CQ model that includes three sub-components (empathy, open-mindedness, and using all senses) in the mindfulness construct (Figure 1). These three facets of mindfulness – empathy, open-mindedness, and using all senses - will be the focus of the examination of mindfulness in the rest of this chapter.

Mindfulness: Empathy

Empathy can be defined as a "...predominantly cognitive attribute that involves understanding experiences, concerns, and perspectives of another person, combined with a capacity to communicate this understanding" Hojat (2009, p. 412). The ability to "understand that other people may not be so different allows us empathy and enlarges our range of responses" (Langer, 1989, p. 71). While Hojat (2009) believes empathy to be a type of cognitive attribute, there are others who have argued that empathy is a mostly emotional phenomenon (Mehrabian & Epstein, 1972), has affective and communication threads, and is connected to social relationships and power inclinations (Serino & Marzano, 2007). A high level of empathy is expected to generate perceived similarity and inclusiveness and to reduce prejudice (Serino & Marzano, 2007). Davis (1980, 1994) treats empathy as including both affective and cognitive components that comprise an interdependent system in which each set of components influences the other. Consistent with Davis' (1980, 1994) approach, marketing scholars have identified two qualities of empathy: cognitive ability to look at things from different perspectives and affective ability to bond with another person at an emotional level (Aggarwal, Castleberry, Ridnour & Shepherd, 2005). In their study of the role of empathy in customer loyalty in U.K. fitness clubs, Marandi, Little, and Sekhon (2006) used five dimensions--emotive, moral, cognitive, behavioral and tangibles--to test respondents' perception of empathy as exhibited by sales staff. These findings showed the importance of both affective and cognitive processes and related behaviors that are at the core of an empathetic approach in interactions with customers. Empathy also was found to strongly correlate with a salesperson's ability to be a good listener and ultimately,

sales success (Aggarwal et al., 2005) with Drollinger, Comer, and Warrington (2006) arguing that listening with empathy towards a counterparts' needs is a higher form of listening and is believed to be more effective in facilitating social interactions. Thus, empathy is likely to be an important lubricant of social interactions with the focus on developing in-depth cognitive and affective understanding of the position of a counterpart during social interactions. More importantly, while there is a cognitive quality to help an individual understand the different rationale and position of the counterpart, it is likely the affective quality that helps an individual feel the emotional attachment of a counterpart and consequently the basis for developing a richer understanding of attachment and appropriateness of response.

Mindfulness: Open-Mindedness

The second facet of mindfulness is open-mindedness. Such a state implies receptivity to new information and willingness to accommodate more than one perspective. Brown and Ryan (2003) point out that mindfulness has been linked to the Openness to Experience personality dimension in the Big Five personality factor scale (Costa & McCrae, 1992). Openness to experience is a trait that describes individuals in terms of their being original, innovative, and their willingness to take risks (Costa & McCrae, 1992). Openness to Experience also refers to individuals' willingness to adjust their attitudes and behaviors once they have been exposed to new ideas or situations (Flynn, 2005). In their history of the Big Five taxonomy, John, Naumann, and Soto (2008) define open-mindedness as "the breadth, depth, originality, and complexity of an individual's mental and experiential life" (2008, p. 120). Arthur & Bennett (1995) include openness to experience as an important quality for expatriates. Leiba-

O'Sullivan (1999) claims that openness to experience--a stable competency that is essential to cross-cultural adjustment-- enables expatriates to make correct attributions about host country nationals' behaviors or to correct mistaken attributions if necessary, and may facilitate adaptive behavior when interacting with minority groups. Flynn (2005) also finds support for the role of openness to experience in mitigating negative racial stereotyping. This openness and willingness to view contexts from multiple perspectives are essential ingredients of mindfulness and a key predictor of innovation (Langer, 1989, p. 139): "changing contexts is only one path to innovation. Creating new categories, exploring multiple perspectives, and focusing on process increase the possibility that a novel approach to a problem will be discovered." This openness to multiple perspectives can be promoted in an organization by imaginative use of outsiders and support for a policy to rotate workers across jobs and careers (Langer, 1989). Ting-Toomey (1999) raised the importance of multiple perspectives when she defined mindfulness as paying attention to the perspectives and interpretive lenses of dissimilar others when viewing an intercultural episode. In this study, the open-mindedness construct refers to a malleable skill that can be developed over time (Langer, 1989). Being open-minded to other possibilities is an important part of mindfulness and is believed to help individuals become aware of their own assumptions, viewpoints, and ethnocentric tendencies. This is especially important in new situations, and is at the core of cognitive and affective readiness to interact effectively with people who are different from us (Ting-Toomey, 1999). Caligiuri, Jacobs, and Farr (2000) defined openness through four theoretical dimensions representing behavioral and attitudinal manifestations of the openness personality trait: attitudes, participation in

cultural activities, past experiences, and comfort with differences. These behavioral manifestations can be developed, and thus are helpful in defining the open-mindedness facet in the mindfulness construct.

Mindfulness: Using all Senses

The third facet of mindfulness is the ability to use all senses in a cross-cultural encounter. Bryant and Wildi (2008) demarcated the use of all senses in mindfulness into two broad categories: external versus an internal mindfulness use of senses. To use senses from an external mindfulness perspective is to use one's abilities (sight, hearing, smell, and touch) in becoming aware of all signals and cues in an external context, noticing extraneous and unusual signs, and paying attention to them. In contrast, internal mindfulness requires the ability to be aware of one's body, emotions, thoughts, and subsequent monitoring of changes in these internal states of existence. The ability to become aware is first internal and cognitive with an intentional nature, but it has to link up with an external awareness through an individual's physical senses before external stimuli could be taken in, interpreted, and integrated for meaning in one's cognitive map. Thus, using all senses has internal as well as external processes. This is consistent with the definition of the "Observing" factor in Baer and colleagues' (2006, 2008) Five Facet Mindfulness Questionnaire: "Observing includes noticing and attending to internal and external experiences, such as sensations, cognitions, emotions, sights, sounds, and smells" (2008, p. 330). Baer and colleagues (2006, 2008) found that a regular meditation practice cultivates several mindfulness skills, and reinforces positive psychological functions, and argue that the observing facet of mindfulness may function differently in individuals with meditation experience.

In contrast to Bryant and Wildi's (2008) two broad categories of sensing, Tams (2008) identified four types of attention that engage our senses: attending to one's doing, attending to one's environment, reflecting upon one's doing, and taking a stance towards one's environment. In the first type of sensing, attending to one's doing, the individual actively evaluates his or her actions based on "self-defined standards and requirements". In the second, attending to one's environment, one learns from external cues that come from those around us, such as colleagues, supervisors, organizational norms. In the third, reflecting upon one's doing, one examines negative feedback and uses it as a learning opportunity. In the fourth, taking a stance towards one's environment, one distances oneself from setbacks and criticism and asserts a personal perspective on one's performance. Thus, when using all senses, not only is the ability to be aware of one's external and internal states important, so is the ability to examine the consequences of one's actions from one's preset standards and sources of feedback. Additionally, the ability to distance oneself from the feedback may be important. Within an organization, this attention to all senses is likely to be seen in organizational members collaborating together to process new information and coming to an agreement on its meaning. According to Maitlis (2005): "...organization members interpret their environment in and through interactions with others, constructing accounts that allow them to comprehend the world and act collectively." Thus, even at the organizational level the sense making process is important, as without it, an organization would lose its ability to provide meaning and ultimately determine responses to any event that has an impact on the organization.

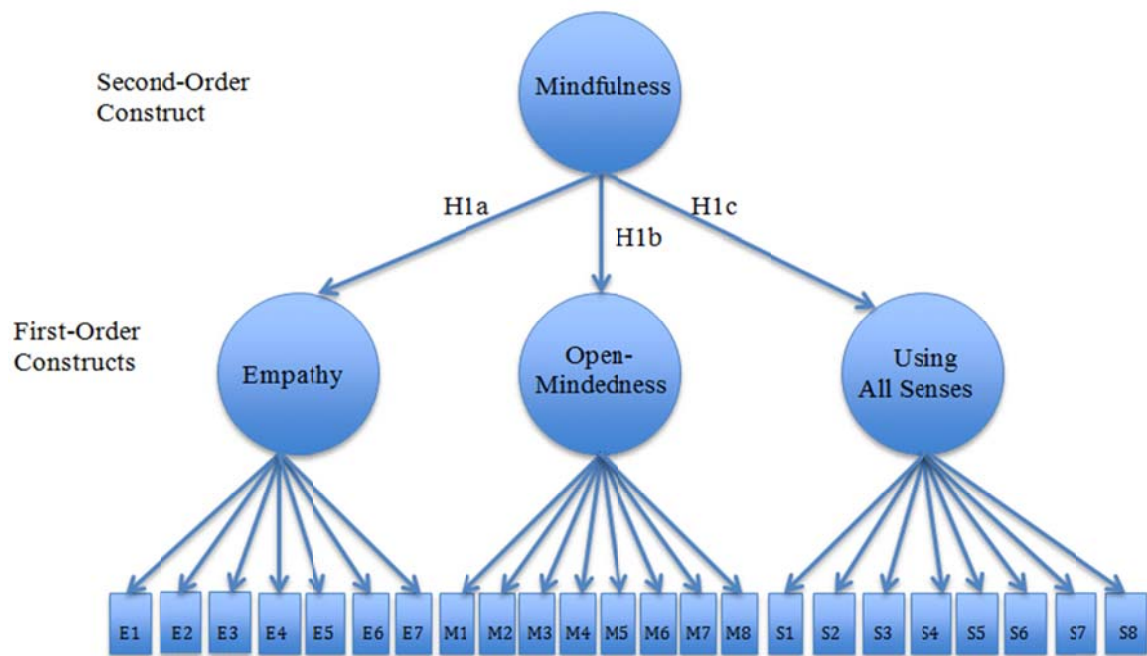


Figure 1- Second-Order Construct of Mindfulness with Proposed Measurement

Based on the key roles played by the qualities of empathy, using all senses, and viewing situations with an open mind in the mindfulness construct, the first hypothesis is presented here:

Hypothesis 1: Mindfulness is a second-order construct measured by: (a) empathy, (b) open-mindedness, and (c) the use of all senses.

The literature review will now examine posited relationships between mindfulness and total mental CQ and behavioral CQ, through the interactions amongst the three mindfulness facets of empathy, open-mindedness, and using all senses.

Mindfulness and Total Mental CQ

Both Thomas' (2006) CQ model and Earley and Ang's (2003) CQ model recognize the importance of mental processes in integrating cross-cultural experiences into one's mental map. According to Earley and Ang's (2003) model, there are both cognitive and metacognitive facets in mental processes. The cognitive elements of CQ include the knowledge of specific cultures' languages, norms, practices, and conventions learned over time through education and experience. The metacognitive facet of CQ focuses on overarching cognitive processes to manage the lower level cognitive elements (Ng et al., 2009). Thomas (2006) did not differentiate between the two levels of mental CQ in his CQ model. One could possibly interpret Earley and Ang's (2003) metacognitive facet as the self-regulating or directing facet over the lower cognitive facet that manages the intake and interpretation of the cultural experience. Regardless of separation of the metacognitive from the lower level cognitive facet, both abilities, first

to manage, and second to process and interpret the encountered cultural interactions, are important. For consistent CQ effectiveness, both cognitive CQ and metacognitive CQ are likely to be highly intertwined because the ability to adapt to new cultural encounters would require mental acumen to sense, manage, and integrate new knowledge and behavioral requirements from new situations --the metacognitive function of CQ. It is not conceivable that anyone who claims to have high CQ, would possess cognitive and behavioral CQ components but without the acumen from metacognitive CQ to manage these components. Any lack of metacognitive ability to manage cognitive and behavioral CQ components will result in inability to initiate sensing of new cultural cues, organizing this new knowledge, integrating them in a revised mental map, and then enacting appropriate behaviors. Thus, it appears difficult to isolate the metacognitive from the cognitive CQ component given their highly intertwined nature. This position is consistent with Thomas' (2006) model where cognitive CQ is deemed to include the metacognitive processes and also positions of other authors where cross-cultural knowledge and management of such knowledge are assumed to be part and parcel of such mental ability without delineating their boundaries in examining cross-cultural behaviors (Aggarwal et al., 2005; Hojat, 2009). Accordingly, this study refers to total mental CQ, a second-order factor, encompassing cognitive CQ and metacognitive CQ, in examining the relationship of CQ mental processes with mindfulness and behavioral CQ.

At the most basic level, total mental CQ revolves around the cognitive ability to absorb culture-specific knowledge, and integrate it within one's mental map of a cultural environment. According to Kayes et al. (2005), the acquisition of cross-cultural

knowledge is primarily a learning process whereby individual experience is translated into organizational knowledge. This ability to absorb new cultural knowledge is seen in a study by Carpenter, Sanders, and Gregersen (2001) who showed that CEOs who had international experiences in their careers and were able to absorb such experiences produced better results than those who did not have such experiences.

In trying to understand the influence of mindfulness on total mental CQ, one has to examine how the three different facets of mindfulness could impact total mental CQ. The first facet of the mindfulness component, empathy, involves the ability to feel and look at things from perspectives of other persons in interactions (Aggarwal et al., 2005). Empathy also involves the ability to mentally process the experience in relation to existing knowledge in the mental map of the individual, thus properly contextualizing external interactions within a meaningful social context. Hojat (2009) believes that empathy has an important cognitive attribute that processes experiences, concerns, and perspectives of others and then enacts appropriate social interactions. By engaging empathy, an individual could take on perspectives and positions of other individuals in social interactions and deeply appreciate these other perspectives. This is different from a superficial understanding of words, but instead should be understood as a keen attention to the spoken, the unspoken, and also the emotive feelings that are attached to the expressions. The ability to absorb the consciously expressed and implied expressions of words and tones presents an empathetic person with a rich array of information on the positions of others in interactions. Clearly, these abilities require much more highly involved mental processes than paying attention only to expressed words. It is therefore not surprising that Aggarwal and colleagues (2005) as well as

Hojat (2009) have stressed the critical relationship between empathy and cognitive processes in order to enlarge one's cultural knowledge, a key aspect of total mental CQ. Without the ability to absorb conscious and implied expressions, an individual would be much less able to appreciate the depth of others' perspectives in interactions, and thus be less able to respond in appropriate ways.

The second facet of mindfulness, open-mindedness, has similar qualities to the personality trait of openness to experience, one of the "Big Five" personality traits. Individuals who are high on openness to experience are intelligent, curious, and broad-minded, seek out and act on new experiences and are expected to be more knowledgeable about other cultures (Ang et al., 2006). This ability should facilitate adjustment to new environments where familiar signals and cues are not present and one has to be especially attentive to the unique signals and cues of the new environment (Mendenhall & Oddou, 1985). Managers with expatriate staffing and management experience considered openness to experience important for expatriate success even though evidence for the effect of openness to experience on expatriate performance is somewhat conflicting (Ones & Viswesvaran, 1999; Templer, 2010). As openness to experience is essentially a willingness to entertain unfamiliar options, it would seem that this trait should have a direct relationship with an individual's motivation to learn about novel aspects of unfamiliar cultures and engage others in culturally diverse and unfamiliar environments. In fact, Ang and colleagues (2006) found support for the positive relationship between openness to experience and metacognitive, cognitive, motivational, and behavioral CQ. Based on their extensive review of the empirical CQ

literature, Ang and colleagues (2011) point to the critical role of openness in intercultural situations.

An important quality of the openness to experience trait that is also present in the CQ open-mindedness facet is the willingness to consider new perspectives, arguments, and options. This willingness should involve viewing contexts from multiple perspectives, which has been shown to lead to innovation (Langer, 1989). Ting-Toomey (1999) also believed a willingness to consider multiple perspectives is an important step towards opening the mind to possibilities in non-familiar settings. Without this willingness to entertain different perspectives from situations that one has become familiar with, it would be difficult to consider new behavioral options that could meet the demands of new cross-cultural situations. Indeed, individuals who are high on open-mindedness are willing to adjust their attitudes and behaviors once they have been exposed to new ideas or situations (Flynn, 2005). The open-mindedness facet is an important key to reorganizing the mental map to accommodate cross-cultural differences knowledge, or CQ cognition. Researchers of mindfulness (Brown & Ryan, 2003; Langer, 1989; Langer & Moldoveanu, 2000) have argued that being open-minded to other perspectives is an important part of mindfulness and cross-cultural researchers also have reinforced the importance of willingness to entertain new perspectives. Open-mindedness is needed to help individuals become aware of their own assumptions, viewpoints, and ethnocentric tendencies, when approaching a new situation, and is key to arriving at a new cognitive map to interpret and determine appropriate cross-cultural interactions (Ting-Toomey, 1999).

The third facet of mindfulness, the use of all senses, involves attending to and reflecting upon one's doing and one's environment (Tams, 2008), actively learning from external cues, and using them as learning opportunities. Using all senses requires an individual to engage all physical abilities, such as sight, hearing, smell, touch, taste, and kinesthetic abilities to interact and examine one's interactions with others (Maitlis, 2005). Using all senses denotes attention and action based on any combination of sensations, cognitions, emotions, sights, sounds, and smells (Baer et al., 2008). One would thus anticipate individuals who use all senses to have much more sensory data in building the necessary cognitive and metacognitive knowledge for effective social interactions. When using all senses, there is likely to be a substantial effort in enabling intake of external cues, interpretation of these cues, self-reflection so as to determine their underlying meaning and implications, and determine the extent these actions may be consistent or inconsistent with past known patterns. Both intentional external sensing and intentional internal processing of a cross-cultural experience are needed for effective cross-cultural interactions. Thus, using all senses not only involves capturing and expressing behaviors that are appropriate in the external cultural environment, but also managing one's consciousness and internal mental map so as to incorporate new information into the map with subsequent remapping to develop the most appropriate mental map for a particular cultural interaction. Therefore, the three facets of mindfulness--empathy, open-mindedness, and using all senses-- have an important influence in developing cross-cultural knowledge base in total mental CQ. Thus the second hypothesis is:

Hypothesis 2: Mindfulness and total mental CQ are positively related.

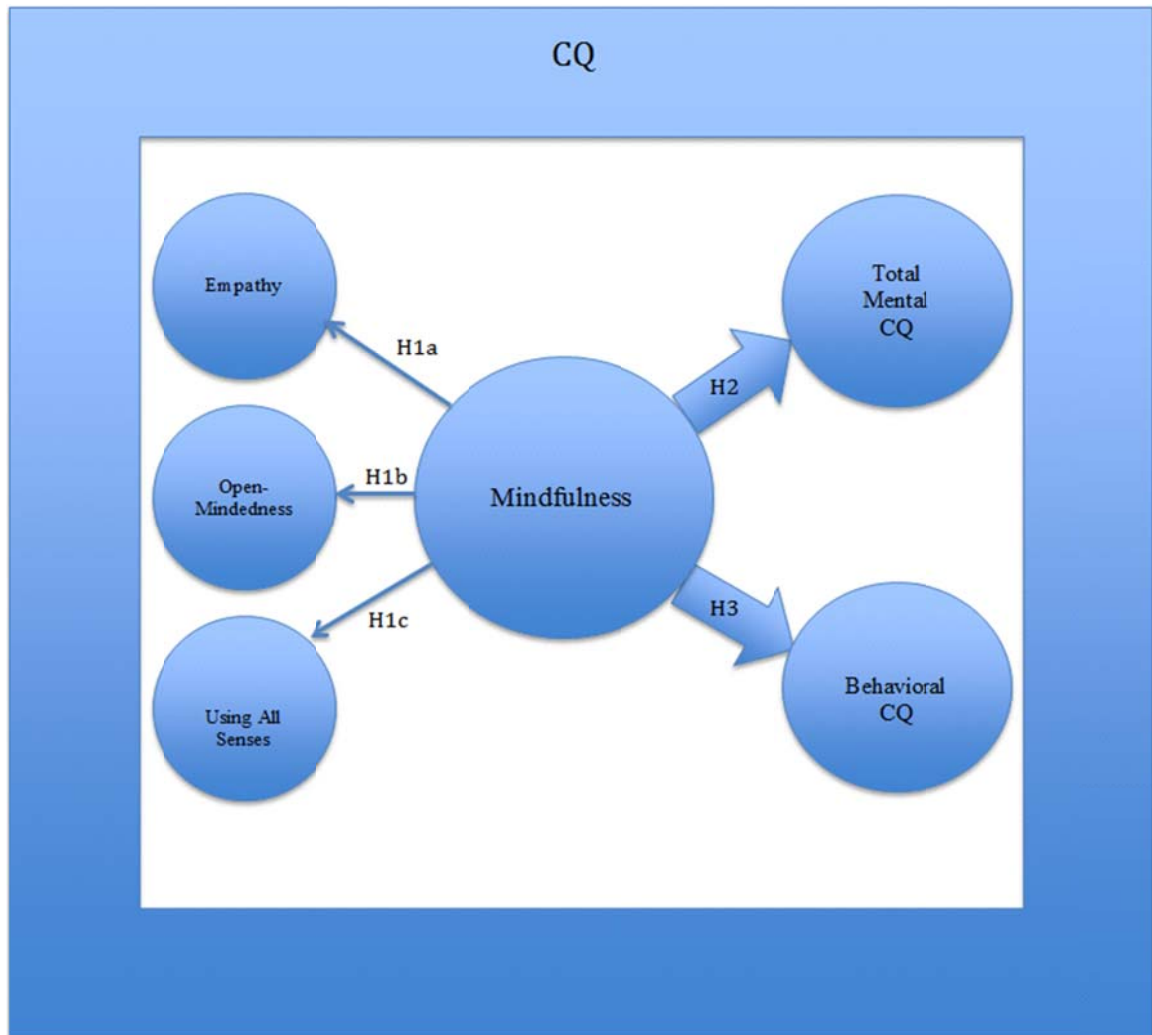


Figure 2. A Conceptualization of Mindfulness and its Role in Cultural Intelligence (CQ)

Mindfulness and Behavioral CQ

Both Earley and Ang's (2003) CQ model and Thomas' (2006) CQ model have a CQ behavioral component. This CQ behavioral component describes an individual's capability to engage in adaptive behaviors. According to Ng & Earley (2006), behavioral CQ entails the ability to display a broad repertoire of verbal and nonverbal behaviors in accordance to a particular context. CQ behaviors could be developed over time and these could include language abilities and socially appropriate behaviors in different cultures. To the extent socially appropriate behaviors could be acquired through training, the acquisition and proper portrayal of these behaviors could affect behavioral CQ (Earley & Ang, 2003; Earley & Peterson, 2004).

In examining how mindfulness may influence behavioral CQ, it is again necessary to look at underlying mindfulness facets of empathy, open-mindedness, and using all senses for direction. According to Hojat (2009), a person with empathy has an innate way of understanding the concerns of others and communicating that understanding. Empathy is often expressed by the ability to relate to and bond with others, to feel others' distress and to demonstrate expressions of care, even if there are differences in perspective with the other person. Such a person with empathy is likely to be able to accommodate the perspective of the other person in words and facial expressions, and exhibit other appropriate behaviors to express that empathy. Serino and Marzano (2007) highlight the important affective and communication behaviors in empathy. These might require comforting words, assurances and expressions that convey willingness to listen and spend time with an individual to appreciate the individual's situation. From a cross-cultural standpoint, the ability to feel the strength

of emotions and logic in the position of others and then put oneself in their shoes is an important empathy process in developing deep cross-cultural understanding of others' positions. This willingness to put oneself in the shoes of the other person provides the opening to first capture an interaction in its entire depth, and then enact an appropriate filter that is based on the position of the other person to interpret the experience. Only when an individual is able to capture and interpret the experience from the other person's perspective is one able to fully integrate the new perspective into one's mindset for further processing and subsequent development of appropriate social behaviors in interactions. Any appropriate interaction in cross-cultural situations is seen as behavioral CQ that has the potential to result in successful cross-cultural encounters.

Related to the mindfulness facet of empathy is the open-mindedness facet, an area that makes one receptive to new ideas, perspectives, arguments, and options. This general willingness to consider unfamiliar input is believed to be an important avenue towards innovation (Langer, 1989). Open-mindedness describes the originality and complexity of an individual's mental and experiential life (John et al., 2008). While empathy is expressed through behaviors that cause others to see one's willingness to put oneself in the shoes of others to appreciate their situations, open-mindedness is a more general receptivity to new and unfamiliar perspectives, perhaps even entertaining multiple perspectives at the same time (Ting-Toomey, 1999). This open-mindedness is seen in behaviors such as not assuming descriptions of similar images to have similar meanings, nor stopping others early in interactions because one has already concluded that the underlying perspectives lead to already known conclusions. Open-mindedness is more likely seen as patience in interaction and questions to tease out details in

interactions. Without this open-mindedness, an individual is less likely to entertain new options and view what one has learned in the past as the only answer to a described situation rather than the possibility of new options to a problem (Brown & Ryan, 2003). Overall, the open-mindedness facet involves a general willingness to entertain all possibilities and thus prepares an individual to use all senses in receiving all types of input as though these were new and have to be carefully considered for unknown implications.

The third mindfulness facet of using all senses in cross-cultural interactions has both internal as well as external processes. The external process involves activities and behaviors that help one to become aware and capture all signals and cues from the external context, an ability that has both behavioral and cognitive consequences (Bryant & Wildi, 2008). The behavioral activities could involve active listening, noticing subtleties in interactions and verbal expressions, and taking time to examine broader patterns in the individual, social, and organizational environment, which could have implications for social interactions. Identifying the need to modify one's mental map and developing a revised mental map in a cross-cultural environment are especially important because it is from the mental map that one enacts new behaviors and interactions for appropriate cultural acceptance. Without this constant internal reevaluation of one's mental map, it would be difficult to help an individual adapt to new and unfamiliar cultural situations. Given these relationships among empathy, open-mindedness, and using all senses and behavioral CQ, mindfulness, the second-order construct, is expected to have an influence on behavioral CQ. Hence, the third hypothesis states:

Hypothesis 3: Mindfulness and behavioral CQ are positively related.

CQ and Culturally Competent Patient-Centered Care

In the U.S. health care sector, an abundant literature examines the concept of cultural competence, which has gained prominence in response to an increasingly multicultural society and the well-documented disparities in the health care status of individuals from diverse ethnic and cultural backgrounds (Campinha-Bacote, 2002; Giger et al., 2007; Joint Commission, 2010). Cultural competence is credited with playing a significant role in increased patient satisfaction, patient safety, and adherence to treatment (Joint Commission, 2010) through improved communication (Schim et al., 2007). Providing culturally competent care is critical for health promotion, disease prevention, and effective interventions (Purnell, 2000), and can shorten recovery time from illness and reduce costs (Leininger, 2007; Leininger & McFarland, 2006; Schim et al., 2007). Consequently, governmental and accrediting agencies as well as professional organizations repeatedly recommend cultural competence as an essential educational tool to redress issues of health disparity (Giger et al., 2007) and call for the integration of cross-cultural education into the training of all current and future health care professionals (Schim et al., 2007). Of note among such mandates are the fifteen enhanced national standards for culturally and linguistically appropriate services (CLAS) in health and health care released by the U.S. Department of Health and Human Services Office of Minority Health (OMH, 2013), and The Joint Commission's new and revised accreditation standards to advance effective communication, cultural competence, and patient- and family-centered care, released in 2010 and in effect since

July 2012 (Joint Commission, 2010).

The Joint Commission defines cultural competence as “the ability of health care providers and health care organizations to understand and respond effectively to the cultural and language needs brought by the patient to the health care encounter” (Joint Commission, 2010). These new and revised Joint Commission standards “are designed to improve the safety and quality of care for all patients and to inspire hospitals to adopt practices promoting better communication and patient engagement” (Joint Commission, 2010). Cultural competence also requires knowledge of one’s own cultural knowledge (Giger et al., 2007) and incorporates self-awareness: “A culturally competent health care provider develops an awareness of his or her existence, sensations, thoughts, and environment without letting these factors have an undue effect on those for whom care is provided” (Purnell, 2000). Cultural competence also has been described as “an iterative process of continuously striving to achieve knowledge, skills, and abilities to effectively work within the cultural context of the client, consumer, or colleague” (Giger, 2007). Continuous learning has been stressed by Tervalon and Murray-Garcia (1998) who warn against the traditional notion of competence as a theoretically finite body of knowledge and propose instead the concept of cultural humility which “incorporates a lifelong commitment to self-evaluation and self-critique, to redressing the power imbalances in the patient-physician dynamic, and to developing mutually beneficial and nonpaternalistic clinical and advocacy partnerships with communities on behalf of individuals and defined populations” (p. 117).

The health care literature counts several models of cultural competence, starting with Leininger’s seminal model of transcultural nursing care (Leininger & McFarland,

2006), Campinha-Bacote (1999, 2002), Purnell (2000), and Schim and colleagues (2007). These models share common elements: a combination of knowledge and skills including cultural knowledge, cultural awareness (Campinha-Bacote, 1999, 2002; Giger et al. 2007; Schim et al., 2007), and cultural skill (Campinha-Bacote, 1999, 2002). Some models also include a motivational element, such as cultural sensitivity (Giger et al., 2007) or cultural desire (Campinha-Bacote, 1999, 2002). The description of some of these elements resembles the facets of CQ, particularly the cognitive and behavioral facets.

The first element of cultural competence in health care is cultural knowledge or the process of learning about different cultural and ethnic groups' health-related beliefs and cultural values, and understanding their worldview (Campinha-Bacote, 2002). Much of the pioneering work of Leininger on transcultural nursing addresses the need to understand other cultures and their influence on care, or culturally-based care (Leininger, 2007; Leininger & McFarland, 2006). Schim and colleagues (2007) stress that beyond traditional demographic categories (e.g., race, ethnicity, gender), culture encompasses a variety of subcultures such as communities of interest (e.g., the elderly, persons with disabilities) and communities with common needs (e.g., diabetes patients, homeless clients). "Each individual, family, and community represents a unique blend of overlapping and intersecting cultural elements in which the whole is greater than the sum of the parts. Understanding the complexities of culture from the perspectives of the providers and the recipients of care is critical because culture pervades all aspects of health care as it does all aspects of life " (Schim et al., 2007, p. 104). Cultural knowledge is often intertwined with cultural awareness, a process of in-depth

exploration of one's own cultural and professional background (Campinha-Bacote, 2002), which refers to an individual health care provider's ability to be aware of one's existence, sensations, thoughts, and environment without letting these factors have an undue influence on the patient (Giger et al., 2007). Schim and colleagues (2007) described cultural awareness as a cognitive construct that presumes the existence of a reality to be contemplated and a corresponding capacity for processing knowledge. Similarly to cognitive CQ, cultural competence implies having general as well as specific cultural information in order to know what questions to ask (Giger et al., 2007). Cultural knowledge and cultural awareness have been the primary focus of cultural diversity training offered in health care agencies and classrooms.

Arising from the important role of awareness and knowledge of different cultural environments in the health care cultural competence requirements, and total mental CQ that has been shown to be at the core of such cultural knowledge development, the following hypothesis is stated here:

Hypothesis 4: Total mental CQ predicts individual nursing practices that promote culturally congruent patient care.

Schim and colleagues (2007) describe cultural sensitivity as an affective or attitudinal construct and point out that “a person's attitude about themselves and others, and their openness to learning along cultural dimensions, are central to cultural sensitivity” (p. 107). Campinha-Bacote (1999, 2002) describes the concept of cultural desire as the provider's motivation to *want* to, rather than to *have* to, engage in the process of seeking cross-cultural encounters and becoming more culturally knowledgeable, aware, and skillful. The continuous process of self-reflection and self-

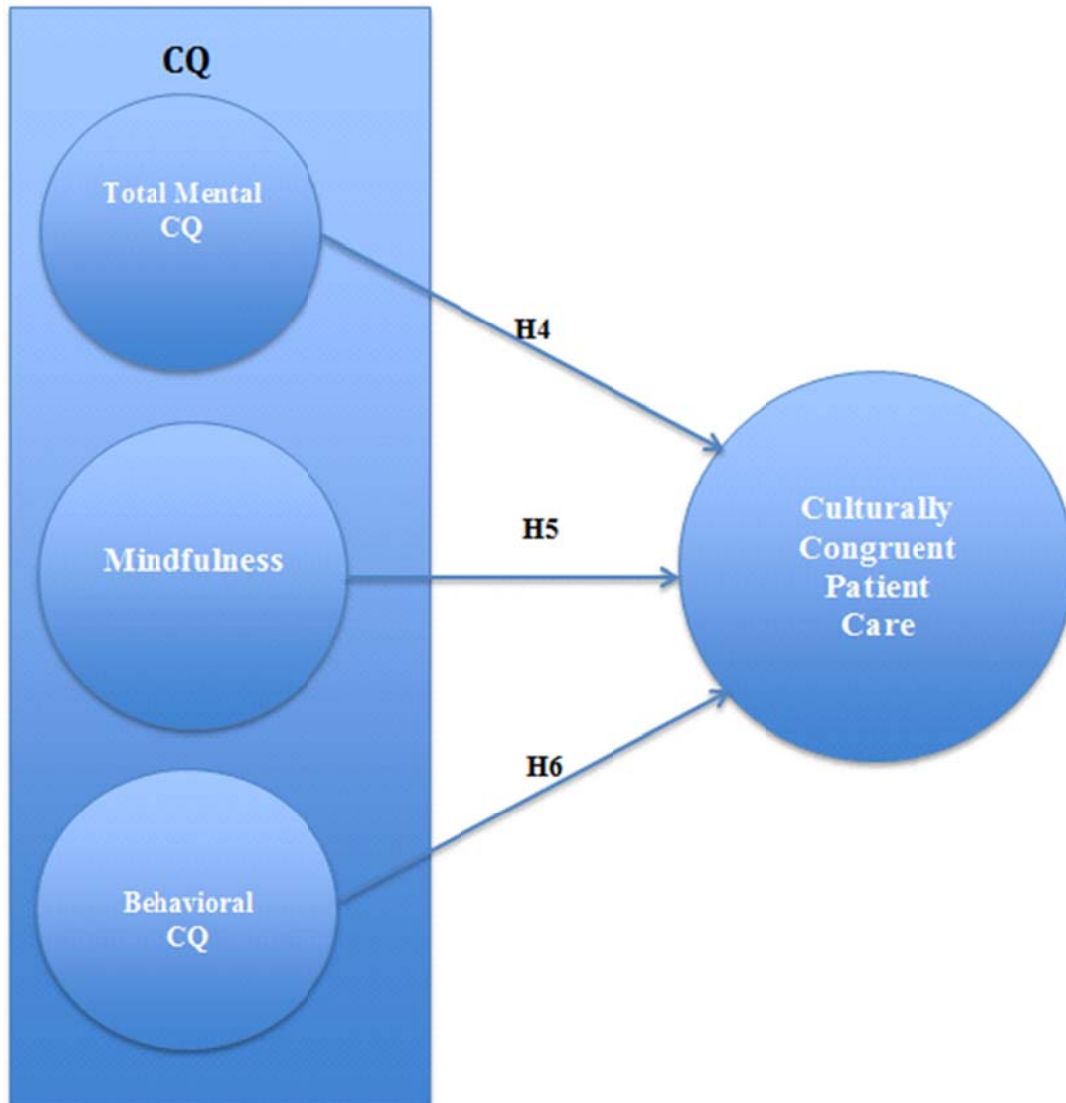


Figure 3. Hypothesized Outcome Model in Health Care: Relationships between Total Mental CQ, Mindfulness, Behavioral CQ, and Culturally Congruent Patient Care

critique as lifelong learner and reflective practitioner, at the core of cultural humility, also resembles certain aspects of mindfulness. Cultural desire denotes a genuine motivation and desire to provide care to culturally diverse clients and “a genuine passion to be open and flexible with others, to accept differences and build on similarities, and to be willing to learn from others as cultural informants” (Campinha-Bacote, 2002, p. 183). While using a different terminology, this definition resembles that of motivational CQ and incorporates the open-mindedness and empathy facets of mindfulness.

Open-mindedness, one of the key facets of mindfulness, has been found to play an important role in interactions with culturally diverse patients. In a study of 163 nursing faculty in New York, New Jersey, and Connecticut, Jaffe-Ruiz (1981) found that faculty members who were more open-minded had more positive attitudes toward culturally different patients than those faculty who were more closed-minded. The health care cultural competence literature clearly recognizes the important role of awareness and attitudinal predisposition towards cultural competence in patient care. This awareness and attitudinal predisposition is rather similar to the mindfulness construct in the CQ literature. If both of them do indeed have relatively close roots, it is likely that mindfulness should also have an important influence on health care cultural competence. Thus, the following hypothesis:

Hypothesis 5: Mindfulness predicts individual nursing practices that promote culturally congruent patient care.

Cultural competence models include cultural skill which connotes the ability to perform a culturally-based physical assessment and determine culturally-specific needs and practices Campinha-Bacote, 1999, 2002; Kim-Godwin, Clarke, & Barton, 2001).

Kim-Godwin and colleagues (2001) stress the importance of speaking clients' native languages and communication in the form of advocacy in community health care. While some aspects of these cultural skills may appear cognitive in nature, Schim and colleagues (2007) refer to psychomotor skills – more similar to the behavioral facet of CQ - that are used in response to cultural diversity, awareness, and sensitivity and that are necessary for the facilitation of cultural congruence between provider and patient.

Similarly to the iterative learning nature of CQ, cultural competence in health care is recognized to be “an iterative process of continuously striving to achieve knowledge, skills, and abilities to effectively work within the cultural context of the client, consumer, or colleague” (Giger et al., 2007, p. 85).

Given the similarities between behavioral CQ and the cultural skill facet of cultural competence in health care, it is anticipated that an individual health care provider with a high level of behavioral CQ will exhibit culturally competent practices in providing care. Hence, the sixth hypothesis:

Hypothesis 6: Behavioral CQ predicts individual nursing practices that promote culturally congruent patient care.

Chapter 3

Research Methodology

Research Design

The study uses a non-experimental research design as it does not involve random assignment of subjects to conditions or groups and it does not involve a discrete treatment: the independent variables (empathy, open-mindedness, and using all senses) are considered pre-existing attributes. Consistent with prior studies that explore antecedents of CQ (Ang et al., 2006, Ang et al. 2007, Moon, 2010), this study uses a multi-stage model since we have several exogenous variables, where no explanation of their impact beyond their mere existence is expected, and whose interrelationships are not scrutinized, and two or more endogenous variables, whose variability is to be explained in the model through their interrelationships and relationship to the dependent variable (Pedhazur & Pedhazur Schmelkin, 1991).

Sample/Participants

The data used in this study was collected from graduate nursing students, nursing faculty, and alumni in a large metropolitan University in the Northeast of the U.S. The choice of this convenience sample provided a homogeneous professional population, i.e. all participants are Registered Nurses, yet they feature very diverse demographics (ethnicity, race, gender, age) and are working for a wide variety of health care

organizations in a highly culturally diverse urban environment. The choice of one homogeneous professional population provides a stronger basis for the potential generalization of the study results. The diverse demographics of the sample and the variety of practice settings help offset the use of a convenience sample. The targeted minimum sample size was 200 following Kline's (2011) recommendation based on the median sample size in surveys of published articles in which structural equation modeling results are reported. This number is based on an earlier review of 72 articles in personality and social psychology journals (Breckler, 1990) as well as a review of 93 articles in management sciences journals (Goldstein, 2006). Another recommended method for calculating sample size using the ratio of cases (N) to the number of model parameters that require statistical estimates (q) with an ideal sample size-to-parameters ratio of 20:1 (Kline, 2011, p. 12) yield a sample size of 140. A total of 215 individuals completed the survey.

Procedure

After obtaining IRB approval (the proposal was deemed "exempt"), the survey was sent to a total of 611 Registered Nurses who belonged to the following groups: graduate nursing students including students enrolled in the Master's of Science – Family Nurse Practitioner program (358), the Master's of Arts – Nursing Education program (29) and the Doctor of Nursing Practice program (54), full-time nursing faculty (28), part-time nursing faculty (116), and alumni of the Doctor of Nursing Practice program (26). All participants were sent an email briefly introducing the study and the researcher and inviting them to participate. Participants were informed that the survey should take approximately ten minutes to complete and that a response was required

within two weeks. The email also informed respondents that as a token of appreciation for their participation in the study, participants who completed every question of the survey would be offered a small electronic gift card (\$10). The email provided a link to the survey developed in Qualtrics, an Internet-based survey system. By clicking on the link, respondents first saw the text of the consent, at the end of which they were prompted to answer: “I have read and agree to the consent” or “I disagree with the consent”. Participants who clicked “I agree” were then able to start the survey by clicking “next”. Participants who clicked “I disagree” received a message thanking them for their time and indicating that their response was recorded, with no further questions. In the consent, participants were informed that their participation in the study is voluntary and that they can withdraw from the study at any time. They also were informed that to protect participant confidentiality, no identifiable individual responses would be reported in the study and that all results would be reported as statistical aggregates. All respondents who completed the survey were sent the \$10 electronic gift card within a day thanking them for their participation. Reminder emails targeted at each group were generated and sent only to those who had not yet responded, extending the deadline until the minimum sample size was reached. The survey was closed seven weeks after the initial launch with 215 completed surveys for an overall response rate of 35 percent. Data was downloaded directly from Qualtrics into SPSS for analysis. Initial statistical analyses were conducted using SPSS (Version 19.0) and structural equation models were developed and tested using AMOS (Version 21.0).

Measures

A combination of several well-established scales used in international business (from the CQ literature) and in psychology (from the mindfulness and personality literature) was used to measure the dependent and independent variables in the construct development model. In the outcome model, in order to measure the dependent variable, a scale was developed with items that are the actual recommendations of the Joint Commission – the primary hospital accreditation body in the U.S. The online survey was first tested as a small pilot with 17 respondents (full-time nursing faculty). Pursuant to feedback from the pilot, some of the survey questions, particularly demographics, were refined for clarity.

Dependent Variable (in construct development model)

Cultural Intelligence

CQ was measured using the complete Cultural Intelligence Scale (CQS) developed by Linn Van Dyne, Soon Ang, and Christine Koh (2008). The CQS is a 20-item, 4-factor instrument with well-established psychometric properties across samples, time, countries, and methods (Ng et al., 2012). The development of the CQS scale started with a review of the literature and interviews of eight executives with extensive global work experience to generate an initial pool of 53 items which were assessed by a non-overlapping panel of three faculty and three international executives with significant cross-cultural expertise, pursuant to which the 40 best items were retained. In a first study using the 40-item scale with 576 undergraduate business students in Singapore, the authors retained the 20 items with the strongest psychometric properties as the CQS: six items for cognitive CQ, four items for metacognitive CQ, five items for motivational

CQ and five items for behavioral CQ. Internal consistency reliability as measured by Cronbach's alpha ranged from .71 to .85 (Van Dyne et al., 2008; Ang et al., 2007). The validity and reliability of the scale were assessed in two additional studies across samples, time, countries, and methods of measurement: both a self-report scale and an observer scale were used. The CQS has been further validated with varied samples including business executives, military leaders (Rockstuhl et al., 2011), and real estate sales agents (Chen et al., 2010). An example of an item for the cognitive CQ subscale is "I know the cultural values and religious beliefs of other cultures". An example of an item for the metacognitive CQ subscale is "I am conscious of the cultural knowledge I apply to cross-cultural interactions". An example of an item for the behavioral CQ subscale is "I use pause and silence differently to suit different cross-cultural situations". An example of an item for the motivational CQ subscale is "I enjoy living in cultures that are unfamiliar to me". Participants are asked to select the response that best describes their capabilities using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Individual CQ facets (Cognitive CQ, Metacognitive CQ, and Behavioral CQ) used in hypotheses 2 and 3 were measured by using the appropriate sub-scales (for each factor or CQ facet) of the CQS scale (Van Dyne et al., 2008).

Independent Variables

Empathy

Empathy was measured using the Empathic Concern subscale of the Interpersonal Reactivity Index (IRI) developed by Mark Davis (1980). The IRI was initially developed with some items adapted from Mehrabian & Epstein's emotional

empathy scale and Stotland's Fantasy-Empathy scale as well as new items designed to measure cognitive and emotional aspects of empathy (Davis, 1980). The IRI features a multidimensional measure of dispositional empathy that taps four different aspects of empathy (both affective and cognitive) with four 7-item scales. The empathic concern subscale measures respondents' feelings of warmth, compassion, and concern for others. An example of an item from the empathic concern subscale is "when I see someone being taken advantage of, I feel kind of protective toward them". Participants are asked to rate all items on a 5-point Likert scale ranging from 0 (does not describe me well) to 4 (describes me well). In a variety of studies, the IRI has shown acceptable internal and test-retest reliability as measured by Cronbach's alpha ranging from .70 to .78; the empathic concern subscale had internal reliability of .72 for males (n=579) and .70 for females (n=582) in Davis (1980, 1983) using undergraduate students in psychology and .75 (n=300) in Hall, Davis & Connelly (2000) using doctoral-level psychologists employed in academia, hospitals, schools, industry, and private practice.

Open-mindedness

Open-mindedness was measured using one of the subscales (Participation in Cultural Activities) of the Attitudinal and Behavioral Openness Scale (ABOS) (Caligiuri et al., 2000). The ABOS measures the personality construct of openness with behavioral and attitudinal indicators under the premise that certain behaviors that individuals exhibit and certain beliefs that they hold indicate the presence of openness as an underlying personality trait. Caligiuri and colleagues (2000) developed the ABOS items based on interviews with successful expatriates and observations of employees in work situations requiring openness. The items were written to measure four theoretical

dimensions of openness: attitudes, participation in cultural activities, past experiences, and comfort with differences. The Participation in Cultural Activities subscale provides a behavioral assessment of one's intellectual curiosity for diversity in his or her experiences with eight items (Caligiuri et al. 2000). An example of an item from the ABOS subscale Participation in Cultural Activities is: "When I am in my home country, I eat at a variety of ethnic restaurants". Participants are asked to rate all items on a 5-point Likert scale ranging from 1 (never) to 5 (frequently). The overall ABOS has good psychometrics and in particular, good reliability as measured by Cronbach's alpha (.84, $n=482$). The ABOS was tested across three different samples ($n_1=257$, $n_2=116$, $n_3=482$) of psychology and management students (Caligiuri et al. 2000).

Using all senses

Using all senses was measured using the Observe factor of the Five Facet Mindfulness Questionnaire (FFMQ) developed by Ruth Baer and colleagues (2006). The FFMQ was derived at by using five existing self-report questionnaires assessing mindfulness: the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003), the Freiburg Mindfulness Inventory (FMI; Buchheld, Grossman, & Walach, 2001), the Kentucky Inventory of Mindfulness Skills (KIMS; Baer, Smith, & Allen, 2004), the Cognitive and Affective Mindfulness Scale (CAMS; Feldman, Hayes, Kumar, Greeson, & Laurenceau 2007), and the Mindfulness Questionnaire (MQ; Chadwick, Hember, Mead, Lilley, & Dagnan, 2005). The Observe factor of the FFMQ measures the ability to notice or attend to internal experiences, such as sensations, cognitions, emotions, sights, sounds, and smells with 8 items. An example of an item from the Observe factor is "I notice visual elements in art or nature, such as colors, shapes, textures, or patterns

of light and shadow”. Participants are asked to answer using a 5-point Likert scale ranging from 1 (never or rarely true) to 5 (very often or always true). The FFMQ has good internal consistency as measured by Cronbach’s alpha ranging from .75 to .91, and .83 for the Observe factor (n=613) (Baer et al. 2006, 2008). The validity of the FFMQ was further established with samples of undergraduate psychology students, faculty from various disciplines, staff, and adults from the general population (Baer et al., 2008).

Dependent Variable (in outcome model)

Culturally congruent patient care

In order to measure culturally congruent patient care, a scale was developed using statements included in the recommendations issued by the Joint Commission to help hospitals comply with the new and revised standards to advance effective communication, cultural competence, and patient- and family-centered care (Joint Commission, 2010).

These recommendations were developed by an expert advisory panel of twenty-six members including physicians, nurses, academics, ethicists, medical directors, hospital administrators, health insurance administrators, linguists, and forty-nine reviewers, pursuant to a decade of research and public policy development. The use of the very recommendations of the major accrediting agency in health care, developed by experts in the field, establish content validity of the outcome measure. The recommendations address patients’ needs in the hospital from admission, to assessment, treatment, discharge and transfer, as well as end-of-life care, which directly concern individual health care providers, and also address organizational readiness. Only the ten

recommendations that pertain to cultural competence at the individual level were retained for this study (see Table 2 for statements selection). An example of an individual level recommendation from the Joint Commission Roadmap is: "Identify the patient's preferred language for discussing health care". In order to identify and measure specific behaviors, each item (recommendation) was preceded by: "In my clinical practice, I ____" and respondents were instructed to read each statement and select the response that best describes their behavior as a Registered Nurse using a 7-point Likert scale ranging from 1 (never) to 7 (always).

Demographic and Other Control Variables

Uncontrolled confounding variables are one of the major threats to validity in non-experimental research (Pedhazur & Pedhazur Schmelkin, 1991). In order to address this threat, the survey included several demographic questions such as: age (years), gender (male, female), ethnicity (Non-Hispanic, Hispanic), race (American Indian or Alaska Native, Asian, Black/African American, Native Hawaiian or Pacific Islander, White, More than One Race, Unknown), education (Highest degree earned: Baccalaureate, Master's, Doctorate/Professional), first nursing credential (Diploma in Nursing, Associate's Degree in Nursing, Baccalaureate Degree in Nursing, Generic Master's Degree in Nursing), professional experience as a Registered Nurse (years of experience), type of practice setting (In-Patient/Acute Care, Out-Patient/Primary Care/Specialty, Home Care, Other), and socio-economic background (Upper Income, Middle Income, Low Income). Race and ethnicity have not been used in prior CQ studies, yet are typically included in U.S. higher education and health professions research studies as a measure of population diversity. Consistent with prior CQ research

[Table 2]

[Table 2]

[Table 2]

(Ang et al., 2007), this study included cross-cultural experience (born or lived in another country) as a possible control variable. Consistent with cultural competence research in health care, respondents were asked about the frequency of their interaction with patients of a different race or ethnicity (Never, Rarely, Sometimes, Often, Frequently).

Analysis

Prior to testing the hypotheses, exploratory factor analysis was used to examine the factor structure of Mindfulness and culturally congruent patient care. Confirmatory factor analysis was then used to assess the convergent validity and discriminant validity of the Mindfulness measurement model. Discriminant validity was assessed by examining the inter-correlations amongst empathy, open-mindedness, using all senses, and the three facets of CQ in the model: Total mental CQ (cognitive CQ and metacognitive CQ), and behavioral CQ. The internal consistency of each subscale was assessed by measuring Cronbach's alpha for each subscale used in the study (cognitive CQ, metacognitive CQ, behavioral CQ, IRI Empathic concern, BFI Openness, FFMQ Observe, and Culturally congruent patient care).

The hypotheses were tested using structural equation modeling (SEM) in AMOS (Version 21.0). SEM allows testing of hypotheses simultaneously (Kline, 2011). A first measurement model (Figure 4) was developed to confirm the 3-factor structure of mindfulness (empathy, open-mindedness, using all senses). The model was further developed to test the relationship between the first-order constructs of empathy, open-mindedness, and using all senses and the second-order construct of mindfulness (testing Hypotheses 1a, 1b, and 1c), as well as the relationships between the second-order

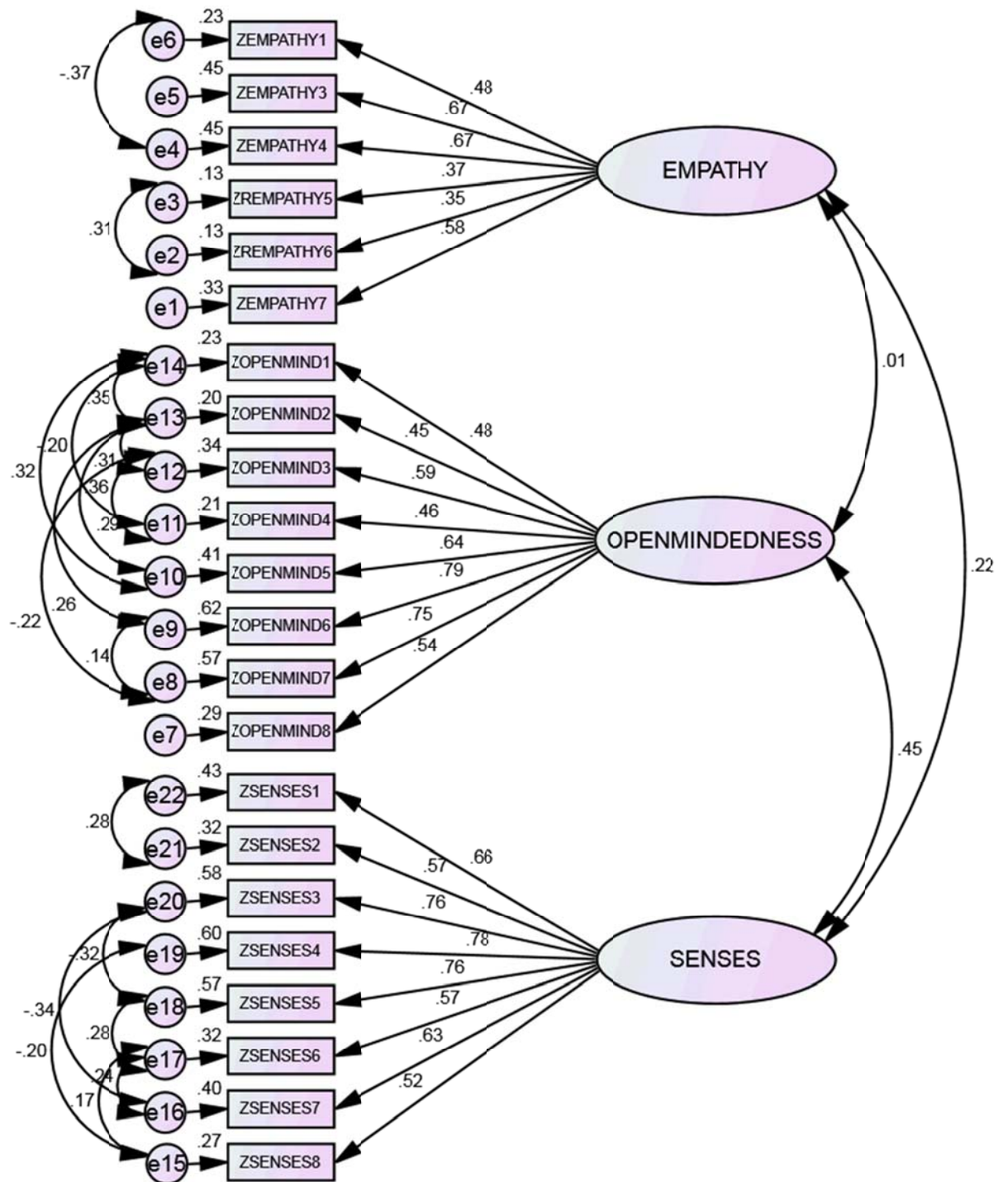


Figure 4. CFA of Mindfulness Model
 Chi-square (df 188) = 249.912, CFI = .952, GFI = .895, RMSEA = .043

construct of mindfulness and the second-order construct of Total mental CQ (cognitive CQ and metacognitive CQ) (Hypothesis 2) and between mindfulness and behavioral CQ (Hypothesis 3). Finally, the SEM model was further expanded to test for the relationship from Total mental CQ (cognitive CQ and metacognitive CQ), mindfulness, and behavioral CQ to culturally congruent patient care, thus testing hypotheses 4, 5, and 6 (Figure 5). The impact of control variables was tested in this final model, so that these possible external influences on the model could be accounted for in the design.

No single variable had more than 5% of missing values and missing observations were random. Missing data for all multi-item scales were excluded using Listwise deletion, i.e. cases with missing responses on any variable are excluded from all analyses, thus the effective sample size includes only cases with complete records. An advantage of Listwise deletion is that all analyses are conducted with the same number of cases (Kline, 2011). For the SEM models in AMOS, all cases with any missing data were excluded from model computations, hence reducing the sample size to 177.

[Figure 5]

Chapter 4

Results

Sample Demographics

The purpose of this study was to explore the role of mindfulness in cultural intelligence and its potential impact on culturally congruent patient care. A total of 215 Registered Nurses participated in this study. Table 3 displays the frequencies for the sample.

The majority (93%) of respondents were female, and the average age was 42 years old (range: 22 to 68). Respondents comprised diverse ethnic and racial groups: White (66.2%), Black or African American (15.2%), Asian (9%), More Than One Race (6.2%), Hispanic or Latino (5.6%). The sample featured a variety of international backgrounds: 26.8% were born in another country and 37.7% lived in another country. For those who lived in another country, the average number of years lived abroad was 12.49 (range: 1-35) and the average number of years worked abroad was 3.69 (range: 0-25). The sample reflected a variety of roles: graduate nursing students (68.4%), nursing faculty (28.8%), and alumni (2.8%) and educational backgrounds: 44.4% were educated at the Baccalaureate level, 38.1% at the Master's level, and 17.7% at the doctoral level; the first credential in nursing was a Baccalaureate for the majority (59.2%) of respondents, followed by Associate (26.8%), Diploma (10.3%), and Generic Master's

Table 3: Frequency Distribution of Sample

	n	%
Gender		
Male	15	7.0
Female	200	93.0
Ethnicity		
Hispanic or Latino	12	5.6
Non Hispanic or Latino	201	94.4
Race		
Asian	19	9.0
Black or African American	32	15.2
Native Hawaiian or Other Pacific Islander	2	1.0
White	139	66.2
More Than One Race	13	6.2
Unknown	5	2.4
Degree (Highest Degree Earned)		
Baccalaureate	95	44.2
Master's	82	38.1
Doctorate	38	17.7
First Nursing Credential		
Diploma in Nursing	22	10.3
Associate's Degree in Nursing	57	26.8
Baccalaureate Degree in Nursing	126	59.2
Generic Master's Degree in Nursing	8	3.8
Practice Setting (*):		
In-Patient/Acute Care	137	54.4
Out-Patient, Primary Care or Specialty	58	23.0
Home Care	21	8.3
Other	36	14.3
(*) Respondents could indicate more than one practice setting		

Born in another country		
Yes	57	26.8
No	156	73.2
Lived in another country		
Yes	81	37.7
No	134	62.3
Interact with Patient of Different Race/Ethnicity		
Never	0	0.0
Rarely	0	0.0
Sometimes	17	8.0
Often	55	25.9
Frequently	140	66.0
Socio-Economic Background		
Upper Income	17	8.0
Middle Income	149	70.3
Low Income	46	21.7

	<u>N</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Mean</u>	<u>S D</u>
Age	209	22	68	42.09	12.395
First Nursing Degree Graduation Year	211	1965	2012	1996.27	12.705
Number of Years of Experience as RN	211	1	50	15.35	12.82

(3.8%), received between 1965 and 2012. Years of experience as a Registered Nurse ranged between 1 and 50. The majority of respondents practiced in Acute Care setting (n=137), followed by Primary Care (n=58), Other (n=36), and Home Care (n=21). Respondents reported interacting with a patient from a different race or ethnicity frequently (66%), often (25.9%), or sometimes (8%). With respect to socio-economic background, 70.3% of respondents classified their family growing up as middle income, 21.7% low income, and 8% upper income.

Scale Development

Mindfulness

A reliability analysis of each subscale used to measure the three latent constructs of empathy, open-mindedness, and using all senses, was conducted in SPSS and confirmed the reliability of the Open-mindedness subscale (Cronbach's Alpha Based on Standardized Items = .832, N = 207), the Senses subscale (Cronbach's Alpha = .861, N = 212), and the Empathy subscale (without REMPATHY2) (Cronbach's Alpha = .673, N = 214) using Listwise deletion. An exploratory factor analysis (EFA) of the 23 items from the Empathy, Open-mindedness, and Senses subscales was conducted in SPSS to determine the factor structure of the mindfulness scale. Overall Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was .793. The EFA supported the three-factor structure with the three factors explaining a cumulative 45.9% of total variance. Pursuant to several different permutations, the clearest factor structure was obtained using Principal Component Analysis for the extraction method and Oblimin with Kaiser Normalization for the rotation method. Note that three items from the Empathy subscale

were reverse-coded (REMPATHY2, REMPATHY5, REMPATHY6). The EFA yielded a clear three-factor structure with factor loadings ranging from approximately .5 to .8 except for REMPATHY2 which had a factor loading of only .354 on Component 3 (and .066 and .005 on Component 1 and Component 2, respectively), and was subsequently removed from the final scale. Missing data was excluded Listwise (See Table 2). A reliability analysis of the 22-item Mindfulness scale was conducted in SPSS and confirmed good internal consistency of the Mindfulness scale (Cronbach's Alpha Based on Standardized Items = .823, N = 203).

A Confirmatory Factor Analysis (CFA) model using the 22 items was then developed in AMOS using Maximum Likelihood (ML) estimation; all factor loadings were statistically significant: standardized factor loadings for items in the three subscales (.35 to .79) were significantly different from zero ($p < .01$) and all items loaded significantly on their hypothesized constructs (Empathy, Open-mindedness, and Using all senses), thus demonstrating convergent validity of the three-factor model of mindfulness. The inter-correlations between the three factors were moderate (.007 to .447), supporting the discriminant validity of the three-factor structure. After allowing all covariances between error terms belonging to items loading on the same factor, as suggested by the modification indices, the model was refined and model fit improved: Chi-Square (df 188) = 249.912, Comparative Fit Index (CFI) = .952, and Root Mean Square Error of Approximation (RMSEA) = .043, thus demonstrating good fit of the three-factor mindfulness model to the data (See Figure 4). Multiple fit indices should be used to assess model fit, with at least an absolute fit index and a comparative fit index (Hair et al., 2010). The Bentler Comparative Fit Index (CFI) is an incremental fit index

Table 4
Mindfulness Scale: Factor Structure Matrix

	Component		
	1	2	3
SENSES4	.807	-.227	.019
SENSES5	.787	-.227	.164
SENSES6	.748	-.182	.047
SENSES3	.724	-.201	.010
SENSES1	.680	-.256	.058
SENSES2	.656	-.205	.113
SENSES7	.636	-.411	.202
SENSES8	.614	-.025	.241
OPENMIND6	.250	-.806	-.058
OPENMIND2	.098	-.729	.021
OPENMIND5	.214	-.728	-.098
OPENMIND7	.299	-.718	-.051
OPENMIND3	.198	-.718	.119
OPENMIND1	.248	-.618	.055
OPENMIND8	.132	-.552	-.208
OPENMIND4	.142	-.540	.171
EMPATHY3	.146	-.043	.735
EMPATHY4	.108	.098	.649
REMPATHY6	.002	-.108	.635
REMPATHY5	-.043	.133	.584
EMPATHY7	.090	-.013	.560
EMPATHY1	.257	-.122	.499
REMPATHY2	.066	.005	.354

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

that measures the relative improvement in the fit of the hypothesized model compared to a baseline model, typically the independence model. A value of .95 or higher is generally considered an indication of “good fit”, though more complex models with a large number of variables should not be held to the same strict levels (Hair et al., 2010). The RMSEA is an approximate fit index, scaled as a badness-of-fit index where a value of zero indicates the best fit; a value of .05 or less for the RMSEA is traditionally considered an indication of “good fit” (Kline, 2011).

Culturally Congruent Patient Care (PATCARE)

An exploratory factor analysis of the ten items of the Culturally Congruent Patient Care (PATCARE) scale was conducted in SPSS to determine the factor structure. Overall Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was .913. Using several different combinations of extraction and rotation methods, the ten items loaded on one single factor, explaining 68.4% of total variance. Using the Generalized Least Squares extraction method, based on Eigenvalues greater than 1, all ten items loaded on one factor with factor loadings ranging from .707 to .864, supporting convergent validity of the one-factor PATCARE scale. Missing data was excluded Listwise, for a sample of 211 (See Table 5). A reliability analysis of the 10-item PATCARE scale was conducted in SPSS and confirmed the strong internal consistency of the PATCARE Scale (Cronbach’s Alpha Based on Standardized Items = .948, N = 211).

Table 5

PATCARE Scale: Factor Matrix^a

	Factor
	1
PATCARE6	.864
PATCARE9	.855
PATCARE4	.851
PATCARE3	.848
PATCARE10	.833
PATCARE8	.832
PATCARE7	.818
PATCARE5	.766
PATCARE2	.757
PATCARE1	.707

Extraction Method: Generalized Least Squares.

a. 1 factor extracted (Eigenvalues>1). 5 iterations required.

Hypotheses Testing: Structural Equation Model

Building on the CFA Model of Mindfulness (Figure 4), a Structural Equation Model (SEM) was developed in AMOS to test the hypotheses. Second-order factors of mindfulness (MFULNESS) that was composed of first-order factors of Using all Senses, Open-mindedness, and Empathy, and Total Mental CQ (TOTCOG) that was composed of Meta-cognitive CQ and Cognitive CQ were created for the model. Both Mindfulness and Total Mental CQ were allowed to correlate with Behavioral CQ (BEHAVCQ). Subsequently, the paths from Mindfulness, Total Mental CQ, and Behavioral CQ were allowed to be related to PATCARE. Several different control variables were tested in the SEM model for their possible effect on PATCARE, including gender, age, race, ethnicity, highest degree, first nursing credential, number of years of experience as a nurse, born abroad, lived abroad, and socio-economic background. Among these possible control variables, only gender, age, and interaction with a patient of different race or ethnicity had a significant effect. Based on the literature and the control variable that provided the best model fit, interaction with a patient of different race or ethnicity (DIFFPATIENT) was the only control retained in the final model. The final SEM model that provided the best fit to the data (CFI = .907, RMSEA = .052, Chi-square (df 1038) = 1532.601) is presented in Figure 5. A standardized data set with no missing data (n = 177) was used to run the final model. The fit statistics for this final model are adequate considering the large number of variables included in the model and the sample size. Thus, standardized parameter estimates from this final model were used for hypothesis testing and are reported below.

Table 6. Means, Standard Deviations, Scale Reliabilities and Raw Correlations

	Mean	SD	1	2	3	4	5
1. Mindfulness (MFULNESS)	3.181	0.452	(.823)				
2. Total Mental CQ (TOTCOG)	4.804	0.943	.356**	(.903)			
3. Behavioral CQ (BEHAVCQ)	5.091	1.148	.212*	.565**	(.901)		
4. Culturally Congruent Patient Care (PATCARE)	6.247	0.784	.292**	.212*	.344**	(.948)	
5. Interaction with Patient of Different Race or Ethnicity (DIFFPATIENT)	4.570	0.646	.064	.018	.121	.217*	1

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

DIFFPATIENT is coded as 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Frequently
Listwise N = 177; Cronbach's alpha is in parentheses on the diagonal

Descriptive statistics, including coefficient alpha and correlations among the variables used in the model are presented in Table 6. The reliability (.823 to .948) of all multi-item scales as measured by Cronbach's alpha all exceed 0.80, thus demonstrating good internal consistency. None of the correlations among Mindfulness, Behavioral CQ, Total Mental CQ and PATCARE exceed 0.7, the highest being between Behavioral CQ and Total Mental CQ (.702), thus supporting discriminant validity of the constructs.

Hypothesis 1 states that Mindfulness is a second-order construct measured by (a) empathy, (b) open-mindedness, and (c) using all senses. The paths from MFULNESS to EMPATH (.47), MFULNESS to OPENMIN (.64), and MFULNESS to SENSE (.58) were all significant ($p < .01$), therefore Hypotheses 1(a), 1(b), and 1(c) are supported.

Hypothesis 2 states that Mindfulness and Total Mental CQ are positively related. The covariance between MFULNESS and TOTCOG (.36) is significant ($p < .01$), hence the second hypothesis is supported.

Hypothesis 3 states that Mindfulness and Behavioral CQ are positively related. The covariance between MFULNESS and BEHAVCQ (.30) is significant ($p < .05$), thus Hypothesis 3 is supported.

Hypothesis 4 states that Total Mental CQ predicts individual nursing practices that promote culturally congruent patient care. The regression weight between TOTCOG and PATCARE was not significant and was eliminated in the final SEM model. Consequently, Hypothesis 4 is not supported.

Hypothesis 5 states that Mindfulness predicts individual nursing practices that promote culturally congruent patient care. The regression weight between MFULNESS and PATCARE (.37) is significant ($p < .05$), therefore Hypothesis 5 is supported.

Hypothesis 6 states that Behavioral CQ predicts individual nursing practices that promote culturally congruent patient care. The regression weight between BEHAVCQ and PATCARE (.21) is significant ($p < .05$), thus Hypothesis 6 is supported.

Chapter 5

Discussion

The purpose of this study was to explore the role of mindfulness in cultural intelligence and its impact on culturally congruent patient care. The study was conducted with 215 registered nurses working in a variety of health care settings in the New York metropolitan area. The choice of a new field, health care, for CQ research, determined the choice of outcome - culturally congruent patient care – an important performance measure in health care, and the choice of participants – nurses – who play a direct and paramount role in the delivery of patient care.

This chapter provides a discussion of findings, contributions to theory and practice, limitations, and future research directions.

Summary of Findings

The study results support the presence of three essential and distinct facets of mindfulness: empathy, open-mindedness, and using all senses, as illustrated by Hypotheses 1a, 1b, and 1c. This finding is consistent with the mindfulness literature that recognizes the multi-faceted nature of the mindfulness construct and the distinctiveness of the three facets (Baer, 2003; Brown & Ryan, 2003; Langer, 1989; Langer & Moldoveanu, 2000). As discussed in Chapter 2, the mindfulness literature delineates

these three facets along three separate domains: internal logic for empathy, type of approach or angle for open-mindedness, and kinetic senses for using all senses. Psychology scholars offer different interpretations on the nature of empathy, ranging from a predominantly cognitive attribute (Hojat, 2009) to a mostly emotional phenomenon (Mehrabian & Epstein, 1972), and combinations of both cognitive and affective features that influence one another in an interdependent system (Davis, 1980). The management literature recognizes the importance of both cognitive and affective processes at the core of empathy in business interactions with clients and other staff (Aggarwal et al., 2005; Drollinger et al., 2006; Marandi et al., 2006). This manifestation of empathy through a combination of cognitive and affective processes is all the more important among health care professionals. Nurses in this study who scored high on empathy were likely to display both cognitive qualities that helped them understand the rationale and position of their patients, as well as affective qualities that allowed them to feel the emotional attachment of their patients, put themselves in their patients' shoes, and develop appropriate responses. Open-mindedness draws on the openness to experience personality trait, that describes originality and innovation, and denotes the ability and desire to consider multiple perspectives, an essential quality of mindfulness. In this study, the open-mindedness construct is treated as a skill that can be developed (Langer, 1989) and that allows individuals to develop awareness of their own assumptions, viewpoints, and ethnocentric tendencies when viewing the perspectives and interpretive lenses of others from different cultures. Open-mindedness manifests itself through attitudes, comfort with differences, past experiences, and participation in cultural activities (Caligiuri et al., 2000). The third facet of mindfulness, using all

senses, features both internal as well as external processes (Bryant & Wildi, 2008). The internal use of all senses denotes the ability to be aware of one's body, emotions, thoughts, and monitor changes in these internal states, whereas the external use of all senses refers to the ability to use one's senses (sight, hearing, smell, and touch) to notice signals and cues, interpret them, and integrate them into one's mental map. Both internal and external components of using all senses are essential components of mindfulness as observed among nurses in their interactions with culturally diverse patients. The ability to monitor their emotions while noticing all relevant cues from the patient plays an important part in mindfulness and in the patient-provider encounter, including physical assessment.

The study results also support the key role played by mindfulness in cultural intelligence, as previously theorized by Thomas (2006). The data indicate a strong positive interaction between mindfulness and total mental CQ (Hypothesis 2). This finding is not surprising given the impact that mindfulness subconstructs of empathy, open-mindedness, and using all senses have on uncovering cross-cultural differences. Empathy has an important cognitive component that processes the perspectives of others as expressed by conscious and implied expressions, and allows the enactment of appropriate interactions (Hojat, 2009). Empathy and cognitive processes are intertwined in the acquisition of cross-cultural knowledge (Aggarwal et al., 2005; Hojat, 2009). Indeed, empathy in CQ mindfulness involves the ability to mentally process a cross-cultural experience, and relate it to one's mental repertoire, thus contextualizing these experiences. The ability to capture the nuances of explicit and implicit communication in an intercultural interaction requires and demonstrates a deep appreciation of others'

perspectives and thus denotes a high level of cognitive and metacognitive skills (or total mental CQ). Open-mindedness is key to receiving new knowledge and thus to accommodate cross-cultural knowledge. Indeed, open-mindedness allows individuals to be aware of their own viewpoints and to consider multiple perspectives (Brown & Ryan, 2003; Langer, 1989; Langer & Moldaveanu, 2000), and thus enables a re-organization of one's cognitive map to interpret and determine appropriate cross-cultural knowledge (Ting-Toomey, 1999). Using all senses involves not only capturing behaviors that are culturally different, including sensations, cognitions, emotions, sights, sounds, and smells (Baer et al., 2008), but also provides input into one's mental map in developing the most appropriate mental picture for each particular cross-cultural interaction. This influence of using all senses on cognitive processes is illustrated by the learning that results from engaging all physical and kinesthetic abilities to interact with others and reflect on these interactions (Maitlis, 2005). In the context of interactions between nurse and patient, the strong relationship between mindfulness and total mental CQ evidenced by the study results suggest that the use of mindfulness may help nurses understand their patients' circumstances when immigrating, their relationship to the health care system, and the role of family members in health care decisions.

The structural equation model also reveals a strong positive interaction between mindfulness and behavioral CQ (Hypothesis 3). This is not surprising given the influences of each of the three facets of mindfulness previously identified in the psychology literature. Indeed, this finding is consistent with Serino and Marzano (2007) who found that empathy translates into affective and communication behaviors such as listening intently, putting oneself in the shoes of the other person to fully appreciate their

perspective, and subsequently developing and expressing appropriate behaviors. Empathy is often displayed by communicating a deep understanding and concern for others' feelings, an ability to bond with others even when their perspectives differ, and demonstrate expressions of care. Open-mindedness allows an individual to consider all possible options to a problem, beyond the solutions based on what has been learned in the past (Brown & Ryan, 2003). Open-mindedness manifests itself in patient interactions (the context of this study) by listening carefully without interrupting and asking detailed questions, denoting a general receptivity to new, possibly unfamiliar, and multiple perspectives (Ting-Toomey, 1999). The behaviors associated with open-mindedness also include not assuming or jumping to fast conclusions. This finding also is consistent with Bryant and Wildi (2008) who found that using all senses allows one to capture signals and cues from the external context, an ability with behavioral and cognitive outcomes. Behavioral outcomes of using all senses may include active listening, being attentive to signals and cues in interactions, noticing one's emotions, and refraining or expressing them as appropriate. Hence, given the behavioral outcomes of each of the three facets of mindfulness found in the literature, the strong interaction between mindfulness and behavioral CQ as revealed by the data is not surprising.

Building on this CQ mindfulness model, the study highlights the influence of behavioral CQ, total mental CQ, and mindfulness on culturally congruent patient care. The data illustrate the significant impact of mindfulness on culturally congruent patient care (Hypothesis 5). Specifically, the nurses in this study who scored high on mindfulness (i.e. on empathy, open-mindedness, and using all senses) reported behaviors that exemplify a high level of culturally congruent patient care. This result supports

similar findings in cultural competence research in health care that identified cultural awareness, cultural humility, cultural sensitivity, and cultural desire as essential to providing culturally congruent patient care (Campinha-Bacote, 1999, 2002; Schim et al., 2007). These constructs developed in health care use different terminology, yet incorporate similar characteristics to the three facets of mindfulness, empathy, open-mindedness, and using all senses. Cultural awareness denotes awareness of one's existence, sensations, thoughts, and environment without letting these factors have an undue influence on the patient (Giger et al., 2007). This description is very similar to that of using all senses in the mindfulness literature (Baer et al., 2008; Tams, 2008). Cultural humility incorporates continuous self-evaluation and self-critique to avoid power imbalances between health care provider and patient (Tervalon & Murray-Garcia, 1998), an approach that shares similar characteristics with empathy. Cultural sensitivity indicates an individual's openness to cross-cultural learning (Schim et al., 2007), similarly to open-mindedness in the mindfulness literature. Campinha-Bacote (2002) described cultural desire in terms of flexibility and openness to others, genuine motivation and desire to provide care to culturally diverse patients, and willingness to learn from others. This description highlights qualities of empathy and open-mindedness in mindfulness. This result also builds on the work of Jaffe-Ruiz (1981) whose study of nursing faculty found that open-mindedness generates positive attitudes toward culturally different patients.

The CQ Mindfulness model also supports the positive impact of behavioral CQ on culturally congruent patient care (Hypothesis 6). Earley and Ang's (2003) definition of behavioral CQ in the context of the present study can be construed as: a nurse's

capability to display verbal and nonverbal behaviors in a manner consistent with a particular patient's cultural norms. Since behavioral CQ allows individuals to exhibit situationally appropriate behaviors based on their broad repertoire of verbal and nonverbal capabilities (Ng et al., 2012), it is not surprising that behavioral CQ would predict culturally congruent patient care. This finding is consistent with Schim et al. (2007) who posited that psychomotor skills that are used in response to cultural diversity (similar to behavioral CQ) are necessary to facilitate cultural congruence between provider and patient. This result also supports the role of cultural skill, an important component of cultural competence models in health care, that denotes the ability to conduct a culturally-based physical assessment and determine culturally-specific needs and practices (Campinha-Bacote, 1999, 2002; Kim-Godwin et al., 2001). In light of the similarities between behavioral CQ and cultural skill in the health care literature, it should come as no surprise that the nurses with a high level of behavioral CQ in this study reported behaviors that exemplified a high level of culturally congruent patient care.

Interestingly, the data do not support the hypothesized influence of total mental CQ on culturally congruent patient care (Hypothesis 4). A possible interpretation of these results is that total mental CQ may play an indirect role in culturally congruent patient care. Given the strong relationship identified between mindfulness and total mental CQ (Hypothesis 2), and the significant impact of mindfulness on culturally congruent patient care (Hypothesis 5), it may be argued that total mental CQ contributes an essential element to the CQ mindfulness model, yet in itself is not sufficient to influence culturally congruent patient care. The effect of total mental CQ on culturally

congruent patient care is mediated through mindfulness and behavioral CQ. In other words, the study results would suggest that nurses who have extensive theoretical knowledge of languages, cultural customs and norms (cognitive CQ), yet lack mindfulness and behavioral CQ, tend not to exhibit behaviors that reflect culturally congruent patient care. Conversely, the study suggests that nurses who provide culturally congruent patient care demonstrate mindfulness and behavioral CQ, rather than expertise in specific languages, cultural norms, customs, and other cross-cultural knowledge. Another possible interpretation is that the items that comprise the cognitive and metacognitive subscales of the CQ scale were developed for participants in the context of global business environments and some items may not be as relevant for nurses (for instance, COG1: “I know the legal and economic systems of other cultures”). Despite the overall relevance of the CQ scale to domestic organizations, it could be argued that the nature of cross-cultural knowledge needed in the context of domestic workforce diversity is slightly different from the multi-cultural knowledge developed in global business environments. The lack of support for H4 is particularly interesting in light of the traditional focus in the health care cultural competence literature on cultural knowledge and cultural awareness, which encompass general as well as specific cultural information and knowledge of self. The study results suggest that cultural knowledge and awareness, or total mental CQ, are not sufficient to explain culturally congruent patient care. In that, the CQ mindfulness model offers a new angle to help explain cultural competence in health care.

The critical importance of mindfulness and behavioral CQ (over total mental CQ) to culturally congruent patient care, based on the study results, may be a factor of

the nature of the task involved in patient care, as compared to other tasks used to measure job performance in other fields. Ang and colleagues (2007) stressed the importance of developing theory on CQ as a multi-dimensional construct, with specific facets of CQ having distinct relationships to different intercultural effectiveness outcomes. Specifically, Ang et al. (2007) called for more research to examine the influence of behavioral CQ and cognitive CQ on different forms of job performance for different roles, jobs, and contexts. The present study responds to this call.

Theoretical Contributions

This study offers several theoretical contributions. The first contribution is the development of a valid scale to measure mindfulness in CQ with the three distinct facets of empathy, open-mindedness, and using all senses. This operationalization of mindfulness in CQ helps extend the work of Thomas (2006) who theorized that mindfulness is the motivational influence in CQ, linking cross-cultural knowledge to cross-cultural behavior, and hence the catalyst of CQ. The CQ mindfulness model developed in this study contributes to the understanding of antecedents of CQ as well as the interaction amongst the different CQ facets, two areas of CQ research that are still under-developed (Gelfand et al., 2008; Ng et al., 2012). The development of the CQ mindfulness scale using three distinct subscales from the psychology literature addresses the need to offer complementary measures of CQ (Ng et al., 2012). Each subscale was selected on the basis of how accurately the selected instrument measured the theoretical construct used in the development of the CQ Mindfulness model and the overall strength of the subscale's psychometric properties. Several existing instruments have been

developed by psychology scholars to measure the mindfulness construct (Baer et al., 2004, 2006, 2008; Brown & Ryan, 2003; Buchheld et al., 2001; Chadwick et al., 2005; Feldman et al., 2007). The CQ Mindfulness construct developed in this study differs from the existing measures given its focus on the three facets of empathy, open-mindedness, and using all senses. Thus the instrument developed in this study borrows from different existing scales, each one providing the most accurate theoretical match for each of the three facets and strong psychometric properties. To measure empathy in CQ Mindfulness, the empathic concern subscale of Davis' (1980) Interpersonal Reactivity Index, a multidimensional instrument that measures both cognitive and emotional aspects of dispositional empathy, was selected. Davis' (1980) work integrates the two research traditions on the empathic process: the purely cognitive and the strictly emotional perspectives. The empathic concern subscale used in the CQ Mindfulness model measures feelings of warm, compassion, and concern for others. The open-mindedness facet of CQ Mindfulness is measured using one of the subscales of the Attitudinal and Behavioral Openness Scale (ABOS) (Caligiuri et al., 2000). The ABOS scale was selected as it specifically measures individuals' behaviors and beliefs, hence that can be modified, as opposed to stable personality traits, which are traditionally used in the psychology literature. The ABOS Participation in Cultural Activities subscale used in this study provides a behavioral assessment of one's intellectual curiosity for diversity in his or her experiences. To measure using all senses, the Observe factor of the Five Facet Mindfulness Questionnaire (FFMQ), itself derived from existing mindfulness instruments (as discussed in Chapter 3) was selected. The Observe subscale

measures the ability to notice or attend to internal experiences, such as sensations, cognitions, emotions, sights, sounds, and smells.

The second contribution is the development of a valid scale to measure culturally congruent patient care at the individual health care provider level based on direct recommendations from the Joint Commission (Joint Commission, 2010). These recommendations were developed by an expert advisory panel of twenty-six members including physicians, nurses, academics, ethicists, medical directors, hospital administrators, health insurance administrators, linguists, and forty-nine reviewers, pursuant to a decade of research and public policy development. Notably, in 2004 the Joint Commission conducted a qualitative cross-sectional research study to explore how sixty hospitals nationwide provide care to culturally and linguistically diverse patients, followed by a roundtable on health literacy and patient safety in 2005, and a study of adverse events from six Joint Commission-accredited hospitals comparing English speaking patients and patients with limited English proficiency in 2007 (Joint Commission, 2010). These studies led to the development of the current standards and recommendations for advancing effective communication, cultural competence, and patient- and family-centered care (Joint Commission, 2010). The recommendations address patients' needs in the hospital from admission, to assessment, treatment, discharge and transfer, as well as end-of-life care, which directly concern individual health care providers, and also address organizational readiness. The scale developed in this study uses only the individual level recommendations since the intent was to assess individual behaviors, and only those recommendations that concern cultural competence (see Table 2). This scale, with strong psychometric properties, provides a parsimonious

instrument for assessing culturally congruent care at the individual level, thus building on prior research that led to the Joint Commission recommendations.

Thirdly, this study provides the first empirical support for the CQ mindfulness model, confirming the significant interactions between mindfulness and total mental CQ (cognitive CQ and metacognitive CQ) and between mindfulness and behavioral CQ, thus further developing Thomas' (2006) theory. Thomas (2006) identified mindfulness as the most novel aspect of CQ and the key link between cross-cultural knowledge and cross-cultural behavior. Similarly to Earley and Ang (2003) who first described the iterative nature of CQ, Thomas (2006) also stressed how CQ is learned over time, with mindfulness playing a central role in reinforcing the learning of new knowledge and behavioral repertoires through each new cross-cultural encounter, hence producing more culturally intelligent behaviors. The strong relationships between mindfulness and total mental CQ and between mindfulness and behavioral CQ illustrated by the data lend empirical support to the first part of this theory, i.e. the interactions among CQ facets. In that respect, the study helps answer the call for more research on the interactions amongst the different facets of CQ (Gelfand et al., 2008; Ng et al., 2012). The insight gained on the interaction among the facets of the CQ Mindfulness model also contributes to the research on the development of individual CQ, given the iterative nature of CQ. The CQ Mindfulness model developed in this study provides a valid instrument that could be used in longitudinal studies to explore empirically the learning of individual CQ over time through the interaction among CQ facets.

Another important theoretical contribution of this research is the application of CQ to a new disciplinary area. This empirical study was conducted in a health care

setting, a new disciplinary area for CQ, with nurses, a new profession for CQ research, and using culturally congruent patient care as the task performance outcome. Empirical research to date has demonstrated the validity of CQ in explaining individual success in culturally diverse environments (Ng et al., 2012), and specifically the role of CQ as a unique predictor of cultural judgment and decision-making, cultural adaptation, and task performance in culturally diverse environments (Ang et al., 2007). It is likely that these same outcomes - cultural judgment and decision-making, cultural adaptation, and task performance in culturally diverse environments - identified in business environments are also present with nurses who deliver culturally congruent patient care to culturally diverse patients. It is thus not surprising that CQ, and particularly mindfulness and behavioral CQ, would predict culturally congruent patient care. The present study contributes initial empirical evidence that CQ can be applied to new disciplinary areas such as health care. In that, this study answers the call for interdisciplinary research on CQ and its application to a variety of disciplinary areas (Ng et al., 2012). Building on the relatively young, yet rich CQ empirical studies in the management literature and the wealth of studies on cultural competence in health care, this study is a first attempt at bridging these two fields with the CQ mindfulness model by measuring CQ with a diverse group of nurses and opens up opportunities for interdisciplinary research.

Finally, the model developed in this study offers a new “lens” (CQ) to evaluate health care providers’ behaviors and practices that translate into culturally congruent patient care. This is a starting point for considering CQ, and particularly mindfulness and behavioral CQ, as predictors of culturally congruent patient care behaviors.

Managerial Implications

Cross-cultural interactions occur increasingly frequently in virtually all organizational settings, not just multinational corporations. The ability to interact effectively in culturally diverse environments is paramount in health care where the stakes are higher than in business, hence the need to tackle the topic with expertise developed in different fields. Indeed, it is not just a question of the organizational cost of expatriate failure, but possibly more fundamental outcomes are at stake when examining the role of CQ in a health care context. Transcultural nursing research has already established that providing culturally competent care is critical for health promotion, disease prevention, and effective interventions, and can shorten recovery time from illness and reduce costs (Leininger, 2007; Leininger & McFarland, 2006; Purnell, 2000; Schim et al., 2007). With a shortage of nurses and primary care providers, and an aging population that is furthermore increasingly diverse, the ability to identify accurate predictors of culturally congruent patient care and the ability to develop these skills are critical. Additionally, the diversity of the health care workforce in large metropolitan areas necessitates effective communication between and among health care professionals, as well as between health care provider and patient.

The study results help inform management practices in health care organizations by identifying the critical role of mindfulness and behavioral CQ in the ability of nurses to provide culturally congruent patient care. The CQ mindfulness model developed in this study highlights the role of empathy, open-mindedness, and using all senses in mindfulness, hence helps provide a better understanding of what makes individuals more culturally intelligent, and more effective with culturally diverse others. These findings

suggest the benefits of human resources practices in health care agencies that value and emphasize mindfulness and CQ. These findings may prove to be helpful in hiring, developing, transferring, and promoting staff, particularly nurses and other health care providers.

Schim and colleagues (2007) call for integrating cross-cultural education into the training of all current and future health care professionals. The present study findings suggest that CQ has a promising place in this cross-cultural education. Traditional models of cultural competence in health care revolve around cultural knowledge and cultural awareness as well as cultural skill (Campinha-Bacote, 2002), which resemble total mental CQ and behavioral CQ, respectively. Consequently, the focus of cultural diversity training in hospitals has been thus far on these two areas: cultural knowledge – for instance, with the provision of interpreters and alternative dietetic offerings – and to some extent, culturally appropriate behaviors. There seems to be a lack of training on *how* to achieve culturally congruent patient care. The present research suggests that cultural knowledge training may not be as effective when trying to improve culturally congruent patient care. The proposed CQ Mindfulness model suggests that cultural knowledge training is needed, yet training should focus more heavily on mindfulness and behavioral CQ. Mindfulness may be able to fill what Johnson and colleagues (2006) refer to as the gap between “knowing” (cross-cultural knowledge) and “doing” (behavioral manifestations) in cross-cultural competence. Jeffreys (2010) stresses the importance of developing and maintaining resilience, motivation, commitment, and persistence at all levels--individual nurses, nurse managers, executives, and the organization-- in the effective development of cultural competence. This suggests that

mindfulness is foundational and has a valuable place in the self-assessment and development of cultural competence and cultural intelligence in health care organizations.

Since CQ is a state-like capability that can be strengthened over time through experience, education, and training (Ang et al., 2006; Earley & Peterson, 2004; Moon, 2010), identifying CQ development needs among nurses and other health care professionals and providing the subsequent training opportunities targeted at these needs will help them build their CQ and enhance their ability to deliver culturally congruent patient care. Indeed, CQ can be developed through an iterative process, whereby each new cross-cultural encounter reinforces the learning of new knowledge and behavioral repertoires, with the help of mindfulness, and produces more culturally intelligent behaviors (Thomas, 2006; Thomas et al., 2008; Tomas & Inkson, 2009). Since CQ and mindfulness are iterative in nature, opportunities to “practice”, learn from these experiences, and apply the experience to the next interaction, thus increasing one’s CQ and mindfulness, are essential. For instance, guided debriefings about patient encounters would help facilitate this iterative CQ acquisition process and help nurses “practice” mindfulness. Mindfulness practice can be introduced in the training repertoire of health care organizations using a variety of techniques that focus on catalyzing awareness, clarity, and insight with respect to thoughts and emotions, including the Mindfulness-Based Stress Reduction method (Kabat-Zinn, 2003). Empathy training also can be incorporated in the training repertoire of health care organizations, with a focus on understanding one’s and others’ behavioral styles, developing better listening skills, reading body language and demonstrating compassion in communication (Kaufman &

Hwang, 2012) in the context of provider-patient interactions. Similarly, using all senses and open-mindedness could be the focus of training in health care organizations.

Given the catalyst role that mindfulness plays in CQ and its direct impact on culturally congruent patient care, as indicated by this study results, health care organizations management should encourage the development of empathy, open-mindedness, and the use of all senses by offering specific training opportunities geared at the development of these skills, in addition to adapting CQ training programs already offered in business settings, and traditional health care cultural competence programs. The effectiveness of such training programs in health care organizations will be enhanced by the use of appropriate incentives such as continuing education credits, inclusion of CQ goals in employees' performance evaluation, CQ awards, and other types of financial or professional recognition incentives. The use of incentives helps health care organizations create a climate in which culturally competent practices and innovation can flourish (Jeffreys, 2010). Health care organizations also would benefit from incorporating CQ and mindfulness when sharing their philosophy concerning cultural competence development during new employee orientation, emphasizing the need for, and the intrinsic professional and personal rewards of lifelong learning (Jeffreys, 2010).

Since July 2012, the new Joint Commission standards and recommendations for advancing effective communication, cultural competence, and patient- and family-centered care have been in effect. The CQ Mindfulness model, that uses the very recommendations of the Joint Commission to measure culturally congruent patient care

and identifies antecedents that can be learned and improved through training, offers a novel and timely tool to help health care agencies comply with these new standards.

Limitations and Future Research

This study has several limitations that must be recognized in interpreting the results and that offer opportunities for future research. The first limitation resides in the use of a convenience sample, as opposed to a random sample that would have strengthened the external validity of the results, and the nature of that sample. Participants were graduate nursing students, alumni, and nursing faculty in an Eastern U.S.-based University School of Nursing where cultural competence is a prominent value. While respondents were most likely not familiar with CQ and its measurement, they were for the most part very familiar with cultural competence in health care. It is possible that the level of cultural competence education, and in some cases, expertise, of the respondents introduces a bias in their responses. The sample featured substantial diversity on the basis of age, race, international background, years of experience as a nurse, type of practice setting, socio-economic background, and degrees, though all respondents were educated at the college level. The results may have differed with nurses educated at the diploma or associate level. The nurses in the study had a high frequency of interactions with patients from a different race or ethnicity (92% did often or frequently), a function of the nurses' practice settings in one of the largest metropolitan areas of the Eastern U.S. Results may not generalize in a more homogenous geographical area. Indeed, as Schim and colleagues (2007) stress, even though cultural diversity is a reality in U.S. society, not every healthcare provider has

access to a wide diversity of patients' cultures, and health care agencies vary vastly in terms of this diversity. It is necessary for health care organizations to offer varied and frequent intercultural interactions for the development of culturally congruent patient care (Schim et al., 2007). Evidently most of the nurses in this study had frequent interactions with a culturally diverse patient population. As illustrated by the final model that controlled for interactions with patients of a different race or ethnicity, the frequency of interactions in itself is not sufficient to explain culturally congruent patient care. Indeed, while frequent interactions with culturally diverse patients may increase awareness and understanding of cultural differences in some nurses, it may also reinforce biases and lead to stereotyping in others.

Another limitation stems from the fact that the data was collected at one point in time from one data collection method, self-report surveys. Given the nature of the information collected – about personal feelings, preferences, and practices – the use of self-report was most appropriate; however this method carries a potential bias due to social desirability. It should be noted that this potential bias was previously addressed with respect to the CQ subscales in Van Dyne and colleagues' (2008) study where the authors developed and tested a peer-report CQ scale, which showed the same pattern of relationships as with the self-report version of the CQ scale. To enhance the validity and generalizability of the results, multiple methods of data collection should be used, particularly to measure culturally congruent patient care, such as interviews, observations and journaling, and multiple sources of data, including peers, nurse managers, and ideally, patients. Additionally, results would be further enhanced by the

use of qualitative analysis methods in addition to quantitative analysis, as is advocated by several CQ researchers (Ang & Van Dyne, 2008).

Given the nature of SEM, one methodological limitation resides in the choice of model. While the chosen model fits the data well and provides a theoretically consistent set of findings, there may be other equivalent or near-equivalent models that fit the data equally well (Kline, 2011). To offset this limitation, several different permutations of the CQ Mindfulness model were attempted based on theory and modification indices suggested by the AMOS statistical software.

It should also be noted that the scale with the lowest reliability, Empathy (Cronbach's $\alpha = .673$) had three reversed questions. One of these, REMPATY2 item, was eliminated from the final scale based on its very low factor loading in the CFA analysis in AMOS as discussed in Chapter 4. After eliminating REMPATY2, the other two reversed questions, REMPATY5 and REMPATY6 items, had the lowest factor loadings (.35 and .37, respectively) on the empathy construct in the CFA analysis, and thus contributed to the lower reliability measure of the empathy construct. Respondents may not have noticed the reversed questions and might have responded differently had these two questions been worded positively, as were almost all the other questions.

Given the complexity of the model for the sample size, there was a need to be parsimonious with the number of control variables in the study in order to ensure validity. The most significant of the multiple control variables collected in the study were gender, age, and interaction with a patient of different race or ethnicity. Future studies may explore the role of different control variables, particularly meditation practice that has been found to affect mindfulness (Baer et al., 2006, 2008).

This study was a first attempt at examining the role of CQ in health care. It opens up several potential avenues for CQ research in health care, for instance, exploring the role of CQ in other patient care outcomes, such as patient satisfaction, specific clinical outcomes, and health status. The present study was purposely situated at the individual level in order to isolate the role of mindfulness in individual CQ. To build on these findings, future studies may also examine the role of organizational-level CQ in health care organizations. Gelfand and Colleagues (2008) stress the multilevel nature of CQ and the need for CQ research to go beyond the individual level of analysis and tackle team, organizational, and national levels of analysis. Increasingly, CQ is considered an organizational-level strategic capability (Earley, 2006) and it can be argued that organizations would benefit from managing their CQ capital as a unique resource and competitive advantage (Kaufman & Hwang, 2010). Given the acknowledgment that cultural competence in health care requires strong institutional support (Johnson et al., 2006) and the numerous recommendations of the Joint Commission and the Office of Minority Health at the organizational level (Joint Commission, 2010; OMH, 2013), investigating the potential moderating or mediating impact of organizational-level CQ in hospitals on the relationship between individual CQ and culturally congruent patient care is a promising direction for future research. Indeed, the health care sector is “ahead” of the business sector in recognizing the need for cultural competence at the organizational level: the concept is already integrated in the accreditation standards (Joint Commission, 2010) due to the essential role of cultural competence education in culturally congruent patient care and the reduction of health disparities (Giger et al., 2007). The enhanced CLAS standards (OMH, 2013) include a new standard for

organizational governance and leadership illustrating the realization that culturally and linguistically appropriate services need to be embraced at all levels of the organization and require organizational-level leadership and governance to succeed.

This study also opens up opportunities for the testing of the CQ Mindfulness model in other industries and with other professions for which cultural diversity is prominent, that is, virtually every profession and disciplinary area given the broader characterization of culture used in this dissertation.

Conclusion

This study examined the role of mindfulness in CQ through three different facets--empathy, open-mindedness, and using all senses,--extending Thomas' (2006) CQ model, and then explored the impact of this CQ mindfulness model on culturally congruent patient care. The CQ mindfulness model revealed the significant influence of mindfulness on culturally congruent patient care, and to a significant, yet lesser extent, the influence of behavioral CQ on culturally congruent patient care. On the other hand, total mental CQ was found to lack a direct effect on culturally congruent patient care. This research on CQ and mindfulness in health care proposes a novel insight as to why some nurses may be more effective than others at providing culturally congruent patient care. Mindfulness emerged as an important predictor of culturally congruent patient care.

In sum, by developing a CQ Mindfulness model with good psychometric properties and testing its impact on culturally congruent patient care, this dissertation contributes to both management (CQ) and health care (cultural competence) research

and offers timely managerial implications for health care organizations. In addition, this dissertation offers several potential avenues for interdisciplinary research.

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PACE UNIVERSITY INSTITUTIONAL REVIEW BOARD (IRB)
NOTIFICATION OF APPROVAL

Date: November 20, 2012

IRB Code #: 12-71

Sophie Kaufman
861 Bedford Road
Pleasantville, NY 10570

Sophie:

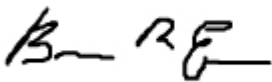
Please be advised that the Institutional Review Board has approved the proposal you submitted, "The Role of Mindfulness in Cultural Intelligence: Impact on Culturally Congruent Care." Your proposal has been deemed exempt by the Institutional Review Board since consistent with the following federal rule for exempt proposals,

"Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior."

You have provided adequate assurances that respondent information will be confidential and have made further assurances regarding the research process. Since the proposal is exempt, no further follow up by the Institutional Review Board is required. Please notify the IRB of any deviation from your proposal, however slight, since any change may mean a change in status that requires IRB review and approval.

Thank you for your continuing cooperation, and best of luck with your research.

Sincerely,



Brian Evans, Ed.D.
Co-Chair
Institutional Review Board

Copy: Office of Sponsored Research and Economic Development

Appendix 2

Survey Questions

Empathy

Please rate the following items on a 5-point Likert scale ranging from 0 (does not describe me well) to 4 (describes me very well):

EMPATHY1: When I see someone being taken advantage of, I feel kind of protective toward them.

EMPATHY2: When I see someone being treated unfairly, I sometimes don't feel very much pity for them.

EMPATHY 3: I often have tender, concerned feelings for people less fortunate than me.

EMPATHY 4: I would describe myself as a pretty soft-hearted person.

EMPATHY 5: Sometimes I don't feel sorry for other people when they are having problems.

EMPATHY 6: Other people's misfortunes do not usually disturb me a great deal.

EMPATHY 7: I am often quite touched by things that I see happen.

Open-Mindedness

For the following items, please rate the frequency with which you do the following things from "Never", "Rarely", "Sometimes", "Often", to "Frequently".

OPENMIND 1: I eat at a variety of ethnic restaurants.

OPENMIND 2: I attend foreign films.

OPENMIND 3: I read magazines which address world events and other countries, (such as National Geographic, Time)?

OPENMIND 4: I watch world news programs on television.

OPENMIND 5: I attend Ethnic Festivals.

OPENMIND 6: I visit art galleries & museums.

OPENMIND 7: I attend the theater, concerts and other performing arts' productions.

OPENMIND 8: I travel within the United States - visiting different states, national parks, historic sites, etc.

Using All Senses

Please rate the following items on a 5-point Likert scale ranging from 1 "never" or "very rarely true" to 5 "very often" or "always true"

SENSES 1: When I'm walking, I deliberately notice the sensations of my body moving

SENSES 2: When I take a shower or a bath, I stay alert to the sensations of water on my body.

SENSES 3: I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.

SENSES 4: I pay attention to sensations, such as the wind in my hair or sun on my face.

SENSES 5: I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.

SENSES 6: I notice the smells and aromas of things.

SENSES 7: I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.

SENSES 8: I pay attention to how my emotions affect my thoughts and behavior.

CQ Scale

Read each statement and select the response that best describes your capabilities. Select the answer that BEST describes you AS YOU REALLY ARE from "strongly disagree" to "strongly agree".

Cognitive CQ

COG 1: I know the legal and economic systems of other cultures.

COG 2: I know the rules (e.g., vocabulary, grammar) of other languages.

COG 3: I know the cultural values and religious beliefs of other cultures.

COG 4: I know the marriage systems of other cultures.

COG 5: I know the arts and crafts of other cultures.

COG 6: I know the rules for expressing nonverbal behaviors in other cultures.

Metacognitive CQ

MC 1: I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.

MC 2: I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.

MC 3: I am conscious of the cultural knowledge I apply to cross-cultural interactions.

MC 4: I check the accuracy of my cultural knowledge as I interact with people from different cultures.

Behavioral CQ

BEH 1: I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.

BEH 2: I use pause and silence differently to suit different cross-cultural situations.

BEH 3: I vary the rate of my speaking when a cross-cultural situation requires it.

BEH 4: I change my nonverbal behavior when a cross-cultural situation requires it.

BEH 5: I alter my facial expressions when a cross-cultural situation requires it.

BEH 6: I enjoy interacting with people from different cultures.

Culturally Congruent Patient Care

Read each statement and select the response that best describes your behavior in your role as a Registered Nurse from "never" to "always":

In my clinical practice, I _____:

PATCARE 1: Identify the patient's preferred language for discussing health care.

PATCARE 2: Identify whether the patient has a sensory or communication need.

PATCARE 3: Address patient communication needs.

PATCARE 4: Support the patient's ability to understand and act on health information.

PATCARE 5: Monitor changes in the patient's communication status.

PATCARE 6: Identify patient cultural, religious, or spiritual beliefs or practices that influence care.

PATCARE 7: Identify patient dietary needs or restrictions that affect care.

PATCARE 8: Accommodate patient cultural, religious, or spiritual beliefs and practices.

PATCARE 9: Monitor changes in dietary needs or restrictions that may impact the patient's care.

PATCARE 10: Communicate information about unique patient needs to the care team.

Gender:

Male (1)

Female (2)

Age:

Ethnicity: Are you Hispanic or Latino?

Yes (1)

No (2)

Race:

American Indian or Alaska Native (1)

Asian (2)

Black or African American (3)

Native Hawaiian or Other Pacific Islander (4)

White (5)

More than one race (6)

Unknown (7)

Highest degree earned:

Baccalaureate (1)

Master's (2)

Doctorate (3)

What was your first credential in nursing?

Diploma in Nursing (1)

Associate's Degree in Nursing (2)

Baccalaureate Degree in Nursing (3)

Generic Master's Degree in Nursing (4)

In what year did you earn your first degree in nursing?

Number of Years of experience as a RN:

In what type of practice setting do you currently work (you may answer more than one)?

In-Patient / Acute Care (1)

Out-Patient / Primary Care or Specialty (2)

Home Care (3)

Other (4)

Were you born in another country?

Yes (1)

No (2)

Have you lived in another country?

Yes (1)

No (2)

How often do you interact with a patient from a different race or ethnicity?

Never (1)

Rarely (2)

Sometimes (3)

Often (4)

Frequently (5)

When you were growing up, how would you classify your family?

Upper Income (1)

Middle Income (2)

Low Income (3)

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Table 1 – Cultural Intelligence: Definitions, Components, Antecedents, and Outcomes

Authors	Definition	Components	Antecedents/Moderators	Outcomes
Ang & Van Dyne (2008)	“... the capability of an individual to function effectively in situations characterized by cultural diversity”	Cognitive CQ Metacognitive CQ Motivational CQ Behavioral CQ	Language acquisition and ability Multicultural experience International work and non-work experiences Openness to experience (4 CQ facets) Extraversion (Cognitive, motivational, behavioral) Conscientiousness (Metacognitive) Agreeableness and Emotional stability (Behavioral) Cultural distance (moderator of CQ-Adjustment relationship)	Adjustment and performance of expatriates and international executives Expatriates retention and career success Decreases business traveler’s burnout Promotes perception of business traveler’s schedule autonomy
Ang, Van Dyne & Koh (2006)	“...an individual’s capability to deal effectively in situations characterized by cultural diversity”	Mental (metacognitive and cognitive) Motivational Behavioral	Openness to experience (4 CQ facets) Extraversion (Cognitive, motivational, behavioral) Conscientiousness (Metacognitive) Agreeableness and Emotional stability (Behavioral)	Task performance General adjustment in intercultural environments
Ang et al. (2007)	“...an individual’s capability to function and manage effectively in culturally diverse settings”	Cognition Metacognition Motivation Behavior		Cultural judgment and decision making Cultural adaptation and performance
Earley & Ang (2003)	“... a person’s capability to adapt effectively to new cultural contexts”	Cognitive (including metacognitive) Motivational Behavioral		Global assignment success Diversity assignments Training methods
Earley & Mosakowski (2004)	“...capability to adapt to new and culturally diverse situations”	Head (thinking) Heart (energizing) Body (action)		Effectiveness in new cultural situations

Authors	Definition	Components	Antecedents/Moderators	Outcomes
Earley & Peterson (2004)	"...reflects a person's capability to gather, interpret, and act upon these radically different cues to function effectively across cultural settings or in a multicultural situation"	Metacognitive/Cognitive (learning strategies & cultural sense making) Motivation (cultural empathy & self-efficacy) Behavior (acceptable behavior in culture & mimicry)		Intercultural training Multicultural teams
Earley, Ang & Tan (2006)	"...a person's capability for successful adaptation to new cultural settings, that is for unfamiliar settings attributable to cultural context"	Cultural strategic thinking (CST) Motivation Behavior		Diversity assignments Global work assignments Global teams Global leadership
Kim & Van Dyne (2012)	"...an individual's capability to function and manage effectively in culturally diverse settings"	Cognitive CQ Metacognitive CQ Motivational CQ Behavioral CQ	CQ as mediator of prior intercultural contact on international leadership potential for majorities.	International leadership potential
Moon (2010)	"...the capability to function effectively in culturally diverse environments"	Meta-cognitive (CQ-strategy) Cognitive (CQ-knowledge) Motivational (CQ-motivation) Behavioral (CQ-behavior)	Social awareness Relationship management (interpersonal competencies of Emotional Intelligence)	Success in cross-cultural interactions and international assignments
Ng & Earley (2006)	"...ability to adapt effectively to new cultural settings"	Metacognition (cognitive strategies to acquire and develop coping strategies) Cognition (knowledge about different cultures) Motivation (desire and self-efficacy) Behavior (repertoire of culturally appropriate behaviors)	Individual antecedents (Demographic, e.g. international experience; Trait, e.g. personality; State, e.g. anxiety) Situational antecedents & moderators (job, role, task, team, organizational, cultural)	Adaptive performance Contextual performance
Ng, Van Dyne & Ang (2009)	"...an individual's capabilities to function and manage effectively in culturally diverse settings"	Mental (metacognitive and cognitive) Motivational Behavioral	CQ (moderator) enhances likelihood of individuals on international assignments engaging in experiential learning, and in turn, global leadership self-efficacy	Global leadership development in international assignments

Authors	Definition	Components	Antecedents/Moderators	Outcomes
Ng, Van Dyne & Ang (2012)			Big Five personality International work and nonwork experience Virtual team experience Intercultural contact Cross-cultural programs (study abroad, service learning)	Cognitive Outcomes Psychological Outcomes Behavioral Outcomes Performance Outcomes
Rockstuhl et al. (2011)	"...an individual's capability to function effectively in situations characterized by cultural diversity"	Cognitive CQ Metacognitive CQ Motivational CQ Behavioral CQ		Cross-border leadership effectiveness of Swiss military leaders
Templer et al. (2006)	"...a person's capability to deal effectively in situations characterized by cultural diversity"	Cognitive CQ Metacognitive CQ Motivational CQ Behavioral CQ		Cross-cultural adjustment (work, general, interaction)
Thomas (2006)	"...the ability to interact effectively with people who are culturally different"	Knowledge Mindfulness Behavior		Development of CQ (through iterative experiential learning) Assessment of CQ
Thomas et al. (2008)	"...a <i>system</i> of interacting knowledge and skills, linked by cultural metacognition, that allows people to adapt to, select, and shape the cultural aspects of their environment"	Cultural knowledge Cross-cultural skills Cultural metacognition		Effective intercultural interactions (personal adjustment, interpersonal relationship development, task performance)

Table 2 - Joint Commission Standards: Evaluation and Items Selection Rationale

New Joint Commission Standards	Elements of Performance	Recommendations from the Roadmap	CC (*) Yes/No	Individual or Organizational	Proposed Items
HR.01.02.01 The hospital defines staff qualifications.	EP 1 The hospital defines staff qualifications specific to their job responsibilities	<ul style="list-style-type: none"> Integrate unique patient needs into new or existing hospital policies. Ensure the competency of individuals providing language services. 	Yes	Organizational	
			Yes	Organizational	
PC.02.01.21 The hospital effectively communicates with patients when providing care, treatment, and services.	EP 1 The hospital identifies the patient's oral and written communication needs, including the patient's preferred language for discussing health care. (See also RC.02.01.01, EP 1) EP 2 The hospital communicates with the patient during the provision of care, treatment, and services in a manner that meets the patient's oral and written communication needs. (See also RI.01.01.03, EPs 1-3)	<ul style="list-style-type: none"> Identify the patient's preferred language for discussing health care. Identify whether the patient has a sensory or communication need. Address patient communication needs. Support the patient's ability to understand and act on health information. Monitor changes in the patient's communication status. Integrate unique patient needs into new or existing hospital policies. 	Yes	Individual	<ul style="list-style-type: none"> Identify the patient's preferred language for discussing health care. Identify whether the patient has a sensory or communication need. Address patient communication needs. Support the patient's ability to understand and act on health information. Monitor changes in the patient's communication status.
			Yes	Individual	
			Yes	Individual	
			Yes	Individual	
			Yes	Individual	
			Yes	Organizational	
RC.02.01.01 The medical record contains information that reflects the patient's care, treatment, and services.	EP 1 The medical record contains the following demographic information: •The patient's name, address, date of birth, and the name of any legally authorized representative •The patient's sex •The legal status of any patient	<ul style="list-style-type: none"> Develop a system to collect patient language information. Identify the patient's preferred language for discussing health care. Identify whether the patient has a sensory or communication need. Develop a system to collect 	Yes	Organizational	<ul style="list-style-type: none"> Identify the patient's preferred language for discussing health care. Identify whether the patient has a sensory or communication need.
			Yes	Individual	
			Yes	Individual	
			No	Organizational	

	receiving behavioral health care services •The patient’s language and communication needs, including preferred language for discussing health care (See also PC.02.01.21,EP 1) EP 28 The medical record contains the patient’s race and ethnicity.	patient-level race and ethnicity information.			
RI.01.01.01 The hospital respects, protects, and promotes patient rights.	EP 28 The hospital allows a family member, friend, or other individual to be present with the patient for emotional support during the course of stay. EP 29 The hospital prohibits discrimination based on age, race, ethnicity, religion, culture, language, physical or mental disability, socioeconomic status, sex, sexual orientation, and gender identity or expression.	<ul style="list-style-type: none"> • Inform patients of their rights. • Ask the patient to identify a support person. • Involve patients and families in the care process. • Integrate unique patient needs into new or existing hospital policies. EP29: Inform patients of their rights. <ul style="list-style-type: none"> • Integrate unique patient needs into new or existing hospital policies. • Incorporate the issues of effective communication, cultural competence, and patient- and family-centered care into new or existing staff training curricula. • Collect feedback from patients, families, and the surrounding community. 	No No Yes? Yes No Yes Yes Yes?	Individual Individual Individual Organizational Individual Organizational Organizational Organizational	
RI.01.01.03 The hospital respects the patient’s right	EP 2 The hospital provides language interpreting and translation services. (See also	<ul style="list-style-type: none"> • Address patient communication needs. • Integrate unique patient needs 	Yes Yes	Individual Organizational	<ul style="list-style-type: none"> • Address patient communication needs.

to receive information in a manner he or she understands.	RI.01.01.01, EPs 2 and 5; PC.02.01.21, EP 2; HR.01.02.01, EP 1) EP 3 The hospital provides information to the patient who has vision, speech, hearing, or cognitive impairments in a manner that meets the patient's needs. (See also RI.01.01.01, EPs 2 and 5; PC.02.01.21, EP 2)	<p>into new or existing hospital policies.</p> <ul style="list-style-type: none"> • Develop a system to provide language access services. • Address the communication needs of patients with sensory or communication impairments. • Support the patient's ability to understand and act on health information. • Integrate health literacy strategies into patient discussions and materials. 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	<p>Organizational</p> <p>Individual</p> <p>Individual</p> <p>Organizational</p>	<ul style="list-style-type: none"> • Address the communication needs of patients with sensory or communication impairments. • Support the patient's ability to understand and act on health information.
Existing Standards		<ul style="list-style-type: none"> • Identify patient cultural, religious, or spiritual beliefs or practices that influence care. • Identify patient dietary needs or restrictions that affect care. • Accommodate patient cultural, religious, or spiritual beliefs and practices. • Monitor changes in dietary needs or restrictions that may impact the patient's care. • Communicate information about unique patient needs to the care team. 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	<p>Individual</p> <p>Individual</p> <p>Individual</p> <p>Individual</p>	<ul style="list-style-type: none"> • Identify patient cultural, religious, or spiritual beliefs or practices that influence care. • Identify patient dietary needs or restrictions that affect care. • Accommodate patient cultural, religious, or spiritual beliefs and practices. • Monitor changes in dietary needs or restrictions that may impact the patient's care. • Communicate information about unique patient needs to the care team.

(*) CC: Does the recommendation address cultural competence?

Source: The Joint Commission (2010). Comprehensive Accreditation Manual for Hospitals. Oakbrook Terrace, IL: Joint Commission Resources.

The Joint Commission (2010). Advancing effective communication, cultural competence, and patient- and family-centered care: A roadmap for hospitals. Oakbrook Terrace, IL: Joint Commission Resources.

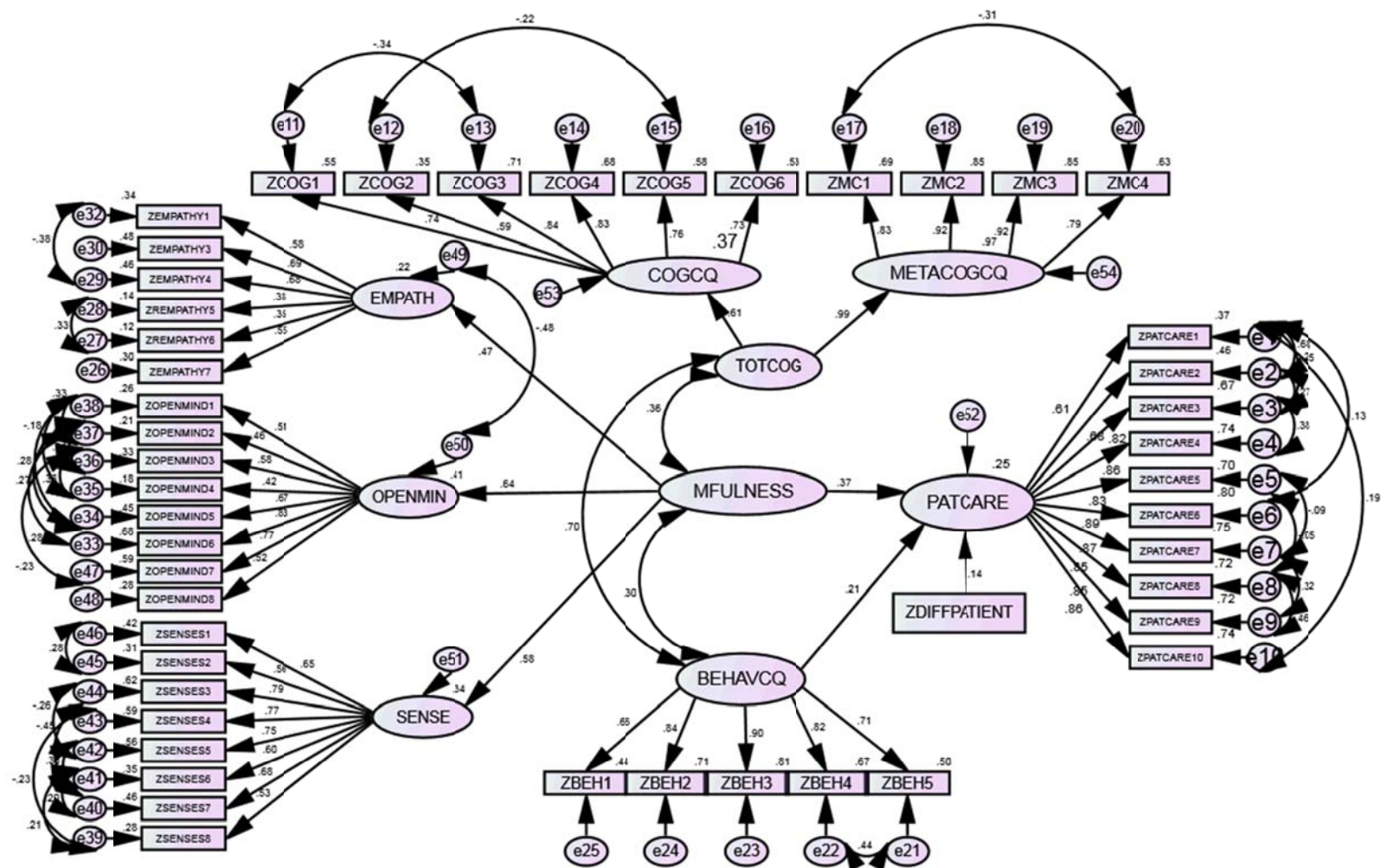


Figure 5. Outcome Model in Health Care: Relationships between Mindfulness, Behavioral CQ, Mental CQ, and Culturally Congruent Patient Care
CFI = .907, RMSEA = .052