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Health Care Providers' Intention to Provide Culturally Competent Health Care to Somali Based Upon the Indirect Measures of the Integrated Behavioral Model

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Health Care Providers' Intention to Provide Culturally Competent Health Care to Somali
Based Upon the Indirect Measures of the Integrated Behavioral Model

By

Amanda Kaye Ciesinski

A Thesis Submitted in Partial Fulfillment of the

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In

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Health Care Providers' Intention to Provide Culturally Competent Health Care to Somali
Based Upon the Indirect Measures of the Integrated Behavioral Model

Amanda Kaye Ciesinski

This thesis has been examined and approved by the following members of the thesis
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Abstract**HEALTH CARE PROVIDERS' INTENTION TO PROVIDE CULTURALLY
COMPETENT HEALTH CARE TO SOMALI BASED UPON THE INDIRECT
MEASURES OF THE INDEGRATED BEHAVIORAL MODEL**

Amanda Kaye Ciesinski, M.S. Minnesota State University, Mankato, July 2012.

The purpose of this cross-sectional study was to assess health care providers' intention to provide culturally competent health care to Somali based upon the constructs of the Integrated Behavioral Model by indirect measures. Using Zoomerang™ data collection systems, data were collected on a non-random and purposive sample. Every physician, nurse practitioner, and physician assistant in a non-administrative role at a rural primary care clinic located in Minnesota was recruited by email. A sample of thirty-one health care providers was used in this study. The survey was divided into four main scales based on the constructs of the Integrated Behavioral Model. These constructs included intention, attitudes, subjective norms, and perceived behavioral control. Each main scale, with the exception of intention, was further divided into subscales measuring construct components. The subscales included instrumental attitudes, experiential attitudes, injunctive norms, descriptive norms, motivation to comply with injunctive norms, motivation to comply with descriptive norms, self-efficacy and perceived control. Data analysis showed that overall intention of participants' to provide Somali with culturally competent health care was high. The constructs of the Integrated Behavioral Model, as each related to intention, showed mixed results. Only the relationship between intention and overall subjective norms was statistically significant. More specific

correlations were identified when each construct was further divided into construct components. Significant positive correlations between behavioral intention and instrumental attitudes, subjective norms, injunctive norms, descriptive norms and self-efficacy were found. Correlational analysis between demographic characteristics and overall intention did not reveal any significant relationships. Further investigation into gender and years of experience using independent samples t-tests did show some significant findings. Female participants responded to survey items pertaining to experiential attitudes and motivation to comply with injunctive norms more favorably than males. Health care workers with 11 years or more experience were found to have lower overall intention, experiential attitudes, instrumental attitudes, and motivation to comply with injunctive norms scores than those with 10 years of experience or less.

Keywords: Integrated Behavioral Model, cultural competency, Somalis, health care provider

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Chapter One: Statement of Problem

Introduction

Somali immigrants began arriving in the United States during the early 1990s after the collapse of their central government. Many immigrants were forced to leave their homes in Somalia to escape rape, hunger and death that became widespread as a result of civil war within the country. It is estimated that over a million people fled Somalia for refugee camps in neighboring countries (Ahmed, n.d.). Resettlement programs have enabled some of these refugees to move around the world. Many Somalis resettling in the United States reside in Minnesota.

It is difficult to determine the exact number of Somalis living within Minnesota. One difficulty in determining the population of Somalis residing within Minnesota is the rapid growth of the population, both natural growth and through immigration. Secondly, Somalis settling in Minnesota come as refugees and subsequently, the number provided by immigration statistics can vary greatly. Lastly, many survey instruments do not delineate ethnicities. Estimates place the Somali population living in Minnesota between 20,000 and 70,000 persons (Minnesota Department of Health, 2005).

Somali refugees have become the single largest African refugee group to enter the United States and yet very little empirical research has been performed describing the needs of this ethnic minority (Johnson, Ali, & Shipp, 2009). The data that does exist describes Somali immigrants as the least likely of immigrant groups in Minnesota to seek the help of health services (Minnesota Department Health, 2005). Several barriers to

accessing health care services have been identified. The Minnesota Department of Health (2005) found that health professionals whose ethnic backgrounds differ from Somali immigrants are unaware of communication barriers and that the health system can be very difficult to navigate for Somalis.

Health care providers must be able to respond to the unique needs of the populations in which they serve. The field of cultural competence has emerged as a strategy to reduce disparities in health care access and quality among minorities. Given the recent emergence of this field, principles and frameworks of cultural competence are still ongoing. For the purposes of this study, cultural competence is defined as “a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enables that system, agency or those professionals to work effectively in cross-cultural situations” (Cross, Barzon, Dennis, & Isaacs, 1989, p. 6).

Improving the access and quality of health care for Somali immigrants will require cultural competence from health providers (Betancourt, Green, Carrillo, & Ananeh-Firempong, 2003). The purpose of this study is to gather data for professional development programming for health care providers in cultural competence based upon the Integrated Behavioral Model. The Integrated Behavioral Model has been used as a framework for health behavior interventions and as a means of predicting behavior based upon intention. This study examines the attitudes, perceived norms and perceived behavioral control of health care providers as they relate to the intention of providing culturally competent care to Somali immigrants.

Statement of the Problem

The delivery of patient-centered health care allows individuals to take an active role in their health care and receive services tailored to their individual needs. Cultural competency among health care professionals facilitates this kind of patient-centered care. Cultural competency has also been shown to increase patient satisfaction and is strongly correlated with medical adherence and improved patient outcomes (Betancourt et al., 2003; Trummer, 2006). The leading medical associations have published various objectives, recommendations and policies related to the enhancement of cultural competency among health care professionals. However, very little research describes health care professionals' awareness, acceptance or understanding of the role culture has in describing a patient's perceptions about health and health care. Failure to reflect upon the role of culture and its influence on health perceptions may marginalize its importance and lead to cultural incompetence.

One such group that continues to report cultural barriers in health care are Somali immigrants (Centers for Disease Control and Prevention [CDC], 2010). Somalis are unique in that they are the first non-Christian, Muslim group from Africa to immigrate to the United States. Assimilating to our western model of health care has been very difficult for Somalis. With regard to health and social services, Somali immigrants are the most underserved of all immigrant populations living in Minnesota (Minnesota Department of Health, 2005). Miscommunication and misperceptions have been documented as barriers to health care by both Somalis and health care providers.

The ultimate goal of this research is to identify the constructs of the Integrated Behavioral Model that affect health care providers' intent to provide culturally competent health care to Somalis. Intention is the strongest predictor of behavior based upon the Integrated Behavioral Model (Glanz, Rimer, & Viswanath, 2008). An individual's intention is based upon their attitudes, perceived norms and perceived behavioral control. Identifying areas of weakness among health care providers may lend recommendations for areas of further professional development. In order to attain the research goal, a survey was distributed among health care providers at a rural primary care clinic in Minnesota. The survey assessed health care provider's intentions, attitudes, subjective norms and perceived behavioral control toward providing culturally competent health care to Somalis.

Significance of the Problem

Culturally competent care is part of a strategy to improve health care quality and access among ethnic minorities. In order to improve access and quality in health care it will require the cultural competence of health care providers, yet little is known about providers' intention to provide this kind of patient-centered care. Given the practical significance and research impact on professional learning, it seems reasonable to examine more closely "intention" as it applies to providing culturally competent health care to Somalis. This research was designed to measure participants' stated intentions toward engaging in culturally competent behavior. It applied the Integrated Behavioral Model to predict and explain a health care provider's intention to provide culturally competent care to Somalis.

Research Questions

This study was conducted to examine health care providers' intention to provide culturally competent health care to Somalis based upon the constructs of the Integrated Behavioral Model. The independent variables included race, gender, years of practice, number of clinical encounters with Somali patients, professional training outside the United States, participation in cultural competency, religious affiliation and the constructs of the Integrated Behavioral Model. The dependent variable observed was intention to provide culturally competent health care to Somali.

The following research questions were addressed in the study:

1. Do instrumental attitudes, experiential attitudes, injunctive norms, descriptive norms, self-efficacy, and perceived controls contribute to and predict health providers' intention to provide culturally competent health care to Somali?
2. Do overall attitudes, subjective norms, and perceived behavioral controls contribute to and predict health care providers' intention to provide culturally competent health care to Somali?
3. Does race, gender, years of experience, number of clinical encounters with Somali patients, professional training outside the United States, participation in cultural competency training, and religious affiliation contribute to and predict health care providers' intention to provide culturally competent health care to Somali?

Limitations

The following limitations were beyond the control of the researcher:

- Empirical research is limited pertaining to the understanding of Somali culture.

- Health care professionals' understanding of Somali culture is not well documented.
- The American Medical Association does not support mandatory cultural competence training for physicians.
- Ideally, the researcher would have surveyed all health care professionals employed by the rural primary care clinic.
- Data were self-reported from participants, and may not be 100 percent accurate.
- The Integrated Behavior Model cannot assess all attitudes and beliefs. This study isolated logical beliefs and those that were likely to have the greatest impact upon providing culturally competent care to Somalis.
- Direct measures were not obtained through elicitation interviews.

Delimitations

The following delimitations were used to limit the scope of the study:

- Health care providers included physicians, nurse practitioners and physician assistants who were in non-administrative roles providing direct patient care.
- The survey was administered to health care providers at a rural primary clinic in Minnesota.
- The survey used to gather data was available for two weeks from April 18, 2012 to May 2, 2012.
- Survey questions were based upon the indirect measures of the Integrated Behavioral Model.

- 80 health care providers at the participating primary care clinic were identified as possible participants.
- The survey was sent by e-mail and completed online using ZoomerangTM data collection systems.

Assumptions

These assumptions were thought to be true about the study:

- Participants answered survey questions honestly and to the best of their ability.
- Respondents were reasonable.
- Respondents were representative of the population of health care providers at the rural primary care clinic.
- A relationship existed between intention to provide culturally competent healthcare and behavior.

Definition of Terms

The following terms were defined to explain their unique context to this study:

Attitude. Attitude is a construct of the Integrated Behavioral Model and a predictor of intention. Attitude is "the total set of a person's salient beliefs" (Fishbein & Ajzen, 1980, p. 67).

Behavior. Behavior includes four elements: the action, the target, the context and time. A change in any of these elements indicates a change in behavior. The behavior in question for this research is healthcare providers (target) providing culturally competent health care to Somalis (action) within their practices (context) before April 18, 2012 (time).

Behavioral beliefs and outcome evaluations. “Beliefs about the likely outcomes of the behavior and the evaluations of these outcomes” (Ajzen, 1991, p.1). Behavioral beliefs and outcome evaluations are predictor variables of attitude in the Integrative Behavioral Model.

Construct. The constructs of the Integrated Behavioral Model for the purposes of this study included attitude, subjective norm, and perceived behavioral control.

Construct component. The construct components of the Integrated Behavioral Model for the purposes of this study included instrumental and experiential attitudes, injunctive and descriptive norms, self-efficacy and perceived control.

Control beliefs. “Beliefs about the presence of factors that may facilitate or impede performance of the behavior and the perceived power of these factors” (Ajzen, 1991, p.1). Control beliefs is a predictor variable of self-efficacy in the Integrated Behavioral Model.

Cultural competence. “Cultural competence is a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enables that system, agency or those professionals to work effectively in cross-cultural situations” (Cross et al., 1989, p. 6).

Environmental constraints. Extraneous factors that influence or deter the behavioral outcome. Environmental constraints are predictor variables of behavior in the Integrated Behavioral Model.

Healthcare provider. A physician, physician assistant or nurse practitioner that provides direct preventative, curative or rehabilitation services to patients.

Intention. Future behavior that is directed by attitude, subjective norm, and perceived behavioral control. Intention is the most important predictor variable of behavior in the Integrated Behavioral Model (Glanz, Rimer, & Viswanath, 2008).

Injunctive norms. Expected level of support from identified members of a healthcare professional's network. Injunctive norms are a component to the subjective norms construct in IBM (Glanz et al., 2008).

Indirect measures of IBM. Predictor variables measured by an individual's specific behavioral beliefs and outcome evaluations (Glanz et al., 2008).

Integrated behavior Model (IBM). The Integrated Behavioral Model asserts that an individual's intention to perform a behavior is based upon attitude, subjective norm and perceived behavioral control (Glanz et al., 2008)

Motivation to comply. Motivation to comply with important individuals or groups (Ajzen, 1991).

Normative beliefs. "Beliefs about the likelihood that important referent individuals or groups approve or disapprove of performing a given behavior" (Ajzen, 1991, p.195). Normative Beliefs is a predictor variable of perceived norm in the Integrated Behavior Model.

Perceived behavioral control. The perceived ease or difficulty of performing a given behavior (Ajzen, 1991). Perceived behavioral control is a variable of the Integrated Behavioral Model.

Perceived norm. "A person's belief that most of his or her important others think he or she should (or should not) perform the behavior in question" (Fishbein & Ajzen,

1980, p.73). Perceived Norm is a predictor variable of intention in the Integrated Behavioral Model.

Self-efficacy. "A person's belief about his or her capabilities to produce designated levels of performance" (Bandura, 1994, p. 72). Self-efficacy is a component of the perceived behavioral control construct of the Integrated Behavioral Model.

Skills and abilities. Proficiency in a particular area. Skills and abilities are predictor variables of behavior in the Integrated Behavioral Model (Glanz et al., 2008).

Somali. A refugee, asylum seeker or immigrant from Somalia or East African refugee camp with family and cultural ties to traditional Somali clan systems or Somali Bantu.

Chapter Two: Review of Related Literature

Introduction

This study examined the utility of the Integrated Behavioral Model in identifying health care providers' intentions to provide culturally competent health care to Somalis. The purpose of the literature review is to provide the foundation for the study and guide the research questions. It is divided into three parts. The first section describes Somali ethnic groups, health in Somalia and refugee camps, Somali culture as it defines health, barriers to healthcare (including cultural barriers), and religion. The second section presents cultural competency: importance of cultural competency, cultural competency laws and regulation, and competency specific to Somalis. Lastly, the third section describes the Integrated Behavioral Model.

Somali Americans

Asylum seekers and refugees from Africa represent one of the fastest growing groups resettling in the United States. Between 1991 and 2000, an estimated 100,000 Somalis arrived in the United States as refugees or asylum seekers. Immigrants native to Somalia began arriving after the collapse of their central government in the 1990s. Rebel clans, secular groups and Islamic extremists continue to fight for control throughout most of the country today. As a result, many Somali natives have fled to the refugee camps of nearby countries (Ahmed, n.d.). Some within these refugee camps have been granted asylum in countries throughout the world. Many Somali refugees have resettled in Minnesota. It is estimated that more than 75,000 Somali refugees have settled in Minnesota (DeShaw, 2006).

Somali ethnic groups. There are two distinct ethnic groups among Somali immigrants, members of the dominant clan groups and the Bantu. Most Somalis who reside in the United States belong to dominant traditional clan groups. Somali Bantu are the newest Somali immigrants to the United States and began arriving in 2003 (Carroll et al., 2007). Their arrival marked the largest group ever to be granted asylum in United States history. Bantu are the decedents of slaves captured in the 19th century (Carroll et al., 2007). As a consequence, this group has largely been marginalized and discriminated against by the dominant Somali clans. Most were not allowed to participate in politics, marry into traditional clans or attend school. Due to their recent arrival and the inequalities they experienced in their homeland, they are also the least likely of Somali to be acculturated.

Health in Somalia and refugee camps. In Somalia, traditional healers are relied upon and most individuals were not exposed to traditional western practices. As a result, most Somalis have never participated in preventative medicine. Somalis are also skeptical of invasive procedures. A belief within the community is that an individual is not sick if he or she is not experiencing symptoms of illness. The definitions and concepts of illnesses, like cancer, are poorly understood among the Somali population. As a result, Somali women immigrating to Minnesota experience a higher rate of being unscreened for breast, cervical and colorectal cancer compared to other immigrant women (Samuel, Pringle, James, Fielding, & Fairfield, 2009).

Somali refugees have suffered great losses and arrive to the United States with disease endemic to their nation of origin. Most do not have formal education and have

limited exposure to preventative care services. Living through civil war, among refugee camps and relocating half way across the world produces significant psychological and physical effects (McGraw & McDonald, 2004). In Somalia, medical facilities operated much differently than medical facilities in the United States. Most individuals self-diagnosed disease or visited a traditional healer and always received treatment for their affliction. Most chronic diseases went untreated or undiagnosed. There were few questions during a visit with a shaman, waiting times were predictable, diagnosis was done on the spot, and a definitive cure was available from traditional healers. The practices of western medicine vary greatly from those practices typical of Somalia. Consequently, many Somalis find these western practices conflicting and express disappointment and confusion in the United States healthcare system (CDC, 2010).

Somali culture as it defines health. The literature reviewed for this study focused on the health beliefs and attitudes of the large, dominant Somali clan groups. Somalis live within a collectivist societal structure. This value can misalign with modern American culture. Clan life is very important and disputes can exist between clans (Scuglik, Alarcon, Lapeyre, Williams, & Logan, 2007). On occasion, illnesses within clans can be used against each other during disputes. Consequently, illness can produce stigma within the Somali community.

This patriarchal society can also limit care to females or younger males if an elder condemns treatment or help seeking for illnesses. Historically, role functioning has been defined by public and private domains. Men have traditionally functioned as the leader of family matters outside the home, while women functioned as leaders within the home.

Thus, a husband can prohibit his wife from seeking medical care outside the home.

Barriers to health care. The Minnesota Department of Health (2005) asserted that Somali refugees living within Minnesota were among the least served by Minnesota's health and social service programs. Three factors were identified as the cause of such disparity and included: a lack of health insurance, a small minority population, and health professionals that are unaware of communication barriers (Minnesota Department of Health, 2005). These barriers contribute to disparities in disease morbidity (Minnesota Department of Health, 2005).

Cultural competency among providers has been shown to increase patient satisfaction. Provider - patient communication contributes to overall improved health outcomes (Figure 2.1) (Betancourt et al., 2003; Street & Gordon, 2008; Trummer, 2006). The quality of care a patient receives is largely dependent upon one's health care provider. Street and Gordon (2008) describe how health care providers'

Figure 2.1. Linking Communication to Health Outcomes



Figure 2.1. Linking the importance of culturally competent provider communication and patient health outcomes. Adapted from "Defining Cultural Competence: A Practical Framework for Addressing Racial/Ethnic Disparities in Health," by J. R. Betancourt, A.R. Green, J. E. Carrillo, & O. Ananeh-Firempong, 2003, *Public Health Reports*, p. 239. Copyright 2003 by the Association of Schools of Public Health.

communication styles and perceptions impact the way they communicate with their patients. Street and Gordon (2008) found that health care providers were more argumentative with patients they perceived to be less effective communicators or less satisfied. Scuglik et al. (2007) surveyed 35 health providers and determined that for the Somali patients they provided care for at the Mayo Clinic, 74% of providers cited significant language barriers in their delivery of care. In addition, these researchers found that 68% of participating physicians cited cultural misinterpretations as a significant barrier to adequate care (Scuglik et al., 2007). These misperceptions and miscommunications are a significant barrier to Somali immigrants who have limited English proficiency, communicate through a translator, and/or define health in holistic terms.

Somalis note that verbal miscommunication, distrust, fear of pain, and invasive procedures all contribute to their intent not to regularly access Western medical services (Johnson et al., 2009). A belief within the Somali community is that an individual is not sick if he or she is not experiencing symptoms of illness. Medical terms, like cancer, cannot be translated easily. In addition, Somali immigrants often view their health in terms of immediacy; their access to health care is often episodic and emergency based. Carroll and associates (Carroll et al., 2007) found that the majority of Somali participants in their survey ($n = 33, 97\%$) noted that health care is better in the United States. However, many reported delaying care based on fear of the unknown or lacking knowledge about appropriateness of health care use. Most participants stated that they would not go to the doctor unless they were sick and most would only go for prenatal

visits (Carroll et al., 2007).

Religion. Kusow (2006) stated that Somalis are “one of the first black immigrating groups who are not Christian or English-speaking” (p. 544). Most Somalis are Muslim and follow the teachings of the Koran. Islam plays an important part in promoting personal health and the Koran teaches individuals that it is important to be healthy and live a healthy lifestyle. Individuals are obligated to treat their bodies with respect and maintain them in the best way. A Somali’s view of health, however, is different from the traditional biomedical model used by many in Western medicine. Pavlish, Noor, and Brandt (2010) found that most Somalis view health in holistic terms. Health is defined in terms of daily living, strength in family and spirituality.

Cultural Competency

Cultural competency is defined very differently among health organizations. Most definitions produced by professional medical organizations vaguely define cultural competency. The Kaiser Family Foundation (2003) describes this challenge to cultural competency as a “lack of agreement on the terms, definitions, and core approaches” (p. 5). The definition of cultural competence for this study was described by Cross and colleagues (1989) which states that “cultural competence is a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enables that system, agency or those professionals to work effectively in cross-cultural situations” (p. 6). Denboba (1993) further defined cultural competency at an individual level. Individuals who work effectively in cross cultural situations have the ability to (a) value diversity among all peoples; (b) effectively understand and respond to all cultures;

(c) engage in cultural self-assessment; (d) adapt delivery of services to meet cultural needs; and (e) institutionalize cultural knowledge (Denboba, 1993).

The importance of cultural competency. The importance of cultural competency in medicine was first described in 1978 by Kleinman and colleagues (Kleinman, Eisenberg, & Good, 1978). The importance of cultural competency within medicine has only increased since then. The United States population is becoming more diverse. Almost one-third of the current United States population growth is through net immigration (United States Census Bureau, 2010). The number of African-born immigrants living in the United States increased 142% between 1990 and 2000 (Johnson et al., 2009). Somali immigrants, refugees and asylum seekers have become the single largest African refugee group to enter the United States. In 2003 the Bantu, a minority group from Somalia, began arriving in the United States (Carroll et al., 2007). Their arrival marked the largest group ever to be granted asylum in United States history.

Addressing the health needs of minority populations is becoming a public health policy goal. Cultural competency has been recognized as a possible strategy for improving upon the health of minority populations. Health care providers who showed respect for their patients, communicated effectively, expressed a positive affect, and maintain congruent attitudes had patients who were more satisfied and displayed greater medical adherence toward recommendations (Jahng, Martin, & DiMatteo, 2005; Trummer, 2006). The Institute of Medicine Report (2002), *Unequal Treatment*, recommended health care systems employ cultural competence training as a part of a multi-level strategy to reduce ethnic and racial disparities in health.

Cultural competency laws and regulations. Some federal and state laws do exist regarding the culturally competent delivery of care. Title VI of the Civil Rights Act of 1964 states that “no person in the United States shall, on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination” under a federally supported program (p. 6). Two large medical programs that are federally supported include Medicare and Medicaid. The United States Department of Health and Human Services (2007) further elaborates upon this protection with the inclusion of language and interpretation. The Joint Commission on Accreditation of Healthcare Organizations (2010) maintains that institutions are required to provide policies of effective communication. The Accreditation Council for Graduate Medical Education (ACGME), which oversees medical residency programs in the United States, and the Liaison Committee on Medical Education (LCME), which set accreditation standards for medical schools, include specific requirements on cultural competence (ACGME, 1997; LCME, 2001). To date, only two states, California and New Jersey, require physicians to take continuing medical education courses that provide information about cultural competency in order to maintain their medical licenses (Landers, 2009).

Cultural competency for Somali. Currently, the United States health care system is poorly designed for Somalis and other minority populations. Somalis report significant frustrations and barriers within Western medicine. Concerns include navigation difficulties, excessive blood collection, cost, excessive waiting, requirements, rules, addiction to narcotics, communication, cultural misinterpretations and withholding of

treatment based upon ethnicity (Ahmed, n.d.). Somali also report divergent beliefs among providers regarding their health beliefs.

Carroll et al. (2007) described the importance of gender concordance in the delivery of health care services to Somalis. In some medical specialties there are significant disparities in female health providers. For example, only 16% of gastroenterologists in the United States are female (Singh, Burke, Larive, and Sastri, 2008). However, 58.6% of pediatricians and 54.4% of OB/GYN are female (Minnesota Department of Health, 2008). Females are also less likely to practice in rural areas throughout Minnesota and report working fewer hours each week than their male counterparts (Minnesota Department of Health, 2008). The majority of female health care providers in Minnesota are also less experienced than their male counterparts. Males with 10 years or less experience comprise only 32.4% of male physicians, while 53.1% of female health care providers have 10 years of experience or less (Minnesota Department of Health, 2008).

In the United States, the biological model of health is universally accepted. Most of the health care organizations in the United States operate within this model. Treatments within the biological model are usually focused on the individual, and disease is thought to occur as a result of a biological process. However, many Somalis view health in terms of the biopsychosocial model. Thus, the patient experiences illness in a physical and psychological way (Adams & Aseffi, 2002). With these two divergent views of health represented, communication is essential. If communication is compromised, somatization can occur. Somali patients may be classified as having somatization

disorder if they continually seek help from a health care provider for claims unsubstantiated within the biological model of medicine. Somatization can lead to misperception and stereotyping of Somali patients among health care providers (Adams & Aseffi, 2002).

The Integrated Behavioral Model

Many of the researchers prior to the Theory of Reasoned Action focused solely on attitudes as a predictor of behavior. In addition, most studies focused on individual attitudes toward an object and not a behavior (Glanz et al., 2008). The Theory of Reasoned Action was proposed and asserted that behavioral intention was the most important predictor of behavior (Fishbein, 1967; Fishbein & Ajzen, 1980). In addition, behavioral intention was directly influenced by an individual's attitude toward the behavior and his or her perceived subjective norms.

Attitude is a direct determinant of behavioral intention and it is influenced both by an individual's instrumental attitude and their experiential attitude (Glanz et al., 2008). Instrumental attitude describes an individual's beliefs toward the consequences of performing a behavior. For example, a health care provider may agree that providing culturally competent health care to Somalis will increase their medical adherence. Experiential attitude defines the desirability of these consequences. For example, greater medical adherence will lead to more favorable health outcomes for their Somali patients.

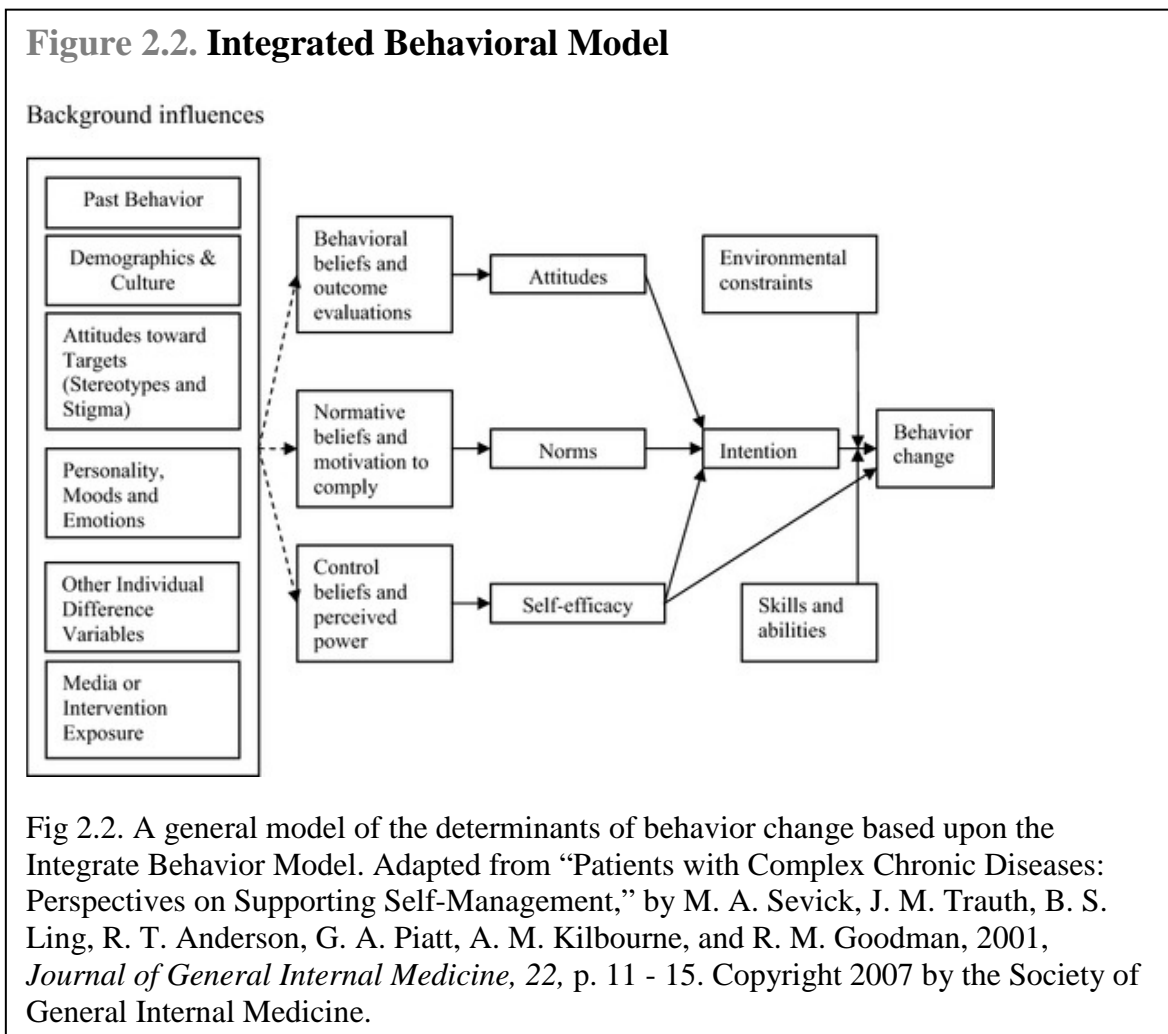
An individual's subjective norms are also direct determinants of behavioral intention and are influenced by both injunctive and descriptive norms (Glanz et al., 2008). An injunctive norm is the perceived social pressure from referents to engage in a

defined behavior. Referents of health care providers could include other health care providers, administrators, patients, nurses, support staff and patient's families. For example, a health care provider may strongly agree that his or her Somali patients expect him or her to provide culturally competent health care. Descriptive norms include the perceptions of whether referents perform a defined behavior. For example, a health care provider does not agree that other health care professionals provide culturally competent health care to Somalis.

Ajzen (1991) described the importance of an additional construct necessary to an individual's behavioral intention, perceived behavioral control. The Theory of Planned Behavior was born with the incorporation of perceived behavioral control among the constructs of the Theory of Reasoned Action. Perceived behavioral control is influenced by an individual's degree of self-efficacy and perceived power. Self-efficacy is "a person's belief about their capabilities to produce designated levels of performance" (Bandura, 1994, p. 72). For example, a health care provider may not feel confident that he or she could provide culturally competent health care to Somalis if he or she wanted to. Perceived power is an individual's perception of control over performing a defined behavior based upon environmental obstacles. For example, a health care provider may feel that a 15 minute appointment block is not enough time to effectively provide culturally competent health care to a Somali patient while working through an interpreter.

The Integrated Behavioral Model maintains the constructs of both the Theory of Reasoned Action and the Theory of Planned Behavior. In addition, it combined constructs of other models including Social Cognitive Theory (Bandura, 1986) and the

Health Belief Model (Becker, 1974). According to IBM (Figure 2.2.), the proximal variables to behavior change include intention, environmental constraints and skills/abilities of the provider. The distal variables, or background variables, (Figure 2.2.) can be related to intention but do not directly contribute to it. Background variables include demographics, past behavior, media or intention exposure, individual difference values, personality and attitudes toward the target.



The constructs of the Integrated Behavioral Model have successfully predicted a

variety of behaviors (Glanz et al., 2008). The Integrated Behavioral Model has served as a theoretical framework for two large studies performed by the Centers for Disease Control and Prevention. The AIDS Community Demonstration Projects worked with high risk populations for HIV and other sexually transmitted infections exhibiting limited help-seeking behaviors (CDC, 1996; CDC, 1999). The second study, Project RESPECT, was randomized and identified effective HIV and sexually transmitted infection intervention techniques (Kamb, Fishbein, Douglas, & Rhodes, 1998).

Use of the Integrated Behavioral Model to predict health care providers' intentions to provide culturally competent care. Integrated Behavioral Model theorists assert that an individual's intention to perform a behavior is based upon one's attitude, subjective norms and perceived behavioral control. This research examined the instrumental and experiential attitudes, injunctive and descriptive norms, self-efficacy, and perceived behavioral control of health care providers at a rural primary care clinic in Minnesota. Identifying the barriers and facilitating factors of providing culturally competent care to Somalis will reveal areas for intervention (Figure 2.3).

Identifying these areas and developing appropriate interventions may increase health care providers' intention to provide culturally competent health care to Somali patients. Experience with providing culturally competent health care to Somalis will result in a habitual pattern and an individual's intention will be less important. If health care providers' intention is to provide culturally competent health care to Somalis but they are not acting on it, interventions could be aimed at proximal variables like removing environmental constraints or skill building exercises.

Figure 2. 3. Recommended Interventions Based on Intention and Behavior

		Performance of the Recommended Behavior	
		No	Yes
Intention to perform the recommended behavior	No	Change outcome, and/or self-efficacy beliefs	Change outcome, normative, and/or self-efficacy beliefs
	Yes	Improve skills and reduce environmental barriers	No intervention necessary, or maintain behavior

Figure 2.3. Performance of a recommended behavior based upon intention and implications for intervention. Adapted from “Using Theory to Design Effective Health Behavior Interventions” by M. Fishbein and M. C. Yzer, 2003, *Journal of Communication Theory*, 13(2), p. 171.

Summary

A one-size-fits-all approach to medicine cannot adequately accommodate the growing diverse United States population. One group that has expressed significant concerns acclimating to the western model of care is Somali immigrants. Minnesota is home to more Somalis than anywhere else in the United States (Goza, 2007). Somalis are unique in that they are the first non-Christian, Muslim group from Africa to immigrate to Minnesota. They are also among the least likely of minority groups to be insured or access health care services. Miscommunication and misperceptions are repeatedly cited

among both health care providers and Somali patients as barriers to meaningful health care. Using the constructs of the Integrated Behavioral Model will help identify physician's intent to provide culturally competent health care and guide appropriate professional development.

Chapter Three: Methodology

Introduction

This chapter describes the research methods used to examine the utility of the Integrated Behavior Model in describing health care providers' intention to provide culturally competent health care to Somalis. In this chapter, the rationale for the choice of methodology is described to answer the following research questions: 1.) Do instrumental attitudes, experiential attitudes, injunctive norms, descriptive norms, self-efficacy, and perceived controls contribute to and predict health providers' intention to provide culturally competent health care to Somali? 2.) Do overall attitudes, subjective norms, and perceived behavioral controls contribute to and predict health care provider intentions to provide culturally competent health care to Somali? 3.) Does race, gender, years of experience, number of clinical encounters with Somali patients, professional training outside the United States, participation in cultural competency training, and religious affiliation contribute to and predict health care providers' intention to provide culturally competent health care to Somali? A copy of the survey instrument is located in Appendix A.

Research Design

This study used a cross sectional research design to assess health care providers' intention to provide culturally competent health care to Somali based upon the indirect measures of the Integrated Behavioral Model. The cross sectional design of this study was used to minimize error by obtaining real time and on-site measurements. Data were collected through an online survey to investigate the relationship between participants'

intention and their attitudes, subjective norms and perceived behavioral control. Surveys are practical, inexpensive and can elicit intentions (Cottrell & McKenzie, 2011). The survey instrument was available to health care providers through ZoomerangTM data collection system for two weeks between Wednesday, April 18, 2012 and Wednesday, May 2, 2012 (see Appendix A for a copy of the survey). Health care providers who provided direct patient care at the participating rural primary care clinic in Minnesota were sent a link to the survey from the clinic's president and chief executive officer. The data were analyzed using the electronic version of the Statistical Package for the Social Sciences Version 20.0 (SPSS) and directly applied to the study's research questions. The dependent variable used was health care provider's intention to provide culturally competent health care to Somalis. The independent variables used included race, gender, years of experience, number of clinical encounters with Somali patients, professional training outside the United States, participation in cultural competency training, religious affiliation, constructs of IBM and construct components of IBM.

Participants

The target population for this study included board certified health care providers including nurse practitioners, physicians and physician assistants who provided direct patient care in non-administrative positions at a rural primary care clinic in Minnesota. Health care providers may interact with members of the Somali community and offer medical recommendations to these individuals. The rural primary care clinic that participated in this research study is located in a growing Somali community.

An e-mail inviting participants to complete a census survey was sent to every health care provider at the rural primary care clinic who met inclusion criteria. A census survey was used given the small sample population and anticipated low response rate. Inclusion criteria included board certified physicians, nurse practitioners and physician assistants who were employed at least part time by the participating rural primary health care clinic and provided direct patient care. Eighty participants were identified and invited to participate in this research study. All health care providers who met inclusion criteria received an email invitation to participate in the survey from the president and chief executive officer of the participating clinic. Employee email addresses were used to recruit participants.

Participation in this study was voluntary and consent was implied by completing the survey. Participants were free to discontinue their participation at any time during the study. Interested participants were required to give their informed consent before completing the online survey. The purpose of the sample selection was to identify the intention of health care providers to provide culturally competent health care to Somali based upon indirect measures of the Integrated Behavioral Model.

Instrumentation

An online self-administered survey, which took 15-20 minutes to complete and consisted of 53 questions, was available to health care providers using ZoomerangTM data collection systems. The survey was developed to assess the characteristics of the population and overall intention, attitudes, subjective norms and perceived behavioral control as each pertained to the culturally competent delivery of health care services to

Somalis. An existing measurement instrument could not be identified that was well suited to the purposes of the research so a survey was developed by the researcher.

The survey included 11 items used to describe the demographics of the population. Thirty-three items were based on the constructs of the Integrated Behavioral Model and indirectly assessed behavioral intention, attitudes, subjective norms and perceived behavioral control. These thirty-three items were written on a 7-point unipolar Likert scale with scores ranging from 1 to 7. Items pertaining to intention, instrumental attitudes, experiential attitudes, descriptive norms, injunctive norms, self-efficacy, and perceived control were written in a *strongly agree - strongly disagree* scale. Eight items pertaining to motivation to comply were written in a *not important - extremely important* 7-point Likert scale. Five instrumental attitude items and two self-efficacy items were phrased in the reverse. Each Likert scale item based on indirect measures of the Integrated Behavioral Model included a *not applicable* response. The final survey item allowed health care providers with the option to add any comments they might have regarding Somali culture and cultural competence in their medical practice.

Reliability and Validity of Health Care Provider Intention Survey

The Integrated Behavioral Model has not been tested in previous studies pertaining to health care providers' intention to provide culturally competent health care to Somalis. Reliability and validity data collection on a survey instrument for the purposes of this study has not been established. To determine face and content validity, a panel of experts ($n = 5$) reviewed and made suggestions to improve the survey instrument. These experts included:

1. Assistant Professor of Health Education, Ph.D., M.S., MCHES

Minnesota State University, Mankato

2. Professor of Health Education, Ph.D., MCHES

Minnesota State University, Mankato

3. Professor of Health Education, Ed.D.

Minnesota State University, Mankato

4. Associate Professor and Health Department Chair, Ph.D., MCHES

Minnesota State University, Mankato

5. Hospitalist, M.D.

University of Minnesota, Twin Cities

Scales used within this survey instrument were analyzed for internal consistency reliability using Cronbach's alpha. Overall intention to provide culturally competent health care to Somalis was based on a scale consisting of three items. To determine overall attitude toward providing culturally competent health care to Somali a 12 item scale was used consisting of a six item instrumental attitude subscale and a six item experiential attitude subscale. To determine overall subjective norms toward providing culturally competent health care to Somali a 16 item scale was used. This scale consisted of a five item injunctive norms subscale, a three item descriptive norms subscale, a five item motivation to comply with injunctive norms subscale and a three item motivation to comply with descriptive norms subscale. Overall perceived behavioral control toward providing culturally competent health care to Somali was made up of a 10 item scale consisting of a five item self-efficacy subscale and a five item perceived control subscale.

Upon analysis of these subscales using Cronbach's alpha, several survey items were found to be less reliable and were excluded from overall analysis in SPSS Version 20.0. Those omitted included: motivation to comply with descriptive norms item 40; self-efficacy items 43, 45, and 47; and perceived control items 50 and 52. Reliability statistics for each scale after the exclusion of these items are reported in Table 3.1.

Table 3.1

Cronbach's Index of Internal Consistency (α) for Integrated Behavioral Model Scales

Scale	<i>n</i> of Items	<i>M</i> (<i>SD</i>)	α
Intention	3	6.57(3.28)	0.93
Instrumental Attitude	6	12.35(5.31)	0.70
Experiential Attitude	6	6.47(5.70)	0.79
Injunctive Norms	5	9.09(4.73)	0.85
Descriptive Norms	3	1.05(4.99)	0.92
Motivation to Comply (Injunctive)	5	8.63(6.23)	0.91
Motivation to Comply (Descriptive)	2	1.29(2.82)	0.87
Self-efficacy	2	2.52(2.59)	0.76
Perceived Control	3	-2.55(4.49)	0.71

Procedure

Permission to perform this study was granted from the administration of the participating rural primary care clinic (see Appendix C for a copy of clinic approval) and the Institutional Review Board (IRB) at Minnesota State University, Mankato prior to initiation (see Appendix B for a copy of IRB approval). The survey was available online

using ZoomerangTM data collection systems. Submission of the completed online survey was interpreted as the participant's informed consent to participate and the confirmation that he or she was at least 18 years of age or older. A consent form was immediately displayed when the participant clicked on the survey link.

Participants were contacted using their employee email address that the participating clinic supplies each of its employees. An introductory email was sent on April 16, 2012 by the president and chief executive officer of the participating clinic to health care providers meeting the inclusion criteria. The clinic identified 80 health care providers that met the inclusion criteria. The goal of this communication sent two days before the survey opened was to express the clinic's consent to participate in this external survey. An email invitation to participate in the survey was sent by the president and chief executive officer of the participating clinic to health care providers the day the survey opened on Wednesday, April 18, 2012. This email included a link to the online survey and a statement outlining the confidentiality and anonymity of participants. The survey was available for two weeks. Two days before the survey closed the president and chief executive officer of the participating clinic emailed a reminder to health care providers. The survey closed two days later on Wednesday, May 2, 2012.

Participants were thanked for taking the time to complete the survey and asked to complete the survey to the best of their ability. Once beginning the survey, participants were given the option to save their answers and return to the survey until it was completed and submitted. Surveys took between 15 and 20 minutes to complete and consisted of 53 questions.

Data Analysis

Data was gathered and stored using ZoomerangTM data collection systems and exported into a Microsoft Excel spreadsheet. All responses were examined by the researcher for missing data. Individual items left blank were labeled as missing items and removed from analysis of that scale. Item four of the survey, which described how many hours a health care provider provided direct patient care each week, contained three responses that had to be modified by the researcher. One survey response written as 45 - 50 hours was averaged and reported as 47.5 hours, another response was written as 40 + hours and was reported simply as 40 hours, and another response that was written as > 50 hours was reported as 50 hours. Two participants responded to survey item five by answering that they provide health care services to 50 - 60 Somali patients a month. The middle value of these responses was recorded for data analysis as 55. Upon making these changes, data were exported from Microsoft Excel to SPSS Version 20.0 for further analysis.

The data was reviewed in SPSS Version 20.0 to ensure no errors had occurred during exportation of results from Microsoft Excel. *Not applicable* responses to survey items 12, 13, 14, 16, 21 - 43, 44, and 46 - 52 were recoded as "system missing" in SPSS Version 20.0. Survey items 15, 17-20, 43 and 45 were phrased in the reverse. In order to make these seven items comparable with others, the scales of these items were reversed. *Not applicable* responses to these survey items were also coded as "system missing" in SPSS Version 20.0. According to Ajzen (1991), rescaling unipolar scales to bipolar scales greatly increased correlation strength when the original scale was unipolar. Survey

items 12 - 52 were based on the constructs of the Integrated Behavioral Model and participants responded using 7-point unipolar scales. These scales were recoded using a -3 to 3 bipolar scale.

Responses to survey item three (*How many years have you been providing direct patient care?*) were recoded into two groups. The first group contained participants that responded as having provided direct patient care between two and ten years ($n = 13$, 41.9%). The second group contained participants that reported having provided direct patient care between 11 and 38 years ($n = 17$, 54.8%). Responses to survey item five (*On average, how many Somali patients do you provide health care services to during a single week?*) were also recoded into two groups. The first group contained those that responded by answering between one and five Somali patients ($n = 13$, 41.9%). The second group contained those participants that responded by answering between 10 and 55 Somali patients ($n = 13$, 41.9%). Responses to survey item four (*On average, how many hours a week do you spend providing direct patient care?*) were recoded into three different groups. The first group contained participants who had responded between 14 and 35 hours ($n = 8$, 25.8%), the second group contained those participants that responded 40 hours a week ($n = 11$, 35.5%) and the third group contained participants who had responded between 45 and 60 hours a week ($n = 11$, 35.5%).

This study sought to answer three research questions. To determine an overall intention score, survey items 12, 13, and 14 measuring intention were added together and standardized. This overall intention score was applied to each of the three research questions. It was referred to as *overall intention (OA)*. Cronbach's alpha was used to test

each subscale for internal consistency reliability. Reliability statistics for each scale can be seen in Table 3.1. Those items that were removed from the subscales were not included in any data analysis.

To determine if the construct components instrumental attitudes, experiential attitudes, injunctive norms, descriptive norms, self-efficacy, and perceived controls contribute to and predict health providers' intention to provide culturally competent health care to Somali these subscales had to be computed separately. To achieve an overall score for each construct of the Integrated Behavioral Model, the survey items pertaining to a specific construct were added together. An overall instrumental attitude (OIA) score was computed using survey items 15 - 20. An overall experiential attitude (OEA) score was computed using survey items 21 - 26. An overall injunctive norms (OIN) score was computed using survey items 27 - 31. An overall subjective norms (OSN) score was computed using survey items 33 & 34. An overall motivation to comply with injunctive norms (*OMCIN*) score was computed using survey items 35 - 39. An overall motivation to comply with subjective norms (*OMCSN*) score was computed using survey items 41 & 42. An overall self-efficacy (*OSE*) score was computed using survey items 44 & 46. An overall perceived control (*OPB*) score was computed using survey items 48, 49 & 51. The overall score for each construct component was then compared to intention using Pearson's correlation and multiple regressions analysis in SPSS Version 20.0.

To determine if the constructs overall attitudes, subjective norms, and perceived behavioral controls contribute to and predict health care providers' intention to provide culturally competent health care to Somali the scores of each independent variable had to be computed separately and standardized. The scores for overall attitudes (*OA*), overall subjective norms (*OSN*), and overall perceived behavioral control (*OPBC*) were then compared to overall intention scores (*OI*) using Pearson's correlation and multiple regressions analysis in SPSS Version 20.0.

To achieve an overall score for overall attitude (*OA*) survey items measuring the construct components instrumental attitudes and experiential attitudes were used. Each instrumental attitude item corresponded with an experiential attitude item. To determine an overall attitudes (*OA*) score, each instrumental attitude survey item was paired with its respective experiential attitude survey item and these values were multiplied. The product of each pair was then added together and standardized. The following formula was used where the numbers correspond to the survey items:

$$\text{Formula 3.1} \quad OA = (15 \times 21) + (16 \times 22) + (17 \times 23) + (18 \times 24) + (19 \times 25) + (20 \times 26) / 6$$

To achieve an overall subjective norm (*OSN*) score survey items measuring the construct components injunctive norms, descriptive norms, motivation to comply with injunctive norms and motivation to comply with subjective norms were used. Each injunctive norm item and descriptive norm item had a corresponding motivation to comply item. To determine an overall subjective norm (*OSN*) score, each injunctive norm and descriptive norm item was paired with its respective motivation to comply item and

these values were multiplied. The product of each pair was then added together and standardized. One descriptive norm pair, survey items 32 & 40, was excluded from overall analysis given that item 40 was shown unreliable using Cronbach's alpha. The following formula was used where the numbers correspond to the survey items:

$$\text{Formula 3.2} \quad OSN = (27 \times 35) + (28 \times 36) + (29 \times 37) + (30 \times 38) + \\ (31 \times 39) + (33 \times 41) + (34 \times 42) / 7$$

To achieve an overall perceived behavioral control (*OPBC*) score survey items measuring the construct components self-efficacy and perceived control were used. Each self-efficacy item had a corresponding perceived control item. To determine an overall perceived behavioral control (*OSN*) score, each self-efficacy item was paired with its respective perceived control item and these values were multiplied. The product of each pair was then added together and standardized. Three pairs of questions were excluded from analysis given that one item of the pair was shown unreliable using Cronbach's alpha. The following formula was used where the numbers correspond to the survey items:

$$\text{Formula 3.3} \quad OPBC = (44 \times 49) + (46 \times 51) / 2$$

To determine if race, gender, years of experience, number of clinical encounters with Somali patients, professional training outside the United States, participation in cultural competency training, and religious affiliation contributes to and predicts health care providers' intention to provide culturally competent health care to Somali descriptive statistics, Pearson's correlation and multiple regressions in SPSS Version 20.0 were used. Years of experience and number of clinical encounters with Somali patients were each

recoded into two categories. Gender was also expressed using two categories. To further evaluate both gender and years of experience, independent samples t-tests were used to determine if these groups were statistically different from one another based on intention and the constructs of the Integrated Behavioral Model.

Summary

This chapter described the methodology used to determine health care providers' intention to provide culturally competent health care to Somali based upon the Integrated Behavioral Model. The reliability of the survey instrument was determined using Cronbach's alpha. A panel of experts reviewed the survey instrument to establish content and face validity. The completed survey was administered as a census to every health care provider employed at the participating rural primary care clinic by e-mail between April 18, 2012 and May 2, 2012. Findings were analyzed using descriptive statistics, Pearson's correlation, multiple regressions analysis, and independent sample t-tests. These analyses answered the research questions and the next chapter will review these findings pertinent to each research question.

Chapter Four: Findings

Introduction

This chapter presents the findings of this research and describes its implications. Data analysis procedures used in this study were designed to determine if a significant relationship exists between health care providers' intention to provide culturally competent health care to Somali and the constructs of the Integrated Behavioral Model using indirect measures. Descriptive data of the population and response rate is presented first. Responses to individual survey items are presented second. Data for this study was analyzed using descriptive statistics, independent samples t-tests, Pearson's correlation and standard multiple regressions to determine the relationship between each independent variable and overall intention. The research presented herein was guided by the three research questions. Findings relevant to each research question are described below. The last section of this chapter summarizes the findings of this research in relation to the Integrated Behavioral Model and the review of literature.

Summary of Descriptive Findings

A total of 31 participants providing direct patient care as physicians, nurse practitioners or physician assistants at a rural primary care clinic in Minnesota were surveyed in the spring of 2012. Eighty health care providers were invited to complete the survey by email and of these, 31 participated resulting in a 38.8% response rate. According to Krejcie and Morgan (1970), a sample size of 66 participants is needed to be representative of a population of 80. The number of usable surveys was well below the minimum number of 66 required for the results of this study to be representative of this

group of participants. Therefore, the results simply represent the respondents and not the population of health care providers at the participating primary care clinic.

Of these 31 participants, the majority ($n = 29$, 93.5%) described themselves as Caucasian. Each gender was well represented by males ($n = 15$, 48.4%) and females ($n = 16$, 51.6%). The experience of health care providers providing direct patient care ranged from 2 to 38 years, with a mean of 16.88 years ($SD = 10.9$) of experience. The majority of health care providers ($n = 22$, 71.0%) reported working 40 hours or more a week. All of the health care providers surveyed reported caring for at least one Somali patient within the past 30 days, with a median of five Somali patients. Only one health care provider received medical training outside the United States, whereas three participants reported having worked as a health care provider outside the United States. Over half of the participants ($n = 17$, 54.8%) had never received cultural competence training specific to Somali culture. The overwhelming majority of participants ($n = 27$, 87.1%) described their religious affiliation as Christian. Over half of the participants ($n = 20$, 64.5%) were employed as a physician, whereas the rest worked as either nurse practitioners or physician's assistants. The majority of participants ($n = 9$, 31.0%) worked within family practice. A complete list of demographic characteristics is presented in Table 4.1.

Table 4.1

Demographic Characteristics of Health Care Provider Participants

Characteristic	<i>n</i>	%	<i>M(SD)</i>
Race			
Caucasian	29	93.5	
Asian	1	3.2	
Missing	1	3.2	
Total	31		
Gender			
Male	15	48.4	
Female	16	51.6	
Total	31		
Religion			
Christian	27	87.1	
Hindu	1	3.2	
Agnostic/Atheist	1	3.2	
Missing	2	6.5	
Total	31		

Table 4.1(Continued)

Demographic Characteristics of Health Care Provider Participants

Characteristic	<i>n</i>	%	<i>M(SD)</i>
Year of Practice			
2 - 10 years	13	41.9	
11 - 38 years	17	54.8	
Missing	1	3.2	
Total	31		16.88(10.98)
Hours/Week			
14 - 35	8	25.8	
40	11	35.5	
45 - 60	11	35.5	
Missing	1	3.2	
Total	31		40.92(10.26)
Somali Patients/Month			
1 - 5	13	41.9	
10 - 55	13	41.9	
Missing	5	16.1	
Total	31		17.61(19.87)

Table 4.1(Continued)

Demographic Characteristics of Health Care Provider Participants

Characteristic	<i>n</i>	%	<i>M(SD)</i>
Credentials			
M.D.	15	48.4	
D.O.	5	16.1	
C-NP	3	9.7	
PA-C	5	16.1	
Missing	3	9.7	
Total	31		
Cultural Competence Training			
Yes	14	45.2	
No	17	54.8	
Total	31		
Specialty			
Family Medicine	9	29.0	
Internal Medicine (primary)	6	19.4	
Obstetrics and Gynecology	4	12.9	
Pediatric Medicine	2	6.5	
Surgery	2	6.5	

Table 4.1(Continued)

Demographic Characteristics of Health Care Provider Participants

Characteristic	<i>n</i>	%	<i>M(SD)</i>
Specialty (Continued)			
Urology	1	3.2	
Psychiatry	1	3.2	
Sleep Medicine	1	3.2	
Orthopedics	1	3.2	
Dermatology	1	3.2	
Medical Bariatrics	1	3.2	
Missing	2	6.5	
Total	31		

Findings Related to Individual Survey Items

Descriptive statistics were used to determine the mean score for each survey item. The means for each survey item were based on a -3 to 3 scale. Survey items pertaining to instrumental attitudes, experiential attitudes, injunctive and descriptive norms, self-efficacy and perceived control used a *strongly disagree - strongly agree* scale. Survey items pertaining to motivation to comply with injunctive and descriptive norms used a *not important - extremely important* scale. Survey items with a mean score of -1.00 or

less were interpreted as survey items that participants did not agree with or believed to be unimportant. Survey items with a mean score between -0.99 and 0.99 were interpreted as survey items that participants neither agreed or disagreed with or did not believe to be important or unimportant. Survey items with a mean score of 1.00 or above were interpreted as survey items that participants agreed with or believed to be important.

Participants agreed with each instrumental attitudes survey item. Participants agreed with all of the experiential attitudes survey items with the exception of items 25 and 26. Participants neither agreed nor disagreed with survey item 25, *I reflect upon the cultural traditions of Somali patients when making medical decisions*. Participants neither agreed nor disagreed with survey item 26, *I feel that evidence-based guidelines regarding the culturally competent delivery of health care are well established*.

Participants agreed with each injunctive norms item. Participants also agreed with each of the motivation to comply with injunctive norms survey items. Participants neither agreed nor disagreed with each of the descriptive norms survey items. These included survey item 33, *My colleagues provide culturally competent health care to Somali patients*, and survey item 34, *Clinic administrators provide culturally competent health care to Somali patients*. Participants neither agreed nor disagreed with each of the motivation to comply with descriptive norms items. These included survey item 41, *Doing what my colleagues do is* (not important - extremely important), and survey item 42, *Doing what clinic administrators do is* (not important - extremely important).

Participants agreed with each self-efficacy survey item. Participants neither agreed nor disagreed with perceived behavioral control survey item 47, *When I provide*

health care services to Somali patients I feel rushed, and survey item 52, *I often care for Somali patients of a different gender from my own*. Participants disagreed with survey item 49, *Interpreters are not available to me when I care for Somali patients*.

Findings Related to Research Questions

Research question 1. Do instrumental attitudes, experiential attitudes, injunctive norms, descriptive norms, self-efficacy, and perceived controls contribute to and predict health providers' intention to provide culturally competent health care to Somali? Pearson's correlations were used to determine the association between intention and the following construct components: overall instrumental attitude, overall experiential attitude, overall injunctive norms, overall descriptive norms, overall self-efficacy and overall perceived control. This study assumed that intention was associated with these construct components of the Integrated Behavioral Model and so one-tailed Pearson's correlation analyses were used. According to the Integrated Behavioral Model, these constructs components are thought to contribute to overall intention toward performing a given behavior (Ajzen, 1991).

Construct components including: instrumental attitudes, overall injunctive norms, overall descriptive norms, and overall self-efficacy appeared to be strongly correlated with intention. Overall perceived behavioral control was negatively correlated with overall intention. Overall experiential attitude was not correlated with overall intention. Several construct components were found to be highly correlated with one another independent of intention. These included overall instrumental attitudes and overall experiential attitudes, overall instrumental attitudes and overall injunctive norms, overall

experiential attitudes and descriptive norms, and overall injunctive norms and overall descriptive norms. Overall perceived control was negatively correlated with overall descriptive norms, overall injunctive norms and overall instrumental attitudes. Looser correlations were found between overall instrumental attitudes and overall descriptive norms, overall injunctive norms and overall experiential attitude, and overall self-efficacy and overall injunctive norms. See Table 4.2 for a complete summary of correlation statistics comparing intention with the construct components of the Integrated Behavioral Model.

Given the high degree of correlation between the independent variables, a high standard error of the estimate was observed within the multiple regression analysis ($SEE = 0.72$). A linear relationship between intention and the independent variables was assumed for multiple regression analysis. Multiple regression analysis did not result in any significant findings. A small sample size and multicollinearity severely limited this statistical investigation.

Participant's overall intention to provide culturally competent health care to Somali was high. Participant's mean intention score was 2.19 ($SD = 0.88$, $n = 28$) on a -3 to 3 scale. Overall instrumental attitudes to provide culturally competent health care to Somali patients was also high, the mean of the sample was 2.06 ($SD = 0.88$, $n = 26$) on a -3 to 3 scale. Participant's mean overall experiential attitude score was 1.08 ($SD = 0.95$, $n = 21$) on a -3 to 3 scale. Participant's mean overall injunctive norms score was 1.82 ($SD =$

0.94, $n = 22$) on a -3 to 3 scale. The mean motivation to comply with these injunctive norms score ($M = 1.73$, $SD = 1.23$, $n = 27$) was consistent with overall injunctive norms score. Overall descriptive norms to provide Somali with culturally competent health care

Table 4.2

Pearson Product-Moment Correlation Coefficients Between Overall Instrumental Attitudes (IA), Experiential Attitudes (EA), Injunctive Norms (IN), Descriptive Norms (DN), Self-Efficacy (SE) and Perceived Control (PC) Related to Intention

	IA	EA	IN	DN	SE	PC
Intention	0.50**	0.30	0.52**	0.57**	0.59**	-0.40*
IA		0.65**	0.56**	0.46*	0.28	-0.58**
EA			0.51*	0.62**	0.28	-0.42
IN				0.80**	0.48*	-0.48*
DN					0.28	-0.71**
SE						-0.42*

* $p < 0.05$. ** $p < 0.01$.

were moderate. Participant's mean overall descriptive norms score was 0.35 ($SD = 1.66$, $n = 21$) on a -3 to 3 scale. The mean motivation to comply with these subjective norms score ($M = 0.65$, $SD = 1.41$, $n = 24$) was consistent with overall subjective norms score. Overall mean score measuring self-efficacy was 1.26 ($SD = 1.29$, $n = 27$). Overall perceived behavioral control was low. The mean overall perceived behavioral control score for participants was -0.85 ($SD = 1.49$, $n = 22$) on a -3 to 3 scale.

Research question 2: Do overall attitudes, subjective norms, and perceived behavioral controls contribute to and predict health care providers' intention to provide culturally competent health care to Somali? Pearson's correlations were used to determine the association between intention and the constructs of the Integrated Behavioral Model. These included overall attitude, overall subjective norms, and overall perceived behavioral control. This study assumed that intention was associated with attitude, subjective norms and perceived behavioral control as defined in the Integrated Behavioral Model so one-tailed Pearson's correlation analyses were used.

Overall intention was analyzed to determine its relationship with overall attitudes, overall subjective norms, and overall perceived behavioral control. Only overall subjective norms were found to be correlated with overall intention. Overall subjective norms and overall attitudes were found to be highly correlated with one another. Overall perceived behavioral control was not significantly correlated to intention, overall attitude, or overall subjective norms. See Table 4.3 for a complete summary of correlation statistics comparing intention with overall attitudes, subjective norms and perceived behavioral controls. A linear relationship between intention and the independent variables was assumed for multiple regression analysis. Multiple regression analysis did not result in any significant findings. A small sample size limited this statistical investigation.

Participant's overall intention to provide culturally competent health care to Somali was high. Participant's mean intention score was 2.19 ($SD = 0.88$, $n = 28$) on a -3 to 3 scale. Overall attitudes to provide culturally competent health care to Somali patients was moderate, the mean of the sample was 0.92 ($SD = 0.77$, $n = 19$) on a -3 to 3 scale.

Participant's mean overall subjective norms score was 1.34 ($SD = 0.13$, $n = 16$) on a -3 to 3 scale. Overall perceived behavioral control to provide Somali with culturally competent health care was low. Participant's mean overall perceived behavioral control was only 0.16 ($SD = 0.22$, $n = 26$) on a -3 to 3 scale.

Table 4.3

Overall Attitudes, Subjective Norms, and Perceived Behavioral Control Related to Intention: Pearson Product-Moment Correlation Analyses

	Overall Attitude	Overall Subjective Norms	Overall Perceived Behavioral Control
Intention	0.34	0.56*	0.11
Overall Attitude		0.76**	0.01
Overall Subjective Norms			0.11

* $p < 0.05$. ** $p < 0.01$.

Research question 3: Does race, gender, years of experience, number of clinical encounters with Somali patients, professional training outside the United States, participation in cultural competency training, and religious affiliation contribute to and predict health care providers' intention to provide culturally competent health care to Somali? Participants reported a range of 2 to 38 years of experience with an average of 16.88 ($SD = 10.98$, $n = 30$) years of experience.

Participants spent an average of 40.92 ($SD = 10.27$, $n = 30$) hours each week providing

direct patient care. Every one of the participants provided direct patient care to at least one Somali patient within the last 30 days. Participants averaged caring for 17.62 ($SD = 19.87$, $n = 26$) Somali patients a month with a range between 2 and 55 patients. Of these 31 participants, the majority ($n = 29$, 96.7%) described themselves as Caucasian. Each gender was well represented by males ($n = 15$, 48.4%) and females ($n = 16$, 51.6%). Only one health care provider received medical training outside the United States. Over half of the participants ($n = 17$, 54.8%) had never received cultural competence training specific to Somali culture. The majority of participants ($n = 27$, 87.1%) described their religious affiliation as Christian.

A Pearson's correlation was used to determine the association between intention and religious affiliation, gender, years of experience, training outside the United States, and number of clinical encounters. This study assumed that intention was associated with religious affiliation, gender, years of experience, training in the United States, and number of clinical encounters so one-tailed Pearson's correlation analyses were used. None of these factors were significantly associated with intention. The only significant correlation observed were the number of clinical encounters with Somali patients and overall hours worked each week ($r = 0.46$, $p = 0.01$). A linear relationship between intention and the independent variables was assumed for multiple regression analysis. Multiple regression analysis did not result in any significant findings.

Two independent samples t-test were used to further investigate years of experience and gender with the constructs of the Integrated Behavioral Model. Years of experience were divided into two groups. One group included health care providers with

two to ten years of experience (41.9%, $n = 13$). The second group included health care providers with 11 to 38 years of experience (54.8%, $n = 17$). The independent samples t-test found that the group with less professional experience as a health care provider had significantly higher intention, instrumental attitude, experiential attitude and motivation to comply with injunctive norms scores than those that had been practicing longer. See Table 4.4 for a complete summary of independent samples t-test statistics comparing years of experience with the constructs of the Integrated Behavioral Model.

Table 4.4

Independent Sample t-test Comparing Years of Experience and the Constructs of the Integrated Behavioral

Scale	2 - 10 Years <i>M(SD)</i>	13 - 38 Years <i>M(SD)</i>	t-value
Intention	2.73 (0.39)	1.84(1.26)	2.69*
Instrumental Attitude	2.42(0.49)	1.79(1.02)	2.10*
Experiential Attitude	1.62(0.76)	0.74(0.92)	2.27*
Injunctive Norms	2.11(0.66)	1.62(1.08)	1.22
Descriptive Norms	0.78(1.54)	0.02(1.74)	1.02
Motivation to Comply (Injunctive Norms)	2.36(0.64)	1.28(1.38)	2.40*
Motivation to Comply (Subjective Norms)	0.92(1.12)	0.37(1.65)	0.94
Self-efficacy	1.55(0.83)	1.09(1.50)	1.03

Table 4.4 (Continued)

Independent Sample t-test Comparing Years of Experience and the Constructs of the Integrated Behavioral

Scale	2 - 10 Years <i>M(SD)</i>	13 - 38 Years <i>M(SD)</i>	t-value
Perceived Control	-0.88(1.52)	-0.82(1.54)	-0.10
Overall Attitude	21.62(12.23)	14.36(11.13)	1.07
Overall Subjective Norms	25.57(12.23)	18.22(21.77)	0.80
Overall Perceived Behavioral Control	-3.80(4.52)	-4.31(6.41)	0.22

* $p < 0.05$.

An independent samples t-test was also performed to determine if gender affected an individual's intention or other constructs of the Integrated Behavioral Model to provide culturally competent health care to Somali. Females differed significantly from males in their responses to experiential attitudes and motivation to comply with injunctive norms. Females were more likely to agree with experiential attitude survey items and motivation to comply with injunctive norms survey items. See Table 4.5 for a complete summary of both independent samples t-tests.

Table 4.5

Independent Sample T-test Comparing Gender and the Constructs of the Integrated Behavioral Model

Scale	Male <i>M(SD)</i>	Female <i>M(SD)</i>	t-value
Intention	1.81(1.37)	2.57(0.54)	-1.93
Instrumental Attitude	1.78(1.08)	2.30(0.62)	-1.53
Experiential Attitude	0.56(0.96)	1.47(0.76)	-2.44*
Injunctive Norms	1.69(1.06)	1.96(0.85)	-0.62
Descriptive Norms	-0.17(1.46)	0.82(1.77)	-1.39
Motivation to Comply (Injunctive Norms)	1.18(1.45)	2.30(0.62)	-2.58*
Motivation to Comply (Subjective Norms)	0.36(1.47)	0.88(1.37)	-0.89
Self-efficacy	1.32(1.34)	1.19(1.30)	0.25
Perceived Control	-0.61(1.32)	-1.13(1.72)	0.81
Overall Attitude	11.57(13.07)	20.83(14.92)	-1.36
Overall Subjective Norms	15.56(18.47)	29.00(15.60)	-1.54
Overall Perceived Behavioral Control	-4.46(-3.77)	-3.77(6.35)	-0.69

* $p < 0.05$.

Interpretation

Less than half of the participants ($n = 17$, 54.8%) had undergone cultural competency training specific to Somali culture whereas all of the participants have provided health care services to at least one Somali patient in the past 30 days.

Participants had a high degree of behavioral intention to provide Somali with culturally competent health care. The mean behavioral intention score was 2.19 ($SD = 0.88$, $n = 28$) on a scale of -3 to 3. Although participants had a high degree of behavioral intention, this behavioral intention could not always be explained by the direct determinants of the Integrated Behavioral Model. Overall attitude and overall perceived behavioral control were not significantly associated with overall intention. However, a significant positive relationship was found between behavioral intention and overall subjective norms. Separating each construct into individual construct components produced more associations with overall intention.

A significant positive correlation between overall intention and instrumental attitude was identified. No association between overall attitudes or the second construct component to overall attitude, experiential attitude, was found. Significant positive associations were identified between overall intention and the subjective norms construct. In addition, the construct components of subjective norms, injunctive norms and descriptive norms, were also significantly correlated with intention. However, while the subjective norms construct and each construct component was significantly correlated, participants reported more agreement with injunctive norms ($M = 1.08$, $n = 28$, $SD = 1.12$) than descriptive norms ($M = 0.35$, $n = 24$, $SD = 1.53$). The perceived behavioral

control construct component, perceived control, was negatively correlated with overall intention. Whereas the second construct component to perceived behavioral control, self-efficacy was positively correlated with intention. Participants had overall positive responses to the questions based on the Integrated Behavioral Model. Overall, the constructs components of the Integrated Behavioral Model were more strongly correlated with behavioral intention than the constructs of the Integrated Behavioral Model.

A Pearson's correlation found that a positive relationship existed between those that worked more hours and those that cared for more Somali patients. An independent samples t-test showed that females had more favorable experiential attitudes and motivation to comply with injunctive norms regarding the culturally competent delivery of care to Somali than those of males. Another independent samples t-test showed that those with less experience as a health care provider had significantly higher overall intention, instrumental attitude, experiential attitude and motivation to comply with injunctive norms scores than those that had been practicing longer.

Summary

Statistical analyses were used to determine health care providers' intention to provide culturally competent health care to Somali based upon indirect measures of the Integrated Behavioral Model. A total of 31 participants completed the research survey. Participants included physicians, nurse practitioners and physician's assistants from a variety of specialties. The majority (93.5%, $n = 29$) of participants were Caucasian. Participants had been providing health care for a mean of 16.88 years ($SD = 10.98$, $n = 30$). Over half of the participants (54.8%, $n = 17$) had not participated in cultural

competency training specific to Somali culture and provided health care services to a mean of 17.9 ($SD = 19.9$, $n = 26$). Somali patients each month. The construct components of the Integrated Behavioral Model were more reliable in determining behavioral intention to provide culturally competent health care than the constructs. This study adds to a very small body of research describing potential opportunities for professional development among health care providers and organizations to improve the delivery of culturally competent health care to Somali.

Chapter Five: Summary, Conclusions, Discussion, and Recommendations

Introduction

This chapter includes a summary of the study, conclusions to the guiding research questions, a discussion of the results, and recommendations for future research. The first section of this chapter reviews the overall study. The second section of this chapter reviews the results of the study. The third section of this chapter discusses the relevance of the findings. The fourth section of this chapter interprets the results. The last section of this chapter makes recommendations for further research, implementation and improving research methodologies.

Summary

This study examined the intention of health care providers to provide culturally competent health care to Somali based on the constructs of the Integrated Behavioral Model. The goal of this research was to identify areas for professional development and to determine the application of the Integrated Behavioral model in guiding programing. The Integrated Behavioral Model is a widely used model for studying behavior. It has been used as a theoretical framework for health behavior research and has been shown to successfully predict a variety of health behaviors (Glanz et al., 2008). According to the Integrated Behavioral Model, behavioral intention is the greatest predictor of behavior and an individual's attitudes, subjective norms and perceived behavioral control all contribute to one's overall behavioral intention.

Somali are among the newest ethnic groups to immigrate to the United States and to Minnesota. Somali refugees have also become one of the largest African groups to immigrate to the United States and are among the least likely of immigrant groups to access health services (Johnson et al., 2009; Minnesota Department of Health, 2005). The field of cultural competence has emerged as a strategy in which to decrease health disparities among ethnic minorities.

Health care providers that deliver culturally competent health care can respond to the unique needs of each population they serve. Improving access and quality of health care for Somali will require cultural competence from health care providers (Betancourt et al., 2003). Cultural competence among health care providers is not a passive process. It requires learning, skills acquisition and behavioral intention to seek out and apply this knowledge. Yet very little empirical research is available outlining health care providers' intention to provide culturally competent health care to Somali or any other ethnic minority.

A survey instrument was designed to assess health care provider's intention to provide culturally competent health care to Somali based on demographic characteristics, overall intention, attitudes, subjective norms and perceived behavioral control. The survey was available to health care providers providing direct patient care at a rural primary care clinic using ZoomerangTM data collection systems. Participants were recruited using emails sent by the president and chief executive officer of the participating clinic. Health care providers had two weeks to complete a 53 item survey

that took between 15 and 20 minutes to complete. The instrument was developed based on literature and was reviewed by those familiar with health behavior theory and cultural competency. Cronbach's alpha was used to determine which items were not reliable and these items were removed from the overall scales prior to data analysis. A total of 31 participants were surveyed. Of these participants, the majority (54.8%, $n = 17$) had not received cultural competency training specific to Somali culture. The average years of experience among health care providers was 16.9 years ($SD = 10.9$, $n = 30$). Participants included 15 males (48.4%) and 16 females (51.6%).

Conclusions

This study is relevant to the body of research on cultural competence, especially in the areas of Somali health and assessing provider intention, attitude, subjective norms and perceived behavioral control. A study assessing health care providers' intention based on the constructs of the Integrated Behavioral Model to provide culturally competent health care to Somali had not been developed before. There is little empirical research to draw upon to make comparisons. Using the data presented in Chapter Four, this section responds to the three research questions providing summary and conclusions.

Research question 1: Do instrumental attitudes, experiential attitudes, injunctive norms, descriptive norms, self-efficacy, and perceived controls contribute to and predict health providers' intention to provide culturally competent health care to Somali? When the constructs as proposed in the Integrated Behavioral Model were divided by construct components, more specific correlations were identified with intention. A significant positive correlation between behavioral intention and

instrumental attitude was identified but no association was identified for experiential attitude. Other significant positive correlations were identified between behavioral intention and subjective norms, instrumental attitudes, injunctive norms, descriptive norms and self-efficacy. Participants had overall positive responses to the questions based on the Integrated Behavioral Model. The only overall negative responses corresponded to perceived control. The mean score for perceived control was -0.85 ($SD = 1.49$, $n = 22$) on a -3 to 3 scale.

Research question 2: Do overall attitudes, subjective norms, and perceived behavioral controls contribute to and predict health care providers' intention to provide culturally competent health care to Somali? The mean behavioral intention score was 2.19 ($SD = 0.88$, $n = 28$) on a -3 to 3 scale. While the participants had a high degree of behavioral intention, this behavioral intention was not always explained by the constructs of the Integrated Behavioral Model. Overall attitude and overall perceived behavioral control were not found to be significantly associated with intention. A significant positive correlation was found between behavioral intention and overall subjective norms.

Research question 3: Does race, gender, years of experience, number of clinical encounters with Somali patients, professional training outside the United States, participation in cultural competency training, and religious affiliation contribute to and predict health care providers' intention to provide culturally competent health care to Somali? Less than half of the participants ($n = 17$, 54.8%) had undergone cultural competency training specific to Somali culture while all of the

participants had provided health care services to at least one Somali patient in the past 30 days. A Pearson's correlation found a positive association between those that worked more hours and those that cared for more Somali patients. Two independent samples t-test showed that females have more favorable experiential attitudes and motivation to comply with injunctive norms than males regarding the culturally competent delivery of care to Somali. An independent samples t-test also showed that those with 10 years or less experience had significantly higher overall intention, overall instrumental attitudes, overall experiential attitudes and overall motivation to comply with injunctive norms scores than those that had been practicing 11 years or longer.

Discussion

Thirty-one participants took part in this research. This study's results concluded that there were no significant relationships between intention and overall attitude, overall perceived behavioral control, and overall experiential attitude. Therefore, using the constructs of the Integrated Behavioral Model without modification to predict and explain intention of health care providers to provide Somali with culturally competent health care was rejected. In other words, the findings indicated that some of the constructs of the Integrated Behavioral Model did not uniquely predict intention of health care providers.

On the other hand, Pearson's correlation indicated that four of the study's independent variables based on the construct components of the Integrated Behavioral Model contributed to overall intention. As described in Tables 4.2 and 4.3, overall self-

efficacy and overall descriptive norms correlated with intention the best, followed by overall injunctive norms, and overall instrumental attitudes. Overall perceived behavioral control was negatively correlated with overall intention. Of the direct constructs, only overall subjective norms contributed to intention while four of the six construct components had a direct positive relationship with overall intention.

The results have indicated that some clear relationships do exist. Given the statistical significance between intention and the construct overall subjective norms, along with each of its construct components, injunctive norms and descriptive norms, overall normative beliefs appear to be a powerful motivator in the culturally competent delivery of care to Somali. The other constructs of the Integrated Behavioral Model, overall attitude and overall perceived behavioral control, were not significantly correlated with intention. However, some of their construct components were significantly correlated with intention including instrumental attitudes and self-efficacy.

Independent t-tests determined that females were more likely to report more positive experiential attitudes and motivations to comply with injunctive norms than males. In medical practice this may be useful given that some specialties are dominated by one gender. For example, only 16% of practicing gastroenterologists are females (Singh et al., 2008). In a field dominated by men, messages targeting experiential attitudes or motivation to comply with injunctive norms may not build upon intention like it would in female dominated specialties.

An independent samples t-test identified a significant difference in overall intention to provide culturally competent health care to Somali based on years of professional practice. Individuals that had been practicing for 10 years or less had greater overall intentions to provide culturally competent health care to Somali than those that had been practicing for more than 10 years. Individuals with 10 years of experience or less also had higher instrumental attitudes, experiential attitudes and motivation to comply with injunctive norms than those practicing longer.

On average, female health care providers as a group are also less experienced than their male counterparts (Minnesota Department of Health, 2008). Thus, the results of this research could have implications in future and previous research. Many Somali report going to the doctor only for pediatric and prenatal care (Carroll et al., 2007). These are the two medical specialties in Minnesota in which the majority of providers are female (Minnesota Department of Health, 2008). Asking Somali patients about their satisfaction with health care services if they have a greater potential of seeing less experienced, female health care providers may introduce bias in results if these provider characteristics are not controlled for.

For medical practices that employ a larger portion of more experienced health care providers this could potentially affect the overall culturally competent delivery of health care to Somali. Medical practices with more experienced health care providers may have less intent to provide culturally competent health care to Somali. The Integrated Behavioral Model also states that as a behavior becomes more habitual, intention is less important. More experienced health care providers may be at a point in

which the culturally competent delivery of health care to Somali is now habitual. However, given the relatively recent arrival of Somali immigrants, it is more realistic that all health care providers have been treating Somali for a comparable amount of time, regardless of their years of overall experience. In addition, given that more experienced health care providers' responded less favorably to instrumental attitudes, experiential attitudes and motivation to comply with injunctive norms items, it is possible that these constructs impacted these providers' intention to provide culturally competent health care to Somali.

Participants had a high degree of intention ($M = 2.19$, $SD = 0.88$, $n = 28$) to provide culturally competent health care to Somali. However, health care practitioner's written responses to survey item 53 reflecting environmental constraints in the culturally competent delivery of health care to Somali within their practice. Several health care providers mentioned barriers to culturally competent health care. These included: time constraints, reminder phone calls done in English, results given over the phone in English, interpreters that fail to articulate cultural barriers and their own lack of training. Providers also mentioned that they don't have the ability to deliver Western-based practices to Somali. In addition, six health care providers cited the lack of health literacy among Somali in their medical practice and that more education for this population was needed.

Health care providers' answers to survey items suggested that they may not know what culturally competent health care for Somali patients looks like. For example, Carroll et al., (2007) describes gender concordance as a culturally competent health care practice

among Somali. However, 81.5% ($n = 22$) of health care providers *agreed - strongly agreed* to survey item 51 which states *I often care for Somali patients of a different gender from my own*. As described in Table 2.3, if an individual has an intention to perform a defined behavior but does not perform the behavior, then recommended interventions include improving skills and reducing environmental constraints. Health care providers had a high degree of intention but reported that they do not always have the skills, abilities, knowledge or environment that lends easily to culturally competent delivery of health care services to Somali.

Recommendations

This study provided a first look at the use of the Integrated Behavioral Model to predict health care providers' intention to provide culturally competent health care to Somali. The following recommendations for further research are based upon findings from this study.

1. Replicate this study with a more diverse sample with respect to ethnicity, medical specialty and religion.
2. Determine the behavioral practices health care providers believe are components of culturally competent health care for Somali patients. Also, determine the rate at which these health care providers perform these behaviors.
3. Future studies should determine if the Somali patients of the medical practice believe they receive culturally competent health care. Comparisons between health care provider surveys and Somali patient surveys could identify misconceptions and areas for professional development.

4. Interventions should focus on helping health care providers become more aware of what culturally competent health care looks like for Somali.

Interventions should also aim at reducing environmental barriers and improving upon the skills of delivering culturally competent health care to Somali.

5. A larger sample and population would improve significance of results.

Distributing the survey instrument at a larger medical practice or using several different recruitment methods could help improve overall significance of findings.

6. Increasing the number of items in each scale would help provide more meaning to each construct of the Integrated Behavioral Model.

Several limitations of this study must be acknowledged. First, the participants of this study were self-selected to participate. This self-selection may limit the degree to which findings can be generalized to the population. In addition, the sample size was too small to generalize to the greater population. Second, internet surveys can exclude certain populations like those without internet access or those who do not check their email regularly. Third, the study contained a very homogenous group of health care providers. All but one participant was Caucasian, all but two identified as Christian and only three had ever worked outside the United States as health care providers. Fourth, the definition of cultural competence may also be poorly understood among health care providers. Several health care providers stated that they provide the same health care to each individual regardless of personal characteristics. One participant stated "No matter their background I don't change things because they are Somali" another participant wrote "I provide the best patient care to patients despite their background, race or ethnic

background.” However, it is this background that must be acknowledged in medical practice and delivery of services must be adapted in order to provide culturally competent health care. Three responses to survey item 53 were also less than sensitive to the Somali people and their culture. Lastly, responses were self-reported and all self-reported measures are open to bias and misinterpretation.

Despite a growing Somali population and increasing disparities in health among ethnic minorities, very few studies identify the unique needs of health care providers to deliver culturally competent health care (Betancourt et al., 2003; Minnesota Department of Health, 2005). Research outlining the needs, attitudes, skills, abilities, subjective norms, and perceived behavioral controls of health care providers to deliver culturally competent health care is of paramount importance to Somali health. Health care organizations and health care professionals should be encouraged to attend training and conduct research in the culturally competent delivery of medical practices. Very little information is available to health care providers and even the definition of cultural competence is poorly defined (The Kaiser Family Foundation, 2003). The establishment of evidence-based approaches in the culturally competent delivery of care and a unifying definition of cultural competence is needed before global improvements in the culturally competent delivery of services can be made.

References

- Accredited Council for Graduate Medical Education. (1997). *Graduate medical education directory*. Chicago: American Medical Association.
- Adams, K., & Aseffi, N. (2002). Primary care refugee medicine: General principles in the post immigration care of Somali women. *Primary Care Update for OB/GYNS*, 9, 210-217.
- Ahmed, O. M. (n.d.). *East Africa health project* [PDF document]. Retrieved from Minnesota Department of Health Website:
<http://www.health.state.mn.us/divs/ipedc/refugee/metrotf/eahp08.pdf>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press.
- Becker, M. H. (1974). The health belief model and personal behavior. *Health Education Monographs*, 4, 324-473.
- Betancourt, J. R., Green, A. R., Carrillo, J. E., & Ananeh-Firempong, O. (2003). Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health. *Public Health Reports*, 118, 293-302.
- Carroll, J., Epstein, R., Fiscella, K., Volpe, E., Diaz, K., & Omar, S. (2007). Knowledge and beliefs about health promotion and preventive health care among Somali

- women in the United States. *Health Care for Women International*, 28, 360-380.
- Centers for Disease Control and Prevention. (1996). Community-level prevention of human immunodeficiency virus infection among high-risk populations: The AIDS community demonstration projects. *MMWR Recommendations and Reports*, 10, RR-6, 1-16.
- Centers for Disease Control and Prevention. (1999). Community-level HIV intervention on five cities: Final outcome data from the CDC AIDS community demonstration projects. *American Journal of Public Health*, 89, 336-345.
- Centers for Disease Control and Prevention. (2010). Promoting cultural sensitivity: Somali guide. *Overview of Somali culture* (pp. 13-20). Retrieved from <http://www.cdc.gov/tb/publications/guidestoolkits/EthnographicGuides/Somalia/chapters/chapter2.pdf>
- Civil Rights Act of 1964, Pub. L. No. 88-352, § 6, 78 Stat. 252 (1964).
- Cottrell, R. R., & McKenzie, J. F. (2011). *Health promotion and education research methods using the five chapter thesis/dissertation model* (2nd ed.). Sudbury, MA: Jones and Bartlett Publishers.
- Cross, T. L., Barzon, B. J., Dennis, K. W., & Isaacs, M. R. (1989). *Towards a culturally competent system of care: A monograph of effective services for minority children who are severely emotionally disturbed*. Washington, DC: Georgetown University Child Development Center.
- Denboba, D. (1993). *Guidance for competitive applications, materials and child health*

- improvement projects for children with special health needs*. Retrieved from <http://www.nccurricula.info/culturalcompetence.html>
- DeShaw, P. (2006). Use of the emergency department by Somali immigrants and refugees. *Minnesota Medicine*, 89, 42-45.
- Fishbein, M. (1967). *Readings in attitude theory and measurement*. New York: Wiley.
- Fishbein, M., & Ajzen, I. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Fishbein, M., & Yzer, M. C. (2003). Using theory to design effective health behavior interventions. *Journal of Communication Theory*, 13, 171-181.
- Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.). (2008). *Health behavior and health education* (4th ed.). San Francisco, CA: Jossey-Bass.
- Goza, F. (2007). The Somali presence in the United States: A socio-economic and demographic profile. In Abdi M. Kusow and S. R. Bjork (Eds.), *From Mogadishu to Dixon: The Somali diaspora in a global context*. Trenton, NJ: Red Sea Press.
- Institute of Medicine. (2002). *Unequal treatment: What healthcare providers need to know about racial and ethnic disparities in health-care*. Retrieved from http://www.iom.edu/~media/Files/Report%20Files/2003/Unequal-Treatment-Confronting-Racial-and-Ethnic-Disparities-in-HealthCare/Disparities_hcproviders8pgFINAL.pdf
- Jhang, K. H., Martin, L. R., & DiMatteo, M. R. (2005). Preferences for medical collaboration: Patient-physician congruence and patient outcomes. *Patient Education Counseling*, 10, 308-314.

- Johnson, C. E., Ali, S. A., & Shipp, M. (2009). Building community-based participatory research partnerships with a Somali refugee community. *American Journal of Preventative Medicine*, 37, S230-S236.
- Joint Commission on Accreditation in Healthcare Organizations. (2010). *Advancing effective communication, cultural competence and patient-and family-centered care: A roadmap for hospitals*. Retrieved from <http://www.jointcommission.org/assets/1/6/ARoadmapforHospitalsfinalversion727.pdf>
- Kaiser Family Foundation. (2003). *Compendium of cultural competence initiatives in health care*. Retrieved from <http://www.kff.org/uninsured/loader/cfm?url=/commonspot/security/getfile.cfm&pageID=14365>
- Kamb, M. L., Fishbein, M., Douglas, J. M., & Rhodes, F. (1998). Efficacy of risk-reduction counseling to prevent HIV and sexually transmitted diseases: A randomized controlled trial. *Journal of the American Medical Association*, 280, 1161-1167.
- Kleinman, A., Eisenberg, L., & Good, B. (1978). Culture, illness, and care: Clinical lessons from anthropologic and cross-cultural research. *Annals of Internal Medicine*, 88, 251-258.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607 - 610.
- Kusow, A. M. (2006). Migration and racial formations among Somali immigrants in North America. *Journal of Ethnic and Migration Studies*, 32, 533-551.
- Landers, S. J. (2009, October 19). Mandating cultural competency: Should physicians be

- required to take courses? *American Medical News*. Retrieved from <http://www.ama-assn.org/amednews/2009/10/19/prsa1019.htm>
- Liaison Committee on Medical Education. (2001). *Functions and structure of a medical school*. Retrieved from Liaison Committee on Medical Education Website: <http://www.lcme.org/functions.pdf>
- McGraw, D., & McDonald, C. (2004). Somali mental health. *International Journal of Somali Studies*, 4, Article 8. Retrieved from EthnoMED database.
- Minnesota Department of Health. (2008). *Minnesota physicians facts and data 2008*. Retrieved from <http://www.health.state.mn.us/divs/orhpc/pubs/workforce/phys08.pdf>
- Minnesota Department of Health. (2005). *Immigrant health: A call to action*. Retrieved from <http://www.health.state.mn.us/divs/idepc/refugee/topics/immhealthrpt.pdf>
- Pavlish, C. L., Noor, S., & Brandt, J. (2010). Somali immigrant women and the American health care system: Discordant beliefs, divergent expectations, and silent worries. *Social Science & Medicine*, 71, 353-361.
- Samuel, P., Pringle, J. P., James, N. W., Fielding, S. J., & Fairfield, K. (2009). Breast, cervical and colorectal cancer screening rates amongst female Cambodian, Somali and Vietnamese immigrants in the USA. *International Journal of Equity Health*, 30. Retrieved from <http://www.equityhealthj.com/content/8/1/30/>
- Scuglik, D. L., Alarcon, R. D., Lapeyre, A. C., Williams, M. D., & Logan, M. L. (2007). When the poetry no longer rhymes: Mental health issues among Somali

immigrants in the USA. *Transcultural Psychiatry*, 44, 581-595.

Singh, A., Burke, C. A., Larive, B., & Sastri, S. V. (2008). Gastroenterology after 10 years of practice: Gender disparity in practice of GI. *American Journal of Gastroenterology*, 103, 1589-1595.

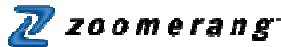
Street R. L., & Gordon H. S. (2008). Companion participation in cancer consultations. *Psycho-oncology*, 17, 244-251.

Trummer, U. F. (2006). Does physician-patient communication that aims at empowering improve clinical outcome? *Patient Education Counseling*, 61, 299-306.

United States Department of Health and Human Services. (2007). *National standards on culturally and linguistically appropriate services (CLAS)*. Retrieved from <http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlID=15>

United States Census Bureau. (2010). *U. S. population projections*. Retrieved from <http://www.census.gov/population/www/projections/pp147.html>

Appendix A



Health Care Provider Indirect Measures Survey

Page 1 - Heading

Survey Instructions:

The purpose of this survey is to identify areas for professional development regarding the culturally competent delivery of health care services to Somali. Only physicians, nurse practitioners and physician assistants providing direct patient care at the Affiliated Community Medical Clinic of Willmar should complete this survey. The following definitions were used to develop this survey: Cultural competence is defined as the ability of a health care provider to function effectively and adapt services within the context of the cultural beliefs, behaviors, and needs presented by Somali patients. Somali includes any refugee, asylum seeker, immigrant, or descendant from Somalia or East Africa with family and cultural ties to traditional Somali clan systems or ethnic Somali Bantu. Please read each question carefully, reflecting upon the definitions of cultural competency and Somali and answer the following questions to the best of your ability. Thank you for your participation.

Page 1 - Heading

Questions 1-11 are demographic questions. Please answer with responses most appropriate to you.

Page 1 - Question 1 - Choice - Multiple Answers (Bullets)

How would you describe yourself? (check all that apply)

- a. American Indian or Alaska Native (having origins in any of the original peoples of North, Central, and South America)
- b. Asian (having origins in any of the original peoples of far East, Southeast Asia, or the Indian subcontinent)
- c. Black or African American (having origins in any of the Black racial groups of Africa)
- d. Native Hawaiian or Other Pacific (having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands)
- e. White (having origins in any of the original peoples of Europe, the Middle East, or North Africa)
- Other, please specify

Page 1 - Question 2 - Choice - One Answer (Bullets)

What is your sex?

- a. Male
- b. Female

Page 1 - Question 3 - Open Ended - Comments Box

How many years have you been providing direct patient care as a physician, physician assistant or nurse practitioner?

Page 1 - Question 4 - Open Ended - Comments Box

On average, how many hours a week do you spend providing direct patient care?

Page 1 - Question 5 - Open Ended - Comments Box

On average, how many Somali patients do you provide health care services to during a single month?

Page 1 - Question 6 - Choice - Multiple Answers (Bullets)

Where did you attend school to earn your M.D., D.O., N.P., or P.A.?

- a. Within the United States
- b. Outside the United States

Page 1 - Question 7 - Choice - One Answer (Bullets)

Have you ever worked as a health care provider outside the United States?

- Yes
- No

Page 1 - Question 8 - Choice - One Answer (Bullets)

Have you ever participated in a cultural competency training program that presented information specific to Somali culture?

- Yes
- No

Page 1 - Question 9 - Choice - Multiple Answers (Bullets)

How would you describe your religious affiliation? (Check all that apply)

- Agnostic/Atheist
 - Christian
 - Jewish
 - Hindu
 - Buddhist
 - Muslim
 - Other, please specify
-

Page 1 - Question 10 - Choice - Multiple Answers (Bullets)

What is your medical specialty? (Check all that apply)

- anesthesiology
 - emergency medicine
 - family practice
 - internal medicine (primary care)
 - internal medicine (specialty care)
 - neurology
 - obstetrics and gynecology
 - ophthalmology
 - pediatric medicine
 - psychiatry
 - radiology
 - surgery
 - urology
 - not applicable
 - Other, please specify
-

Page 1 - Question 11 - Choice - One Answer (Bullets)

I am employed at APMC as a

- M.D.
- D.O.
- CNP
- PA-C
- Other, please specify

Page 2 - Heading

Regarding questions 12-34, please read each statement and indicate the extent to which you agree or disagree with the statement.

Page 2 - Question 12 - Rating Scale - Matrix

I plan to provide culturally competent health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 13 - Rating Scale - Matrix

I want to provide culturally competent health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 14 - Rating Scale - Matrix

I intend to provide culturally competent health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 15 - Rating Scale - Matrix

Reducing worry and confusion among Somali patients is not important.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 16 - Rating Scale - Matrix

Detecting health problems at an early stage in Somali patients is extremely important.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 17 - Rating Scale - Matrix

Seeing Somali patients on a consistent basis is not important.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 18 - Rating Scale - Matrix

Providing culturally competent health care to Somali patients is not important.							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 19 - Rating Scale - Matrix

Allowing the cultural traditions of Somali patients to influence medical decisions is not important.							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 20 - Rating Scale - Matrix

Providing Somali patients with culturally competent care using evidence-based guidelines is not important.							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 21 - Rating Scale - Matrix

It causes a lot of worry and confusion for a Somali patient if I do not provide them with culturally competent health care.							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 22 - Rating Scale - Matrix

If I provide culturally competent health care to Somali patients, I will detect health problems at an earlier stage.							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 23 - Rating Scale - Matrix

If I provide culturally competent health care to a Somali patient, I will see him/her on a more consistent basis.							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 24 - Rating Scale - Matrix

If I learn about the health perceptions of Somali, I can provide more culturally competent health care.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 25 - Rating Scale - Matrix

I reflect upon the cultural traditions of Somali patients when making medical decisions.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 26 - Rating Scale - Matrix

I feel that evidence-based guidelines regarding the delivery of culturally competent health care are well established.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 27 - Rating Scale - Matrix

Somali patients think I should provide culturally competent health care.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 28 - Rating Scale - Matrix

The families of Somali patients think I should provide culturally competent health care to their family members.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 29 - Rating Scale - Matrix

Professional organizations (e.g., American Medical Association, American Academy of Nurse Practitioners, American Academy of Physician Assistants) encourage me to provide culturally competent health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 30 - Rating Scale - Matrix

My colleagues think I should provide culturally competent health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 31 - Rating Scale - Matrix

Administrators think I should provide culturally competent health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 32 - Rating Scale - Matrix

Professional journals provide adequate information pertaining to the culturally competent delivery of health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 2 - Question 33 - Rating Scale - Matrix

My colleagues provide culturally competent health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/>

Page 2 - Question 34 - Rating Scale - Matrix

Clinic administrators provide culturally competent health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 3 - Heading

Regarding questions 35-42, please read each statement and indicate the extent to which you believe the statement is important or unimportant.

Page 3 - Question 35 - Rating Scale - Matrix

Approval of my practice from Somali patients is

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 3 - Question 36 - Rating Scale - Matrix

Approval from my Somali patients' family members is							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 3 - Question 37 - Rating Scale - Matrix

Approval of my practice from professional organizations (e.g., American Medical Association, American Academy of Nurse Practitioners, American Academy of Physician Assistants) is							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 3 - Question 38 - Rating Scale - Matrix

My colleagues' approval of my practice is							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 3 - Question 39 - Rating Scale - Matrix

Administrators' approval of my practice is							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 3 - Question 40 - Rating Scale - Matrix

Doing what the literature in professional journals recommends is							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 3 - Question 41 - Rating Scale - Matrix

Doing what my colleagues do is							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 3 - Question 42 - Rating Scale - Matrix

Doing what administrators do is							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 4 - Heading

Regarding questions 43-52, please read each statement and indicate the extent to which you agree or disagree with the statement.

Page 4 - Question 43 - Rating Scale - Matrix

If I feel rushed I am likely to provide culturally competent health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 4 - Question 44 - Rating Scale - Matrix

If a Somali interpreter is available I am likely to provide culturally competent health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 4 - Question 45 - Rating Scale - Matrix

If I participate in cultural competence training containing information specific to Somali culture I am not likely to provide culturally competent health care to Somali patients.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 4 - Question 46 - Rating Scale - Matrix

I am confident I could provide culturally competent health care to Somali if I wanted to.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/>

Page 4 - Question 47 - Rating Scale - Matrix

I am confident that I can provide culturally competent health care to a Somali patient if his/her gender is different from my own.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 4 - Question 48 - Rating Scale - Matrix

When I provide health care to Somali patients I feel rushed.

Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 4 - Question 49 - Rating Scale - Matrix

Interpreters are not available when I care for Somali patients.							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 4 - Question 50 - Rating Scale - Matrix

Cultural competency training specific to Somali culture is available to me.							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 4 - Question 51 - Rating Scale - Matrix

The ability to provide culturally competent health care to Somali patients is beyond my control.							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 4 - Question 52 - Rating Scale - Matrix

I often care for Somali patients of a different gender from my own.							
Strongly disagree						Strongly agree	N/A
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8

Page 4 - Question 53 - Open Ended - Comments Box

Please provide any additional comments you may have regarding Somali culture and cultural competence in your medical practice below:
.....
.....
.....
.....

Appendix B



April 12, 2012

Dear Amy Hedman, PhD:

Re: IRB Proposal entitled "[328714-1] Health care providers' intention to provide culturally competent health care to Somali based upon the indirect measures of the Integrated Behavioral Model"
Review Level: Level I

Your IRB Proposal has been approved as of April 12, 2012. On behalf of the Minnesota State University, I wish you success with your study. Remember that you must seek approval for any changes in your study, its design, funding source, consent process, or any part of the study that may affect participants in the study. Should any of the participants in your study suffer a research-related injury or other harmful outcome, you are required to report them to the IRB as soon as possible.

The approval of your study is for one calendar year from the approval date. When you complete your data collection or should you discontinue your study, you must notify the IRB. Please include your log number with any correspondence with the IRB.

This approval is considered final when the full IRB approves the monthly decisions and active log. The IRB reserves the right to review each study as part of its continuing review process. Continuing reviews are usually scheduled. However, under some conditions the IRB may choose not to announce a continuing review. If you have any questions, feel free to contact me at patricia.hargrove@mnsu.edu or 507-389-1415.

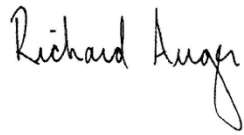
Sincerely,

A handwritten signature in cursive script that reads "Patricia Hargrove".

Patricia Hargrove, Ph.D.
IRB Coordinator

A handwritten signature in cursive script that reads "Mary Hadley".

Mary Hadley, Ph.D.
IRB Co-Chair

A handwritten signature in black ink that reads "Richard Auger". The signature is written in a cursive style with a large, looping initial 'R'.

Richard Auger, Ph.D.
IRB Co-Chair

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Minnesota State University's records.

Appendix C



March 28, 2012

Institutional Review Board
Mankato State University, Mankato
213 Highland Center North
Mankato, MN 56001

Dear Sirs,

I am writing this letter of support for Amanda K. Ciesinski, a graduate teaching assistant in the Department of Health Sciences at Mankato State University. Ms. Ciesinski has presented to Affiliated Community Medical Centers an opportunity to be part of a research program to survey the attitudes of our health care providers in regards to the Somali patients and the Somali culture.

This letter should serve as official consent for this research survey to be given to the physicians and other care providers at the Willmar site of Affiliated Community Medical Centers. The research tool has been modified to more thoroughly survey the attitudes toward the Somali patients in our community.

We look forward to sharing in the results and have been pleased with the professional interactions with Amanda and Mankato State University staff.

If you have any questions, please feel free to contact me.

Sincerely,

Ronald L. Holmgren, M.D.
Chief Executive Officer

RLH/stc

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