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IMPROVING NURSE PRACTITIONERS' CULTURAL KNOWLEDGE AND SKILLS IN CARING FOR AND SUPPORTING CHINESE ELDERS AND THEIR FAMILIES

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ABSTRACT

Purpose: To evaluate the effectiveness of a cultural competency education intervention in caring for Chinese elderly patients and their families. **Methods:** Nurse practitioners (N = 23) participated in an educational program which included a PowerPoint presentation consists of three components: Overview of Chinese culture and the concept of filial piety, culturally appropriate elderly care, and how to care for and support patients and their families with nursing home placement. The Cultural Self-Efficacy Scale (CSES) was modified to measure change in knowledge and skills about Chinese culture. **Results:** Paired sample t tests indicated that Chinese cultural self-efficacy scores significantly improved knowledge [Before: (Mean $\pm$ 1 SD) 3.5 $\pm$ 0.75; After: 4.4$\pm$ 0.56, $p < 0.001$] and skills [Before 3.8$\pm$ 0.73; After 4.3 $\pm$ 0.69, $p < 0.01$). All of the participants (100%) responded that they would recommend the program to a coworker, and the majority of them (77%) reported that they used the education to serve Chinese-American patients and families in the first two weeks following the intervention. **Conclusion:** This study verified that nurse practitioners needed and valued education on cultural competency that addressed both knowledge and skills. The investment of stakeholders in education was returned by the immediate implementation of knowledge and skills designed to improve client satisfaction and address the health needs of elderly patients.

KEYWORDS: Cultural, filial piety, institutional living, self-efficacy.

INTRODUCTION

The aging population poses challenges for society, healthcare, and especially for families and the elderly themselves.[1] Improved technology increases longevity but the elderly is now living longer with chronic illnesses that often require more extensive care than families can manage.[1] As of the 2010 United States Census, there are more than 3.8 million Chinese in the United States, about 1% of the total population. The influx continues, where each year ethnic Chinese people from the People's Republic of China, Taiwan and to a lesser extent Southeast Asia move to the United States, surpassing Hispanic and Latino immigration by 2012.[2] More than a quarter of all foreign-born Chinese immigrants arrived in the United States after year 2000, and of these, 30.4% are seniors (aged 55 or older).[3]

A common traditional Chinese household consists of three generations with the son or daughter looking after their parents and children in their own home.[4] In recent years, however, many factors have contributed to the difficulty of adult children in taking care of their elderly parents at home; including increased geographic movement and reduced family size.[4] More often, children are now working away from home, making hands-on care for their parents nearly impossible. Placing elderly disabled parents into institutional living offers an alternative; however, it is contrary to traditional Chinese cultural norms of filial piety.[5] It is important for healthcare providers to understand Chinese cultural norms, how the concept of filial piety shapes perceptions toward elderly care and placement, and how to assist families with decisions about care.

METHOD

The hypothesis of this study is based on the evidence-based models that can be broken down into these PICO (Population, Intervention, Comparison, Outcome)

components: the population is Elderly Chinese and their families; the intervention is cultural competency education provided to nurse practitioners; the comparison is nurse practitioners' cultural self-efficacy before exposure to education; and the outcome is increased nurse practitioners' cultural self-efficacy in knowledge and skills and improved care and support to the Chinese elders and their families when placing their parents into nursing homes.

A quantitative descriptive study was designed by using statistical research method of paired samples t tests comparing pre-test and post-test results to evaluate the effectiveness of cultural competency education for healthcare providers before and after the education intervention. A modified Cultural Self-Efficacy Scale (CSES) instrument[6] questionnaire was used in the pre-test and the post-test to evaluate nurse practitioners' self-efficacy of their knowledge and skills. The participants were healthcare providers involving nurse practitioners.

Leininger's theory was used as a model for this study because it is focused on providing care in harmony with varying cultural beliefs and values.[7] The theory emphasizes cultural competence and advocacy which are beneficial and effective in the care of Chinese elders.[8] Leininger's theory explains that healthcare providers are required to understand the many cultural variations seen in patient care and to be proactive to satisfy compliance and promote healing and wellness. With this insight, Leininger developed the new construct of "transcultural nursing".[7,9]

The project was approved by Brandman University Institutional Review Board (BUIRB) and meets requirements for approval under the federal regulations that govern human subjects to protect participants' privacy, personal identifiers remain strictly confidential. A coding system was used so that no identifying names or other information was disclosed.[7]

Nurse practitioners (N = 23) participated in an educational program which included a PowerPoint presentation entitled, "How to provide culturally appropriate care and support for Chinese elders and their families in elderly placement" (Attachment A), and some study materials. The presentation has three components: Overview of Chinese culture and the concept of filial piety, culturally appropriate elderly care, and how to care for and support patients and their families with nursing home placement. The Cultural Self-Efficacy Scale (CSES) was modified to measure change in knowledge and skills about Chinese culture.

RESULTS

Demographics of Participants

A total of 38 healthcare providers attended the cultural competency education program (Attachment A). Only nurse practitioners' data were analyzed for this study (N=23). All nurse practitioners are females and 48% are aged 31-40 years. Among these nurse practitioners, 17% identified as white, 22% African American, 4% Hispanic, and majority of them, 57% identified as Asian. Additionally, 44% have been in practice for 3-5 years. See table 1 for the demographic characteristics of the participants.

Table 1: Demographic Characteristics of Participants (N = 23) (Nurse Practitioners).

	Frequency	Percent	Valid Percent	Cumulative Percent
Gender:				
Female	23	100	100	100
Male	0	0	0	0
Age:				
21-30	4	17.4	17.4	17.4
31-40	11	47.8	47.8	65.2
41-50	3	13.0	13.0	78.3
51-60	2	8.7	8.7	87.0
>60	3	13.0	13.0	100
Ethnicity:				
White	4	17.4	17.4	17.4
African American	5	21.7	21.7	39.1
Hispanic	1	4.3	4.3	43.5
Asian	13	56.5	56.5	100
Profession:				
Nurse Practitioner	23	100.0	100.0	100.0

Culturally Competent Care

Paired sample t tests indicated that Chinese cultural self-efficacy scores significantly improved knowledge [Before: (Mean + 1 SD) 3.5 + 0.75; After: 4.4+ 0.56, p<.001] (Table 2).

Table 2: Pre-Post Comparison (N = 23) Nurse Practitioners' Confidence in Knowledge.

	N	*Mean*	*SD*	Pre-Post Comparison
Confidence in Knowledge Pre-test	23	3.5	.75	
Confidence in Knowledge Post-test	23	4.4	.56	t (22) =-9.30, p < .001

The second data analyzed was nurse practitioners' self-perceptions on Chinese cultural skills before and after the cultural competence education intervention. Likewise, in comparing NPs'self-perceptions on cultural skills level before and after the cultural competency education intervention, the results again showed statistically significant (p = 0.006) outcomes overall. The mean total CSES scores of the two tests were: M1 = 3.8± 0.73; M2 = 4.3± 0.69. The results also showed the difference between the means was significance. Based on these two findings, We concluded that the presentation was very successful in moving all nurse practitioners to a higher level of Chinese cultural knowledge and skills (See Table 3).

Table 3: Pre-Post Comparison (N = 23) Nurse Practitioners' Confidence in Skills.

	N	*Mean*	*SD*	Pre-Post Comparison
Confidence in Skills Pre-test	23	3.8	.73	
Confidence in Skills Post-test	23	4.3	.69	t (22) =-3.05 , p = .006

Other Outcomes

After looking at nurse practitioners' high level of cultural knowledge and skills before the intervention, the participants were sub-divided into two ethnic groups (Asians N = 13, and non-Asians N = 10) to identify any differences between the two ethnic groups because people of Asian descent may have an advantage in terms of the Chinese culture questions on the questionnaire. The result showed that the non-Asian group had a score slightly lower than the Asian group but the difference was not statistically significant (p = 0.11). Both Asian and non-Asian groups improved their knowledge levels after the intervention and they felt they are more confident and competent in interacting and practicing with Chinese elderly patients and their families (See Table 4).

Table 4: Pre-test Performance (N = 23) Nurse Practitioners.

	N	*M*	*SD*	Between Groups Comparison
Confidence in Knowledge Pre-test				
Asians	13	3.7	.49	t (22) = 2.38, p = .111
Non-Asians	10	3.2	.95	
Total	23	3.5	.72	
Confidence in Skills Pre-test				
Asians	13	3.5	.81	t (22) = 1.32, p =.25
Non-Asians	10	4.1	.52	
Total	23	3.8	.73	

In a follow-up survey conducted two weeks after the presentation, all participants (100%) responded that they would recommend the presentation to a coworker. The majority of nurse practitioners, (77%) reported that they have served Chinese-American patients and families after exposure to the education intervention.

DISCUSSION

Although all healthcare providers were invited to the quality improvement program and a total of 38 healthcare providers, including physicians, nurse practitioners, registered nurses and medical assistants, attended the presentation, only nurse practitioners' data were analyzed for this study. The reason to focus on studying nurse practitioner's data of self-perceived Chinese cultural knowledge and skills in caring for Chinese elderly patients and their families was because nurse practitioners make up the majority of healthcare providers in this department (70%). In addition, nurse practitioners provide direct care to culturally diverse elderly patients and their families on a daily basis.

Overall, the findings of this study indicated that the nurse practitioners' self-perceived cultural knowledge and skills level have improved significantly after the cultural competence education intervention. These positive outcomes and comments indicated that the cultural competency education to healthcare providers was very successful. Since the aging population is increasing rapidly and culturally diverse patients need culturally competent care. To provide continuous cultural

competency education to the healthcare providers is necessary and needed to improve quality of care. This education on cultural competency should be considered in the staff development plan for healthcare delivery systems.

At pre-test, nurse practitioners had fairly high scores prior to the cultural competence education intervention. It may be debatable whether nurse practitioners will benefit from cultural competency education and whether any benefits will translate in practice. This study shows that although generally nurse practitioners participating in the study demonstrated some confidence in their cultural knowledge and skills prior to the education intervention, they did not feel comfortable dealing with specific ethnic groups and specific patients' needs. For example, the nurse practitioners participating in the study were medically knowledgeable in recommending patients to a higher level of care, but it is often a very difficult cultural decision for their patients. Without a higher level of cultural knowledge and skills specific to the population served, it is very difficult to help the patients and their families make an informed decision about elderly placement. After the intervention, both Asian and non-Asian groups demonstrated improved knowledge levels, responding that they felt more confident and competent in serving Chinese elderly patients and their families. These results suggest that the education intervention is very effective and continuing this educational intervention on specific cultural groups and patients' needs are important and needed.

Multiple studies have assessed the cultural self-efficacy of nurses and nursing students and the results of their overall cultural self-efficacy ranged between 2.4 to 4.1.[6,11,12] These studies also use the CSES scale, and their results are consistent with our study's results. However, compared to larger sample study (N = 2,229) using the CSES scale by Coffman et al.[13] their results of self-perceived confidence in Asian cultural knowledge (M = 2.4) and cultural skills (M = 3.5) at pre-test[13] were lower compared to our study's scores, which were much higher (cultural knowledge pretest score, mean = 3.5, and cultural skills pretest scores, mean = 3.8). The higher pretest scores in our study may be due to several factors. Firstly, all nurse practitioners have Masters or doctoral degrees and have had courses in advanced cultural competency education, whereas in Coffman, Shellman, & Bernal's 2004 study, the participants' education levels vary, and include individuals with high school, bachelor, and master's degrees. Secondly, among the 23 nurse practitioners who participated in our study, more than half identified as Asian (56.5%). Additionally, all participating nurse practitioners live in California, which has a more culturally diverse patient population than the geographic areas targeted by the Coffman's et al. study.[13] In addition, among 2,229 participants, only 4.3% identified themselves as Asian.[13]

The participants in this study reported their self-perceived confidence in cultural knowledge is higher overall compared to previous research study results, which is also consistent with literature stating that participants' own ethnicity lends privilege in their self-efficacy scores, resulting in higher CSES confidence scores if they share the ethnicity as their patients.[6,11,14]

The implementation of evidence-based practice involves integrating current clinical experience, research findings and patient values into the decision-making process for patient care. Evidence-based outcomes can help healthcare professionals develop and implement optimal clinical practices to improve quality of care. This study was conducted to improve clinical daily practice in serving Chinese elderly patients and their families. The purpose of this study is to find evidence for better practice in caring for Chinese elderly patients and their families and support them when making decisions in nursing home placement. The results from this study can inform a practice guideline on how care should be delivered. The study result will guide the development of new cultural competency education.[15]

The education intervention helped nurse practitioners to increase their cultural knowledge, as well as better understand Chinese cultural norms, family structures, and health beliefs. They feel more confident and willing to discuss the patient's concerns, respond to their needs, provide resources and encourage family conferences, thus improving their patients' quality of care and satisfaction.[16]

The study findings indicated the need and importance of cultural competency education. It also provided evidence that both formal and informal cultural competency education formats can help increase healthcare providers' self-reported levels of confidence in caring for culturally diverse clients and improving their quality of care.[6,17] Because of the success of this pilot education intervention, a new standard of education planning for healthcare providers will be emphasized, implemented and sustained.

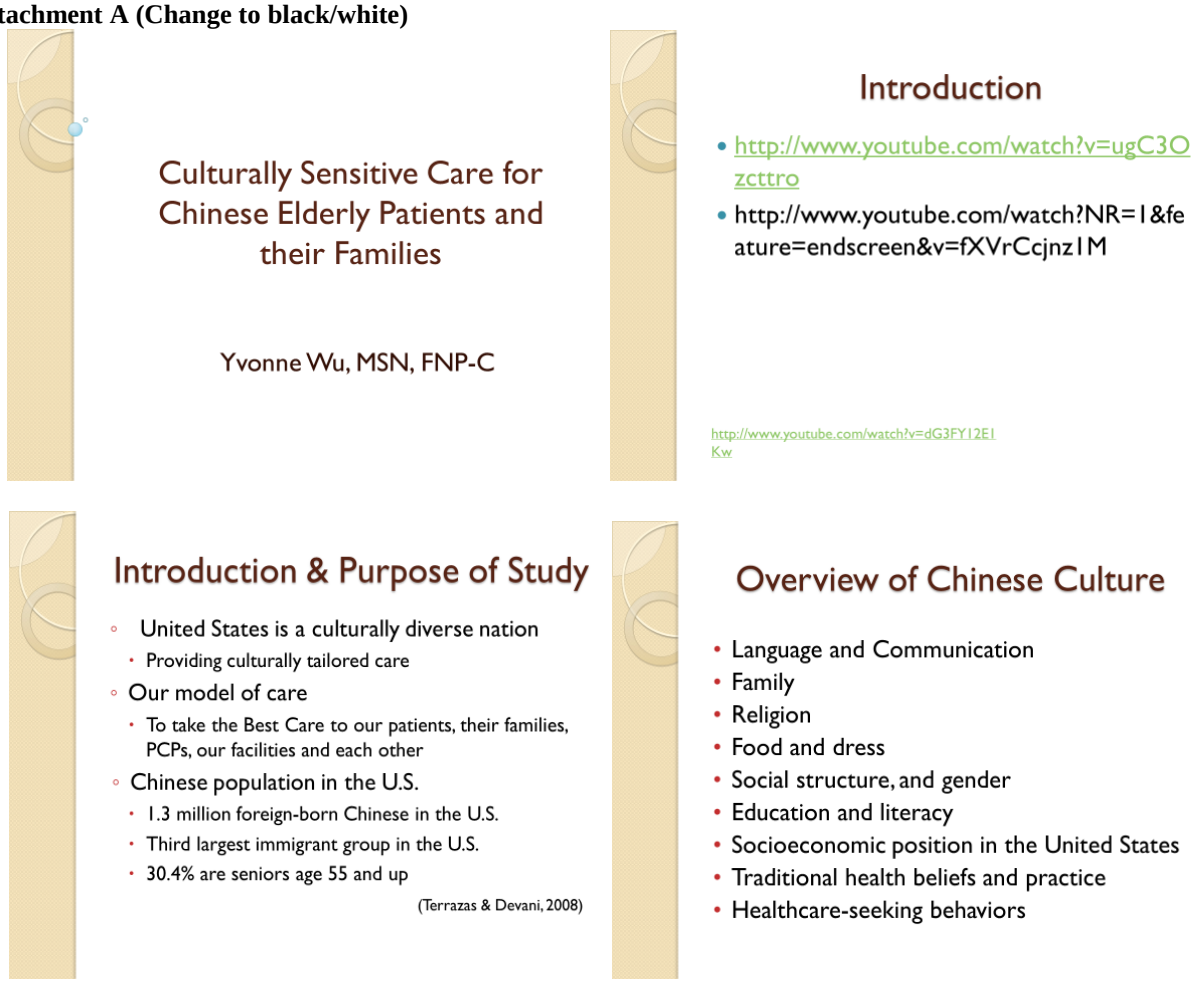
Providing education alone cannot be successful and sustainable if the intervention is not supported by organization policy. Creating a plan for policy development and adoption is essential for continued education interventions. Two conditions must be met in order for education innovation to be successful; first, stakeholders such as physicians, nurse practitioners and other healthcare providers must believe the education is needed to have higher levels of cultural competence knowledge and skills necessary in their practice. Second, the education outcome should be both cost-effective and clearly result in improved quality of care.[18] The successful integration of cultural competency education into healthcare delivery improvements will ensure the incorporation of cultural competency and sensitivity skills in every day practice.

Overall, the findings of this study indicated that nurse practitioners' self-perceived Chinese cultural knowledge and skills level improved significantly after the cultural competence education intervention. Although nurse practitioners demonstrated having some general cultural knowledge and skills at baseline, they still do not feel comfortable dealing with specific ethnic groups and specific patients' needs. After the intervention, their confidence in caring for Chinese patients increased significantly. The education intervention moved all nurse practitioners to a higher level of Chinese cultural competence knowledge and skill. All participants were willing to recommend this educational program to others. Overwhelmingly, 77% of nurse practitioners used new skills and knowledge in practice. All of these findings suggest that the education intervention was very effective, and making cultural competency education available to nurse practitioners is necessary for improving quality of care.

This study confirmed that healthcare providers' perceived sense of confidence in caring for Chinese elderly patients and their families increased significantly after an educational intervention. The study findings also provided evidence-based guidance for implementing cultural competency education to further continue quality of care improvements in healthcare delivery systems. Integrating cultural competency education into healthcare delivery policy will directly benefit culturally diverse elderly patients and their families.

The study parameters present several constraints to data collection, including limiting the sample data to only one geriatric care setting. Further studies using a wider sample of healthcare providers in various settings are needed to increase generalizability and ensure the continuing improvement of cultural competency education.

Attachment A (Change to black/white)



Demography

- Mainland China
- Taiwan
- Hong Kong
- Macau

(Tom, 1998)

Language /Communication

- Language
  - Mandarin
  - Cantonese
- Communication
  - Direct eye contact
  - Shaking hands
  - Touching

(Tom, 1998)

Religion

Confucianism Buddhism Taoism

Food and Dress

Social Structure, Family and Gender

- Value the family over individual
- Filial piety
- Extended families are common
- Placing elders into facility living
- Elders are highly respected
- Eldest males in the family makes most decisions
- Sons are valued higher than daughters

(Takeuchi & Young, 1999).

Education & Socioeconomic

- Family annual income
  - 7% < $ 10,000
  - Median income $52,600
  - General U.S. population: $50,000

(U.S. Census bureau,2000)

Health Beliefs and Practices

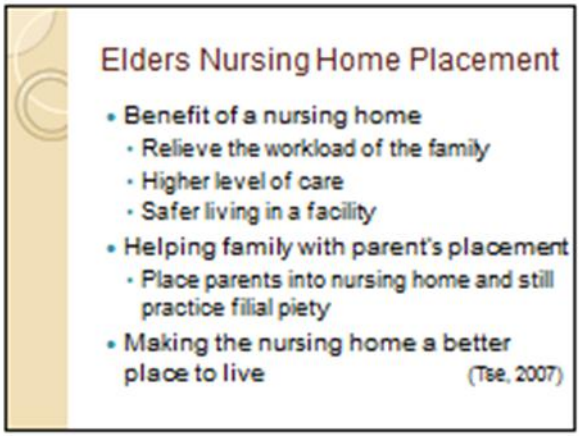
- Yin and Yang
- Balance of "hot" and "cold"
- Use of food, herbs, special soups, acupuncture before seeking Western treatment
- Use of a combination of traditional and Western medicine

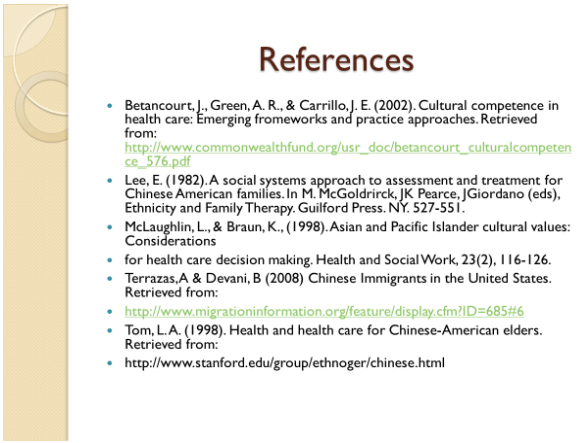
(Takeuchi & Young 1999).

Culturally Appropriate Elderly Care

- Treat patients with respect, compassion and honesty
- Ask how they want to be addressed
- Food choices
- Include family members
- Pride & shame
- Language barriers
- Long-term care

(Lee, S. 1992)





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