Predictors of Intercultural Sensitivity in U. S. Nursing Students Along the Gulf Coast

by

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I shall be telling this with a sigh

Somewhere ages and ages hence:

Two roads diverged in a wood, and I—

I took the one less traveled by,

And that has made all the difference.

The Road Not Taken, Robert Frost

ABSTRACT

The United States has seen a dramatic increase in its levels of diversity over the last half century. This diversity is apparent in all aspects of the nation including the healthcare system thereby necessitating healthcare education institutions to produce more culturally competent healthcare providers. The primary purpose of this study is to investigate predictors of intercultural communication sensitivity (ICS) in U.S. nursing students in the Gulf Coast area. The study investigates the relationship between predictors of ICS such as student's background setting in terms of rural vs. urban, gender, prior exposure to cultural experiences, and their intended work settings in terms of rural or urban. A questionnaire composed of an existing ICS scale and researcher developed measures was completed by 121 ADN and BSN nursing students from five nursing schools in the region.

The results of the study show that a nursing student's background setting, prior cultural immersion, as well as intended work setting had varying predictive effects on total ICS scores. This study also tested a literature based measure for assessing prior cultural exposure. This measure contained three dimensions, immersion experiences, narrative experience, and language study which were tested for consistency and validity. The immersion experience dimension performed well for properly assessing this aspect of prior cultural exposure as well as predicting higher ICS scores. This study tested the integrity of an existing ICS scale finding this scale to reduce to three dimensions instead of the published five dimensions. The predictors of this study were also regressed on these new ICS dimensions as a post-study investigation into the relationship between these variables. The results were consistent with the main study hypotheses.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I INTRODUCTION

For most of the past century, grade school students in the United States have been taught that their country is a "melting pot" of cultures. They are taught that new immigrants bring with them their culture and blend it with American culture (Bisin & Verdier, 2000). This however is not the case. America, rather, is like a salad bowl of cultures. The vegetables in a salad co-exist in the same bowl while still retaining their identity as a tomato or a carrot. This is apparent to any observer walking in the China Towns, "Little Italys," and other immigrant communities throughout the U.S.

This diversity is reflected in the health care system. Between 1999-2008 long term care facilities in the U.S. have witnessed a 55% and 54% increase in Hispanic and Asian residents while at the same time seeing a 10% reduction in white residents (Feng, Fennell, Tyler, Clark, & Mor, 2011). Diversity is also rising in other areas of healthcare as because ethnically different people are at a greater risk for disease and major health problems and therefore are more likely to make use of the health care system (Betancourt, Green, Carrillo, & Ananeh-Firempong, 2003). This increasing diversity in the healthcare system is pushing the need for more culturally competent healthcare workers (Institute of Medicine, 2002). Culturally competent healthcare workers are better able to treat patients because they can more efficient communicate with a patient to prevent misdiagnosis and explain treatment and recover procedures. This is because a culturally competent person can establish stronger trust and report with a culturally different person. A culturally competent person is aware of their own and others' cultural values, is knowledgeable about other cultures, and is able to use their awareness and knowledge to skillfully cultivate cross-cultural relationships (Smith, 1998). Culturally competent care is not just providing to patients a culturally knowledgeable medical staff but providing a staff that can sensitively and effectively interact with patients with respect to patients' beliefs and traditions (Huff & Kline, 1999).

Nurses are the backbone of any hospital, clinic, and nursing home. Their daily interactions with patients are often the only contacts between a patient and a health care system. Many health care organizations such as the Pew Health Professions Commission (1995) and the

American Association of Colleges of Nursing (1998) have publicly stated the need for cultural education in health care providers. Indeed, it is hard to sell the idea that nurses can improve their care giving by considering non-medical issues: "The toughest change in nursing will be with nurses who have become so medicalized and focused on diseases, symptoms, and treatment modes that they will neglect to consider the client's culture" (Leininger, 1995, p. 687).

Background of the Study

Researchers investigating intercultural competencies (ICC) in nurse practitioner students found that students planning to work in rural areas after graduation had a higher score in cultural competency behavior scores (Benkert, Tanner, Guthrie, Oakley, &Pohl, 2005). Other predictors supported by the same researchers were a nurse's level of comfort with diversity and the weight that nurse gave to cultural knowledge (Benkert et al., 2005). The study showed there was in fact a link between a student's ICC level and their intended area to work. However, it did not investigate if there was a correlation between the students and whether they hailed from a rural or urban background. Furthermore the study only looked at predictors of culturally competent behavior which falls under the ICC subset of intercultural adroitness and not intercultural insensitivity. Another study looking at intercultural sensitivity levels in middle school students however did find a correlation between a student's community setting and their level of intercultural communication sensitivity (Pederson, 1997). The students from a suburban area had higher scores than their urban or rural counterparts (Pederson, 1997). This study will not only verify the validity of using a nursing student's planned area of study as a predictor of ICS but also investigate the links between a community setting and their level of intercultural sensitivity.

Problem Statement

Increasing globalization and the formation of immigrant pockets in the general population is driving a growing need for culturally competent health care workers in the United States. Administrators of nursing education institutions need more information regarding their enrollees' learning abilities so they can appropriately tailor intercultural curriculum.

There is little research looking into the factors that predict intercultural sensitivity in nursing students. There is little existing research concerning healthcare students and intercultural sensitivity. Nursing school administrators need more reliable predictors that can be drawn from simple demographic and background data for determining enrollees' cultural competency learning capabilities.

Rationale for the Study

Many researchers have shown that there is a strong connection between a person's intercultural competence and their job performance while working in multicultural work environments (Mol, Born, Willemsen, & Molen, 2005; Tucker, Bonial, & Lahti, 2004). Nurses are also subject to this connection. Culturally competent nurses provide better care to culturally different patients. Intercultural competency is a process divided into three subsets: awareness, sensitivity, and adroitness. Intercultural Sensitivity (ICS) facilitates the transition between awareness and adroitness (Chen, 1997). ICS is the rope bridge that carries a person from ethnocentrism over to ethnorelativism. The higher the level of one's ICS, the more quickly they will transition from ethnocentric to enthorelative states of mind (Chen, 1997). By measuring the level of an individual's sensitivity, intercultural trainers can better adjust their techniques to match their student's needs. Therefore by investigating predictors of intercultural sensitivity, the transitory subset of ICC linking intercultural awareness and adroitness, healthcare institutions and educations centers can better tune their recruitment efforts and in-house training programs to raise the level of care and performance of their nursing staff.

Furthermore, nursing schools like most educational institutions, work on limited budgets and so must make the best use of their resources. Administrators responsible for planning and

allocating resources for various curriculums need accurate indicators regarding the cost and effectiveness of particular teaching methods and how those methods match up with their students' needs. There are many methods for teaching intercultural competency, including classroom lectures, literature review, scenario training, and immersion (Crandall, George, Marion, & Davis 2003; Halloran, 2009; Lasch, Wilkes, Lee, &Blanchard, 2000; Lipson & Desantis, 2007; Mazor, Hampers, Chande, & Krug, 2002). These strategies vary in effectiveness and expense with immersion notably being the most effective and most expensive strategy for teaching cultural competency. The effectiveness of these training strategies is also greatly affected by the level of intercultural sensitivity of the participants. Understanding the intercultural communication sensitivity (ICS) predictors of their students will allow nursing programs to tailor their cultural learning curriculum to meet their pedagogical needs in accordance with their fiscal abilities.

Purpose of the Study

This study tested for links between the background of nursing students, and the level of their intercultural sensitivity along the Gulf Coast. The study collected demographic data and administered a self-assessment tool to measure ICS levels.

Research Questions

This study intended to answer the following questions:

1. Does a nursing student's background setting, in terms of coming from a rural area versus an urban area, have an effect on their intercultural sensitivity?

2. How much of a nursing student's prior exposure to cultural experiences affects their intercultural sensitivity?

3. Is there a significant difference in ICS between male and female subjects?

4. Does a nursing student's intended work setting, in terms of working in a rural area versus an urban area, have an effect on their intercultural sensitivity?

Contribution of the Study

This study adds to the body of knowledge that nursing schools use to design their curriculum with regards to the origins of their students. This study also contributed new knowledge to current research by focusing on links between intercultural sensitivity predictors in nursing students and their demographic and background information. The study also sought to develop and validate new scales in this area of research. In accordance with this author's information, there are no such studies examining this area of research.

Definition of Terms

Culture –the learned and shared point of view of a particular people group's concerns about life that ranks important ideas, shapes attitudes concerning certain matters, and dictates behavior (Beamer &Varner, 2003).

Intercultural Competency (ICC) – a combination of knowledge, awareness, sensitivity, attitudes, and skills which empower an individual to have effective interaction with culturally different persons while maintaining acknowledgement and respect for the clients' culture and traditions (Onyoni & Ives, 2007).

Intercultural Sensitivity (ICS) – the affective subset of ICC; ICS represents the active internal process of an individual accepting and appreciating cultural differences and their motivation to better understand those differences (Chen &Starosta, 1998).

Competency – a set of personal characteristics and knowledge which have a significant effect on an individual's behavior and effectiveness in a given situation.

Contact Theory – an idea that suggests that the more interaction an individual experiences with an alien group, then the more comfortable, confident, and competent that individual will be during future experiences with alien groups.

Intended Work Setting – the community setting in terms of rural or urban where a nursing student wishes to work after graduation and establishment as a professional nurse.

Community Setting – the setting, in terms of rural or urban, where from a respondent hails.

Prior Exposure – the degree to which a respondent has encountered or has had experiences with other cultures.

Rural Area – any area outside of an urban area (US Census Bureau, 2012).

Urban or Suburban Area – city or area consisting of between 2,500 residents and 50,000 (US Census Bureau, 2012).

Metropolis or Large City – city or area consisting of an urbanized core of at least 50,000 residents and is surrounded by urban clusters and urbanized areas (US Census Bureau, 2012).

CHAPTER II LITERATURE REVIEW

Melting Pot vs. Salad Bowl

The United States has often been referred to as a "melting pot" nation. A *melting pot* refers to a sociocultural situation in which people cast off parts or all of their ethnic differences and blending their ethnic identities into a single large "macroculture" (Chaney & Martin, 2003). The idea that immigrants from any nation can arrive and share in the blending of cultures has long been a selling point for the country. In the early 20th century the melting pot represented the new "liberal and radical vision of American society" (Hirschman, 1983). Furthermore, this symbol was used to reinforce the belief that America is a land of opportunity where a person's identity would not hinder their pursuit of happiness (Hirschman, 1983).

While studying the three faiths Protestantism, Catholicism, and Judaism, social scientists began to notice the melting pot or assimilation theory beginning to fail as early as the 1950's (Herberg, 1983). Indeed the notion that an individual can arrive in the U.S. and be adopted into a new identity is simply not the case:

> The result has not been the melding of various cultures into one cultural group as idealists believed would happen. Because we have cultures within cultures (microcultures), communication problems often result. In reality, the United States is a salad bowl of cultures. While some choose assimilation, others choose separation. (Chaney & Martin, 2003, p. 3)

Likewise the salad bowl idea acknowledges not only how people groups differ culturally but also and "unequal status of different groups in society" (Airhihenbuwa & Pineiro, 1988, p. 241). The same researchers go on to explain that "if a nation's people share common customs, origins, history, and languages, then the U.S. could be considered a country of many nations including African Americans, Hispanic Americans, Asian Americans, and Native Americans" (Airhihenbuwa & Pineiro, 1988, p. 241). Immigrants don't fully blend with their host country but rather exist alongside, and even a little separate from, the contemporary culture (Gordon, 1964).

Diversity in the U.S.

The United States has not only remained a diverse country in spite of perceptions of assimilation, but has actually increased in its levels of diversity. While looking at data from over the last thirty years Lee, Iceland, and Sharp found that "virtually all types of communities have become more racially and ethnically diverse since 1980" (2012, p. 1). Furthermore they revealed that since 1980 Caucasian communities have dropped in proportional representation by over 10%, Hispanic communities surpassed Black communities as the second largest minority, and the Asian representation has tripled (Lee, Iceland, & Sharp, 2012). Figure 2.1 shows the changes in these values.

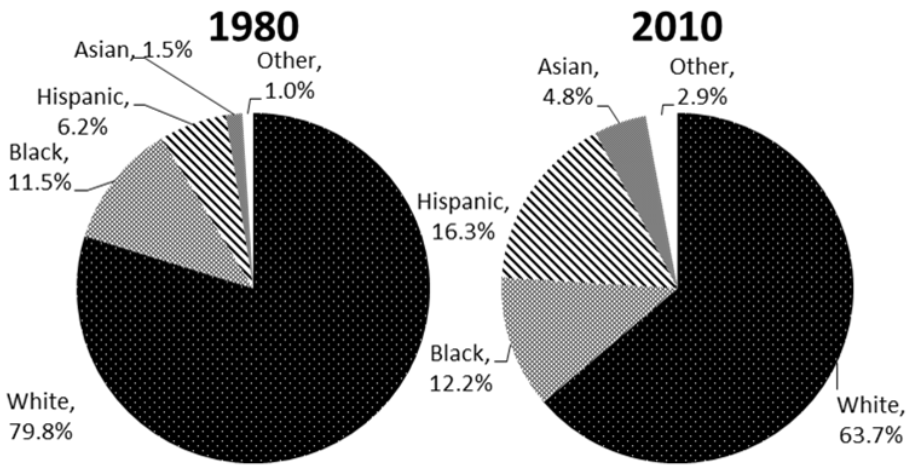

Figure 2.1 Values of community level diversity. Adapted from "Racial and ethnic diversity goes local: Charting change in American communities over three decades" by B.A. Lee, J. Iceland, and G. Sharp 2012, p. 5, New York: Russell Sage Foundation.

This increase has been attributed to two forces. Historically speaking, individuals are more likely to risk immigration during their younger years, but also U.S. immigration policy has encouraged these newcomers to bring their relatives and other family members along with them (Shrestha, 2011). For instance, the years ranging from 1966 to 1980 saw 718,000 refugees entering the U.S. (Wasem, 2005). However, after the Refugee Act of 1980 the U.S. experienced an influx of 1.6 million refugees over the following five years (Wasem, 2005). Furthermore,

racial and ethnic groups "are aging at different rates, depending upon fertility, mortality, and immigration within these groups" (Shrestha, 2011). The United States is a collection of growing cultural pockets inlaid in a contemporary society. From 2009 to 2010, the foreign-born population of the U.S. grew by 1.4 million (Batalova & Terrazas 2010). As globalization increases, more immigrants are arriving in the United States and adding to the size and diversity of the salad bowl.

Culture

The literature offers a multiplicity of definitions for culture and they are of varying depth and utility. Firstly Bullock and Stallybrass (1977) specify culture as the

> 'Social heritage' of a community: the total body of material artifacts (tools, weapons, houses; places of work, worship, government, recreation, works of art, etc.); of collective mental and spiritual "artifacts" (systems of symbols, ideas, beliefs, aesthetic perceptions, values, etc.); and of distinctive forms of behavior created by a people (sometimes deliberately, sometimes through unforeseen interconnections) and transmitted from generation to generation. (p 150)

Culture is a culmination of all aspects of a community's history and method of living. In 1966, Hall described culture as a set of deeply significant experiences which sets up the criterion against which all other things are judged (Hall, 1966). However, more recently social scientists have shifted culture from this experiential viewpoint of culture to a more psychologically based description. Hofstede (1980), more simply describes culture as the "collective programming of the mind which distinguishes the members of one group or category from others." (p. 25) Some researchers view culture as being a state of mind or thinking such as a concept of beliefs, shared pattern of thinking learned from an early age (Cullen & Parbotteah, 2005; Xing, 1995). Other researchers posit that culture is a people group's collective opinion concerning what is important in life and how a person should behave. Table 2.1 lists the various definitions of culture.

Table 2.1

Definitions of Culture

Definition	Year	Author
Culture is a concept of the pervasive and shared beliefs, norms, and values that guide everyday life.	2005	Cullen & Parbotteeah
Culture is a shared pattern of being, thinking, and behaving; something learned from childhood through socialization; something deeply rooted in tradition that permeates all aspects of any given society.	1995	Xing
Culture [is] those deep, common, unstated experiences which members of a given culture share, which they communicate without knowing, and which form the backdrop against which all other events are judged.	1966	Hall
Culture is the coherent, learned, shared view of a group of people about life's concerns that ranks what is important, furnishes attitudes about what things are appropriate, and dictates behavior.	2003	Beamer & Varner
Culture is the collective programming of the mind which distinguishes the members of one group or category from others.	1980	Hofestede
Culture is the 'Social heritage' of a community: the total body of material artifacts (tools, weapons, houses; places of work, worship, government, recreation, works of art, etc.); of collective mental and spiritual "artifacts" (systems of symbols, ideas, beliefs, aesthetic perceptions, values, etc.); and of distinctive forms of behavior created by a people (sometimes deliberately, sometimes through unforeseen interconnections) and transmitted from generation to generation.	1977	Bullock &Stallybrass

These definitions help to understand what culture is. Culture, however, is more than a description of identity but also acts as a mechanism for human functioning. The National Association of Social Workers (2001) describes culture as the "integrated pattern of human behavior that includes thoughts, communications, actions, customs, beliefs, values, and

institutions of a racial, ethnic, religious, or social group" (p. 61). Of all the literature defining culture, the authors Chaney & Martin (2003) put forth a practical and accurate use of the term as "the structure through which the communication [process] is formulated and interpreted" (p. 268). This idea of culture being the conduit of communication is also supported by foreign language learning researchers: "Language is the most typical, the most representative, and the most central element in any culture. Language and culture are not separable" (Brooks, 1964, p. 85). The researchers Samovar, Porter, and Jain (1981) explained in more detail why the two are so intertwined:

> Culture and communication are inseparable because culture not only dictates who talks to whom, about what, and how the communication proceeds, it also helps to determine how people encode messages, the meanings they have for messages, and the conditions and circumstances under which various messages may or may not be sent, noticed, or interpreted... Culture...is the foundation of communication. (p. 24)

Therefore for the purposes of this study the definition of a foreign culture or a culture different to that of the respondents will refer to any culture whose primary language of communication is not English.

Competency

The literature offers many useful descriptions of competency. Competency is generally agreed as pertaining to an individual's KSAO's. KSAO's is a common term in the literature and refers to the knowledge, skills, abilities, and other traits such as personality type and interests (Peters, Greer, & Youngblood, 1997). Furthermore, a competency is the application of those KSAO's (International Standard, 1999). A competency can also be a measurable or immeasurable characteristic that causes a person to be highly effective in a given situation (Spencer &Spencer, 1993). Other researchers describe competency as a set of skilled behaviors or at least measurable behaviors leading to effective handling of unique situations (Bowden & Marton, 1998; Spitzberg, 1994). No matter how a competency is described, the existence of a

competency can always be recognized because it "leads to or causes effective or superior performance" (Boyatzis, 1982). Table 2.2 lists other useful descriptions of competency found in the literature.

Table 2.2

Definitions of Competency

Definition	Year	Author
Group of measurable bits of workplace behavior and a person's ability to handle unique situations in an effective manner.	1998	Bowden & Marton
A kind of ability or a set of skilled behaviors.	1994	Spitzberg
An application of knowledge, skills, and behaviors in performance.	1999	International Standard ISO 10015
An underlying characteristic of an individual that is causally related to criterion referenced effective and/or superior performance in a job or situation.	1993	Spencer &Spencer

Competency in fact includes both an internal or mental factor as well as an external factor. The external element is the observable behavior while the internal element is the intent, or motivation, of the behavior (Boyatiz, 1982). For instance, while speaking with a new acquaintance, a person might continue the conversation by asking interesting questions for the sake of ingratiating themselves to with the new contact. This would be an example of political or social competency. On the other hand, the same behavior might be observed by a person genuinely interested in what the new acquaintance has to say and would like to get to know them better. This shows the person is applying a competency like emotional self-awareness (Boyatiz, 1982). This theme of competency having internal as well as external elements can be extended into different types of competency such as intercultural competency.

Intercultural Competency

Cross, Benjamin, and Isaacs (1989) described intercultural competency as "a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enable that system, agency, or those professionals to work effectively in cross-cultural situations" (p. 13). This definition outlines the major outward characteristics and end result of effective ICC. Onyoni and Ives (2007) take the definition further by explaining that the behavior is a combination of "knowledge, awareness, sensitivity, attitudes, skills, and encounters by individuals and programs to acknowledge and respect the cultural traditions of their clients and their communities" (p. 1). The intent, therefore, of intercultural competency behaviors is to show acknowledgement and respect to the individuals with whom one is interacting. The same sentiment of respect is expressed by Alvarez et al. (2008) along with the idea that cultural competency is a process that improves over time.

Icebergs have long been used for analogous purposes and illustration of cultural competencies is just one of them. Icebergs are unique in that, at first glance, their cap or "tip" catches the eye and can distract one from investigating what lies below the waterline. In fact, only 10 percent of an iceberg is observable (Briney, 2012). Likewise, the observable aspects of cultural competency are only a fraction of an entirety. Spencer & Spencer explain that in this sense the iceberg has four layers of descending degrees of discernibility. The first layer is knowledge that can be taught and learned in a structured format such as training courses (Spencer & Spencer, 1993). For example, one can easily teach a new employee to bow their head slightly when greeting Asian business associates. The second layer is less specific skills that can't necessarily be taught in a classroom but are learned from situational experience and can be transferred from one scenario to another (Spencer & Spencer 1993). For instance, gauging the appropriate moment to make a toast at a dinner party is a hard skill to teach objectively and can only be learned through experience. The third layer of the iceberg is the relationship between a person's values and beliefs and their perception of social and political expectations (Spencer & Spencer, 1993). A person with high cultural competency might be more able to understand the other side of a hot-button political topic and therefore more likely to gracefully respond in accordance with their private beliefs. The final layer of the iceberg consists of personal traits

such as their motivation and self-image (Spencer & Spencer, 1993). This last layer is very difficult to observe and measure. For instance, a boss from a detailed oriented culture double checking numbers and figures might come across as untrusting or doubtful of an employee's hard work.

There is no such thing as a completely culturally competent person: "Cultural competence is never fully realized, achieved, or completed, but rather a lifelong process for social workers who will always encounter diverse clients and new situations in their practice" (NASW, 2001, p. 11). Chang (2007) echoes this sentiment but includes that an individual is not left unchanged by pursing ICC because it is "an integrative and transformative process" (p. 189). On a different note Whaley and Davis (2007) describe ICC as "set of problem solving skills" in an intercultural situation. Taylor (1994) takes this problem solving ability further by stating that intercultural competency is "an adaptive capacity based on an inclusive and integrative world view which allows participants to effectively accommodate the demands of living in a host culture" (p. 1). This idea is ultimately the goal of healthcare practitioners with respect to their intercultural competencies: to effectively and smoothly operate in multicultural scenarios.

ICC and Job Performance

Factors affecting workers' job performance are always of great interest to employers. The link between a person's ability to communicate effectively in multicultural work environments and their occupational performance is strongly supported across various professional fields. Mol et al., (2005) showed that an employee's intercultural sensitivity was significantly related to job performance. While studying corporate employees considering overseas assignment researchers found that job effectiveness was strongly tied to intercultural adjustment (Tucker et al., 2004). Other correlations between job performance and the different sections of ICC have been shown in multiple studies (Cui &Awa, 1992; Hawes & Kealey, 1981; Ruben,1977; Sizoo, Plank, Iskat, & Serrie, 2005). The effect ICC has on job performance extends beyond individual level. Managers from the U.S. and Russia expressed that transparent communication and cultivating cross-cultural rapport among teammates was essential to team performance (Matveev & Milter, 2004). Researchers exploring the inter-workings of self-

managed work teams (SMWTs) discovered that the root of team inefficiency was a lack of cultural understanding amongst teammates (Kirkman & Shapiro, 1997).

ICC and Healthcare

Racial and ethnic groups in the US suffer disproportionally from health problems. The socio-economic status of these groups contributes to this disparity in ways such as poor living conditions and lack of medical insurance (Betancourt et al., 2003). Many of the health problems for these people groups are due to a lack of consistent, if any, access to healthcare. There are, however, cultural problems contributing to the situation:

> Racial/ethnic disparities in quality of care for those with access to the health care system are equally concerning. These disparities have been shown to exist in the utilization of cardiac diagnostic and therapeutic procedures, prescription of analgesia for pain control, surgical treatment of lung cancer, referral to renal transplantation, treatment of pneumonia and congestive heart failure, and the utilization of specific services covered by Medicare. (Betancourt et al.,2003, p.294)

The authors explain that the root of these problems is likely attributed to patient's cultural beliefs concerning patient recognition of symptoms, thresholds for seeking care, ability to be understood when describing symptoms, ability to understand treatment plans, and adherence to care (Betancourt et al., 2003). These factors affect a healthcare provider's ability to interact with their patients during a treatment and recovery thereby increasing the disparities in racial and ethnic group health problems (Betancourt et al., 2003). A nursing supervisor from Pensacola, Florida, while being interviewed for a qualitative study parallel to this research, commented on the barrier created by a nurse's low intercultural communication skills with cultural different patients: "Every time she walked into the room they asked for someone else—They didn't want her. So if you're not able to cross that barrier, even if you're the best nurse in the world, you can't provide good care" (Vaughan & Yeh, 2013, p. 626). If medical providers are more attuned

to the cultural lens through which a patient views their health then the provider "can address patient concerns more adroitly, leading to improved clinical outcomes" (Chansky, 2011, p. 88).

Striving for a more culturally competent health care system should be a priority among healthcare providers and health educational institutions. Researchers explain that a culturally competent healthcare system "acknowledges and incorporates—at all levels—the importance of culture, assessment of cross-cultural relations, vigilance toward the dynamics that result from cultural differences, expansion of cultural knowledge, and adaptation of services to meet culturally unique needs" (Betancourt et al., 2003, p. 294). This means that healthcare providers should not only increase their cultural knowledge of their patients' backgrounds but also be actively aware of the interplay of cultures during communication. To prevent cultural competence stagnation, providers shouldn't think of themselves as culturally competent but only as always becoming *more* culturally competent (Campinha-Bacote, 1998).

Intercultural Sensitivity

There is a gap between simply noticing the asynchronies of a culturally different person and appropriately responding to those differences in order to achieve effective interaction. Intercultural Sensitivity bridges that gap. It has been generally described as "sensitivity to the importance of cultural differences and to the points of view of people in other cultures" (Bhawuk & Brislin, 1992, p. 414). The same authors continue to describe cultural sensitivity, or the ability to detect cultural differences, as a part of a trio of attributes needed for effective intercultural communication. The other members of the trio, awareness and adroitness, are having an interest in other cultures and the willingness to modify one's behavior during interactions respectively (Bhawuk & Brislin, 1992). Chen and Starosta further clarified this trio by explaining that all of ICC can be described in one of the following three categories: intercultural awareness, intercultural sensitivity, and intercultural adroitness (1996). Intercultural awareness is the cognitive aspect of ICC which consists of culture knowledge and understanding cultural conventions that drive behavior (Chen &Starosta, 1996). Intercultural sensitivity is the affective ingredient for ICC which is driven by an "active desire to motivate themselves to understand, appreciate, and accept differences among cultures." (Chen & Starosta, 1998, p. 231).

It has also been defined as "sensitivity to the importance of cultural differences and to the points of view of people in other cultures" (Bhawuk & Brislin, 1992, p. 1). Finally, intercultural adroitness is the behavioral side of ICC which describes a person's ability to successfully complete tasks and reach communication goals during intercultural interactions (Chen & Starosta, 1996). Furthermore Bennett describes intercultural sensitivity as process of developing one's self in the three ICC aspects by moving through six stages of experiencing cultural differences from a state of ethnocentrism to ethnorelativism (Bennett, 1986). The first stage is denial in which the subject simply rejects the existences of differences. During the second phase, defense, the subject seeks to protect their own world view by countering the differences. The subject then tries to conceal differences to protect their world view during the third stage. In the fourth stage the subject has now crossed into a more ethnorelative perspective and they begin to accept cultural differences. In the fifth stage the subject now openly recognizes cultural differences and changes their behavior to become multicultural. When the subject reaches the sixth stage, they view their own culture as one of many cultures—not the best culture—and enjoy cultural interactions (Bennett, 1986). Figure 2.2 illustrates the six stages of Bennett's Developmental Model of Intercultural Sensitivity.

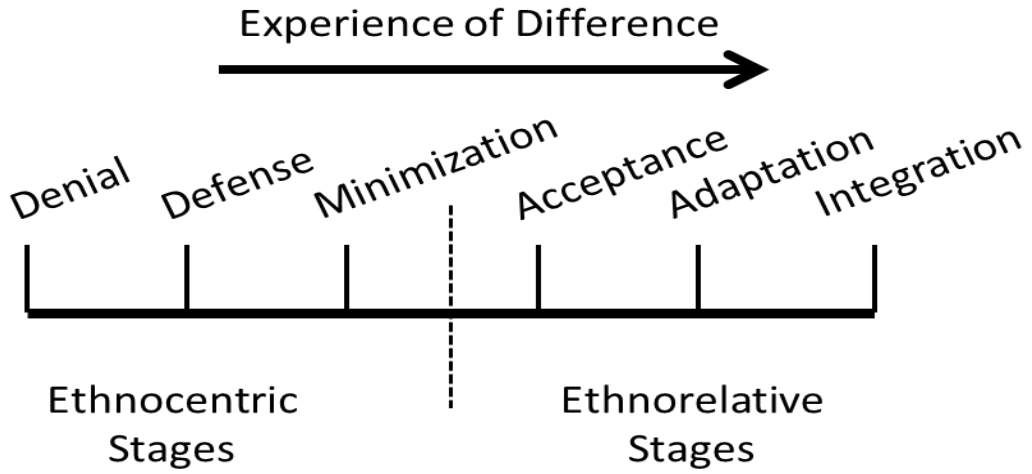

Figure 2.2 Bennett's developmental model of intercultural sensitivity. Adapted from "Becoming interculturally competent" by M. J. Bennett, 2004, *Toward multiculturalism: A reader in multicultural education, 2,* p 63, Newton, MA: Intercultural Resource Corporation.

The greater the level of one's ICS the more quickly they will transition from ethnocentric to enthorelative states of mind. Beyond acting as a facilitator for this transition, intercultural sensitivity also facilitates a person's movement from the first category of ICC, intercultural awareness or the cognitive aspect, to the behavioral aspect where intercultural competence manifests (Chen, 1997). Therefore by measuring the level of an individual's sensitivity, intercultural trainers can better adjust their techniques to match their student's needs.

Dimensions of Intercultural Sensitivity

Effective and appropriate cross-cultural communication is important in interpersonal, intercultural encounters. A variety scales and combinations therein have been used to measure individuals' levels of ICC such as empathy, perspective taking, cultural sensitivity, listening, and non-ethnocentrism (Collier, 1989; Gudykunst, Wiseman, & Hammer, 1977; Hawes & Kealey, 1981; Ruben, 1976, 1977a). A study concerning intercultural communication competency in sojourners outlined three general dimensions of ICC: the ability to deal with psychological stress, the ability to effectively communicate, and the ability to establish interpersonal relationships (Hammer et al., 1979). Since then researchers have mapped out more components regarding interculturally effective behaviors, including message skills, interaction management, behavioral flexibility, identity management, and relationship cultivation (Chen, 1989, 2005; Martin &Hammer, 1989; Ruben, 1977a; Spitzberg & Changnon, 2009). Chen and Starosta, while testing their Intercultural Sensitivity Scale on studying college students, validated the following five dimensions: interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness (Chen &Starosta, 2000). Interaction engagement is how involved the respondent feels during an interaction. Respect for cultural differences regards the respondent's tolerance of cultural differences and opinions. Interaction confidence measures the participant's confidence during such interactions. Interaction enjoyment measures the respondent's positive and negative feelings that occur during cross-cultural interactions. Interaction attentiveness regards the respondent's level of understanding and awareness during interactions.

In a related study, German researchers tested Chen and Starosta's ICS scale for structural validity and consistency (Fritz & Chen, 2000). This study delivered a translated version of the 24 item scale to 400 business students in Germany. The results of their study showed that the scale generally held up under stress. Two dimensions, interaction attentiveness and interaction enjoyment had low discriminant validities thus the researchers suggested that these dimensions might be combined in future research (Fritz &Chen, 2000). On the whole, the researchers confirmed "the applicability and usefulness of Chen and Starosta's instrument in measuring intercultural sensitivity" (Fritz & Chen, 2000, p. 9). Although this study does not investigate the relationships between the independent variables and ICS at the dimensional level, exploratory factor analysis was conducted to test the structure of the dimensions.

Contact Theory

The phrase "fear of the unknown" reflects a natural human characteristic. Humans are wary of unfamiliar places, situations, and people. For instance the less experience we have performing a task the more uneasy we feel while performing it. Likewise, the less contact we have with a person or culture, the less confident, relaxed, aware and sensitive we are during cultural interactions. The opposite is also true. The more interaction and exposure an individual experiences with a different people group, the more likely they are to feel comfortable, act confidently, and be more sensitive with that group and other groups. This is the foundation of contact theory. Work on contact theory began after World War II (Watson, 1947; Williams, 1947). Allport (1954) argued that the increasing contact between people groups will decrease their prejudices and conflicts with each other: "whatever makes for…more intimate acquaintance is likely to make for increased tolerance…true acquaintance lessens prejudice" (p. 489). Contact theory developed further during racial integration when racism was "thought derived from irrationally held beliefs and attitudes of individuals" (Emerson, Kimbro, & Yancey, 2002, p. 746).

Proponents of contact theory believe that the more contact between individuals of different people groups, the more likely those individuals will be to resolve their misconceptions about the other (Emerson et al., 2002). The effects of contact are not limited to just the contact

between those individuals. The change an individual undergoes during one contact instance is carried over into future contact scenarios. During future contacts with other groups, such an individual is likely to find more similarities between themselves and their counterparts (Emerson et al., 2002). Research supporting contact theory indicates that exposure to culturally diverse groups can have an effect on healthcare providers' ability to better interact the people around them (Bartunek, 2011). Therefore the more prior exposure and contact a person experiences with different groups the better prepared they will be to interact with culturally different people in the future. Furthermore the setting in which an individual exists can have an effect on their contact related exposure to diversity. Researchers studying diversity in medical schools and the outcomes therein found that in schools with high levels of diversity the white students "rated themselves better prepared to care for diverse populations" (Saha, Guiton, Wimmers, & Wilkerson, 2008, p. 1139).

Predictors of ICS

Cultural competence is like other types of competency in that it is a culmination of a person's characteristics. Because of this, particular characteristics can be isolated and tested for their effect on the person's competency. Through this process it is possible for researchers to ascertain various predictors for cultural competency. Because intercultural sensitivity makes up a part of intercultural competency it is subject to the same predictors of ICC. Concepts like empathy, perspective taking, listening, and non-ethnocentrism have all been used by researchers as predictors of ICC and cross-cultural communication effectiveness (Collier, 1989; Gudykunstet al., 1977; Hawes & Kealey, 1981; Ruben, 1976, 1977a). Researchers studying predictors between Japanese and American managers were able to draw from prior research and literature to test for predictors of ICC such as knowledge of the other culture, stereotypes, levels of ethnocentrism, and social distance (Wiseman, Hammer, & Nishida, 1989). Brislin (1981) came up with six abilities tied to ICC: knowledge of subject matter; language; communication skills; positive orientations to opportunities; ability to use personal traits such as tolerance, character, sociability, and task orientation; and ability to deliver results. Imahori and Lanigan (1989) provided three dimensions affecting ICC with each dimension including some sub-factors. Those dimensions are knowledge, skill, and attitude. Knowledge includes general and specific

knowledge about a culture, understanding the language, and awareness of the unspoken social rules regarding interaction. Their skill sub-factors are one's respectfulness during interaction, posture, information orientation, empathy, role flexibility, interaction management, ambiguity tolerance, linguistic skills, speech accommodation, and affinity seeking. Other researchers have determined other variables related to ICC such as communication skills, empathy/social decentering, knowledge of host culture, and language competence (Bennett, 1979; Hammer, Gudykunst, and Wiseman, 1978; Hannigan, 1990; Kim, 1991; Okazaki-Luff, 1991; Ruben, 1976, 1977b; Searle &Ward, 1990; Ward and Searle, 1991; Wiseman et al., 1989).

Background Setting

The United States is a canvas of large swaths of rural area pockmarked by densely populated urban/suburban areas. These urban areas are statistically more culturally diverse than rural areas. (U.S. Census Bureau, 2011) As contact theory would predict, a person living in a culturally diverse area will have a greater affinity for ICS effectiveness. This was found to be the case in a study focusing on the faculty of nursing schools which revealed that programs located in largely urbanized states with a high immigrant population density were more culturally competent than their counterparts hailing from rural areas (Kardong-Edgren, 2007). Thus this study proposes the following hypothesis:

H_1: Students from an urban or metropolitan background have higher levels of ICS than students from rural areas.

Prior Exposure

Prior exposure, even in small amounts, to a culture has a positive impact on a person's intercultural competency. While studying cultural competency in clinical psychologists, researchers showed that a clinician's prior exposure to different cultural groups, especially during training, was a strong predictor of cultural competency (Allison, Echemendia, Crawford, & Robinson, 1996). Prior exposure to foreign cultures through cultural immersion experiences has shown to be a strong indicator of intercultural communication competency (Larsen & Reif, 2011). Therefore, the first dimension of this variable is immersion experience. This dimension

seeks to measure the level of immersion experiences and simulated immersion experiences such as attending cultural events, cultivating cross-cultural friendships, and dining at culturally different restaurants. Furthermore, exposure to stories and narratives from foreign cultures has also shown to have a noticeable effect on cross cultural competencies (Anderson, 2004). The second dimension for prior cultural exposure is called narrative experience. This dimension seeks to ascertain how much the respondent has experienced another culture's perspective or "mindset." Respondents can gain insight of another culture or "see through their eyes" by consuming books and movies set in and told from a culturally different perspective. The third dimension of prior cultural experience seeks to measure linguistic abilities. A study involving doctors and language ability showed that language proficiency was directly related to successful cross cultural interactions (Fernandez et al., 2004). Therefore this study proposes the following hypothesis:

H_2: Prior cultural exposure has a positive influence on students' levels of ICS.

$H_{2\text{-}1}$: Cultural immersion experience has a positive influence on students' levels of ICS.

$H_{2\text{-}2}$: Cross-narrative experience has a positive influence on students' levels of ICS.

$H_{2\text{-}3}$: Language study has a positive influence on students' levels of ICS.

Gender

Gender can also have an effect on a person's cultural competency. In a multicultural study involving mental therapists and diverse populations researchers found that females had much more positive outcomes from treatment from culturally different therapists than males (Sue, Fujino, Hu, Takeuchi, &Zane, 1991). Furthermore, in a study exploring ethnic identity and occupational aspirations the researchers Hogg, Abrams, & Patel (1990) found that females were much more likely to reach out and interact with persons of a different culture than their male counterparts. Thus this study proposes the following hypothesis:

H_3: Female students have a higher ICS levels than their male counterparts.

Intended Work Setting

Humans naturally tend to seek out jobs and occupational settings where they believe they will be the most successful. This may be because they are already familiar with a particular work setting or believe they have some trait that will give them an edge in that setting. However, in a study looking at the cultural competency of nurse practitioner students, researchers found that individuals planning to work in a rural setting had higher levels of ICC than those intending to work in urban areas (Benkert et al., 2005). These results seem to contradict contact theory which proposes that individuals with prior cultural exposure perform better in future interactions. Thus this study proposes the following hypothesis:

H_4: Students intending to work in urban areas or large cities have higher levels of ICS than students seeking employment in rural areas.

CHAPTER III METHODOLOGY

This chapter covers the design and mechanisms of the study. Firstly, the research framework and hypotheses are explained in terms of their cultivation and design. The methodology is then laid out with relation to the participants involved, the instrument used, and the data collection and analysis processes.

Research Framework

The framework for this study was designed in accordance with the research purpose and literature review. The purpose of this study is to investigate predictors of ICS in nursing students along the Gulf Coast. These predictors are divided into four *X* variables: community setting, prior exposure, gender, and intended work setting. These variables are to be tested against the *Y* variable of ICS which is comprised of five domains: interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness. Figure 3.1 illustrates the research framework.

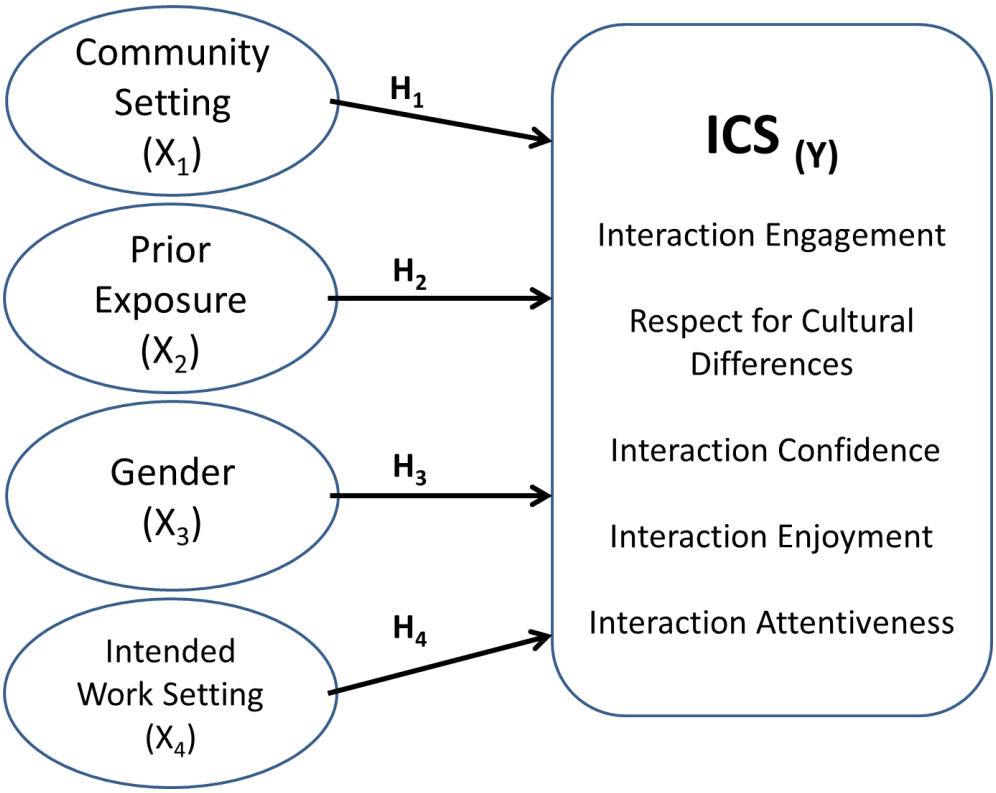

Figure 3.1 Research Framework

Research Hypotheses

Based on the purpose of the study and the research questions, the following hypotheses seek to explain the relationship between the variables gender, community setting, prior exposure, and intended work setting with the intercultural sensitivity levels of nursing students.

H_1: Students from an urban or metropolitan background have higher levels of ICS than students from rural areas.

H_2: Prior cultural exposure has a positive influence on students' levels of ICS.

$H_{2\text{-}1}$: Cultural immersion experience has a positive influence on students' levels of ICS.

$H_{2\text{-}2}$: Cross-narrative experience has a positive influence on students' levels of ICS.

$H_{2\text{-}3}$: Language study has a positive influence on students' levels of ICS.

H_3: Female students have a higher ICS levels than their male counterparts.

H_4: Students intending to work in urban areas or large cities have higher levels of ICS than students seeking employment in rural areas.

Research Method

Based on material in the literature, advice from subject matter experts, and consultations from professors this study was designed to use a quantitative approach for testing the hypotheses. Appropriate participants were selected in accordance with the research purpose. A survey instrument was designed based on the literature and can be found in Appendix A.

Research Procedure

This study follows a ten step guide for conducting the research. The steps are as follows:

1. Read literature for gaps or anomalies in a particular field to identify a research problem.

2. Define research objectives to serve as the basis of the study.

3. Review relevant literature to gain greater expertise on the topic.

4. Build research framework.

5. Through using the literature, obtaining advice, and adapting available instruments, create a questionnaire for use in the present study.

6. Run a pilot study to analyze the reliability of the instrument and adjust as needed.

7. Run the main study.

8. Analyze data and test hypotheses.

9. Discuss findings.

10. Specify implications of study and provide further research recommendations.

Sample

The participants of this study were nursing students in the Gulf Coast region of the United States. There were five schools in this study offering either an Associate's Degree in Nursing (ADN) or a Bachelor's of Science in Nursing (BSN). The students were attending schools that will prepare them for the licensing exams to become Registered Nurses. These two types of nursing degrees were chosen for this study because they make up about 90% of nurses employed in northwest Florida which is the majority of the research area. (Florida Center for Nursing, 2012) This study looked at nursing schools offering these degrees along the Gulf Coast Region consisting of 121 participants.

Sample Descriptive Statistics

In this study, the instrument was distributed to five nursing programs along the Gulf Coast region resulting in 121 completed surveys. Firstly, the deans or the equivalent administrative personnel of each institution were contacted to solicit participation. After obtaining permission to conduct the study, the researcher then fulfilled the research participation requirements for each institution such as providing letters of intent, samples of the instrument, and assurances of data collection privacy and security. The instrument was then uploaded to a professional survey distribution website, and a secure URL was sent to each institution's lead point of contact (POC) for the project. The POC in turn distributed the link to the student bodies via their internal and/or private email lists. This was done to protect the security of the student's online contact information.

Each nursing program averaged 40 to 50 enrolled students, putting the number of participants in the sample at approximately 250 students. This brought the response rate of the sample to 48%. The instrument collected ICS scores, background data, prior cultural exposure, and demographic data which queried age, gender, and highest level of education. Among the respondents, 77% were female, the majority of whom are in their mid to late twenties. Of the respondents 48% acknowledged holding a two year associate's degree, 36% holding a high school diploma, 14% holding a four year bachelor's degree, and 1% holding a Ph.D. Among the 121 respondents, there were 31% who identified themselves as coming from a rural hometown, 59% coming from an urban community, and 10% coming from a large city. Table 3.1 displays the descriptive data for the sample.

Table 3.1.

Sample Description

Dimension – Characteristic – Item	Scale	Frequency	Percentage
Age	< 20 yoa	6	5
	20-29 yoa	60	49.6
	30-39 yoa	32	26.4
	40-49 yoa	15	12.4
	> 50 yoa	8	6.6
Education	High School	44	36.4
	Assoc / 2 yr	59	48.8
	BA / 4 yr	17	14
	Masters	0	0
	Ph. D.	1	0.8
Background Setting	Rural	38	31.4
	Non-Rural	83	68.6

(continued)

Table 3.1 (continued)

Dimension – Characteristic – Item	Scale	Frequency	Percentage
Prior Cultural Exposure - Immersion Experience - Cultural Courses to Date	None	61	50.4
	1	30	24.8
	2	23	19.0
	3	4	3.3
	> 4	3	2.5
Prior Cultural Exposure - Immersion Experience - Highest Language Ability	None	28	23.1
	Beginner	62	51.2
	Intermediate	26	21.5
	Advanced	1	.8
	Fluent	4	3.3
Prior Cultural Exposure - Immersion Experience - Cross Cultural Friendships	0	22	18.2
	1	14	11.6
	2	16	13.2
	3	6	5.0
	> 4	63	52.1
Prior Cultural Exposure - Immersion Experience - Foreign Restaurants per week	0	26	21.5
	1	49	40.5
	2	33	27.3
	3	10	8.3
	> 4	3	2.5
Prior Cultural Exposure - Immersion Experience - Cultural Events per month	0	35	28.9
	1	37	30.6
	2	28	23.1
	3	8	6.6
	> 4	13	10.7

(continued)

Table 3.1 (continued)

Dimension – Characteristic – Item	Scale	Frequency	Percentage
Prior Cultural Exposure -Immersion Experience - Time Lived Abroad	None	74	61.2
	< 3 months	15	12.4
	3 - 6 months	1	.8
	6 - 12 months	5	4.1
	> 1 year	26	21.5
Prior Cultural Exposure - Narrative Experience - Foreign Authored Books per month	0	100	82.6
	1	16	13.2
	2	4	3.3
	3	0	0.0
	> 4	1	.8
Prior Cultural Exposure - Narrative Experience - Foreign Perspective Books per month	0	78	64.5
	1	25	20.7
	2	10	8.3
	3	3	2.5
	> 4	5	4.1
Prior Cultural Exposure - Language Study - High School Courses	0	21	17.4
	1	50	41.3
	2	34	28.1
	3	13	10.7
	> 4	3	2.5
Prior Cultural Exposure - Language Study - College Courses	0	71	58.7
	1	29	24.0
	2	16	13.2
	3	4	3.3
	> 4	1	.8

(continued)

Table 3.1 (continued)

Dimension – Characteristic – Item		Scale	Frequency	Percentage
Prior Cultural Exposure - Language Study - of Languages Studied	#	0	17	14.0
		1	76	62.8
		2	24	19.8
		3	2	1.7
		> 4	1	.8
Gender		Male	28	23.1
		Female	93	76.9
Intended Work Setting		Rural	16	13.2
		Non-Rural	105	86.8

Research Instrument

A 44-item instrument was designed based on the literature. The survey was delivered and the results recorded electronically via an online survey system. The questionnaire consists of four sections. Section 1 contains 24 items measuring intercultural sensitivity using a 5-point Likert scale. Section 1 covers five dimensions of ICS as drawn from work by Chen and Starosta (2000). The first dimension, "interaction engagement" has to do with the feeling of involvement during an intercultural exchange. The next dimension is respect for cultural differences which are concerned with how tolerant the participant is towards cultural differences and opinions during cross cultural interactions. The third dimension measures the respondent's confidence levels during interactions. Interaction enjoyment, the fourth dimension, assesses the respondent's reactions during interaction as being positive or negative. Finally interaction attentiveness measures how much the respondents try to continually understand and assess what is occurring during cross cultural interactions. Table 3.2 lists the five dimensions of ICS and their corresponding items as they appear in the instrument.

Table 3.2
ICS Dimension Subscales

ICS Dimension Sub-scale	Item
Interaction Engagement	1. I enjoy interacting with people from different cultures.
	11. I tend to wait before forming an impression of culturally-distinct counterparts.
	13. I am open-minded to people from different cultures.
	21. I often give positive responses to my culturally different counterpart during our interaction.
	22. I avoid those situations where I will have to deal with culturally-distinct persons.*
	23. I often show my culturally-distinct counterpart my understanding through verbal or nonverbal cues.
	24. I have a feeling of enjoyment towards differences between my culturally-distinct counterpart and me.
Respect for Cultural Differences	2. I think people from other cultures are narrow-minded.*
	7. I don't like to be with people from different cultures.*
	8. I respect the values of people from different cultures.
	16. I respect the ways people from different cultures behave.
	18. I would not accept the opinions of people from different cultures.*
	20. I think my culture is better than other cultures.*

*Items reversed coded before summing values. (continued)

Table 3.2 (continued)

ICS Dimension Sub-scale	Item
Interaction Confidence	3. I am pretty sure of myself in interacting with people from different cultures.
	4. I find it very hard to talk in front of people from different cultures.*
	5. I always know what to say when interacting with people from different cultures.
	6. I can be as sociable as I want to be when interacting with people from different cultures.
	10. I feel confident when interacting with people from different cultures.
Interaction Enjoyment	9. I get upset easily when interacting with people from different cultures.*
	12. I often get discouraged when I am with people from different cultures.*
	15. I often feel useless when interacting with people from different cultures.*
Interaction Attentiveness	14. I am very observant when interacting with people from different cultures.
	17. I try to obtain as much information as I can when interacting with people from different cultures.
	19. I am sensitive to my culturally-distinct counterpart's subtle meanings during our interaction.

*Items reversed coded before summing values.

Section 2 of the instrument investigates a person's prior exposure to cultural diversity. Section is divided into three categories: Language study, immersion experience, and narrative experience. Firstly, Language study is assessed through the following items: "25. I took ____ foreign language courses during high school: 0/NA, 1, 2, 3, 4, or more; 26. I took ____ foreign language courses during college: 0/NA, 1, 2, 3, 4, or more; 27. I have studied _____ foreign languages: 0/NA, 1, 2, 3, 4, or more; 28. I consider my highest foreign language ability level to be: Non-Existent, Beginner, Intermediate, Advanced, and Fluent.

Immersion experience is divided into three aspects: physical immersion, academic immersion, and extracurricular immersion. Item 29 for instance measures time spent abroad as one aspect of physical immersion: "I have lived abroad in a foreign culture for _____. 0/NA, Less than 3 months, 3-6 months, 6-12 months, Over 1 year." Academic immersion is assessed by item 29: "Between High School and College I've taken _____ cultural classes such as courses titled: "Cultures of the World" or "Intro to World Culture": 0/NA, 1, 2, 3, 4 or more." Extracurricular immersion is measured by looking at the respondent's cross cultural relationships, time spent at foreign restaurants, and attendance at cultural events using the following items: "30. I have _____ friends that are foreign nationals: 0/NA, 1, 2, 3, 4 or more; 31. I eat at restaurants offering foreign cuisine _____ times a week: 0/NA, 1, 2, 3, 4 or more; 35. Every year I attend _____ cultural events such as food, music, art festivals representing a culture different from my own: 0/NA, 1, 2, 3, 4 or more."

The narrative experience category gauges a person's experience with understanding a foreign culture with items using the following items: "32. I watch _____ foreign films (non-English speaking) every month: 0/NA, 1, 2, 3, 4 or more; 33. I read _____ foreign authored books each month: 0/NA, 1, 2, 3, 4 or more; 34. I read _____ stories set in foreign culture each month: 0/NA, 1, 2, 3, 4 or more."

Section three records the values for the intended work setting, be it an urban or a rural setting for the respondents. Because this measure requires a categorical response there is only a

single item used: "Within 5 years of completing my nursing education, I hope to work in community classified as:_____. 1. Rural 2. Urban/Suburban 3.Metropolitan/ Large City."

The third section of the instrument also poses demographic questions to determine the dimensions of the expected predictor variables gender and background setting. One item asks respondents to mark their gender. Four items ask participants to specify whether they come from a rural community or an urban community. Age and highest level of education were also queried in this section to act as control variables for the expected demographic predictors. Age was added to control for the likelihood of older individuals already having prior cultural exposure. Furthermore, by controlling for a participant's highest degree of education the instrument will take into account the effects of possessing multiple academic degrees might have had on a person's level of ICS, prior cultural exposure, as well as general knowledge on cross-cultural communication.

Categorical Determination and Selection

One of this study's independent variables, Background Setting, used four items with response options for one of three categories: Rural, Urban, Metropolitan. Two of the items, 38 and 39, measured travel distance from the participant's home and the closest neighbor and convenience store. These items were removed due to inconsistency amongst themselves and with the other items responses. The inconsistency may be attributed to the layout of some small rural communities which have tightly packed towns surrounded by swaths of farmland. The second two items, 37 and 40, measured the respondent's background by asking them what kind of town they are from or high school they attended. Because there were three nominal answers for these items the means for each category were compared using one-way ANOVA to determine which background item is most acceptable for establishing a respondent's category. Back_Town_37 had a significance of .03 compared with item Back_School_40 with a significance of .075. This means that item Back_Town_37 best establishes a respondent's background setting category because they are statistically different from one another. Table 3.3 shows the one-way ANOVA results for these items.

Table 3.3

ANOVA Results for Background Category Items

Item	Item Description	Sum of Squares	df	Means Square	F	Sig
37	Asks respondent to which category their home town belongs.	2.407	2	1.203	3.604	.030
40	Asks respondent to which category their high school belongs.	1.799	2	.899	2.652	.075

Furthermore item Back_School_40, referring to a respondent's high school setting, was not reliable at establishing the participant's category because some respondents might have moved to a different community category for their high school years thus distorting the accuracy of the measurement. For these reasons the item querying a respondent's home town was used for establishing a respondent's category. For the purposes of this research responses were recoded into a dummy variable with rural answers valued as 0 and urban and metropolitan, or non-rural, responses coded as 1.

Validity and Reliability

After the data was collected, the resulting values were analyzed using the Statistical Package for the Social Sciences (SPSS) PC Version 20 software package. The sections of the instrument measuring ICS and prior cultural exposure used scaled responses and thus could undergo factor analysis to determine dimension reduction and check for cross loaded items. This means that EFA was conducted three times in this study. In the first instance ICS and prior cultural exposure items were combined and underwent exploratory factor analysis together to test for items loading on both the dependent and independent variables. The second and third instances of EFA the ICS and prior exposure scales underwent independent EFA to check for factor loading and component placement for determining dimensions. Although this research does not use the ICS scale at the dimensional level, EFA was still conducted to compare the results against the author's original testing of the scale.

Several commonly accepted criteria for determining the factorability were employed and the EFA procedure for each instance is as follows. Firstly, items were correlated to broadly test for factorability. Then the items' Kaiser-Meyer-Olkin and Bartlett's test of sphericity were calculated. Finally the communalities for each item were checked to ensure shared common variance. Following this factorability check, principle components analysis (PCA) was conducted to identify and compute factor scores. Only factors resulting with eigenvalues of 1 or greater were retained for the final dimensional placement.

The first instance of EFA involving the combination of ICS and prior exposure resulted in at least a correlation value of .3 for all items with at least one other item. The Kaiser-Meyer-Olkin measure of sampling adequacy was .888, above the recommended value of .6, and Bartlett's test of sphericity was significant ($X^2(630) = 2874.19$, $p < .05$). See Table 3.4 for the KMO and Bartlett's test results.

Table 3.4

KMO and Bartlett's Test scores for Exploratory Factor Analysis Instances

EFA Instance	KMO Measure of Sampling Adequacy	Bartlett's Test of Sphericity		
		Chi-Square	df	Sig
Combined	.888	2874.19	630	.000
ICS	.931	2119.89	276	.000
Prior Cultural Exposure	.766	419.51	66	.000

Seven factors were retained and the communalities between these items were all above .3 reaffirming that each item shared some common variance with other items. The first factor accounted for 38.8% of variance and the cumulative total of variance explained by all the factors was 68.5%. Table 3.5 shows the factor loading and communalities for this instance of EFA combining the ICS and prior cultural exposure scales.

Table 3.5.

Factor Loadings and Communalities Based on a Principle Components Analysis with Orthogonal Rotation for 36 Items from ICS and Prior Exposure Scales (N = 121)

Item	Former Dimension	Component							Communality
		1	2	3	4	5	6	7	
CultDiff_8	Respect for Cultural Differences	.805							.737
IntEnga_13	Interaction Engagement	.782							.768
CultDiff_20	Respect for Cultural Differences	.773							.709
IntEnjy_9	Interaction Enjoyment	.741							.751
CultDiff_7	Respect for Cultural Differences	.737							.776
CultDiff_2	Respect for Cultural Differences	.725							.62
IntEnga_22	Interaction Engagement	.706							.824
IntEnjy_12	Interaction Enjoyment	.703							.855
CultDiff_16	Respect for Cultural Differences	.688							.687
CultDiff_18	Respect for Cultural Differences	.66							.623
IntEnga_24	Interaction Engagement	.61							.714
IntEnga_1	Interaction Engagement	.61							.735
IntEnjy_15	Interaction Enjoyment	.469							.682

† Items loaded onto unexpected factors

(continued)

Table 3.5 (continued)

Item	Former Dimension	Component							Communality
		1	2	3	4	5	6	7	
IntConf_3	Interaction Confidence		.785						.767
IntAttntv_17	Interaction Attentiveness		.673						.73
IntAttntv_14	Interaction Attentiveness		.67						.676
IntConf_10	Interaction Confidence		.654						.666
IntEnga_21	Interaction Engagement		.65						.633
IntConf_4	Interaction Confidence		.635						.711
IntConf_6	Interaction Confidence		.559						.656
IntEnga_23	Interaction Engagement		.502						.603
Expo_Frnd_30	Exposure - Immersion Experience		.431†						.471
Expo_Book_33	Exposure - Narrative Experience			.808					.774
Expo_Film_32	Exposure - Narrative Experience			.786					.707
Expo_Story_34	Exposure - Narrative Experience			.773					.733
Expo_Abroad_36	Exposure - Immersion Experience				.707				.652

† Items loaded onto unexpected factors

(continued)

Table 3.5 (continued)

Item	Former Dimension	Component							Communality
		1	2	3	4	5	6	7	
Expo_Book_33	Exposure - Narrative Experience			.808					.774
Expo_Event_35	Exposure - Immersion Experience				.574				.647
IntConf_5	Interaction Confidence				.417†				.546
Expo_Lang_HS_25	Exposure - Language Study					.781			.668
Expo_Lang_Study_27	Exposure - Language Study					.757			.713
Expo_Lang_Coll_26	Exposure - Language Study					.487			.486
Expo_Clss_29	Exposure - Immersion Experience						.747		.6
Expo_Lang_Highest_28	Exposure - Language Study						.604		.652
Expo_Food_31	Exposure - Immersion Experience						.489		.424
IntEnga_11	Interaction Engagement							.664	.66
IntAttntv_19	Interaction Attentiveness							.512	.476

† Items loaded onto unexpected factors

As Table 3.5 shows, items measuring cultural exposure loaded on three dimensions which are in accordance with their design. Two items cross loaded between the two study variables. Item "Expo_frnd_30" which concerns the respondent's number of culturally different friends loaded onto a different factor weakly at .431 with a few ICS items. This may be explained because the ICS items "Expo_frnd_30" loaded onto a factor representing interaction confidence, attentiveness, and engagement, however, the weak loading renders this point negligible. The second to load on a different factor was item "IntConf_5"which regards the respondent's confidence during cultural interactions. This item loaded with the two cultural exposure items "Expo_Abroad_36" and "Expo_Event_35." This may be similarly explained by the nature of these items. The cultural exposure items measure a respondent's level of exposure to cultural events and living situations which logically have an effect on their confidence level in such situations. However because "IntConf_5" had a low loading score of .417 compared with the other items this cross loading incident is insignificant as well.

The second instance of EFA examined just the ICS scale items. All of the items within this section correlated at least .3 with one other item indicating acceptable factorability. In this instance of EFA the KMO measure was .931 and Bartlett's test of spherictiy was significant ($X^2(276) = 2119.89$, $p < .05$). (See Table 3.4) Furthermore only one item had a communality score less than .3 reinforcing the existence of shared common variance amongst the items. The commonalities for this instance are presented in Table 3.6.

The items representing the ICS dependent variable only loaded across three dimensions which falls short of the five expected dimensions presented in the literature. Although this study does not conduct research on the dimensional level for ICS this divergence from the literature should be noted. The items loaded in such a manner as to retain one of the former dimensions, "Respect for cultural differences," and to coalesce into two blended dimensions. For the purposes of this research the new dimensions have been renamed according to the overall nature of their items. The first new dimension is "interaction surety" which solely contains items pertaining to confidence and enjoyment. The second dimension is "interaction presence" which mostly contains items regarding engagement and attentiveness and two items regarding confidence. Table 3.6 shows the new ICS dimensions and their factor scores.

Table 3.6.

Factor Loadings and Communalities Based on a Principle Components Analysis with Orthogonal Rotation for 24 items from ICS Scale (N = 121)

New Dimension Name	Item	Component			Communality
		1	2	3	
Respect for Cultural Differences	CultDiff_8	.797			.750
	CultDiff_20	.780			.675
	CultDiff_16	.751			.689
	CultDiff_2	.737			.577
	IntEnga_13	.658			.723
	CultDiff_7	.606			.720
	IntEnga_22	.598			.804
	CultDiff_18	.538			.615
	IntEnga_24	.532			.633
Interaction Surety	IntEnjy_15		.806		.713
	IntEnjy_12		.785		.851
	IntConf_4		.662		.652
	IntEnjy_9		.620		.726
	IntConf_6		.577		.518
	IntConf_5		.431		.390
Interaction Presence	IntAttntv_17			.747	.684
	IntAttntv_14			.679	.588
	IntAttntv_19			.653	.475
	IntConf_3			.618	.723
	IntConf_10			.584	.647
	IntEnga_1			.562	.707
	IntEnga_21			.492	.545
	IntEnga_23			.482	.578
	IntEnga_11			.372	.196

The final instance of EFA was conducted on prior cultural exposure. In this instance the KMO measure was .766 and Bartlett's test of sphericity was significant ($X^2(66) = 419.51$, $p < .05$). Table 3.4 displays the results of the KMO measures and Bartlett's test. Finally with the exception of one the communalities were above .3 (see Table 3.7) further indicating that the items shared some common variance with the other items.

Table 3.7.

Factor Loadings and Communalities Based on a Principle Components Analysis with Orthogonal Rotation for 11 Items from Prior Cultural Exposure Scale (N=121)

Dimension Name	Item	Component			Communality
		1	2	3	
Cultural Experience	Expo_Event_35	.778			.675
	Expo_Food_31	.720			.552
	Expo_Frnd_30	.676			.505
	Expo_Abroad_36	.577			.427
	Expo_Lang_Highest_28	.551			.487
	Expo_Clss_29	.512			.276
Cultural Narrative	Expo_Book_33		.837		.761
	Expo_Film_32		.808		.654
	Expo_Story_34		.771		.700
Language Study	Expo_Lang_Study_27			.808	.735
	Expo_Lang_HS_25			.798	.668
	Expo_Lang_Coll_26			.499	.323

As Table 3.7 shows, items measuring prior cultural exposure loaded as expected across three principle components. These three dimensions are cultural experience, cultural narrative, and language study. Item Expo_Lang_Highest_28, which measures the respondent's highest foreign language ability on a scale of 1-none to 5-fluency, did not load with the other language study items but rather under the cultural experience dimension. This can be explained because the language study dimension measures the amount of experience the respondent has at studying

languages whereas a respondent raised in a multicultural household or a foreign country might speak two or three foreign languages in lieu of formal language classes.

The Cronbach's Alpha was calculated to determine the statistical reliability of both the ICS scale and the prior cultural exposure scale which are located in Table 3.8. The Cronbach's Alpha scores for both scales were above .7 which shows strong internal consistency.

Table 3.8

Reliability Analysis (N=121)

Scale	N of Items	Cronbach's Alpha
ICS	24	.953
Prior Cultural Exposure	12	.796
Immersion Experience	6	.737
Cross Narrative Exposure	3	.750
Language Study	3	.606

CHAPTER IV FINDINGS

Correlation Analysis

The independent variables, dependent variables, and demographic control variables underwent a Pearson coefficient correlation to examine their relationships. Table 4.1 displays the means, standard deviations, and correlation values of these variables. The results of the correlation analysis show that with the exception of gender and the prior cultural exposure sub-dimension of language study, all of the independent variables and control variables are significantly related to the respondents' ICS scores.

Table 4.1
Correlation Results

	Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1	ICS Total Score	3.857	.590	-									
2	Background Setting[a]	.686	.466	.236**	-								
3	Prior Cultural Exposure	2.064	.605	.528***	.243**	-							
4	Cultural Experiences	2.393	.837	.573***	.208*	.912***	-						
5	Cross Narrative Experience	1.421	.717	.294**	.108	.641***	.357***	-					
6	Language Study	2.047	.649	.163	.251**	.669***	.425***	.363***	-				
7	Gender[b]	.769	.423	.087	-.118	.026	.051	.040	-.082	-			
8	Intended Work Setting[c]	.868	.340	.316***	.367***	.242**	.213*	.185*	.154	-.098	-		
9	Age	30.983	10.022	.336***	.149	.154	.263**	-.040	-.059	.052	.031	-	
10	Education	1.802	.737	.263**	.132	.334***	.312***	.201*	.217*	-.041	.094	.330***	-

[a]Coding: 0 = rural, 1 = non-rural

[b]Coding: 0 = male, 1 = female

[c]Coding: 0 = rural, 1 = non-rural

* p < .05 **p < .01 ***p < .001

Hypothesis Testing

Hypotheses H_1, H_3, and H_4 use categorical variables to measure the independent variables. Because of this, these hypotheses were tested using a T-test to compare means between groups. Hypotheses H_2, $H_{2\text{-}1}$, $H_{2\text{-}2}$, and $H_{2\text{-}3}$ use continuous variables and were tested through hierarchical regression by applying the following formula where the values b_1, b_2, and b_3 are the partial regression coefficients and the intercept b_0 is the regression constant.

$$y' = b_0 + b_1(x_1) + b_2(x_2) + \ldots + b_p(x_p)$$

The main level hypothesis $H_2$was tested separately from its sub-hypotheses. The results of the hypothesis testing for H_2 and for$H_{2\text{-}1}$, $H_{2\text{-}2}$, and $H_{2\text{-}3}$are displayed in tables 4.4 and 4.5 respectively.

This study sought to investigate the connection, if any, between a nursing student's background setting and their ICS scores. Therefore to test for this relationship the following hypothesis was stated:

H_1: Students from an urban or metropolitan background have higher levels of ICS than students from rural areas.

The T-test conducted for H_1 compared non-rural and rural background settings means against ICS levels. There was a significant difference in the ICS means between non-rural (M=3.951, SD=0.534) and rural (M=3.651, SD=0.659) responses: t(119)=-2.655, p<.01. These results are displayed in Table 4.2 and show that students from non-rural background settings are indeed different in their ICS levels from students of rural background. Specifically, the results suggest that nursing students from urban and metropolitan areas have higher levels of ICS. Therefore it is suggested that background setting does have some effect on ICS levels thereby supporting H_1.

The next categorically based hypothesis of this study looks at the effects of gender on ICS scores. The following hypothesis was stated to test for this relationship:

H_3: Female students have a higher ICS levels than their male counterparts.

The T-test for H_3 compared gender means against ICS. There was not a significant difference in the ICS means between male (M= 3.763, SD= .654) and female (M= 3.884, SD= .570) responses: t(119)= -.954, p>.05. These results indicate that gender is not significant in predicting ICS scores. Table 4.2 displays the results of this t-test. This finding does not support the hypothesis that females will score higher in ICS scales than males.

The final T-test compared the means of the intended work setting variable to test relationship, if any, between a nursing student's intended work setting and their ICS scores. To test this connection the following hypothesis was stated:

H_4: Students intending to work in urban areas or large cities have higher levels of ICS than students seeking employment in rural areas.

There was a significant difference in the ICS means between non-rural (M= 3.929, SD= 0.526) and rural (M= 3.380, SD= .766) responses: t(119)= -2.770, p<.05. These results are displayed in Table 4.2. The results of this test indicate that the difference between students intending to work in non-rural areas over rural areas is significant. Simply put, students intending to work in urban and metropolitan areas will score higher on ICS scales thereby support H_4.

Table 4.2.

T-test Results for Independent Variables' Effects on ICS

Variable	Category Means		t	df	p	Mean Difference
Background Setting	Rural	Non-rural				
	3.651	3.951	-2.655	119	0.009	-0.299
	(.659)	(.534)				
Gender	Male	Female				
	3.763	3.884	-.954	119	.342	-.12
	(.654)	(.570)				
Intended Work Setting	Rural	Non-rural				
	3.380	3.929	-2.77	119	0.013	-0.55
	(.766)	(.526)				

The second hypothesis for this study uses a continuous variable to measure prior cultural exposure. This hypothesis was tested using the previously stated hierarchical regression formula. In the first model education and age are controlled for and the independent variables are included in the second model. Because background setting, gender, and intended work setting are categorical variables they were coded with dummy variables to perform this test. Table 4.3 shows the regression results for prior cultural exposure. When predicting ICS scores it was found that prior cultural exposure ($\beta = 0.424$, $p < .001$) was a significant predictor. This indicates that students with prior cross cultural experience will score higher on ICS scales thus supporting H_2. It should be noted that the regression results also indicate that intended work setting is a significant predictor of ICS scores ($\beta = 0.202$, $p < .05$) thus further supporting the t-test findings for H_4.

Table 4.3.

Results of Hierarchical Regression Analysis on Predictors of ICS

Variable	Standardized Coefficients	
	Model 1	Model 2
Education	0.171	0.020
Age	0.280**	0.249**
[a]Background Setting		0.030
Prior Exposure		0.424***
[b]Gender		0.088
[c]Intended Work Setting		0.202*
F	9.517***	12.212***
ΔF	9.517***	11.815***
R^2	0.139	0.391
ΔR^2	0.139	0.252
Adjusted R^2	0.124	0.359

[a]Coding: 0 = rural, 1 = non-rural

[b]Coding: 0 = male, 1 = female

[c]Coding: 0 = rural, 1 = non-rural

*p < .05

**p < .01

***p < .001

This study also sought to test new scales for assessing prior cultural exposure and to test them on a dimensional level for predictive qualities against ICS scores. Hypotheses $H_{2\text{-}1}$, $H_{2\text{-}2}$, and $H_{2\text{-}3}$ represent these scales. Table 4.4 presents the results for these hypotheses. As expected the results show that there is a very strong and significant relationship between cultural immersion experience and ICS scores (β=0.461, p<.001). Cross-narrative experience and language study did not show strong predictive relationships with ICS scores: (β=0.127, p>.05) and (β=-.114, p>.05) respectively. It should be noted that in table 4.2 cross narrative experience is correlated with ICS scores with a high significance score (r=.294, p<.01). This correlation was

explored further by testing cross narrative experience as a moderator but the results were not significant.

Table 4.4.

Results of Hierarchical Regression Analysis on Prior Exposure Dimensional Level Predictors of ICS

Variable	Standardized Coefficients	
	Model 1	Model 2
Education	0.171	0.035
Age	0.280**	0.183**
[a]Background Setting		0.063
Prior Exposure - Immersion Experience		0.461***
Prior Exposure - Narrative Experience		0.127
Prior Exposure - Language Study		-0.114
[b]Gender		0.067
[c]Intended Work Setting		0.187**
F	9.517***	10.712***
ΔF	9.517***	9.706***
R^2	0.139	0.433
ΔR^2	0.139	0.294
Adjusted R^2	0.1242	0.393

[a]Coding: 0 = rural, 1 = non-rural

[b]Coding: 0 = male, 1 = female

[c]Coding: 0 = rural, 1 = non-rural

*p < .05

**p < .01

***p < .001

This study involved seven hypotheses. The results of the hypotheses testing show that four hypotheses were supported by the findings. Table 4.5 shows the results of the hypothesis testing.

Table 4.5.

Results of Hypotheses Testing

Hypothesis	Results
H_1: Students from an urban or metropolitan background have higher levels of ICS than students from rural areas.	Accepted
H_2: Prior cultural exposure has a positive influence on students' levels of ICS.	Accepted
$H_{2\text{-}1}$: Cultural immersion experience has a positive influence on students' levels of ICS.	Accepted
$H_{2\text{-}2}$: Cross-narrative experience has a positive influence on students' levels of ICS.	Rejected
$H_{2\text{-}3}$: Language study has a positive influence on students' levels of ICS.	Rejected
H_3: Female students have a higher ICS levels than their male counterparts.	Rejected
H_4: Students intending to work in urban areas or large cities have higher levels of ICS than students seeking employment in rural areas.	Accepted

Post Hoc Analysis of New ICS Dimensions

The published ICS scale used in this study did not retain its original factor structure but instead reduced to three dimensions. Because of this structure change a post hoc analysis was conducted on the new ICS dimensions and the independent variables to explore their relationships. Table 4.6 shows the results of the independent t-tests for the dichotomized independent variables and the new ICS dimensions.

Table 4.6.

T-test Results for Independent Variables' Effects on New ICS Dimensions

Respect for Cultural Differences						
Variable	Category Means		t	df	p	Mean Difference
Background Setting	Rural 3.769 (.746)	Non-rural 4.065 (.672)	-2.175	119	.032	-.296
Gender	Male 3.730 (.810)	Female 4.045 (.660)	-1.879	119	.068	-.315
Intended Work Setting	Rural 3.277 (.745)	Non-rural 3.912 (.521)	-2.153	119	.045	-.496
Interaction Surety						
Variable	Category Means		t	df	p	Mean Difference
Background Setting	Rural 3.530 (.658)	Non-rural 3.815 (.599)	-2.268	119	.027	-.284
Gender	Male 3.7381 (.653)	Female 3.722 (.626)	.116	119	.908	.015
Intended Work Setting	Rural 3.792 (.584)	Non-rural 3.912 (.521)	-3.062	119	.003	-.500

Note. Standard Deviations appear in parentheses next to the means (continued)

Table 4.6 (continued)

Interaction Presence						
Variable	Category Means		t	df	p	Mean Difference
Background Setting	Rural 3.614 (.680)	Non-rural 3.926 (.523)	-2.763	119	.007	-.312
Gender	Male 3.8135 (.668)	Female 3.832 (.572)	-.150	119	.881	-.019
Intended Work Setting	Rural 3.277 (.745)	Non-rural 3.912 (.521)	-3.282	119	.004	-.634

Note. Standard Deviations appear in parentheses next to the means

The results of Table 4.6 do not reveal any significant or unexpected relationships between the dichotomized independent variables and the new ICS dimensions. The results showed that students from non-rural backgrounds would have higher scores across all dimensions than students from rural backgrounds. Likewise, students intending to work in non-rural areas also had higher scores in all dimensions than their counterparts. Gender did not show any significant effects on scores for any dimension.

Just as was done for the hypothesis test, hierarchical regression was used to explore the relationship between the continuous variable of prior cultural exposure and the new ICS dimensions. Table 4.7 displays the results of the regression. The strongest predictor for all of the new ICS dimensions was prior exposure. Prior exposure showed to have the strongest effect on scores within the interaction presence dimension (β=.424, $p<.001$). It should be noted that intended work setting also showed some predictive power in this dimension as well (β=.251, $p<.01$). No other significant or unexpected relationships arose from the regression results.

Table 4.7.

Results of Hierarchical Regression Analysis on Predictors of ICS

Variable	Respect for Cultural Differences		Interaction Surety		Interaction Presence	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Education	0.113	-0.005	.258**	.116	.135	.024*
Age	.228*	.191*	.256**	.236**	.290**	.266**
[a]Background Setting		0.05		.006		.016
[b]Prior Exposure		.352***		.398***		.424***
[c]Gender		.190*		-.013		.015
Intended Work Setting		0.149		.152		.251**
F	5.269**	7.525***	12.560***	10.966***	8.661***	12.685***
ΔF	5.269**	8.025***	12.560***	8.560***	8.661***	12.944***
R^2	0.082	0.284	.176	.366	.128	.400
ΔR^2	0.082	0.202	.176	.190	.128	.272
Adjusted R^2	0.066	0.246	.162	.333	.113	.369

[a]Coding: 0 = rural, 1 = non-rural

[b]Coding: 0 = Male, 1 = Female

[c]Coding: 0 = rural, 1 = non-rural

*p < .05

**p < .01

***p < .001

CHAPTER V DISCUSSION AND CONCLUSIONS

Discussion

This research study sought to test possible new predictor variables and scales of ICS. The results of the study show that background setting and prior cultural exposure both have an effect on ICS abilities. These findings stand as evidence in further support of contact theory. As previously noted, healthcare providers exposed to diverse cultural groups had an effect on their intercultural competency (Bartunek, 2011). Furthermore, according to the logical assumption like the adage "A rising tide lifts all ships" one might simply assume that an increase in ICC would signal an increase in ICS. This assumption is no longer necessary because this study has shown that the variables deeply rooted in contact theory were also valid predictors of ICS.

This study was also interested in testing the reliability of the ICS scale published by Chen and Starosta (2000). However, the scale did not behave as it should have according to their validation. As previously noted researchers have already noted some weakness in this scale and suggested that some dimensions might need to be merged (Fritz and Chen, 2000). The original validation by its publishers of the scale revealed five principle components together accounted for 37.3% of variance (Chen &Starosta, 2000). Those dimensions are Interaction Engagement (22.8%), Respect for Cultural Differences (5.2%), Interaction Confidence (3.9%), Interaction Enjoyment (3.0%), and Interaction Attentiveness (2.3%). (Chen &Starosta, 2000) During the course of this research the scale reduced down to 3 principle components accounting for 63.3% of variance. These components were labeled as follows to best reflect the new combinations of items: Respect for Cultural Differences (50.3%), Interaction Surety (7.6%), and Interaction Presence (5.4%).

The results of this study revealed a vast divergence from the originally established grouping of items into dimensions. The most pronounced of these instances is the original author's dimension labeled interaction engagement. This dimension accounted for 22.8% of all variance in the original study. However the factor analysis of this study depressed 3 of those 7

items from the now strongest component, respect for cultural differences, into the weakest one—interaction presence.

Of those three items there seems to be a clear explanation for two of them as to why they now load alongside items measuring respect for cultural differences. Firstly, item IntEnga_24 is worded such that it is unclear as to the topic of the item. This item states "I have a feeling of enjoyment towards differences between my culturally-distinct counterpart and me" which could easily be misconstrued by a respondent as to pertaining towards either "enjoyment" or "cultural differences." The second item, IntEnga_13—"I am open-minded to people from different cultures"— might exist in this new dimension because its wording is also closely related to item CultDiff_2—"I think people from other cultures are narrow minded." Item IntEnga_13 also had a low factor loading in its originally validated dimension of .51which suggests that in the original study it could have had a relatively strong secondary loading in another dimension as was the case in this study with it loading into Respect for Cultural Differences at .658 and Interaction Surety at .463.

This study proposed 7 hypotheses for testing predictors of ICS. Three of the hypotheses were not accepted. The first two rejected hypotheses were $H_{2\text{-}2}$ and $H_{2\text{-}3}$ which were attempting to measure and test two dimensions of prior exposure, narrative experience and language study, as predictors of ICS. Both of these scales were based on evidence in the literature however neither successfully performed as predictors of ICS. In the case of narrative experience, this may be because the scale only had three items or the items failed to measure the degree to which respondents experienced stories and narratives of different cultures. This dimension also had a high correlation with ICS ($r = .294$, $p < .01$) suggesting another relationship exists between these factors. This could also be explained by the low average score for this sample group in this dimension, 1.4 out of 5, which indicates that these students don't have enough opportunities provided to them by their schools or themselves for experience of cross-cultural narratives.

The second prior exposure dimension was language study which was intended to establish the foreign language abilities of the respondents. This measure showed no correlation or predictive qualities with regards to ICS. This is likely due to the design of the measure

because language ability has been shown to have an effect on ICC (Fernandez et al., 2004). This dimension's failure is perhaps due in part to the structure of the items. The items were worded to measure a quantity of language classes and not performance levels in those classes or languages. Furthermore, high performance in foreign language courses is not strongly encouraged in high schools and academia in this region so high scores on these items may not actually represent extensive language ability.

The last hypothesis to be rejected was H_3 which explored the relationship between gender and ICS. However, gender equality has increased greatly in the last ten to twenty years, especially in the nursing industry, therefore the literature supporting that gender shows a marked difference in cross-cultural abilities may no longer be relevant.

It should be noted that new insights into the nature of the variable Intended Work Setting have come to light in the course of this research. This variable was measured using a single categorical response item. However, in interviews with nursing educators and practitioners in a related qualitative study revealed a chronological error in the design of the item. As the item is currently written, it does not specify as to when during the nursing students' subsequent careers they should refer to while responding such as near, middle, or distant future. When asked about intended work settings and cultural competency nursing subject matter experts responded overwhelmingly that nursing students intend to find a job anywhere they can right out of school. Following this force nurses are then predominately driven to seek jobs either offering specialization or further academic opportunities (Vaughan and Yeh, 2013).

Practical Implications

In the beginning of the study the researcher wondered if simple background data, which would be easily collectable by nursing education institutions, could help predict students' ICS abilities. Understanding those abilities can help institutions better model their cultural curriculum to balance efficiency and effectiveness. Several implications can be drawn from the study. Firstly, the study has shown that nursing students hailing from urban areas or large cities will score higher on ICS scales than students from rural areas. This information can be useful for

healthcare institutions seeking to fill positions requiring high cross cultural abilities. Furthermore nursing schools can use this measure to better plan their curriculum to match their incoming student population's pedagogical abilities with regards to cultural enrichment. For instance, a nursing school located in a large city will not have to invest in cultural training programs and courses as much as rural nursing school to increase their students' cross cultural abilities.

Secondly, according to the results, students seeking nursing positions in non-rural areas may already have higher ICS abilities than their counter-parts. Therefore in the specialization and career path planning decisions for nursing students, institutions may take into account that nurses seeking jobs in non-rural areas may not need as comprehensive cultural coursework as nurses seeking rural based positions.

Thirdly, prior cultural experiences were strongly predictive of high ICS scores. Although this dimension queried experience abroad, most of the items measured experiences which could be obtained locally by cultivating cross-cultural relationships or attending community cultural events such as holiday, religious, music, and art festivals. Nursing institutions wishing to increase their students' ICS abilities without arranging for expensive experiences abroad may be able to do so by organizing cultural enrichment events or partnering with local cultural organizations to host opportunities to increase the cross cultural interactions experienced by the students.

These implications represent the contributions of this study. Firstly, this study has validated a simple piece of background information to be useful as a predictor of ICS. Secondly, this study has shown that occupational aspirations can also be used as indicators of traits such as intended work environment and ICS abilities. Thirdly, the study provided evidence that the intercultural benefits arising from cross-cultural contact are not relegated only to individuals living immersed in different cultures but can be attained through localized activities and experiences. It should also be noted that the mean score for the dimension narrative experience was very low 1.4 on a 5 point scale. This indicates that the students are either not seeking out stories about other cultures or do not have much access to them. Nursing schools should

endeavor to encourage their students to read more books and watch more movies about other cultures to increase their understanding of other cultures' worldviews. This can be done through book/movie clubs and mandatory reviews of such narrative material.

Research Implications

As the results showed, a nursing student's background setting was a viable predictor of ICS abilities. Because these two variables are significantly related there does exist a definite relationship between the two suggesting that environments with higher cultural interactions will have an effect on ICS abilities. The relationship is further support for contact theory because it shows that increased levels of cross cultural contact via one's background setting will provide an increase in cross cultural abilities. Further research in this area is needed to investigate the nature of the relationship between them. Most likely, students hailing from non-rural areas are predisposed for having better cross cultural skills because their environment provides more contact opportunities than the environments of their rural counterparts.

Many nursing schools are adopting new methods for cultural instruction like short term immersion trips abroad. Such methods are expensive and available to a small portion of the student body. The traditional and most common form of cultural instruction is to accompany text book and curriculum materials with the reading of books and viewing of films produced from various cultural perspectives. The rejection of Hypothesis 2-2 showed that although there is a relationship between cross narrative experience it does not appear to predict students' ICS abilities.

Conclusions

The objective of this study was to investigate predictors of ICS in nursing students. After statistical analysis it was found that some heretofore unexamined background data are positively related to ICS abilities. However not all data theorized to have predictive capabilities proved so. For instance, cross narrative experience did not prove to have predicative qualities although it was significantly correlated with ICS scores.

Limitations of the Study

The scope of this study is restricted to investigating possible predictors of ICS existing in background & demographic data of nursing students. The background and demographic data being collected is restricted to respondent's gender, community setting, prior cultural exposure, and intended work setting. No other information such as ethnicity or socio-economic status is solicited.

The study is also delimited by the certification level of the nurses. This study focuses only on nursing students seeking Associates Degree in Nursing or (ADN) certification and Bachelors of Nursing (BSN). At the completion of either degree, nursing students will sit the exam for the same level of certification, Registered Nurse (RN). Students seeking certifications such as Licensed Practitioner Nurse (LPN) which is a lower certification to RN's, or Nurse Practitioner (NP), a higher certification, are a small percentage of the nursing population and so do not fall within the purview of this study.

This study sought to research specific predictors of ICS: community setting, gender, prior exposure, and intended work setting. These are predictors that have not been extensively examined in combination by prior researchers.

A limitation of this study is the collection method. The instrument, being a self-report survey, is susceptible to a small degree of common method variance. This is because the source providing data for both predictor and criterion variables is the same individual which is known as common rater effects (Podsakoff et al., 2003). Another contributor to common method variance is the consistency motif. This occurs because respondents will answer questions in such a way to "maintain consistency between their cognitions and attitudes" (Podsakoff et al., 2003). This means that respondents involuntarily may start to internalize what the questionnaire is "getting at" or "looking for" and mark all their responses according to this internalized assumption. This situation can result in a drop in accuracy because the survey might not actually be measuring the respondent but just collecting responses according to the participant's assumption of the survey.

This study is also limited by the equivalency of the two levels of nursing degrees represented by the sample. RN degrees are generally two year certifications, while BSN degrees are two years of general college credits with an emphasis in chemistry and biology followed by a two year RN certification.

This will limit the degree of generalizability to similar cities and nursing programs in this region of the country. The results are possibly only generalizable to areas of the nation containing an equivalent level of diversity in the population. The region of the study is not a major point of entry for immigration such as the areas in the US north east with more populous metropolitan areas. The study was also conducted through written English which although it is informally the official language of the healthcare industry could still skew results with regards to nursing students for whom English is not their first language.

Future Research Suggestions

Future research in this area could be conducted in many forms. Simply conducting the same survey in various regions of the country could yield different results because some sections of the country are more urbanized than others while other sections may traditionally experience higher levels of immigration thus skewing diversity levels. The study could also be translated into non-English languages prevalent in the research area such as Spanish. The average age of the sample was 31 years of age indicating that many of the participants already have work experience in other fields. Future research should include scales measuring not only the level of prior work experience but also attempt to capture their exposure to culturally diverse work conditions. An expansion of the research model might also include periodic follow up measuring of respondents after entering the work force to compare occupational performance against previous ICS scores, track the increase or decrease of ICS overtime, and test if career paths are related to ICS abilities.

Related research might also include examining the cultural curriculum of nursing schools and its relationship with the dimensions of prior cultural exposure. For instance it is common practice in nursing schools to accompany culture curriculum with books offerings a unique

cultural viewpoint such as *The Spirit Catches You* by Anne Fadiman. This study showed that ICS is not affected by cross narrative experience. However, this sample's group average score for this dimension was quite low being 1.4 on a 5 point scale. Future research could involve requiring the students to increase that score through participating in monthly book and movie review clubs and then reassessing their ICS levels after a period of time.

Research focusing on the interactions of the prior exposure dimensions can help answer questions about attaining higher levels of ICS. Further investigation into what kind of activities, duration of those activities, and frequency can best affect a respondent's mindset towards other cultures would increase understanding to what actually raises ICS abilities and therefore give insight to designing better classes for teaching cross culture competencies.

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Appendix A.

Research Instrument

The following questionnaire is a part of an academic study looking at predictors and levels of intercultural sensitivity among nursing students across the Gulf Coast Region. It assesses intercultural sensitivity, cultural exposure, and asks for some background data. Your responses will remain anonymous to your faculty and the researcher. The results of the study will be used to provide insights for calibrating nursing education in your area. Thank you for your cooperation.

Section 1

Directions: Below is a series of statements concerning intercultural sensitivity. There is no right or wrong answer. Please work quickly and record your first impression by indicating the degree to which you agree or disagree with the statement.

Please check the number corresponding to your answer in the blank behind the statement

1 = strongly disagree 2 = disagree 3 = uncertain 4 = agree 5 = strongly agree

1. I enjoy interacting with people from different cultures.
2. I think people from other cultures are narrow-minded.
3. I am pretty sure of myself in interacting with people from different cultures.
4. I find it very hard to talk in front of people from different cultures.
5. I always know what to say when interacting with people from different cultures.
6. I can be as sociable as I want to be when interacting with people from different cultures.
7. I don't like to be with people from different cultures.
8. I respect the values of people from different cultures.

9. I get upset easily when interacting with people from different cultures.
10. I feel confident when interacting with people from different cultures.
11. I tend to wait before forming an impression of culturally-distinct counterparts.
12. I often get discouraged when I am with people from different cultures.
13. I am open-minded to people from different cultures.
14. I am very observant when interacting with people from different cultures.
15. I often feel useless when interacting with people from different cultures.
16. I respect the ways people from different cultures behave.
17. I try to obtain as much information as I can when interacting with people from different cultures.
18. I would not accept the opinions of people from different cultures.
19. I am sensitive to my culturally-distinct counterpart's subtle meanings during our interaction.
20. I think my culture is better than other cultures.
21. I often give positive responses to my culturally different counterpart during our interaction.
22. I avoid those situations where I will have to deal with culturally-distinct persons.
23. I often show my culturally-distinct counterpart my understanding through verbal or nonverbal cues.
24. I have a feeling of enjoyment towards differences between my culturally-distinct counterpart and me.

Section 2

Directions: Below are a series of statements assessing intercultural exposure. Please select the response that best completes the statements.

25. I took ____ foreign language courses during high school.	0/NA	1	2	3	4 or more

26. I took ____ foreign language courses during college.	0/NA	1	2	3	4 or more
27. I have studied _____ foreign languages.	0/NA	1	2	3	4 or more
28. I consider my highest foreign language ability level to be _____.	Non-Existent	Beginner	Intermediate	Advanced	Fluent
29. Between High School and College I've taken _____ cultural classes such as courses titled: "Cultures of the World" or "Intro to World Culture"	0/NA	1	2	3	4 or more
30. I have _____ friends that are foreign nationals.	0/NA	1	2	3	4 or more
31. I eat at restaurants offering foreign cuisine _____ times a week.	0/NA	1	2	3	4 or more
32. I watch _____ foreign films (non-English speaking) every month.	0/NA	1	2	3	4 or more
33. I read _____ foreign authored books each month.	0/NA	1	2	3	4 or more
34. I read _____ stories set in foreign culture each month.	0/NA	1	2	3	4 or more
35. Every year I attend _____ cultural events such as food, music, art festivals representing a culture different from my own.	0/NA	1	2	3	4 or more
36. I have lived abroad in a foreign culture for _____.	0/NA	Less than 3 months	3-6 months	6-12 months	Over 1 year

Section 3

Directions: Below are a series of statements concerning background and demographic data. Please select the response that best completes the below statements and information.

37. I consider my home town to be a _____

1. Rural Area - Shops, Convenient Stores, and Restaurants take a while to get to from my house. Tallest building is a Church or Silo. Most big buildings are wide and long, not tall.

2. Urban / Suburban Area – Shops, Convenient Stores, and Restaurants aren't walking distance but are a short drive from my house. Medium – Short Buildings are common.

3. Metropolis/Large City – Shops, Convenient Stores and Restaurants are right outside or a short walking distance from the house. Tall Buildings are everywhere.

38. The closest neighbor to my childhood home was about _____minutes walking distance.	Less than 5	6-10	More than 10
39. The closest gas station or convenient store to my house was _____minutes driving distance.	Less than 5	6-10	More than 10
40. I attended a _____ High School.	Rural	Urban / Suburban	Metropolitan / Large City
41. Within 5 years of completing my nursing education, I hope to work in community classified as:_____.	Rural	Urban / Suburban	Metropolitan / Large City

42. Age: _____ yoa

43. Gender	Male	Female			
44. Highest Level of Education to date	High School or Equivalent	AA or 2yr Certification	Bachelors	Masters	Ph.D.