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Cultural Competence of Taiwanese Nurses

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CULTURAL COMPETENCE OF

TAIWANESE NURSES

By

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of the requirements for the degree of
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Department of Nursing

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Abstract

CULTURAL COMPETENCE OF TAIWANESE NURSES

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Research on the cultural competence in nursing care in Taiwan is scarce. Even though Taiwan is home to a multicultural and multiethnic society, little information has been documented regarding the level of cultural competence among its health care professionals. The aim of this study was to investigate the level of cultural competence among Taiwanese nurses. This study employed a quantitative design using a self-report online survey. Research findings indicated that Taiwanese nurses had low to moderate level of cultural competence. They perceived themselves as being not culturally competent when caring for clients from culturally and ethnically diverse backgrounds. While Taiwanese nurses scored high on cultural sensitivity and awareness, they scored low on cultural knowledge and skills. Cultural competence correlated with continuing education and years of nursing work experience. Based on these findings, recommendations were provided to improve nurses' cultural competence by implementing curricular change and by advocating for culturally appropriate policies and guidelines in nursing practice.

Chapter 1. Overview of the Research Study

Overall Purpose of the Study

Taiwan is a multicultural and multiethnic society that consists of five major ethnic groups: Taiwanese, Hakka, Mainland Chinese who immigrated to Taiwan after 1949, and their descendants, Indigenous Taiwanese, and The New Residents. While these groups differ in their beliefs and health practices, culturally competent health care is seldom advocated for in Taiwan. Little information is available on the cultural competency among Taiwanese nurses who provide direct care to patients. The research on the influence of cultural competence on patients within a Taiwanese perspective is scarcely addressed. The purpose of this study was to investigate the level of cultural competence among Taiwanese nurses by analyzing their scores on the Nurses' Cultural Competence Scale (NCCS) and the Perceived Nurses' Cultural Competence Rating (PNCCR). Two theories guided this study; the Process of Cultural Competence in the Delivery of Healthcare Services and Benner's Novice to Expert model.

Introduction of Articles Appended

This portfolio includes two manuscripts, *Cultural Competence in Taiwan Health Care and Society: Rationale for and State of the Science* and *Cultural Competence and Related Factors among Taiwanese Nurses.* The first manuscript establishes the significances of conducting research about cultural competence among nurses in Taiwan. Manuscript one includes a literature review related to cultural competence among the Taiwan health care delivery system and providers, as well as health issues and concerns

among minority groups including Indigenous Taiwanese and New Residents. It was concluded that there is a pressing need to utilize a culturally appropriated instrument to evaluate the level of cultural competence among nurses in Taiwan.

The second manuscript includes research findings of a quantitative study in which a self-report online survey was used to collect data from nurses in Taiwan. Recommendations for future research are provided. This study revealed that Taiwanese nurses' level of cultural competence was low to moderate based on the overall NCCS scores. Nurses scored higher on the NCCS cultural awareness and cultural sensitivity subscales than on the cultural knowledge and skills subscales. Taiwanese nurses also perceived themselves as being not culturally competent as measured by the PNCCR. The implications of these findings on nursing education, practice, and policies in Taiwan are profound and emphasized the need for continuing educational interventions on cultural competence and the implementation of cultural care in nursing curricula that would provide knowledge and skills to nursing students and practitioners.

Manuscript #1

Cultural Competence in Taiwan Health Care and Society: Rationale for and State of the Science

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Abstract

Taiwan is a multicultural and multiethnic society. In addition to its Han Chinese heritage, many cultures and societies influence Taiwanese. As Taiwan's population continues to grow, the need for culturally competent health care providers capable of addressing the needs of its diverse ethnic, racial, and multicultural society is becoming more evident. Many Western societies have adopted culturally competent research, education, and clinical practices; however, cultural competence remains a new concept in Taiwan. Little information is available on the cultural competency of the health care providers in Taiwan and particularly nurses who provide direct care to patients. In this paper, justification for and the current knowledge about cultural competence in Taiwan's heath care system are presented. Insights into Taiwanese health care providers' cultural competence might provide guidance for future implementations of cultural competence in-service trainings or integration into designing nursing curricula to improve patient outcomes and health care quality.

Keywords: Cultural Competence, Taiwanese Nurses

Taiwan is an island with a total population of approximately 24 million people. Five major ethnicities are represented: Taiwanese (70%), Hakka (14%), Mainland Chinese who immigrated to Taiwan after 1949 and their descendants (13%), Indigenous Taiwanese (2%), and The New Residents (1%). Ethnically, Taiwanese, Hakka and Mainland Chinese are Han Chinese descendants. They differ, however, in their political views, culture, values, life styles, religious beliefs, and health beliefs and practices. Taiwan is also the home to the following 14 registered indigenous tribes: Amis, Atayal, Paiwan, Bunan, Tsou, Rukai, Puyuma, Saisiyat, Yami, Thao, Sukizaya, Kawalan, Sediq, and Truku (Council of Indigenous People [CIP], 2012). Each tribe has its unique language, life style, and health behaviors and practices. In general, Indigenous Taiwanese have distinct world-views compared to Han Taiwanese (Wu & Yen, 2012).

Because of socioeconomic changes on the island over the past three decades, Taiwan also harbors a large population of foreign residents or the fifth ethnicity. Most of these so-called "New Residents" are either foreign laborers or foreign female spouses from Mainland China and Southeast Asian countries such as Indonesia, the Philippines, Thailand and Vietnam. A reported 45,000 foreign women are married to Taiwanese men (National Immigration Agency [NIA], 2012) with approximately one out of five marriages involving foreign brides. The practice of marrying foreign brides started in the 1980s in rural Taiwan (Hsia, 1997) and created a special social phenomenon in farming and fishing communities, particularly among the lower middle classes. In addition, because of the shortage in low-level tech laborers and long-term health care providers, the Taiwanese government recruited foreign workers to fulfill industrial needs and caregivers for children and older adults with chronic illnesses and disabilities.

Approximately 430,000 foreigners work in construction or serve as caregivers (Council of Labor Affairs [CLA], 2012).

These changes in population and social structure dramatically shifted Taiwan's demographic landscape and created a multicultural environment that necessitated transcultural nursing and health care policies. Huang (2012) pointed out that good health care policies need to satisfy both the providers and those who are served, which include Indigenous Taiwanese and New Residents. Health care providers must be culturally sensitive and competent when caring for clients from diverse ethnic groups. Immigrants, for example, face the challenges of living in a new environment and therefore suffer the most from health related problems (Aponte, 2009). The lack of or insufficient knowledge about the cultural background of foreigners, especially foreign female spouses and low-level laborers and caregivers might explain why there is a higher prevalence of suffering, both physical and psychological, among these groups (Hou, Chen, & Lu, 2008; Liu, Chung, & Hus, 2001). Culturally competent health care for diverse populations has received little attention in Taiwan (Wu & Yen, 2012; Huang, 2012; Perng & Watson, 2012). Lack of formal education and training for Taiwanese health professionals might limit their ability to provide culturally appropriate health care services (Hung, Yang, & Yen, 2011). A better understanding of cultural competence among Taiwanese nurses could establish a foundation for developing strategies to improve, cultivate and foster culturally competent health care and services provided to culturally and ethnically diverse patients. Such knowledge might also trigger governmental and administrative agencies to regulate and/or provide mandates or guidelines on culturally competent health care.

Review of Literature

An intensive search of nursing and social sciences literature was performed dating from 2001 through 2011. Relevant literature was located using electronic scholarly and popular databases such as The Cumulative Index for Nursing and Allied Health Literatures (CINAHL), Web of Science, PUBMED, Educational Resources Information (ERIC), and Taiwanese National Central Library Database of Thesis and Dissertation. Search terms included "cultural competence" and "Taiwanese nurses" and searches were limited to the previous ten years to capture most current research. Searching for "cultural competence" resulted in 4641 hits on PubMed, which was narrowed down to 730 hits when the keyword "nurses and cultural competence" were used. Only 15 articles; however, were produced when using the keywords "nurses" and "cultural competence in Taiwan". Searching for "cultural competence" resulted in 822 articles using CINAHL, 169 articles on "nurses and cultural competence", and reduced to four articles when combined with "Taiwan". An additional 18 articles were obtained from sources in Taiwan, which could not be accessed via database in the United States (US), as well as from references listed in cited articles.

Culture and Cultural Competence Defined

Culture is a shared system of values, beliefs, traditions, behaviors, as well as verbal and nonverbal patterns of communication that may differentiate a group with similar characteristics from others (Giger & Davidhizar, 2008; Leininger, 2002; Purnell, & Paulanka, 2008). These values and beliefs have a significant impact on how individuals access and interact with health care providers and services (Spector, 2009). Understanding the impact of culture on an individual's perceptions of health is the basis

of cultural competence in health care and practice. Cultural competence is defined by the US Office of Minority Health ([OMH]; Office of Minority Health, 2012) as "a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations."

Cultural Competence in Nursing and the US

In the US, the increase in cultural diversity, demographic changes, and racial/ethnic disparities in health care led to the promotion of the concept of "culturally competent practice" among health care professions. Leininger pioneered the concept of transcultural nursing care in the 1950s, which stemmed from her belief that the understanding of cultural diversity related to health and illness was an essential component of nursing knowledge (Leininger, 2002). She envisioned transcultural nursing as a formal area of study and practice for nurses (Leininger, 2002). Since then, the theory and concept of transcultural nursing led to the conception of several groundbreaking theories in nursing. These theories aimed to encourage quality nursing care to patients from diverse cultural backgrounds and to decrease health care inequality and disparities among minority racial and ethnic groups.

The standards for culturally competent practices in health care are based on social justice which emphasizes fair and adequate access to health care for all (Douglas et al., 2009). Culturally congruent and competent health care results in improving health and well-being for people worldwide (Jeffreys, 2010) and impacts health care outcomes and quality (Betancourt, Green, Carrillo, & Park, 2005). The American Academy of Nursing Expert Panel on Global Nursing and Health and The Transcultural Nursing Society (TNS; Douglas, et al. 2009) established twelve standards for culturally competent nursing care,

which provided a road map for applying transcultural nursing in health care. Culturally competent care is therefore becoming a standard agreed upon by health care professionals in the US. Such standards, however, are neither common nor advocated for in Taiwan, which is in stark contrast to the ethnic diversity of its population.

The direct relationship between culture and health practice was demonstrated in many experts' statements set in the US (Andrews & Boyle, 2012; Campinha-Bacote, 2003; Dayer-Berenson, 2012; Jeffreys, 2010; Spector, 2009; Purnell & Paulanka, 2008). As a result, the OMH established 14 standards for culturally and linguistically appropriate services in health care. These standards guide nurses' efforts towards effective interactions with culturally diverse clients (OMH, 2012). Cultural competence, however, is not limited to working with individuals from different ethnic backgrounds but also with individuals from diverse cultural backgrounds within a subculture of society. Therefore, the concept of cultural competence in nursing care encompasses nurses' ability to respect and acknowledge individual differences such as age, gender, religion, education level, occupation, disability, sexual orientation, and geographic location (Campinha-Bacote, 2002).

The need to prepare nurses to serve in an increasingly diverse society was recognized by many nursing organizations, such as the American Association of Colleges of Nursing (AACN: AACN, 2012) and the National League for Nursing (NLN: NLN, 2012). Former President of American Nurses Association (ANA), Patton stated that "Cultural competence is a major responsibility for nurses since it sits on the right nexus of the health care and social justice." (Patton, 2012). The Joint Commission on Accreditation of Health Care Organizations (JCAHCO) also recognizes the importance of

cultural competence and requires accredited institutions to provide culturally competent care (JCAHCO, 2012). Cultural and Linguistic Appropriate Services (CLAS) proposed by the OMH are federal mandates, guidelines, and recommendations that are intended to inform, guide, and facilitate practices related to culturally and linguistically appropriate health care and services (CLAS, 2012).

Nursing professionals in the US acknowledged their responsibility and the challenges in preparing a nursing workforce that reflects this diversity and which is capable of providing culturally competent care. Consequently, accrediting bodies such as the Commission on Collegiate Nursing Education (CCNE: CCNE, 2008) and the National League for Nursing Accrediting Commission (NLNAC: NLNAC, 2008) mandated that academic nursing programs should demonstrate that graduates are capable of providing culturally competent nursing care at basic and advanced practice levels.

Health Status among Taiwanese Minority Groups

Indigenous Taiwanese. Indigenous Taiwanese, who constitute approximately 2% of the total population, are prone to health disparities due to Taiwan's geography, their unique languages and cultural and health practices. They have greater rates of mental health issues, domestic violence, and alcohol abuse than non-indigenous residents do (Ko & Chen, 2010). Life expectancy among this group is 67 years, which is significantly less than the total Taiwan population with a life expectancy of 78 years (Statistical Information Services, 2012). In addition, The National Policy Foundation (2012) reported higher prevalence of liver cirrhosis, oral cancer, suicide rate, alcoholism, school dropout rate, and poverty among Indigenous Taiwanese. Women also experienced greater health disparities. Chang, Lo, & Hayter (2011) found a high

prevalence of drinking problems among women from the Bunun tribe, which is one of the 14 Taiwanese indigenous tribes, and attributed it to their unique socialization practices.

Despite recognizing the cultural differences between the Indigenous and Han Taiwanese, the Taiwanese government often applies the same policies and intervention approaches to Indigenous Taiwanese as the general population. To the Indigenous people, "health" is a vague and abstract concept (Wu & Yen, 2012) as opposed to the Westernized perspective adopted by Han Taiwanese. To demonstrate this, Wu & Yen (2012) reported that the Yami Tribe has a unique interpretation of death and illness, which they attributed to "*Anito*" or the evil spirit. According to the Yami Tribe, people might become a contagious *Anito* spirit after death. Consequently, the tribe developed rituals to avoid and prevent the dead from becoming *Anito*. For example, funeral practices dictated prompt burial away from the source of drinking water. Han public health nurses trained in Western medicine failed to recognize the significance of such practices in preventing water contamination and the spread of disease. The nurses disregarded and treated the Yami traditions as superstitious beliefs. In another example, the Taiwanese government replaced the Yami traditional semi-submerged wooden house, built to accommodate the geographic and climate needs, with concrete Western-style houses (Qain, 2009). Poor drainage from around these concrete houses, especially during heavy rain, resulted in poor sanitation. In addition, Yami built their houses to allow older adults to live independently in separate quarters. Newly constructed concrete houses lacked such privileges, which caused social and psychological distress (Jen, 2004). Such practices exemplify lack of cultural knowledge, cultural insensitivity and poor cultural assessment skills (Tsai & Wang, 2009). Wu & Yen (2012) stated that cultural

insensitivity by the Taiwanese public health nurses, who were educated on Western medical practices, and influenced by their own Han traditions, led to gaps and discrepancies between health care delivery and the actual needs of Indigenous Taiwanese.

Foreign brides and laborers. Two groups, foreign brides and laborers, have particular health care needs. There are approximately 44,000 families in Taiwan in which a Taiwanese man is married to a foreign bride (Hung, Yang, & Yen, 2011). Foreign brides typically face an unfamiliar environment in terms of weather, lifestyle, customs and culture, language, and marriage and family relationships. Language and communication difficulties are barriers to health care utilization (Yang & Wang, 2003). For example, when foreign brides sought medical care for their children, they had difficulty explaining their concerns to the health care providers (Liang & Wu, 2005; Yang & Wang, 2003). Such encounters with physicians and nurses led to feelings of discrimination and marginalization (Liu, Chung, & Hsu, 2001). They also suffer from low self-esteem (Shu, Chung, Lin, & Liu, 2008) and psychological distress (Chen, Tang, Jeng, & Chiu, 2008). Consequently, this group of women is less likely to benefit from health promotion and disease prevention programs (Chen, Tang, Jeng, & Chiu, 2008). Foreign spouses were also found to have a higher rate of mental distress and suffer from poor adjustment to a new life in Taiwan (Chen, Tang, Jeng, & Chiu, 2008; Hsu, & Huang, 2011). While culturally driven health disparities such as these are well documented, there is little information on the cultural competency of Taiwanese providers. For example, sesame oil chicken soup is a classic and accepted remedy among Han Taiwanese women for postpartum care. Because some health care providers are culturally unaware and have poor knowledge of health beliefs and practices, physicians

and nurses often mandate to a foreign female spouse this traditional therapy without considering the patient's cultural preferences (Yang & Wang, 2003).

The Taiwanese government provided several programs to assist foreign female spouses to adapt to a new life, such as learning Chinese, job training, and counseling services. These programs; however, did not focus on their overall health and well-being (Hou, Chen, & Lu, 2008). Similarly, very little attention was given to the health and well-being of foreign laborers. While the boost in Taiwan's economy brought fortune to its residents, it led to higher wages, increased manufacturing costs and life expectancy, which led to short and long-term care challenges (Council for Economic Planning and Development [CEPD], 2012; Lin, 2012; Wang, 2012). To cut manufacturing and health care costs, foreign workers and caregivers were heavily recruited to provide care to children and older adults with chronic illnesses and disabilities (Hong, Yang, Chen, & Yang, 2012). Health beliefs practiced by foreign caregivers, however, were diverse and based on ethnic background (Liang & Wu, 2005). Since misunderstanding how an individual defines health or illness can lead to conflicts, Taiwanese employers were encouraged to learn about foreign caregivers' culture in an effort to develop appropriate care plans (Liang & Wu, 2005). Unfortunately, foreign workers/caregivers generally face distress and suffer from health disparities during their resettlement (Kosoko-Lasaki, Cook, & O'Brien, 2009). The causes of health disparities are varied and multifaceted and include linguistic and cultural barriers, which may lead to significant health issues (Kosoko-Lasaki, Cook, & O'Brien, 2009).

Several studies explored various social issues faced by these foreign workers/caregivers. These included marital satisfaction and life experiences, adaptation,

and education needs in Taiwan, interactions with children, governmental supports during the immigration process, political socialization and national identity, their role in caring for the elderly with disabilities, social welfare needs, job opportunities and placement (Hou, Chen, & Lu, 2008). Foreign female spouses and laborers often encounter linguistic barriers, unbalanced power relationships, cultural difference in daily life, and conflicts that stemmed from different value systems (Hung, Yang, & Yen, 2011). Very few studies, however, examined the unique health needs of this segment of the population and health care professionals' cultural competence in meeting those needs. For example, foreign laborers from Thailand tended to ignore their health due to lack of health resources and were less involved in health promotion activities, which increased their risk for injury and suicide (Bandyopadhyay & Thomas, 2003).

Cultural Competence in Taiwan's Health Care Delivery System

Government agencies in the US have adapted and mandated cultural competence as a way to improve health care quality and decrease health disparities among cultural and ethnic minorities (Betancourt, Green, Carillo & Park, 2005; Burchum, 2002). Due to its significance, the concept of cultural competence was also adopted into practice, professional health education, and research by many countries including Australia (Carpio & Majumdar, 1993, Chenowethm, Jeony, Goff, & Burke, 2006), Canada (Azad, Power, Dollin, & Chery, 2002), Japan (Kawashima, 2008), New Zealand (Wilson, 2008), and Sweden (Olt, Jirwe, Gustavsson, & Emami, 2010). Such attentions, however, are not common in Taiwan. Despite Taiwan's multicultural society, culturally competent nursing care is not a priority.

In 1995, Taiwan established the National Health Insurance (NHI) as a government-run, single–payer health care system. Currently, more than 96% of the Taiwanese are enrolled in this program (NHI, 2012a), which provides a wide variety of health benefits and services for inpatient care, ambulatory care, laboratory tests, diagnostic imaging, prescription and over the counter (OTC) drug benefits, dental care, traditional Chinese medicine, day care for the mentally ill, limited home health care, and certain preventive medicine benefits. This program also provides the insured with the freedom to choose their own physicians and hospitals without referrals (NHI, 2012b). In a recent study, the relationship between having a usual source of care (USC) and the quality of ambulatory medical care experienced by 879 patients with NHI coverage in Taiwan was examined (Tsai, Shi, Yu, & Lebrun, 2010). Patients with a USC rated the cultural competence of their health care providers significantly higher compared to those without USC.

"Culturally competent health care" nonetheless remains a new concept among health care professionals in Taiwan**.** While more than 50 universities and colleges in Taiwan provide nursing education, only a few provided concepts in cultural care as an independent course or have integrated cultural competence into undergraduate or graduate nursing curricula (Ho, Yao, Lee, Hwang, Beach, & Green 2008; National Taiwan University, 2012; Yang-Ming University, 2012; Perng, Lin & Chuang, 2007). The Department of Health (DOH: DOH, 2012), which is the highest nursing supervising agency in Taiwan, does not advocate specific policies or standards with regard to cultural competency among health care providers, and particularly nurses who provide direct patient care. Lack of acknowledgement to the significance of cultural competence in

nursing care overlooks the important role that nurses play in promoting patients' well-being and maintaining a holistic approach to health. Failure to provide culturally competent care resulted in inaccurate nursing diagnosis, inappropriate nursing care and interventions, and/or noncompliance with treatment plans by the individuals and their families (Van Ryn & Fu, 2003). Cultural misunderstanding might also exacerbate intolerance and discrimination (Seright, 2007).

Cultural Competence among Health Care Providers in Taiwan

Information about culturally competent health care providers is sparse in Taiwanese literature. Taiwanese neonatal professionals were found to be inadequately prepared for dealing with end-of life (EOL) issues, in their communication skills, palliative care knowledge, and attitudes when compared with their worldwide colleagues. These findings were attributed to the differences in their cultural attitudes (Tang, 2012). In other studies, health care providers in Taiwan lacked knowledge about New Residents' health related issues (Jou, 2005; Chang, Yahng, & Kuo 2013). Huang (2012) suggested that health care professionals learn a second language in order to enhance cultural literacy and cross cultural sensitivity. Zhao, Espisito & Wan (2010) also suggested that health care providers apply cultural knowledge to their clinical practice and show respect to Asian-born women's cultural beliefs. Chinese-born women, for example, viewed illness as the result of an imbalanced diet, exercise, or environment. These beliefs stem from traditional Chinese health beliefs that an imbalance between yin and yang causes illness.

Two intervention studies demonstrated the potential for cultural competence in health care education. Medical and nursing students who participated in a cultural

competence continuing education significantly improved cultural competence levels compared to students who did not receive the intervention (Ho, Yao, Lee, Hwang, & Beach, 2010; Perng, Lin, & Chuang, 2007). These competencies included communication skills (Ho, Yao, Lee, Hwang, & Beach, 2010; Perng, Lin, & Chuang, 2007), ability to relate patients' perspectives and social factors to illness (Ho, Yao, Lee, Hwang, & Beach, 2010), and cultural knowledge and sensitivity (Perng, Lin, & Chuang, 2007). Perng, Lin & Chuang (2007) used The Nurses' Cultural Competence Scale (NCCS) to measure the effect of a 32-hour cross-cultural nursing education program on the cultural knowledge, sensitivity, and skills of nursing students. The intervention group scored significantly higher than the control group on the NCCS cultural awareness, cultural knowledge, cultural sensitivity, and cultural skills subscales. The outcomes of this study signified the need for cultural competence education and highlighted its potential impact on health care providers in Taiwan.

While several tools and measurements were developed and used to investigate the degree/level of cultural competence from the perspectives of health care professionals such as the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R©: Campinha-Bacote, 2002), these tools suffered from poor validity when translated into Chinese (Ho & Lee, 2007). Perng, Lin, & Chuang (2007) developed the 41-item NCCS in Traditional Chinese. It consists of four of the five constructs that constitute the Process of Cultural Competence in the Delivery of Healthcare Services theory (PCCDHS: Campinha-Bacote, 2002): cultural awareness, cultural knowledge, cultural sensitivity, and cultural skills. This tool had good validity and reliability with a reported Cronbach's α between 0.78 to 0.96 and a

composite reliability between 0.79 to 0.89 (Penrg, Lin, & Chuang, 2007). Mokken scaling analysis investigated the unidimensionality and hierarchical nature of the NCCS scale (Perng & Waterson, 2012). From the 41 items in the NCCS scale, 20 items were found to form a strong Mokken scale (H = 0.67, where H > 0.5 indicates a strong Mokken scale). Six items were from the Cultural Knowledge subscale, two items from the Cultural Sensitivity subscale, and 12 items were from the Cultural Skill subscale. These 20 items comprise the Cultural Capacity Scale (CCS).

Conclusion

Recent changes in demographics and social structure dramatically shifted Taiwan's demographic landscape and created a multicultural environment that necessitates transcultural nursing care. Health care providers must be culturally sensitive and competent when caring for clients from diverse ethnic groups. Immigrants, for example, face the challenges of living in a new environment and therefore suffer the most from health related problems (Aponte, 2009). The lack of or insufficient knowledge about the cultural background of foreigners, especially foreign female spouses and low-level tech laborers might explain why there is a higher prevalence of suffering, both physical and psychological, among this group (Hou, Chen, & Lu, 2008; Liu, Chung, & Hus, 2001). To date, cultural competence among health care providers received little attention in Taiwan (Wu & Yen, 2012; Huang, 2012; Perng & Watson, 2012). The lack of formal education and training for Taiwanese health care professionals might contribute to a lack of culturally competent care (Hung, Yang, & Yen, 2011). Current research findings suggest that education can have a significant impact on providers' cultural competence. Taiwanese nurses' cultural competence should be established and based on

findings, a strategy developed whereby patient needs can be met.

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Manuscript #2

Cultural Competence and Related Factors among Taiwanese Nurses

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Abstract

Purpose: The purpose of this study was to investigate the level of cultural competence and the relationships between the selected demographic factors and the scores on the Nurses' Cultural Competence (NCCS) and the Perceived Nurses' Cultural Competence Scale (PNCCR) among Taiwanese nurses. **Design**: Cross-sectional, exploratory, and descriptive. **Methods**: An online self-report survey was used to collect data from Taiwanese nurses. Data from 221 eligible participants were analyzed using descriptive statistics, Pearson correlation, independent sample *t*-tests and multiple regressions. **Findings**: The level of cultural competence of Taiwanese nurses was low to moderate. Findings also indicated that participants had higher mean scores on cultural awareness and cultural sensitivity sub-scales but low scores on cultural knowledge and cultural skills sub-scales and perceived themselves as being "not culturally competent". Years of working experience, hours of continuing education related to cultural nursing care, and frequency of caring for clients from culturally and ethnically diverse background significantly impacted the level of cultural competence. There were no significant differences in the level of cultural competence between LVNs and RNs and between urban and rural nurses. Six themes emerged from an open-ended question regarding experiences caring for people from different cultures. **Conclusions**: Continuing education on cultural competence in Taiwan and the implementation of cultural care in nursing curricula that would provide knowledge and skills to nursing students and practitioners is needed.

Keywords: Cultural Competence, Taiwanese Nurses, NCCS

Cultural competence is the ability of health care professionals to provide quality and effective health care to clients with culturally and ethnically diverse backgrounds (Leininger & McFarland, 2002). Several advantages of providing culturally competent care include client empowerment (Capers, 1994), patients' perceived respect (Ahmann, 1994), and improvement in clients' adherence with treatment regimen and outcomes (Brown, Dougherty, Garcia, & Hanis, 2002).

Culturally competent health care has been a research, education, and clinical practice goal for decades in many western societies. In the United States (US), nursing organizations, such as the American Association of Colleges of Nursing (AACN) and the National League for Nursing (NLN) recognized the need to prepare nurses to serve an increasingly diverse patient population. This led to the implementation of Cultural and Linguistic Appropriate Services (CLAS; CLAS 2012) and the introduction of guidelines that require accredited institutions to provide culturally competent care from Joint Commission on Accreditation of Healthcare Organization *(*JCAHCO:JCAHCO, 2012). Nursing accreditation bodies have also mandated that academic nursing programs in the US should demonstrate that graduates are capable of providing culturally competent nursing care (National League for Nursing Accrediting Commission [NLNAC], 2008).

While nursing professionals in the US acknowledged their responsibility in providing culturally competent care, the concept of culturally competent health care remains an elusive concept in Taiwan. Taiwan is a developed and technologically advanced country with a multiethnic population that differs in culture, values, life styles, religious beliefs, and health practices. It faces challenges similar to those that western societies encounter in providing culturally appropriate health care to meet the diverse

needs of its population. Unfortunately, foreign brides, workers, and caregivers in Taiwan suffer from health disparities and psychological distress (Chen, Tang, Jeng, & Chiu, 2008). The cause of these disparities is multifaceted and includes differences in language and culture (Kosoko-Lasaki, Cook, & O'Brien, 2009; Yang & Wang, 2003). Lack of or insufficient knowledge about the cultural background of foreigners might also explain the high prevalence of suffering, both physical and psychological, among this group (Hou, Chen, & Lu, 2008). The health and well-being of foreign laborers and spouses and their need for culturally competent health care is not a priority (Wu & Yen, 2012; Huang, 2012; Perng & Watson, 2012). Although the Taiwanese government offered acculturation programs to assist foreign spouses, these programs did not focus on their overall health and well-being (Hou, Chen, & Lu, 2008).

Taiwan is also the home to a large indigenous population. Greater rates of mental health issues, alcohol abuse, liver cirrhosis, and oral cancer were reported among Indigenous Taiwanese than the non-indigenous residents (National Policy Foundation, 2002; Ko & Chen, 2010). The differences in culture between the Indigenous and Han Taiwanese are well-documented; however, the Taiwanese government applies the same policies and intervention approaches to Indigenous Taiwanese as the general population. This led to gaps and discrepancies between health care delivery and the actual needs of the Indigenous population (Wu & Yen, 2012).

A lack of formal education regarding culturally competent care and training for Taiwanese health professionals might limit their ability to provide culturally appropriate health care services (Hung, Yang, & Yen, 2011). While many universities and colleges in Taiwan provide nursing education, only a few provide education and training on

cultural care as part of their undergraduate or graduate curricula (Ho, Yao, Lee, Hwang, Beach, & Green 2008; National Taiwan University, 2012; Perng, Lin & Chuang, 2007; Yang-Ming University, 2012). In addition, the Department of Health (DOH; DOH, 2012) in Taiwan, which is the highest nursing supervising agency, does not advocate any specific policies with regard to cultural competency among health care providers.

Two intervention studies on the effects of educational programs which reported and demonstrated the potentially positive impact of cultural competence education on cultural knowledge and sensitivity of health care students were located (Ho, Yao, Lee, Hwang, Beach, & Green, 2008; Perng, Lin, & Chuang, 2007). These studies alluded to the low level of cultural knowledge among medical and nursing students in Taiwan and the need for interventions to improve their level of cultural competence. As a result, health care professionals may also be deficient in their cultural knowledge and skills. The level of cultural competence among health care professionals and nurses in Taiwan and the factors that influence their cultural skills, however, have not been adequately addressed. A better understanding of cultural competence among Taiwanese nurses will establish a foundation for developing strategies to improve, cultivate and foster culturally competent health care provided to an ethnically diverse Taiwanese population. Better insight into Taiwanese nurses' level of cultural competence might also provide guidance for future implementation of cultural competence training or integration into nursing curricula and demonstrate the need for education and practice guidelines or regulations on culturally competent health care.

Gaps in the literature

As Taiwan becomes more culturally diverse, the number of studies published on Taiwanese health care providers' level of cultural competency does not proportionally reflect the diverse population. Approaches to providing culturally competent health care are sparse in Taiwanese literature. This study aims to provide insight into the level of cultural competence among Taiwanese nurses.

Theoretical Framework

The theories that guided and provided the theoretical foundation for this research were The Process of Cultural Competence in the Delivery of Healthcare Services (PCCDHS; Campinha-Bacote, 2002) and Benner's (1982) Novice to Expert model. The PCCDHS emphasizes the following five constructs: Cultural Awareness, Cultural Skill, Cultural Knowledge, Cultural Encounter, and Cultural Desire, which collectively constitute the ASKED model. According to Campinha-Bacote (2002), cultural awareness is the self-examination and in-depth exploration of one's own cultural and professional background; cultural knowledge is the ability to integrate health-related beliefs and cultural values, disease incidence and prevalence, and treatment efficacy; cultural sensitivity is the respect and appreciation for clients' heal beliefs and practices; cultural skill is the ability to collect relevant cultural data and to perform culture-based physical assessment. Campinha-Bacote (2002) underscored that cultural competence is an *ongoing* process and that health care providers should see themselves as *becoming* culturally competent but not in a state of *being* culturally competent. She further defined cultural competence as "a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or amongst professionals and enables that system, agency or

those professionals to work effectively in cross-cultural situations" (Campinha-Bacote, 2008). Cultural awareness, cultural knowledge, cultural sensitivity, and cultural skill of Taiwanese nurses were measured in the current study.

Benner introduced the theory "From Novice to Expert" to differentiate between experienced and novice nurses in their ability to handle different levels of complexity and responsibility in today's nursing practice as well as long-term and ongoing career development (Benner, 1982). According to Benner, during the acquisition and development of a skill, one passes through five levels of proficiency: novice, advanced beginner, competent, proficient and expert. Experiences and education influence skill performance. Cultural competence requires continual cognitive and behavioral practices and might be defined by levels of mastery. Therefore, Benner's theory provided an opportunity to examine nurses' perceived levels of cultural competence and their transition from novice to expert. This theory was integrated into the PNCCR tool that was used to measure Taiwanese nurses' perceived level of cultural competence.

Purpose of the Research

The purposes of this study were to investigate the level of cultural competence among nurses in Taiwan, and to examine the relationships between the selected demographic predictors and the level of cultural competence. The findings from this study will enhance and advance current knowledge related to cultural competence among nurses in Taiwan and provide a foundation for future efforts aimed at providing culturally competent nursing care to a diverse population.

Methodology

Design

This was a cross-sectional, exploratory, descriptive, self-report online survey study.

Sample

Inclusion criteria for this study were: (a) hold a current nursing license issued by the Taiwanese government, (b) practiced at a physicians' office, home health, hospital, community health center, school health center, and/or taught nursing at an academic setting, (c) capable of reading and writing in Traditional Chinese, (d) able to access and use the Internet, and (e) age 20 and above. Since there were eight predictors in this study and according to Green's (1991) sample size calculation, the effective sample size was 114 ($50 + 8k = 50 + 8 \times 8$).

The convenience sample included nurses from diverse regions in Taiwan. Nurses accessed the survey 283 times. Out of the 283 responses, 243 participants completed the demographics section and 223 participants completed the whole survey, which included demographic questions, the Nurses' Cultural Competence Scale (NCCS), and the Perceived Nurses' Cultural Competence Rating (PNCCR). Data were missing for two participants and the final eligible number included in data analysis was 221. In 2012, there were 114,300 nurses registered in Taiwan. Therefore, this sample represents 0.19% of the total nurse workforce in Taiwan (Department of Health, 2013).

Data Collection Procedures and Setting

Data was collected from December 2012 through January 2013. Participants who consented to have their names entered in a lucky draw were eligible for one of ten $10 gift cards mailed to the winners.

Protection of Human Subjects

Approval for this research was obtained from the University of Texas at Tyler Institutional Review Board (IRB) prior to data collection. Consent was inferred when participants completed the survey. The study purpose and procedures were explained in the invitational email and on the Taiwanese Nurse Association (TNA) website. All data were anonymous when collected. All computerized data were password protected to maintain anonymity.

Instruments

The online Qualtric® survey contained three components: an introductory message, questions about participant's willingness to participate, and survey questionnaires. The demographic questionnaire and two cultural competence questionnaires: The NCCS (Perng, Lin, & Chuang, 2007), and the PNCCR required approximately 15-20 minutes to complete.

Nurses' Cultural Competence Scale (NCCS).

The NCCS contains 41-items subdivided into four constructs: cultural awareness (items 1 to 10), cultural knowledge (items 11 to 19), cultural sensitivity (items 20 to 27), and cultural skills (items 28 to 41). Each item uses a five-point Likert scale to measure participant's response: 0 = totally disagree, 1 = 25% agree, 2 = 50% agree, 3 = 75% agree, and 4 = 100% agree. The total score ranges from zero to 164. Higher total NCCS scores indicate a higher level of cultural competence. The NCCS was written in Traditional Chinese and evaluated by four experts. A pioneer test was conducted on nursing students in Taiwan, which generated good validity and reliability. The reported

Cronbach's α was between 0.78 to 0.96 with a composite reliability between 0.79 to 0.89 (Penrg, Lin, & Chuang, 2007).

Perceived Nurses' Cultural Competence Rating (PNCCR).

The PNCCR is a single item researcher developed instrument based on Benner's Novice to Expert model. It allowed Taiwanese nurses to self-report their perceived level of competence as novice, advanced beginner, competent, or proficient to expert by marking what they believed best described their level of cultural competence in nursing care. Other researchers have successfully used a similar scale, based on the concepts of novice to expert. For example, Peters (2012) developed a scale to examine the level of nurse practitioners' perceived competence in providing home care.

Demographic questionnaire.

Participants responded to a 15-item demographic questionnaire. Age, nursing education level, years of work experience, geographic location (rural versus urban), frequency of overseas travel, length of residency in foreign countries, exposure to cultural care nursing in formal nursing and continuing education were included.

Research Questions

This study examined and answered the following research questions:

1.What is the level of cultural competence among Taiwanese nurses?

2. What is the relationship between select demographic variables (age, level of education, years of work experience, residence in foreign countries, travel to foreign countries, continuing education in culture care, formal education in culture care, and experiences in taking care of clients from diverse cultural backgrounds) and total score on the NCCS and the PNCCR?

3. What combined demographic variables best predict cultural competence?

4. Do LVNs and RNs differ in level of cultural competence?

5. Do urban and rural nurses differ in level of cultural competence?

Data Analysis

Data were analyzed using SPSS Statistics Grad Pack for Window 17.0. Descriptive statistics were used to describe perceived cultural competence level among Taiwanese nurses. Independent *t*-tests and Mann Whitney statistics were used to identify the difference in the level of cultural competence between LVNs and RNs, and between rural and urban nurses. Pearson correlations and multiple regression analyses determined which variables correlated and best predicted the level of cultural competence as given by the total NCCS and NPCCR scores. Bonferroni correction was used to adjust for multiple comparisons. Answers to open-ended questions were organized by themes and categorized.

Research Findings

The findings of this study include response rate, reliability of the NCCS, Taiwanese nurses' levels of cultural competence measured by the NCCS and PNCCR, and the relationships between the selected demographic predictors and the level of cultural competence on the NCCS and PNCCR. Findings also included qualitative responses from an open-end question. The demographic characteristics of the participants appear in Table 1.

Research Question 1. What is the level of cultural competence among Taiwanese nurses?

The nurses' perceived cultural competence was measured by two instruments: NCCS and PNCCR. The first measure of cultural competence was NCCS. Descriptive statistics were used to analyze and summarize Taiwanese nurses' total NCCS score and the four subscales. The mean, median, mode, and standard deviation for each sub-scale appear in Table 2. The mean total NCCS score was 109.99 based on a score range from 0 to 164, which indicated a low to moderate level of cultural competence. The internal consistency of the four subscales and the overall NCCS were tested sing Cronbach's alpha and the results are presented in Table 3. The Cronbach's alpha of the overall NCCS and the four subscales indicated very strong reliability.

For the PNCCR, 60% (n = 140) of the participants reported low (novice or advanced beginner) perceived cultural competence when caring for clients who were from culturally/ethnically diverse backgrounds. The frequency and percentage of responses to each PNCCR scale appear in Table 4.

Research Question 2. What Are the Relationships Between the Select Demographic Variables and the Total Score On the NCCS and the PNCCR?

Bivariate correlation statistics computed Pearson Correlation Coefficients. Such statistics examine the relationships among variables and analyze for regression.

Results of bivariate correlation.

Bivariate correlations among the eight characteristics appear in Table 5. Since there were eight characteristics in the correlation analysis, the p value was corrected with a Bonferroni adjustment by a factor of 8 (p = 0.05/8 = 0.006). The data revealed a

significant correlation between the total NCCS score and (1) hours of attending continuing education programs on cultural care nursing (r = .273, p < .006) and (2) frequency of taking care of clients from different cultural and ethnic backgrounds (r = .221, p < .006).

The results also revealed that there were significant relationships between PNCCR score and (1) years of nursing work experience (r = .236, p < .006), (2) hours of attending continuing education programs on cultural care nursing (r = .211, p < .006), and (3) frequency of taking care of clients from culturally and ethnically diverse backgrounds (r = .318, p < .006). Among the independent variables, hours of attending continuing education had the strongest relationship with the total NCCS score and the frequency of taking care of clients from different cultural and ethnic background had the strongest relationship with PNCCR score. While years of nursing work experience was the additional predictor of PNCCR score, the NCCS score did not confirm nurses' perceptions of increased competence with additional years of experience.

Research Question 3. What Combined Demographic Variables Best Predict Cultural Competence?

NCCS

The two significant variables that were identified from the correlation analysis were included in the model using a standard entry regression analysis. Data from 221 participants produced a significant model for the NCCS (R^2 = .12, adjusted R^2 = .12, $p \leq$ .000, [F (2,217)] = 15.25, p < .001. An adjusted R^2 of .12 indicated that the two variables explained 12% of the variance in the NCCS scores. This also indicated that there are yet unknown factors related to nurses' cultural competence. Both predictor

variables, number of continuing education hours related to cultural care nursing and frequency caring for patients from culturally and ethnically different groups, were significant at ≤ .001 (Table 8). This model also indicated a normal distribution of NCCS with homogeneity of variance. The data set was normally distributed and the points lay on the line. Histogram (Figure 1) and normal Q-Q plot (Figure 2) indicated that the variables were normally distributed. Multivariate linearity scatterplot (Figure 3) tests were examined and the assumptions of multivariate linearity, normality and homoscedasticity were met. The plot indicates a consistent score throughout the residual plot with a concentration close to the center. The researcher assumed no multicollinearity when the VIF values were less than 10 and the tolerance statistics were above 0.2 (Fields, 2009) for all predictors. The Durbin-Watson value (1.76) was near 2, which indicated that adjacent residuals in the model are independent**.**

PNCCR

The three significant variables that were identified from the correlation analysis were included in the model using a standard entry regression analysis for the PNCCR. Data from 221 participants produced a significant model for the PNCCR (R^2 = .19, adjusted R^2 = .17, $p \leq .000$, [F (3,216)] = 16.38, $p < .001$). An adjusted R^2 of .17 indicated that the three factors would be expected to explained 17% of the variability of perceived cultural competence in the population as measured by the PNCCR. This also indicated that there are yet unknown factors related to nurses' cultural competence. All of the predictor variables, length of time working as a nurse, number of continuing education hours related to cultural care nursing and frequency caring for patients from culturally and ethnically different groups, were significant at ≤ .01 (Table 9). This model also indicated

a normal distribution of PNCCR with homogeneity of variance. The data set was normally distributed and the points lay on the line. Histogram (Figure 4) and normal Q-Q plot (Figure 5) indicated that the variables were normally distributed. Multivariate linearity scattered plot (Figure 6) tests were examined and the assumptions of multivariate linearity, normality and homoscedasticity were met. The plot indicates a consistent score throughout the residual plot with a concentration close to the center. The researcher assumed no multicollinearity when the VIF values were less than 10 and the tolerance statistics were above 0.2 (Fields, 2009) for all predictors. The Durbin-Watson value (1.98) was near 2, which indicated that the adjacent residuals in the model are independent.

Research Question 4. Do LVNs and RNs Differ in Level of Cultural Competence?

The result indicated that there was no significant difference between LVNs (M = 112.71, SD = 16.214) and RNs (M = 109.90, SD = 22.187) in either the NCCS scores [t (219) = .333, $p > .001$] or the PNCCR score (U = 712.50, $p > .001$).

Research Question 5. Do Urban and Rural Nurses Differ in Level of Cultural Competence?

The result indicated that there was no significant difference between urban (M = 109.18, SD = 21.951) and rural nurses (M = 115.31, SD = 21.960) in either the NCCS scores [t (219) = 1.401, $p > .001$] or the PNCCR score (U = 2569.00, $p > .001$).

Qualitative Findings

Six themes emerged from respondents' comments about their experiences when taking care of clients from diverse cultural backgrounds.

Language barrier. The experience most identified was that "language" served as a communication barrier particularly when nurses cared for foreign clients and Indigenous Taiwanese. As one participant stated, "Language is the biggest communication barrier."

Religion. Buddhism/Doitsuism believers and Islam have strict diet restrictions and practices. As stated by a participant "My patient is a very sincere Buddhist who rejected blood transfusion if the blood came from a non-vegetarian donor." Indonesian foreign caregivers and foreign brides also brought nurses' attention to Islam and its practices. "It was a special religion; they need to know the direction to pray."

Diet practices. Foreign brides and caregivers usually have different dietary beliefs and practices. One participant stated, "Vietnamese consumed *fetus duck egg (Hôt vịt lộn)* to enhance their health and strength," while another made a comment that "Japanese only eat conge (a popular breakfast of rice porridge) when they are feeling sick."

Becoming culturally competent. A significant number of participants expressed respect and understandings of their client's cultural background and the necessity to carry on treatment and implement culturally appropriate nursing care. As expressed by the participants, "Respecting client's culture is very important."

Negative impressions/comments. Aside from the positive statements about the need to respect clients' cultural differences, a few participants made negative comments about their experiences with clients who were culturally different. One participant stated, "The patient recited the holy book and prayed loudly, which interfered with my work . . . I felt it was noisy."

Indigenous Taiwanese. Most comments about Indigenous Taiwanese were concerned about their drinking problems. One participant stated, "When they are sick, they still go out drinking with friends." "Friends came to visit the patient; they were making jokes, drinking but did not care much about the illness", another commented.

Discussion of the Findings

This study identified the relationships between selected demographic variables and the total scores of NCCS and PNCCR as well as nurses' common experiences caring for people from cultural and ethnically diverse backgrounds. These findings suggest implications for nursing education, practice, and policy as well as recommendations for future research.

Level of Cultural Competence among Taiwanese Nurses

Taiwanese nurses' cultural competence as measured by the NCCS and PNCCR was low to moderate. Based on previous studies, low to moderate scores on the NCCS and nurses' perception of lower levels of cultural competence as indicated by their PNCCR score were expected.

According to the NCCS, Taiwanese nurses scored higher on cultural awareness and cultural sensitivity than on cultural knowledge and cultural skills. This finding supports previous reports of cultural competence and related concepts among Taiwanese nursing students (Perng, Lin, & Chuang, 2007). A similar finding was reported for nurses in Japan, another developed Asian country. A study on the level of cultural competence among Japanese nurses using the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R®) found that

they had lower levels of cultural knowledge and skills than cultural awareness and sensitivity (Kawashima, 2007).

According to the PNCCR, Taiwanese nurses perceived themselves as not culturally competent when caring for clients from culturally and ethnically diverse backgrounds. The result of PNCCR was congruent with the mean NCCS scores and the qualitative themes.

Qualitative responses supported quantitative findings. Many nurses stated that they experienced language barriers or communication difficulties, a cultural-related skill. Most of the nurses expressed respect for clients with diverse cultural and ethnic backgrounds and conveyed empathy and sensitivity to their individual needs.

The Relationship between Cultural Competence and Demographic Factors

An examination of the relationship between the selected demographic variables indicated that nurses who had less continuing education on cultural care and who cared for clients from culturally and ethnically diverse backgrounds less frequently had significantly lower NCCS mean scores than more experienced nurses. An examination of the relationship between the selected demographic variables also indicated that fewer years of working experience, fewer hours of continuing education on cultural care, and less frequency in caring for clients from culturally and ethnically diverse backgrounds correlated with lower levels on the PNCCR. Noble (2005) and Perng (2007) identified that age and years of work experience are significant factors that influence the level of nurses' cultural competence. Chang, Yahng & Kuo (2013) also reported that greater contact with new immigrant women positively correlated with cultural sensitivity. Lampley, Little, Beck-Little, & Xu, 2008; Sargent, Sedlak, & Martttsolf (2005) found a

positive relationship between cultural competence and the level of nursing education experience. Cooper-Braithwaite (2005) and Star & Wallace (2009;) found a positive relationship between cultural competence and continuing education

Best Demographic Predictors of the Level of Cultural Competence

After multiple regression analysis on the significant factors of NCCS and PNCCR, frequency of taking care of culturally and ethnically diverse clients and continuing education and training on culturally competent care were the two strongest predictors of the level of cultural competence on NCCS. Years of nursing working experience, frequency of taking care of culturally and ethnically diverse clients and continuing education and training on culturally competent care were the three strongest predictors of the level of cultural competence on PNCCR. Chang, Yahng & Kuo (2013) reported that "conducting or attending cross-cultural activities" and "having friends from different cultural backgrounds" had a positive effect on cultural sensitivity and improved an individual's cultural competence. Star & Wallace (2009) and Cooper-Braithwaite (2005) reported that participation in professional conferences and seminars and online courses enhanced cultural awareness, sensitivity, and behaviors.

The Relationship between Cultural Competence and LVN and RN

Previous studies indicated that there was a significant relationship between level of education and cultural competence (Cooper-Braithwaite, 2005; Doorenbos & Schim, 2004; Sargent, Sedlak & Martttsolf, 2005). In this study, no significant difference in cultural competence between LVNs and RNs was found. This could be due to the low percentage of LVN participants (3.2%, n = 7) or simply due to the fact that basic nursing education in Taiwan was promoted from a 3-year vocational high school to a 5- year

junior college degree in 2005 (Lee, Yen, Chiou and Chen, 2009). Nurses who graduate from a vocational nursing high school could only be licensed and practice as an LVN.

The Relationship between Cultural Competence and Urban and Rural Nurses

It may be presumed that foreign clients would congregate and reside in major urban areas. While this may be true, many foreign brides in Taiwan are married to Taiwanese men who live in smaller fishing and farming communities, which provides nurses in rural areas with opportunities to work with clients from different cultural backgrounds. Furthermore, unlike the US, the boundaries between rural and urban areas in Taiwan are not well defined. Taiwan is an island with limited land space. High density and excellent transportation infrastructure made it easy for people to commute between rural and urban areas. These factors may explain why there was no difference in cultural competence between rural or urban nurses. Also, only 13.1% (n = 29) of the participants resided in rural area. A low number of participants from rural areas may have also contributed to the insignificant differences between rural and urban nurses.

Recommendations

Conferences, seminars, in-services, and continuing education programs are ways to promote a culturally competent workforce and the quality and effectiveness of care for diverse clients. Curricular revision to incorporate content on cultural competence may also promote cultural awareness and sensitivity among nursing students. The content and/or concept of cultural competence might be integrated or introduced as a stand-alone course. Special clinical rotations in areas densely populated with foreign brides and workers or remote Indigenous Taiwanese villages promote interaction with these groups.

A primary educational supervising agency, such as the Department of Education (DOE), should mandate cultural competence components for accreditation renewal criteria. Legislators should also establish standards on cultural competence that would regulate and standardize practice for all health care professionals. Furthermore, nursing associations such as the Taiwanese Nurse Association (TNA), should adapt and integrate culturally competent care in its mission and encourage its members to explore and practice culturally competent nursing care. Certification in cultural competence should be made available and mandated in specially designated areas, such as in villages and areas inhabited by the Indigenous Taiwanese. Finally, research to evaluate the quality and effectiveness of cultural competence in practice, education, and policymaking will point to development of clinical guidelines and standards to ensure culturally competent care.

Conclusion

This study examined the level of cultural competence among Taiwanese nurses and its relationship with select demographic factors. Overall, Taiwanese nurses were found to be culturally aware and sensitive but lacked cultural knowledge and skills. They do not perceive themselves as culturally competent in the provision of appropriate care to clients from culturally and ethnically diverse backgrounds. Respondents reported language and communication barriers when providing care for people from different cultures. Although the level of cultural competence among Taiwanese nurses was low to moderate, they expressed positive attitudes and respect for client's cultural backgrounds, and keen interest in learning about cultural care. This positive attitude should provide impetuous to implement cultural education in nursing curricula and to provide specialized

trainings in academic and clinical settings. Improving language skills to increase nurses' confidence when communicating and caring for clients should be one of the main targets for nursing educators and administrators. Implementing effective learning methods should also be undertaken to provide the necessary knowledge and skills on cultural care to nursing students and practitioners.

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Table 1

Demographics

Demographic		Frequency	Percentage
Gender	Male	4	1.8
	Female	217	98.2
Age	20-25	18	
	26-30	25	
	31-40	87	
	41-50	72	
	51-60	11	
	>60	1	
Highest Nursing Education	Vocational Nursing High School	1	0.5
	Nursing Junior College	78	35.3
	4-year baccalaureate program	75	33.9
	Master Program	57	25.8
	Ph. D. program	10	4.5
License type	LVN	7	3.2
	RN	214	96.8
Years of nursing experiences	Less than 6 months	6	2.7
	6 months – 2 years	8	3.6
	2 – 5 years	19	8.6
	5-10 years	35	15.8
	More than 10 years	153	69.2
Areas of practice	Rural	29	13.1
	Urban	192	86.9
Practice settings	Doctor's office	7	3.2
	Home health	0	0
	School health center	2	0.9
	Military nursing teacher	9	4.1
	Nursing faculty (faculty in regular nursing programs)	19	8.6
	Public health center	3	1.4
	Hospital (<50 beds)	4	1.8
	Hospital (>50 beds)	177	80.1

Continued on next page

Table 1 (continued)

Demographic		Frequency	Percentage
Frequency of foreign country traveling	Never	11	5.0
	1 times	28	12.7
	2-5 times	79	35.7
	6-10 times	57	25.8
	More than 10 times	46	20.8
Length lived overseas	Never	140	63.3
	Less than 6 months	62	28.1
	6 months – 3 years	10	4.5
	3 – 10 years	8	3.6
	More than 10 years	0	0
	Missing	1	0.5
Familiar with the concept of cultural care nursing?	No	170	76.9
	Yes	51	23.1
Highest program that you studied about cultural care nursing	Never	125	56.6
	Vocational Nursing High School	2	0.9
	Nursing Junior College (includes 2-, 3-, 5- year programs)	33	14.9
	4-year B.S.N. program	27	12.2
	Master program	27	12.2
	Ph. D. program	7	3.2
Specific course about cultural care nursing as part of the nursing curriculum?	Never	162	73.3
	Vocational Nursing High School	1	0.5
	Nursing Junior College (includes 2-, 3-, 5- year programs)	25	11.3
	4-year B.S.N. program	18	8.1
	Master Program	10	4.5
	Ph. D. program	5	2.3
Hours of continuing education program related to cultural care nursing?	0	14	6.3
	Less than 2 hours	126	57.0
	2-5 hours	41	18.6
	5-15 hours	30	13.6
	More than 15 hours	10	4.5

Continued on next page

Table 1 (continued)

Demographic		Frequency	Percentage
Frequency caring for patients (clients) from culturally and ethnically diverse groups	Never	20	9.0
	Few times a year	92	41.6
	Few times every month	41	18.6
	Few times every week	22	10.0
	Almost everyday	45	20.4
	missing	1	0.5

Eligible Sample (n=221)

Table 2

Descriptive Results for Each Sub-Scale and Total Scores of NCCS (n=221)

Variables	N	Mean	SD	Median	Mode	Range
Cultural Awareness	221	34.33	5.00	35.00	40	0-40
Cultural Knowledge	221	20.92	6.78	21.00	19	0-36
Cultural Sensitivity	221	22.39	5.01	23.00	24	0-32
Cultural Skill	221	32.34	10.87	33.00	42	0-64
Total NCCS	221	109.99	22.00	109.00	106	0-164

K = Number of items in each sub-scale.

Table 3

Reliabilities of Each Subscale and the Total NCCS (n=221)

Scales	Cronbach's α	K
Cultural Awareness	.903	10
Cultural Knowledge	.947	9
Cultural Sensitivity	.865	8
Cultural Skill	.968	14
Total NCCS	.961	41

K = number of items

Table 2

Frequency and Percentage of Responses on PNCCR (n=221)

Level of PNCCR	Frequency	Percent
Novice	39	17.6
Advanced Beginner	96	43.4
Competent	53	24.0
Proficient	26	11.8
Expert	7	3.2
Total	221	100.0

Table 3

Bivariate Pearson Correlations between Selected Demographic Factors and Total NCCS and PNCCR scores

Variables	1	2	3	4	5	6	7	8	9	10
1. Age	1									
2. Education level	.334	1								
3. Nursing working experiences	.631	.166	1							
4. Oversea living experiences	.314	.243	.064	1						
5. Foreign country traveling experience	.415	.284	.319	.413	1					
6. Continuing education in cultural care	.284	.200	.144	.096	.066	1				
7. Cultural care in nursing Program	.045	.309	-.107	.157	-.012	.494	1			
8. Frequency of caring for clients from diverse cultural backgrounds	-.188	-.177	.019	-.034	-.038	.006	-.067	1		
9. NCCS	.109	.082	.069	.021	.004	.273*	.165	.221*	1	
10.PNCCR	.143	.066	.236*	.052	.147	.211*	.060	.318*	.410	1

* $p \leq .006$ after Bonferroni correction

Table 4

Bivariate Pearson Correlations for Predictors in Multiple Regressions on NCCS

Variables	1	2	3	4
1. Total NCCS	1			
2. Hours of continuing education in cultural care	.274*	.146	1	
3. Frequency of taking care of clients from culturally diverse backgrounds	.221*	.019	.006	1

*$P \leq .001$

Table 5

Bivariate Pearson Correlations for Predictors in Multiple Regressions on PNCCR

Variables	1	2	3	4
1. PNCCR	1			
2. Years of nursing work experiences	.235*	1		
3. Hours of continuing education in cultural care	.212*	.146	1	
4. Frequency of taking care of clients from culturally diverse backgrounds	.318*	.019	.006	1

*$P \leq .001$

Table 6

Coefficients of Multiple Regression in NCCS

	B	SE B	β	*T*
Constant	90.13	4.02		22.398
Hours of continuing education	4.989	1.16	.27	4.29*
Frequency of taking care of clients from diverse cultural backgrounds	370	1.07	.219	3.45*

$R^2 = .12$, $*p \leq .001$

Table 7

Coefficients of Multiple Regression in PNCCR

	B	SE B	β	*T*
Constant	.47	.32		1.47
Years of working as a nurse	.21	.06	.20	3.27*
Hours of continuing education	.15	.05	.18	2.91*
Frequency of taking care of clients from diverse cultural backgrounds	.24	.05	.31	5.10*

$R^2 = .19$, $*p \leq .01$

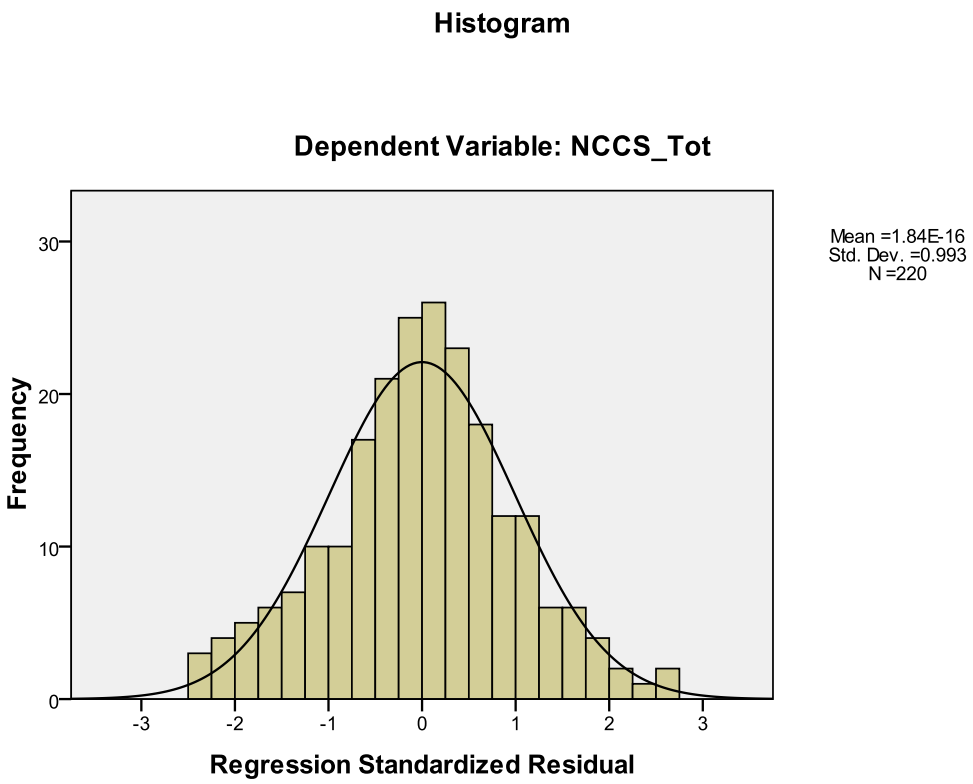

Figure 1. Distribution of normality of residual NCCS

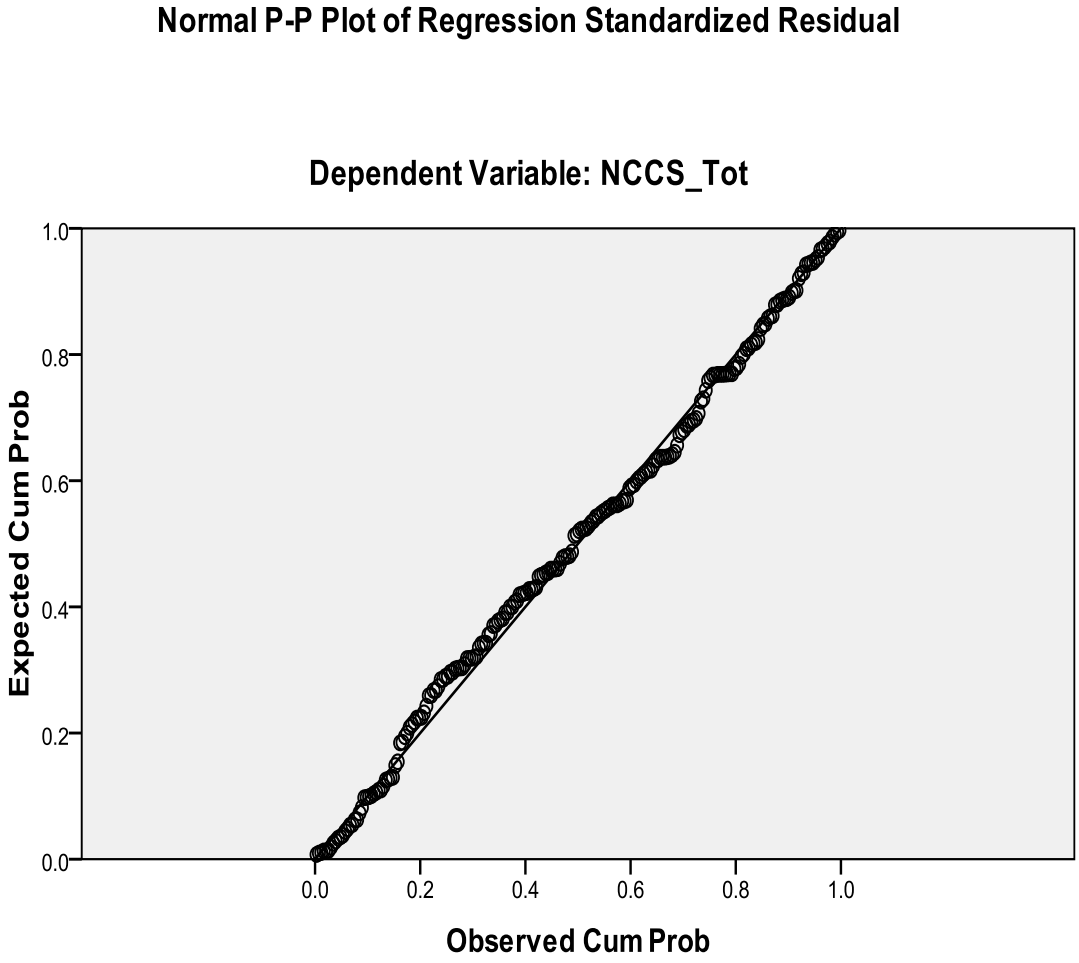

Figure 2. Regression standardized residual of NCCS

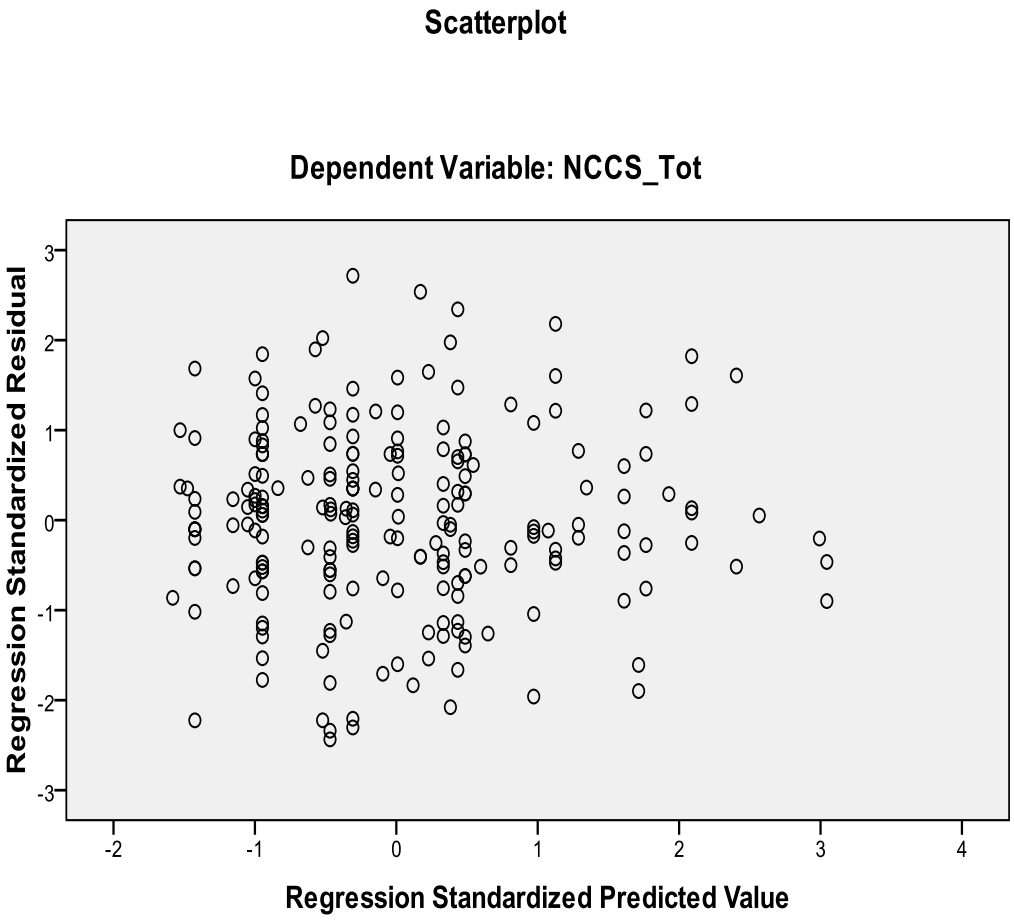

Figure 3. Residual Plot of NCCS

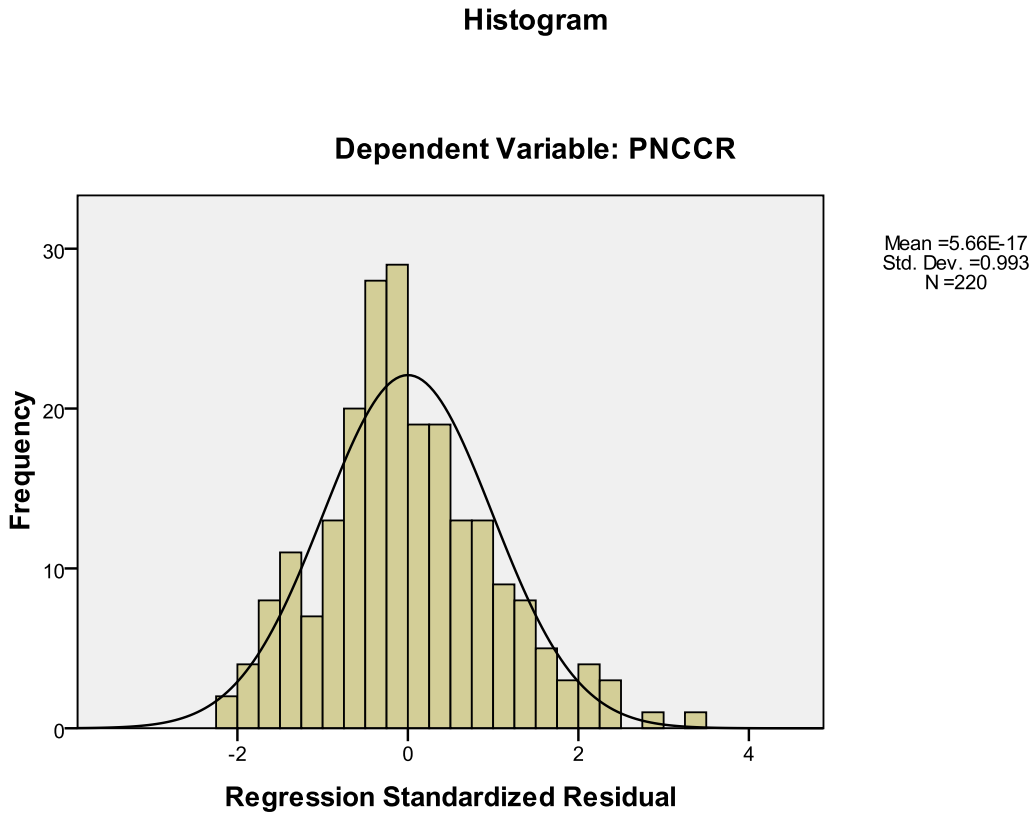

Figure 4. Distribution of normality of residual PNCCR

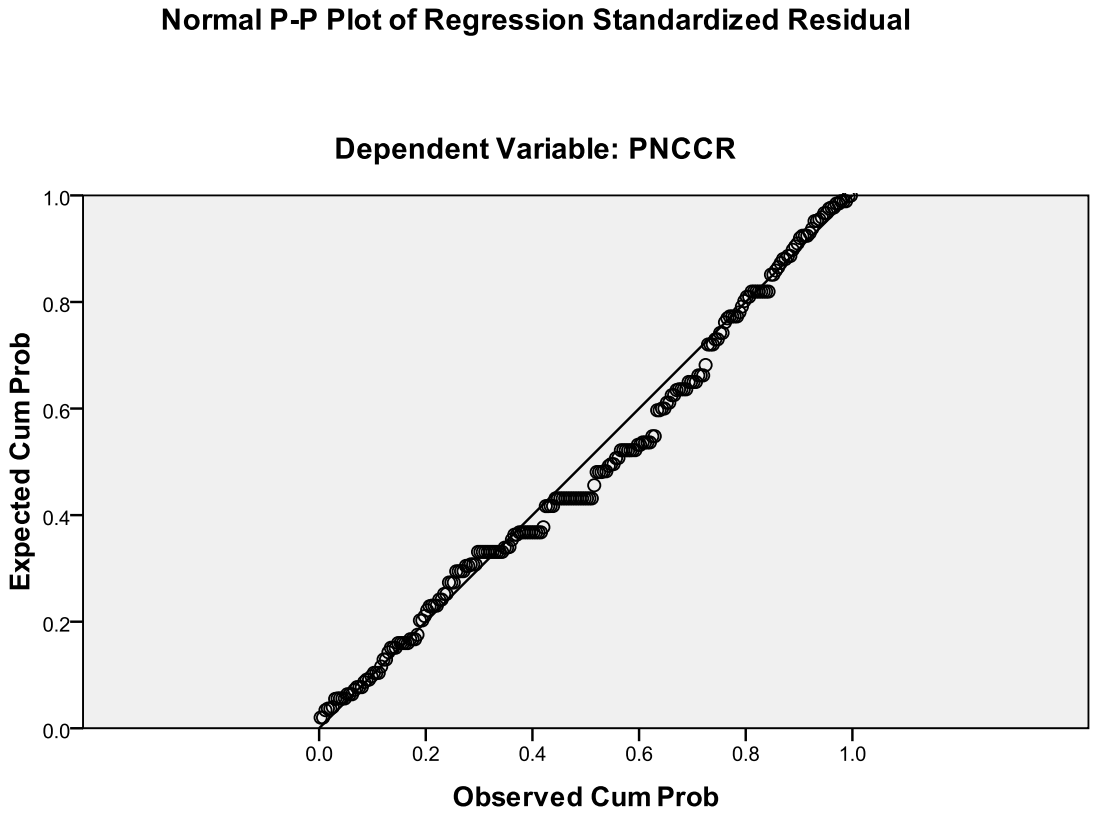

Figure 5. Regression standardized residual of PNCCR

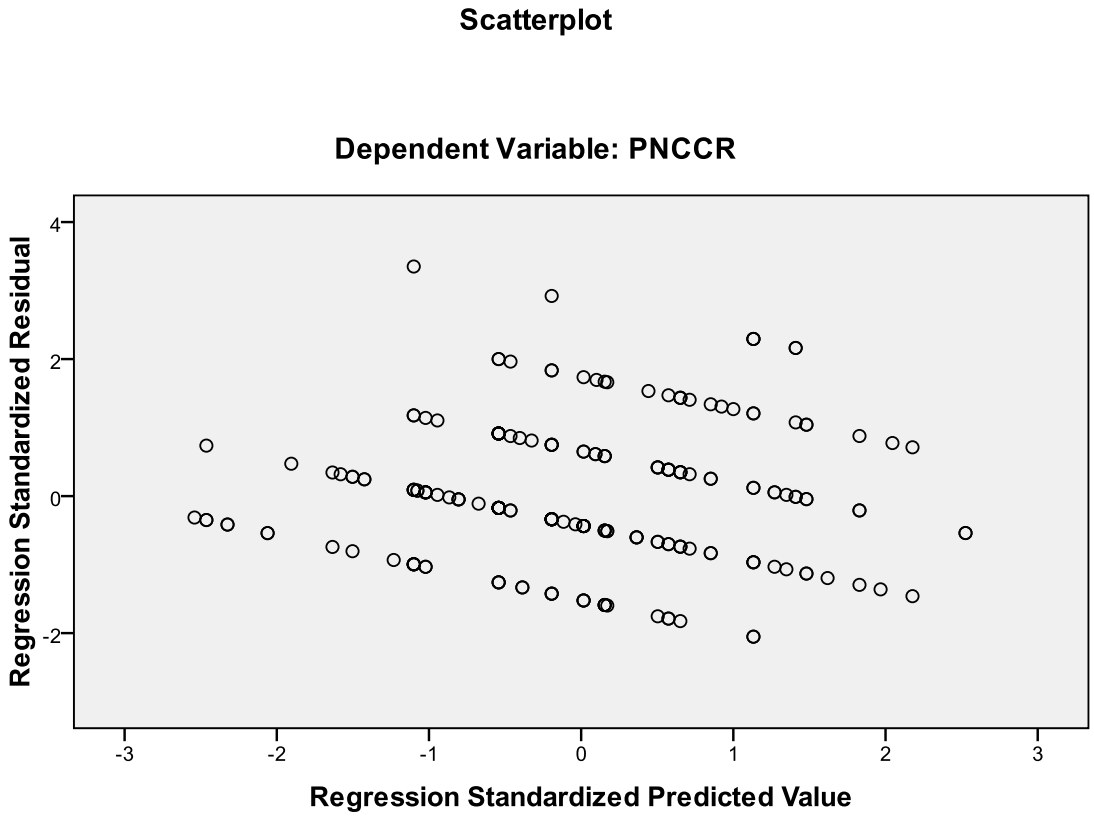

Figure 6. Residual Plot of PNCCR

Chapter 4. Summary and Conclusion

Taiwan is a small island with nearly 24 million inhabitants. Because of urbanization, open market policies, and influx of foreign workers and brides, there is a need for culturally competent health care providers to address the needs of clients from diverse cultural and ethnic backgrounds. However, while Taiwan is clearly a multicultural society, Taiwanese government to date has not mandated culturally competent care standards or regulations in health care.

This study aimed to investigate the level of cultural competence and its relationship with select demographic factors among Taiwanese nurses. The Process of Cultural Competence in the Delivery of Healthcare Services and the Novice to Expert model were the two theoretical frameworks that guided this study. The manuscript, *Cultural Competence in Taiwan: Rationale for and State of the Science,* reviewed the literature related to the concepts of cultural competence, health care delivery system, health care providers and health issues and concerns among the minority groups including Indigenous Taiwanese and New residents in Taiwan. Information provided in this manuscript summarized current knowledge about cultural competence in nursing practice, education, and research in Taiwan. Insights into the level of cultural competence among Taiwanese nurses and health care practitioners provided guidance for future implementation of culturally competent nursing care and highlighted the importance of integrating concepts on cultural care into nursing curricula, which would improve patient outcomes and health care quality.

The manuscript: *Cultural Competence and Related Factors among Taiwanese Nurses* reported the level of cultural competence among Taiwanese nurses using the

Nurses' Cultural Competence Scale (NCCS) and Perceived Nurses' Cultural Competent Rating (PNCCR) instruments. The relationships between the level of cultural competence and the related demographic factors were examined. Research findings indicated that Taiwanese nurses' level of cultural competence was low to moderate based on the overall scores of the NCCS. Taiwanese nurses did not perceived themselves as being culturally competent when caring for clients from culturally and ethnically diverse backgrounds as measured by PNCCR. As to the four NCCS subscales, Taiwanese nurses scored high on cultural awareness and cultural sensitivity but low on cultural knowledge and cultural skills. When qualitative responses were analyzed, the findings indicated that the cultural competence of Taiwanese nurses is an "*ongoing"* process and that nurses are in the process of *"becoming"* culturally competent but not in a state of "*being"* culturally competent (Campinha-Bacote, 2003).

Low scores on cultural knowledge and skill among inexperienced nurses with limited exposure to diverse client population suggest that the educational system and health care organizations in Taiwan have not integrated the concept of cultural care into nursing curricula and/or organizational policies. While it is not evident how many nursing schools provide the opportunity for nurses to learn about cultural competence during didactic and/or clinical training, it is clear that there is a deficiency among Taiwanese nurses in their cultural knowledge and skills, a shortcoming that needs to be addressed.

These results were also supported by the finding that hours of continuing education related to cultural nursing care and frequency of caring for clients from culturally and ethnically diverse backgrounds were the two most significant predicators

of cultural competence. These findings stress the need for implementing cultural nursing care to improve Taiwanese nurses' cultural knowledge and skills. Previous studies have also cited training on cultural competence as a strategy for enhancing health care providers' effectiveness in working with culturally diverse client population (Lie, Lee-Rey, Gomez, Bereknyei, & Braddock, 2011; Beach, et al, 2005).

Six themes emerged from the analysis of the qualitative responses by the participants; language barrier, differences in religion, diet practices, becoming culturally competent, negative impressions/comments, and issues among Indigenous Taiwanese. These themes were consistent with the findings from the quantitative analysis of survey data.

As Taiwan continues to pursue globalization and to recruit foreign workers, the population of clients from culturally and ethnically diverse backgrounds will continue to grow. Nurses therefore, are required to *become* culturally competent in order to deliver culturally appropriate care and meet clients' individual needs. This study provided insights into the level of cultural competence among Taiwanese nurses, which was scarcely evaluated in the literature. Findings from this study also provided useful information that could be used to improve cultural knowledge and skills among Taiwanese nurses.

As the findings indicate, the majority of nurses in this study was not familiar with the concept of "cultural nursing care," and were not exposed to culturally competent care during their nursing education. To provide quality nursing care to meet clients' individual needs, Taiwanese nurses need to recognize that cultural differences occur across all levels of diversity, both primary (age, gender, language, physical ability and

sexual preference) and secondary (socio-economic background, geographical location, education and religion; Polaschek 1998). To facilitate the process of acquiring cultural knowledge and skills, nurses need to learn how to interact effectively with people in providing quality care, despite different social backgrounds, cultures, religions, and lifestyle preferences.

Based on the findings in this study, recommendations were provided for nursing education, practice research and policymaking. Nursing educators play an important role in delivering culturally competent care education. Therefore, they should adapt various teaching methods and strategies to encourage students to explore the key concepts of cultural competence. Clinical practice and field experiences would also allow nurses to develop culturally effective and competent skills. The effectiveness of education and teaching strategies on nurses' cultural knowledge and skills should be evaluated.

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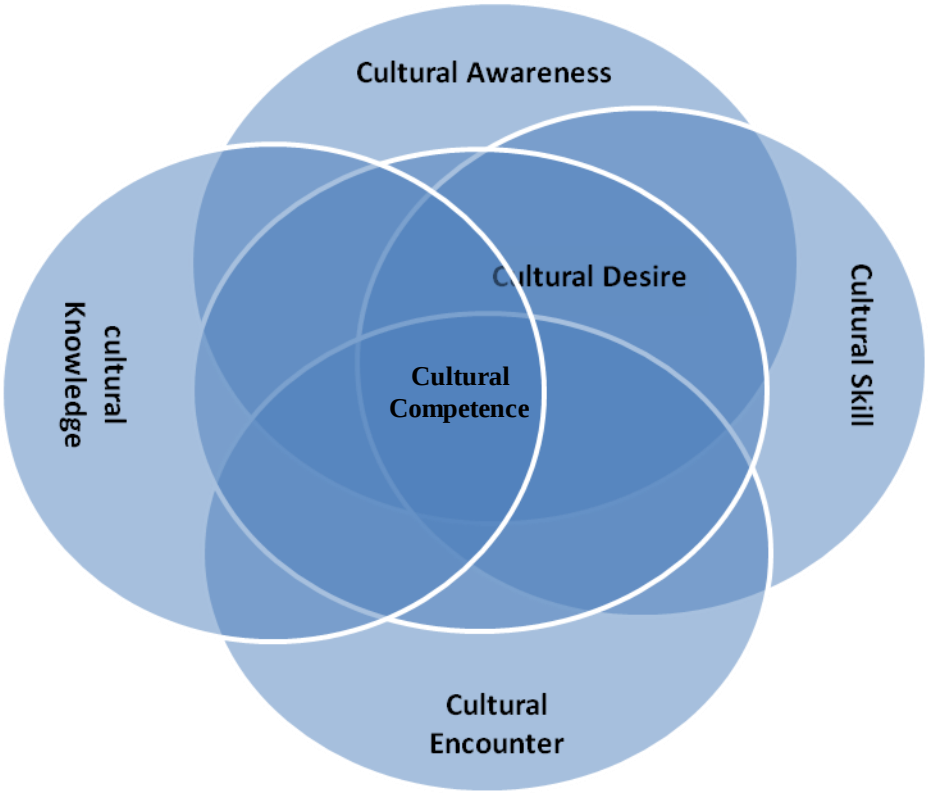
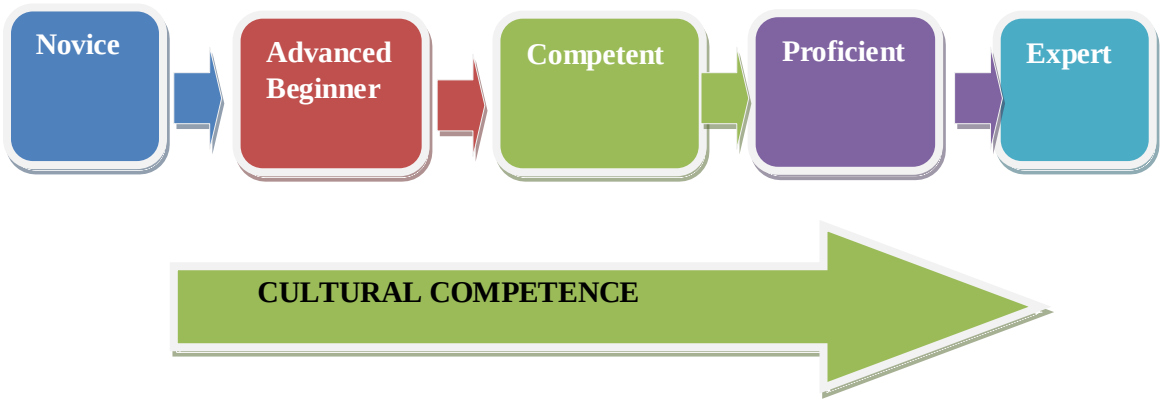
Appendix A: The Process of Cultural Competence in the Delivery of Health Care Services



The Process of Cultural Competence in the Delivery of Health Care Services.
(Transcultural C.A.R.E. Associates, 2012).
http://www.transculturalcare.net/Cultural_Competence_Model.htm

Appendix B: Adapted from Benner's (2001) Novice to Expert Model



Appendix C-1: Demographics (English Version)

Please click on the appropriate response.

1. Gender
   (1) Male
   (2) Female

2. Age :_____ years

3. What is the highest educational program in nursing that you have completed?

   (1) Vocational Nursing High School
   (2) Nursing Junior College (includes 2-, 3-, 5- year programs)
   (3) 4-year baccalaureate program
   (4) Master Program
   (5) Ph. D. program

4. What type of license do you currently practice as a nurse? (If more than one applies, select the one you practice as most frequently.)

   (1) Licensed Vocational Nurse (LVN)
   (2) Registered Nurse (RN)

5. How long have you worked as a nurse?

   (1) Less than 6 months
   (2) 6 months – 2 years
   (3) 2 – 5 years
   (4) 5-10 years
   (5) More than 10 years

6. Where in Taiwan have you spent most of your professional career practicing as a nurse?

   (1) Rural
   (2) Urban

Appendix C-1: (Continued)

7. In which setting have you spent most of your professional career practicing as a nurse?

(1) Doctor's office
(2) Home health
(3) School health center
(4) Military nursing teacher
(5) Nursing faculty (faculty in regular nursing programs)
(6) Public health center
(7) Hospital (<50 beds)
(8) Hospital (>50 beds)

8. How many times have you traveled to a foreign country? (excludes transfer that requires to stay less than 1 day)

(1) 0
(2) 1-5 times
(3) 6-10 times
(4) More than 10 times

9. A total of how many months or years have you lived overseas?

(1) 0
(2) Less than 6 months
(3) 6 months – 3 years
(4) 3 – 10 years
(5) More than 10 years

10. Are you familiar with the concepts "cultural care nursing?"

(0) No
(1) Yes

11. Did you learn about cultural care nursing in any of your nursing programs? If more than one, mark the highest program that you studied about cultural diversity).

(0) Never
(1) Vocational Nursing High School
(2) Nursing Junior College (includes 2-, 3-, 5- year programs)

Appendix C-1: (Continued)

(3) 4-year baccalaureate program
(4) Master Program
(5) Ph. D. program

12. Did you have a specific course about "cultural care nursing" as part of the nursing curriculum?

(0) Never
(1) Vocational Nursing High School
(2) Nursing Junior College (includes 2-, 3-, 5- year programs)
(3) 4-year baccalaureate program
(4) Master Program
(5) Ph. D. program

13. Since you started practicing nursing, approximately how many continuing education program-hours have you attended that are related to "cultural care nursing?"

(1) 0
(2) Less than 2 hours
(3) 2-5 hours
(4) 5-15 hours
(5) More than 15 hours

14. How often do you care for patients (clients) from culturally and ethnically diverse groups in terms of sexual orientation, gender, religion, political preferences, socioeconomic status, age, educational backgrounds, occupation, geographic location, and language.

(1) Never
(2) Few times a year
(3) Few times every month
(4) Few times every week
(5) Almost everyday

15. Please share any experiences you had caring for people from different cultures or ethnic groups.

Appendix C-2: Demographics (Chinese Version)

基本資料

請選擇您認為最適合的答案.

1. 性別
   (1) 男
   (2) 女

2. 年齡（實歲）_____歲

3. 至目前已完成護理教育的最高學歷?
   (1) 護理職業學校
   (2) 護專 (二技,三專, 五專)
   (3) 四年制護理系
   (4) 碩士
   (5) 博士

4. 目前執業所持有的護理執照種類?
   (1) 護士
   (2) 護理師

5. 您從事護理的工作年資?
   (1) 少於6個月
   (2) 6個月 到 2年
   (3) 2年到 5年
   (4) 5年到 10年
   (5) 超過10年以上

6. 台灣哪一種城市/鄉鎮類型是您從事護理工作時待過最長的時間?
   (1) 郊區
   (2) 市區

7. 您從事護理工作待過最長的工作場所?
   (1) 診所

Appendix C-2: (Continued)

(2) 居家護理
(3) 學校健康中心
(4) 軍護老師
(5) 護理學校 系所
(6) 衛生所
(7) 50床以下的 醫院
(8) 50床以上的醫院

8. 您曾經國外旅遊的次數?(不包含少於一天的過境).
(1) 從來沒有
(2) 1-5次
(3) 6-10 次
(4) 多於10次

9.您曾經在國外居住過的時間有多久?
(1) 從來沒有
(2) 少於6個月
(3) 6個月 到 3年
(4) 3年到 10年
(5) 超過10年以上

10. 您熟悉"文化護理"的概念嗎?
(1) 不熟悉
(2) 熟悉

11. 在護理教育過程中,
您有學習過有関"文化護理"的內容嗎？如果有的話，請勾選修此課程時的最高學歷.
(1) 從來沒有
(2) 護理職業學校
(3) 護專 (二技,三專, 五專)
(4) 四年制護理系
(5) 碩士
(6) 博士

Appendix C-2: (Continued)

12. 在護理教育過程中, 您有學習過單獨以"文化護理"為內容的科目嗎？如果有的話，請勾選修此課程時的最高學歷.
    (1) 從來沒有
    (2) 護理職業學校
    (3) 護專 (二技,三專, 五專)
    (4) 四年制護理系
    (5) 碩士
    (6) 博士

13. 自從畢業後，您大約受過多少小時過有関"文化護理" 的繼續教育?
    (1) 從來沒有
    (2) 少於 2個小時
    (3) 2-5個小時
    (4) 5-15 個 小時個 小時
    (5) 超過15個小時

14. 您照護和您不文化背景病患(個案)的頻率. 病患(個案)包含來自不同性傾向, 性別, 宗教信仰, 政治喜好, 社經地位, 教育背景, 職業, 地理位置及語言).
    (1) 從來沒有
    (2) 在一年中約有數次
    (3) 在一個月中約有數次
    (4) 在一星期中約有數次
    (5) 幾乎每天

15. 請分享有關照護和您來自不文化或種族背景病患的經驗.

Appendix D-1: Nurses' Cultural Competence Scale (NCCS; English version)

Cultural Awareness Scale

Do you agree with the following statements?

0 = (Totally disagree)

1 = (25% agree)

2 = (50% agree)

3 = (75% agree)

4 = (100% agree)

1. One's belief and behavior are influenced by one's cultural background.	0 1 2 3 4
2. Those who came from diverse cultural backgrounds usually have different value systems.	0 1 2 3 4
3. People's belief/behavior about health and illness are influenced by cultural values.	0 1 2 3 4
4. Understanding the client's cultural background is very important to nursing care.	0 1 2 3 4
5. Getting immersed into a different culture, the acceptance level among individuals is quite different.	0 1 2 3 4
6. A client's behavioral response originates from his/her cultural system, therefore care providers should understand client's subjective interpretation of his/her own behavior.	0 1 2 3 4
7. Nursing education is itself a cultural system.	0 1 2 3 4
8. Understanding a client's cultural background can promote the quality of nursing care.	0 1 2 3 4
9. A nurse's cognition of health and illness is deeply influenced by nursing education.	0 1 2 3 4
10. Nursing knowledge and the client's comprehension of interpretation of health/illness are usually different.	0 1 2 3 4

Appendix D-1: (Continued)

Cultural Knowledge Scale

Do you agree with the following statements?

0 = (Totally disagree)

1 = (25% agree)

2 = (50% agree)

3 = (75% agree)

4 = (100% agree)

11. I understand the social and cultural factors that influence health and illness.	0 1 2 3 4
12. I can identify the specific health problems among diverse groups.	0 1 2 3 4
13. I can use examples to illustrate communication skills with clients of diverse cultural backgrounds.	0 1 2 3 4
14. I can comprehend diverse cultural groups' interpretations of their health beliefs/behavior.	0 1 2 3 4
15. I can list the methods or ways of collecting health-, illness-, and cultural-related information.	0 1 2 3 4
16. I am familiar in health- or illness-related cultural knowledge or theory.	0 1 2 3 4
17. I can explain the possible relationships between the health/illness beliefs and client's culture.	0 1 2 3 4
18. I can compare the health or illness beliefs among clients with diverse cultural background.	0 1 2 3 4
19. I can easily identify the care needs of clients with diverse cultural backgrounds.	0 1 2 3 4

Appendix D-1: (Continued)

Cultural Sensitivity Scale

Please indicate to which degree you are able to fulfill the following statements.

0 = (Totally unable)

1 = (25% able)

2 = (50% able)

3 = (75% able)

4 = (100% able)

20. I very much appreciate the diversities among different cultures.	0 1 2 3 4
21. I think it doesn't matter what method of health s/he adopts, if it has its advantages.	0 1 2 3 4
22. I can tolerate diverse cultural groups' beliefs or behavior about health/illness behavior.	0 1 2 3 4
23. Even if a client's use or adoption of a health maintenance method differs from my professional knowledge, I usually don't oppose it.	0 1 2 3 4
24. Even if a client's use or adoption of a treatment method differs from my professional knowledge, I usually don't prohibit it.	0 1 2 3 4
25. I usually discuss differences between the client's health beliefs/behavior and nursing knowledge with each client.	0 1 2 3 4
26. I usually actively strive to understand the beliefs of different cultural groups.	0 1 2 3 4
27. In addition to traditional Chinese medicine and western medical ways of treatment, I would also try to understand alternative treatment methods.	0 1 2 3 4

Appendix D-1: (Continued)

Cultural Skills Scale

Please indicate to which degree you are able to fulfill the following statements.

0 = (Totally unable)

1 = (25% able)

2 = (50% able)

3 = (75% able)

4 = (100% able)

28. I can communicate with clients from different cultural backgrounds.	0 1 2 3 4
29. I can deduce non-verbal expressions of clients from different cultural backgrounds.	0 1 2 3 4
30. Before planning a nursing activity, I collect cultural background information on each client.	0 1 2 3 4
31. To me collecting information on each client's beliefs/behavior about health/illness is very easy.	0 1 2 3 4
32. I can explain the influence of culture on a client's beliefs/behavior about health/illness.	0 1 2 3 4
33. I can explain the influences of cultural factors on one's beliefs/behavior towards health/illness to clients from diverse ethnic groups.	0 1 2 3 4
34. I can establish nursing goals according to each client's cultural background.	0 1 2 3 4
35. When implementing nursing activities, I can fulfill the needs of clients from diverse cultural backgrounds.	0 1 2 3 4
36. When caring for clients from different cultural backgrounds, my behavioral response usually will not differ much from the client's cultural norms.	0 1 2 3 4
37. I can teach and guide other nursing colleagues about the differences and similarities of diverse cultures.	0 1 2 3 4
38. I can teach and guide other nursing colleagues about the cultural knowledge of health and illness.	0 1 2 3 4
39. I can teach and guide other nursing colleagues about required communication skills for clients from diverse cultural backgrounds.	0 1 2 3 4
40. I can teach and guide other nursing colleagues about planning nursing interventions for clients from diverse cultural backgrounds.	0 1 2 3 4

41. I can teach and guide other nursing colleagues to display appropriate behavior when they implement nursing care for clients from diverse cultural groups. 0 1 2 3 4

Appendix D-2: Nurses' Cultural Competence Scale (NCCS; Chinese version)

護理人員文化能力評估量表

說明：以下的問題沒有對或錯的答案, 請就**您實際的感受、想法、做法來做答。**

所有的問題的選項接以五點計分法，請選擇最符合你的選項，謝謝！

您是否同意下列敘述：

0 代表【完全不同意】

1 代表【25%程度的同意】

2 代表【50%程度的同意】

3 代表【75%程度的同意】

4 代表【100%程度的同意】

1. 一個人的信念或行為表現會受到其文化背景的影響。 0 1 2 3 4
2. 來自不同文化背景的人，其價值觀往往有差異。 0 1 2 3 4
3. 多數人的健康、生病的信念或行為都會受到文化理念的影響。 0 1 2 3 4
4. 了解個案的文化背景對護理照護是極為重要的。 0 1 2 3 4
5. 在融入不同文化時，不同個人的接受度有相當大的差異。 0 1 2 3 4
6. 個案的行為反應大多源自其文化體系的影響，因而照護者應先了解個案對其行為的主觀詮釋。 0 1 2 3 4
7. 護理教育本身也是一種文化體系。 0 1 2 3 4
8. 了解個案的文化背景，可以提高護理照護的品質。 0 1 2 3 4
9. 護理人員對健康、生病的認知受到護理教育之影響很大。 0 1 2 3 4
10. 護理知識與個案對健康、生病的理解或詮釋往往是不同的體系。 0 1 2 3 4

Appendix D-2: (Continued)

您對下列敘述，您個人可達到的程度為何：

0 代表【完全無法達到】

1 代表【達到25%的程度】

2 代表【達到50%的程度】

3 代表【達到75%的程度】

4 代表【達到100%的程度】

11. 我了解影響健康、生病相關的社會文化因素。	0 1 2 3 4
12. 我能說出不同族群間特有的健康問題。	0 1 2 3 4
13. 我能舉例說明與不同文化背景個案溝通的技巧。	0 1 2 3 4
14. 我了解不同文化群體對其健康信念、行為之詮釋。	0 1 2 3 4
15. 我能列舉蒐集健康、生病與文化相關訊息的方法或途徑。	0 1 2 3 4
16. 我熟悉與健康、生病相關的文化知識或理論。	0 1 2 3 4
17. 我能解釋個案健康、生病的信念或行為與文化間的可能相關性。	0 1 2 3 4
18. 我能比較不同文化背景個案的健康或生病的信念。	0 1 2 3 4
19. 我能很快的了解不同文化背景個案的照護需求。	0 1 2 3 4

Appendix D-2: (Continued)

您是否同意下列敘述：

0 代表【完全不同意】

1 代表【25%程度的同意】

2 代表【50%程度的同意】

3 代表【75%程度的同意】

4 代表【100%程度的同意】

20. 我相當欣賞不同族群文化間的差異。	0 1 2 3 4
21. 不論我的個案採取哪一種健康照護的方式，我認為皆有其優點。	0 1 2 3 4
22. 我能容忍不同文化群體的健康、生病的信念或行為。	0 1 2 3 4
23. 即使個案採取的身心保健方法與我的專業知識相違背，我通常也不會強烈反對。	0 1 2 3 4
24. 即使個案採取的疾病治療方法與我的專業知識不同，我通常不會斷然禁止。	0 1 2 3 4
25. 我經常與個案討論其健康信念或行為與護理知識間之異同。	0 1 2 3 4
26. 我經常主動去了解與我不同文化群體的健康信念。	0 1 2 3 4
27. 除了傳統的中、西醫療法，我也會嘗試去了解其他的治療方法。	0 1 2 3 4

Appendix D-2: (Continued)

您對下列敘述，您個人可達到的程度為何：

0 代表【完全無法達到】

1 代表【達到25%的程度】

2 代表【達到50%的程度】

3 代表【達到75%的程度】

4 代表【達到100%的程度】

28. 我能運用溝通技巧於不同文化背景的個案。	0 1 2 3 4
29. 我能解讀不同文化背景個案的非語言的表達。	0 1 2 3 4
30. 計劃護理活動前，我會完整地蒐集與個案相關的文化背景資料。	0 1 2 3 4
31. 對我而言, 蒐集不同文化背景個案的健康, 生病信念或行為的資料是很容易的。	0 1 2 3 4
32. 我能解釋文化對個案的健康、生病信念或行為的影響。	0 1 2 3 4
33. 我能向不同族群的個案說明影響其健康、生病信念或行為的文化因素。	0 1 2 3 4
34. 我能依個案文化背景來建立護理目標。	0 1 2 3 4
35. 執行護理活動時，我能滿足不同文化背景個案的需求。	0 1 2 3 4
36. 照護不同文化背景的個案時，我的行為反應通常不會與其文化規範差異太大。	0 1 2 3 4
37. 我能教導其他護理同仁不同文化的異同。	0 1 2 3 4
38. 我能教導其他護理同仁與健康、生病相關的文化知識。	0 1 2 3 4
39. 我能教導其他護理同仁與不同文化背景個案溝通的技巧。	0 1 2 3 4

Appendix D-2: (Continued)

40. 我能指導其他護理同仁為不同文化背景的個案擬定照護計畫。 0 1 2 3 4

41. 我能在其他護理同仁為不同文化背景個案執行照護活動時，指導其呈現合宜的行為。 0 1 2 3 4

Appendix E-1: Nurse Perceived Cultural Competence Rating

(NPCCR; English version)

(**based on Benner [2001] Novice to Expert Model)

Please mark the area that best describes your assessment of your competence in delivering culturally competent care to people who are different from yourself. This include individuals who are a different ethnicity, socioeconomic group, gay / lesbian, disabled; those who have different religious or spiritual beliefs or are indigenous peoples.

Level (description)	Please mark **ONE** level
NOVICE (inexperienced in caring for people different from myself; practice would be driven by rules and protocols)	
ADVANCED BEGINNER (able to perform adequately but would need time to gain more knowledge and skills in caring for people different from myself)	
COMPETENT (could transfer my prior experiences into caring for people different from myself and provide adequate care)	
PROFICIENT (would be able to fit well into caring for people different from myself with no problem recognizing abnormal situations and automatically prioritizing needs and providing care)	
EXPERT (can instinctively understand situations and act with confidence to meet health needs of those who are different from myself)	

Appendix E-2: Nurse Perceived Cultural Competence Rating

(NPCCR; Chinese version)

護理人員文化能力自我認知量表**

(****依據**Benner [2001] **從**初學到專家**模式)**

當你在照顧與你不同文化背景之個案時, 請**勾**選**下列**最適合你的
"照護擁有不同文化個案之能力"的階段。(個案對象包含來自不同種族，社會經濟背景，宗教，信仰，同性戀，失能者或原住民).

階段	**請只勾選一項**
初學階段(沒有照護和自已不同背景的經驗，技術是按照規範來執行).	
進階初學階段 (可以適當得但需要時間獲得知識及技能來照護和自己不同背景的人).	
勝任階段 (能夠將以往的經驗 轉 換成適當的照護).	
熟練階段 (當提供照護給和自己不同背景的個案時，能夠相處融洽。也會沒有問題的分辨異常和衡量照護的優先順序).	
專家階段 (能夠直覺得了解當下狀況，並且很有自信的提供健康需要給和自己背景不同的個案).	

Appendix F: IRB Approval

The University of Texas at Tyler

Institutional Review Board

December 10, 2012

Dear Ms. Lin,

Your request to conduct the study entitled: *Cultural Competence & Related Factors among Nurses in Taiwan* IRB #F2012-38 is approved under expedited review by The University of Texas at Tyler Institutional Review Board. This approval includes a waiver of the use of written informed consent. In addition, ensure that any research assistants or co-investigators have completed human protection training, and have forwarded their certificates to the IRB office (G. Duke).

Please review the UT Tyler IRB Principal Investigator Responsibilities, and acknowledge your understanding of these responsibilities and the following through return of this email to the IRB Chair within one week after receipt of this approval letter:

- This approval is for one year, as of the date of the approval letter
- Request for Continuing Review must be completed for projects extending past one year
- Prompt reporting to the UT Tyler IRB of any proposed changes to this research activity
- ***Any adverse event or unanticipated event MUST be reported promptly to academic administration (chair/dean), and to the IRB.***
- Suspension or termination of approval may be done if there is evidence of any serious or continuing noncompliance with Federal Regulations or any aberrations in original proposal.
- Any change in proposal procedures must be promptly reported to the IRB prior to implementing any changes except when necessary to eliminate apparent immediate hazards to the subject.

Best of luck in your research, and do not hesitate to contact me if you need any further assistance.

Sincerely,

Gloria Duke, PhD, RN

Gloria Duke, PhD, RN

Chair, UT Tyler IRB

Appendix G: Recruiting Announcement at Taiwan Nurses Association's Website

Appendix H: Permission to Use the NCCS

25 October, 2012

Chin-Nu Lin

Dear Miss Lin,

I am here referring to your request for using the Nurses' Cultural Competency Scale (NCCS) which I developed and published in *Tzu Chi Nursing Journal*. This letter is to confirm that I will give you my permission to use it without any fees.

Sincerely,

Shoa-Jen Perng,

PhD, Associate professor

Department of Nursing

Tzu-Chi College of Technology

Appendix I-1: Invitation Letter & Instructions (English Version)

Subject: Online Survey of Cultural Competence among Nurses in Taiwanese

Dear friend,

My name is Chin-Nu Lin. I am a PhD candidate in the College of Nursing at the University of Texas at Tyler, Tyler, Texas, USA. I am conducting a study about the level of cultural competence among nurses in Taiwan. I am asking you to be a part of this research, which is the final project of my program. Your participation in this research is very important as it represents the view of nurses in Taiwan. This research is being supervised by Dr. Beth Mastel-Smith.

I would like you to participate if you meet the following criteria:

1. **Hold a current nursing license issued by the Taiwanese government**
2. **Currently practice in a physicians' office, home health, hospital, community health center, school health center, and/or teach nursing in an academic setting**
3. **Capable of reading and writing in Traditional Chinese**
4. **Able to access the Internet**
5. **Age 20 and above.**

Participation in this survey is completely voluntary and confidential. This means that you do not need to answer any questions if you do not want to and may stop filling out the survey at any point. This survey will take about 15-20 minutes to complete. Responses from individual participants will not be published. Your name and e-mail address will not be linked to your responses in any way. Additionally, the information you provide will be kept secure and will not be viewed by anyone but the researcher and her dissertation chair and statistician. The data will only be used to evaluate the level of cultural competence among nurses in Taiwan. You will also have the opportunity to participate in a drawing. Completion of this survey implies consent.

If you have any question or need any assistance, please feel free to contact either me or my advisor.

Sincerely,

Chin-Nu Lin

Doctoral Candidate at the University of Texas at Tyler
clin2@patriots.uttyler.edu

Beth Mastel-Smith, PhD, RN (Dissertation Chair)
College of Nursing
The University of Texas at Tyler
3900 University Blvd.
Tyler, TX 75799
Email- bethms@swbell.net

Appendix I-2: Invitation Letter (Chinese version)

主旨：台灣護理人員文化能力及其相關因素的網路調查

親愛的護理界朋友

您好! 我的名字是林金女, 目前為美國德卅大學Tyler分校護理博士候選人.
我正在進行一項有関台灣護理人員文化護理能力的研究.
此研究目的是要了解台灣的護理人員對於在照護具有不同背景個案時所具有文化護理的能力. 您的參與對本研究是非常重要的, 因為它代表台灣護理人員的觀點。這項調查研究正由Dr. Beth Master-Smith指導進行.

如果 符合下列條件, 我誠摯的邀請您參與此研究

1. 領有台灣衛生署核發的護理師或護士執照 的護理人員.
2. 任現職於醫院,診所,衛生所,學校 健康中心(校護),護理教師 (包含大專及軍護).
3. 年齡在20歲以上(至民國102年11月底止).
4. 熟悉讀，寫繁體中文.
5. 能夠有網路設備可以使用.

本問卷調查約需要15-20分鐘來完成. 參與研究完全是志願且保密的,
您個人的意見是不會被發表的. 此外, 您的名字和電郵帳號也不會和你的調查結果相連結.
您所提供的訊息將會很安全地被保存.
除了我及我的論文指導教授及統計學家外將不會有任何人看見.
研究結果將只會被用在評估台灣護理人員的文化能力.

為了答謝您的參與, 當您在同意參與研究且完成調查之後, 您將有機會參加禮券的抽獎.

如果您對本問卷調查有任何問題或需要任何協助, 請和我或我的指導教授 Dr. Beth Master-Smith連繫.

感謝您的參與。

林金女敬上

德卅大學Tyler分校護理博士候選人
clin2@patriots.uttyler.edu

Beth Mastel-Smith, PhD, RN (Dissertation Chair)
College of Nursing
The University of Texas at Tyler
3900 University Blvd.
Tyler, TX 75799
Email- bethms@swbell.net

Appendix J-1: Survey Instruction (English version)

1.The survey will take about 15-20 minutes of your time.
2.If you have participated in this survey before, please do not repeat. Each computer or smartphone device will only allow you to take this survey once.
3.Please select the most appropriate answer. Only one response per individual question.
4.If you are unsure about a specific question, you may choose to skip the question and complete it after you obtain the information that you need. You may move back to a previous page and revise your response at any time. To maintain your anonymity, your responses will not be directed to this researcher. Your personal information and identities will not be recorded.
5.If you want to enter for a prize drawing, you may enter you email address once you complete answering all questions .
6.All surveys should be completed by 01/31/2013.
7.Please contact me at clin2@patriots.uttyler.edu if you need any assistance.
8.Thank you very much for your participation.

Please answer the next three questions.

Do you understand the above invitation and agree to participate?

YES NO

Do you feel that you have been informed concerning the purpose of this study and your rights as a participant?

YES NO

Are you participating of your own free will without pressure from others?

YES NO

Appendix J-2: Survey Instruction (Chinese version)

問卷調查說明

1.此問卷調查需要15-20分鐘來完成.

2.如果您已經做過此份問卷,不需要重複參與.
每一台電腦或智慧型手機僅容許作答一次.

3.請選擇您認為最適合的答案. 每一題只能選擇一個答案.

4.如果您對某一個問題暫時不確定, 可選擇先作答其他題目.
然後再回到之前跳過的問題. 您的意見將被保密且不被記錄.

5.當您回答完所有的問題後, 如果想參加禮券抽獎,
請提供您個人的電子信箱. 如果您中獎, 我將會另行通知.

6. 此問卷調查將在民國 102年1 月31 日 午夜結束.

7.如有需要任何關於此問卷調查的協助, 請以此電子信箱
clin2@patriots.uttyler.edu和我連繫.

請回答下列三個問題

您是否了解邀請函的內容並且同意參加此調查研究?
是 不是

您是否覺得有被告知研究的目的及參與者的權利?
是 不是

您的參與是否出於自願?
是 不是

非常感謝您的參與.

Biosketch

BIOGRAPHICAL SKETCH	
NAME **Chin-Nu Lin**	POSITION TITLE **Assistant Professor of Nursing**

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE	MM/YY	FIELD OF STUDY
University of Texas at Tyler, Tyler, Texas	Ph.D		Nursing
Grambling State University, Grambling, Louisiana	MSN	07/2007	Nursing Educator
West Texas A & M University, Canyon, Texas	MA	05/2001	Counseling
National Taiwan Normal University, Taipei, Taiwan	Teacher Certificate	07/1997	Education
Chung- Shan Medical University, Taichung, Taiwan	BSN	06/1987	Nursing

A.Personal Statement

The purposes of this study were to investigate the level of cultural competence based on the scores on the Nurses' Cultural Competence (NCCS) and the Perceived Nurses' Cultural Competence Scale (PNCCR) among Taiwanese nurses. Taiwan is a multicultural and multiethnic society with population of near 24 millions and consists of five major ethnic groups. However, little information is available on the cultural competency among Taiwanese nurses who provide direct care to patients. Research about how cultural competence influences patient outcome was scarcely addressed.

Several advantages have been reported for providing competent care in health care delivery. These include client empowerment, patients' perceived respect, and improvement in clients' adherence with treatment regimen and outcomes. Insights into Taiwanese health care providers' cultural competence might provide guidance for future implementations of cultural competence in-service training or integration into designing nursing curricula to improve patient outcomes and health care quality.

A better understanding of cultural competence among Taiwanese nurses will establish a foundation for developing strategies to improve, cultivate and foster culturally competent health care provided to an ethnically diverse Taiwanese population. Better insight into Taiwanese nurses' cultural competence might also provide guidance for future implementation of cultural competence training or integration into nursing curricula and demonstrate the need for education and practice guidelines or regulations on culturally competent health care.

B.Positions and Honors

Positions and Employment

2007-present	Assistant Professor of Nursing, Grambling State University, Grambling, LA
2006-2008	Staff Nurse, Acute Psychiatric Unit, EA Conway Hospital. Monroe,
2005-2006	Staff Nurse, Med/Surg Unit, St. Francis North Hospital. Monroe, LA
2004-2005	ELS Interpreter, Translator, Neville High School. Monroe, LA
2004-2004	Extend Home Health Care. Preferred Nursing & Staffing. New Brunswick, NJ
2001-2002	Correctional Nurse, Clements Unit of Texas Tech University HSC. Amarillo, TX
1991-1997	Nursing Instructor, Ming-Hui College of Health Care Management. Tainan, Taiwan
1987-1991	Teaching Assistant, Chung-Shan Medical University. Taichung, Taiwan
1987-1989	Staff Nurse, Med/Surg Unit, Chung- Shan Memorial Hospital. Taichung, Taiwan

Other Experience and Professional Memberships

2013-present	Graduate Student Nursing Association (GSNA) -affiliated to AACN
2012 - 2014	Approved for NCSBN, NCLEX examination item development panel
2012 - Present	International Academic Nursing Alliance (IANA)
2010 – Present	The Honor Society of Nursing, Sigma Theta Tau International Transcultural Nursing Society
2009 – Present	American Nurse Association (ANA)
2009 – 2010	Society for Simulation in Healthcare
2007 – Present	National League for Nursing (NLN)

Honors

09/2012	Recipient of Learning- Service Award at Grambling State University.
09/2012	Grant recipient for participating The Leadership Forum Conference of SigmaTheta Tau International, The Honor Society of Nursing.
2011	Who's Who Among Colleges and Universities at UT Tyler
2011, 2012	Recipient of Advanced Education Nursing Traineeship (AENT) Grant from NIH
2009	Recipient of Stella Crews and Erwin Douglas Dyer Scholarship (SCEDD)
2002-2003	Deans' list: Mercer County Community College. Trenton, New Jersey
2001	Phi Theta Kappa International Honor Society
2002	E.L. Hunter Scholarship, Amarillo College. Amarillo, Texas
1995	Teacher of the Year, Minh-Hui College of Health Care Management. Tainan, Taiwan.