

Self-Confidence of Public Health Nurses in Cultural Competency
During Infectious Disease Investigation

by

Nicholas Crowninshield

MSN Scholarly Project Team

MSN Scholarly Project Advisor

MSN Scholarly Project Content Expert

MSN Scholarly Project Organizational Mentor

MSN Program Director

SELF-CONFIDENCE OF PUBLIC HEALTH NURSES IN CULTURAL COMPETENCY
DURING INFECTIOUS DISEASE INVESTIGATION

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Abstract

Infectious disease (ID) investigation is a core function of local, state, and federal public authorities across the United States. Public health nurses (PHN) are charged with investigating a wide array of infectious diseases, with tuberculosis (TB) being one of the most resource heavy. Strong relationships between healthcare providers and nurses with their patients are crucial for the success of the individual and of the public's health. As occurred with the COVID-19 pandemic, ID investigation without the participation of the individual affected makes controlling the spread of disease far more challenging. Adherence to treatment for IDs of public health concern, such as TB, is even more critical with the emergence of increasing antibiotic resistance. As the pace of globalization continues upwards there are an increasing number of interactions between healthcare providers, specifically nurses, and patients from vastly different cultural backgrounds. A quality improvement project will be implemented to assess the effect of public health nurse cultural competence training on nurses' perceptions and confidence in employing training concepts in the course of infectious disease investigation.

Table of Contents

Background/Statement of Problem	1
Literature Review	5
Conceptual/Theoretical Framework	16
Methods	19
Results and Discussion	26
Summary and Conclusion	30
Implications for Advanced Nursing Practice	32
References	34
Appendices	42

SELF-CONFIDENCE OF PUBLIC HEALTH NURSES IN CULTURE COMPETENCY DURING INFECTIOUS DISEASE INVESTIGATION

Background/Statement of the Problem

Public health officials across the country are charged with the prevention, management, and sometimes treatment of reportable infectious diseases. Awareness of this role for public health officials has greatly increased with the outbreak of the COVID-19 pandemic. Accordingly, terms such as isolation, quarantine, close contact, and contact tracing have become well-known concepts. There are significant racial and ethnic disparities in COVID-19 cases. Hispanics, Black or African Americans, and American Indians or Alaska Natives have respective mortality rates of 2.3 times, 2.0 times, and 2.4 times compared to White Americans (Centers for Disease Control and Prevention [CDC], 2020). Setting aside COVID-19, health departments across the country are still charged with responsibility for the management of many other infectious diseases with some variations state-by-state (Labus, 2015).

The CDC sets national, but not compulsory, standards for diseases considered to be reportable through the Nationally Notifiable Conditions (NNC) list. Since public health laws concerning the control of infectious diseases largely fall under state jurisdiction, not every state aligns its reportable infectious disease list with the NNC. Some states had alignment of their reporting requirements as low as 76% of the NNC list, with a mean alignment of 90% of all state requirements with the NNC. Only the State of Louisiana required the reporting of all NNCs under their public health laws (Labus, 2015). Despite these discrepancies in what states require to be reported, there are some infectious diseases where universal conformity exists. Most vaccine preventable diseases,

such as tetanus, diphtheria, measles, mumps, rubella, and meningococcal disease are reportable. Foodborne illnesses such as salmonella, sexually transmitted infections (STI) such as syphilis and gonorrhea, human immunodeficiency virus (HIV), tularemia, and tuberculosis are all also universally reportable (Labus, 2015).

There is a significant disparity in STIs between different demographic groups in the US just as has been seen with COVID-19 infections. Owusu-Edusei Jr., et al (2013) found that Black or African Americans were eight more times likely to suffer chlamydia or syphilis infections and 20 times more likely to become infected with gonorrhea than White Americans. The analysis explored the effect of average household income, as compared to the national average, on the rates of these infections among these two demographic groups. It was found that low or high race-income disparities remained among all the STIs analyzed. Among men, even with a low race-income disparity, the incidence rate of chlamydia per 100,000 was 597.8 and 70.7 for Black or African Americans and Whites respectively (Owusu-Edusei Jr. et al, 2013).

Special emphasis of TB disease and latent tuberculosis infection (LTBI) is necessary due to the significant burden it presents for public health resources across the United States compared to other infectious diseases. The incidence of TB disease has been steadily declining in Rhode Island (RI) with a case rate of 1.32 per 100,000 in 2019 compared to 1.99 per 100,000 in 2014 and 2.28 per 100,000 in 2009 (CDC, 2021a). With higher case counts and a slower rate of decline, RI's neighbor, Massachusetts, has also seen improvement. The state's 2019 case rate was 2.58 per 100,000 compared to 2.91 per 100,000 in 2014 and 3.5 per 100,000 in 2009. Nationally, a decline has been observed in TB case rates with 2.71 per 100,000 in 2019, 2.95 per 100,000 in 2014, and 3.75 per

100,000 in 2009. While no state has seen an increase in TB case rates, states and territories such as Alaska, Hawaii, Texas, California, Guam, and the Northern Marianas Islands consistently have rates above the national average (CDC, 2021).

Priority in investigation and case management is given to people living with tuberculosis (PLWTD) disease as they are symptomatic and infectious while those with LTBI are neither. Identification of LTBI is crucial to prevent the conversion to TB disease but remains a lower priority for public health departments with limited resources (Belcher et al., 2012). Treatment for TB disease requires a minimum of six months of antituberculosis medication, and PLWTB are managed by public health nurses (PHN) with directly observed therapy [DOT] (Nahid et al., 2016). PHNs come to the patient's home, communicate with their medical providers, interact with their families and sometimes their coworkers, identify close contacts, and arrange for testing and/or treatment if necessary. The establishment of trust and respect between the PHN and the PLWTB along with their family is crucial as DOT sessions often begin with visits five times per week (Nahid et al., 2016).

Medication nonadherence is a problem estimated to be as high as 40-60% across several different drug classes and medical conditions being treated (Stirratt et al., 2017). TB is not exempt from the threat of nonadherence and is unique compared to other medical conditions because of its public health consequences. Nonadherence with treatment can cause PLWTB to become contagious again, extend the time needed for treatment, and lead to the development of multidrug-resistant (MDR) disease. DOT is one of the most significant public health tools available to ensure medication adherence. The history of DOT began in India & Hong Kong in the early 1950s with the advent of

antimicrobials and the push to ambulatory care in lieu of long-term treatment in sanitariums (Bayer & Wilkonson, 1995). In the US, DOT was initially reserved for PLWTB that were believed “problematic” or “unreliable” in subjective, or even racist, assessments by PHNs. Widespread adoption of DOT for most or all PLWTB came about in the early 1990s with increasing antimicrobial resistance and the recognition that subjective assessments of a person’s “reliability” were fundamentally flawed (Bayer & Wilonson, 1995).

Nearly 75% of PLWTB in the U.S. are foreign-born which means PHNs are introduced and must collaborate effectively with those whose backgrounds are from many cultures, beliefs, and languages in their case management (CDC, 2020). There is a significant racial and ethnic disparity among PLWTB with 88% being non-white (CDC, 2019). Misunderstanding or disregard of cultural beliefs or practices can adversely affect the relationship between the PLWTB and the PHN, leading to problems with treatment adherence. According to Budiman (2020), the U.S. foreign-born population will reach 78.2 million by 2065 guaranteeing that PHNs will continue to experience cultural beliefs and practices with which they may have little experience. Research supports the importance of cultural competency among healthcare workers as it pertains to successful patient encounters and treatment adherence. The purpose of this research project is to examine the effect of cultural competency training of public health nurses on their self-confidence in the subject in the course of infectious disease investigation.

Literature Review

This review aims to examine current literature related to the effect of cultural competency training of healthcare workers and their self-confidence in the subject, with a focus on PHNs. The literature review also examined the experiences of people with IDs, with an increased emphasis on TB due to the high degree of involvement it requires from PHNs, from a cultural perspective. A literature review was performed using CINAHL, PubMed, and Medline. Search terms included: public health nursing, cultural competence, cultural sensitivity, cultural awareness, medication adherence, healthcare worker, treatment completion, infectious disease, tuberculosis, latent tuberculosis, communicable disease, reportable disease, stigma, knowledge, attitudes, and practice (KAP), training, and low-prevalence TB countries. The research was limited to peer-reviewed articles published in English between 2011-2021.

Healthcare Worker Knowledge, Attitudes, and Practice with Global Health

Experience with infectious disease, and specifically tuberculosis treatment, can vary widely between providers, particularly in low-incidence countries where it may not be a burden in every community. As globalization continues to progress, an increasing number of interactions between people from many distinct parts of the world are occurring. Migration and travel are changing epidemiologic norms in countries and providers may not always approach differential diagnoses with these factors in mind. According to Asgary et al. (2012), only 30% of North America's medical schools provide training in global health practice. Compounding this issue is that most global health training is focused on practice overseas and not domestically. With these changes in

global epidemiologic patterns, provider training is lacking for global health issues already present domestically (Aadnanes et al., 2018).

Asgary et al. (2012) reported on their study implementing an elective course on global health at a New York City medical school. This mixed-method study tested the perceived usefulness of a global health elective course for second and third-year residents. Ten residents enrolled in the elective and were assigned two to three articles followed by clinical rotations at a travel clinic, a tropical medicine and parasite clinic, an immigrant clinic, a NYC Tuberculosis/Chest clinic, and a health and human rights clinic (Asgary et al., 2012). In a quantitative, non-experimental fashion, the residents completed an anonymous survey which had nine multiple-choice questions. The residents used a Likert scale, with 1 being “poor” and 5 being “excellent” to rate evaluate the usefulness of the course, likelihood to recommend to colleagues, preceptor teaching quality, and the quality of clinical rotations (Asgary et al., 2012). In a qualitative, phenomenological method, the residents also answered open-ended questions directed toward clinical rotation experiences and reading assignments. Lastly, an informal focus group and multiple discussion sessions were held to obtain feedback (Asgary et al., 2012).

A 50% improvement from baseline on perceived competence in global health issues was recorded in the evaluation completed by the residents. During open-ended questions and focus groups the residents showed a desire to complete further clinical work in a TB clinic. They also expressed interest in shadowing preceptors responsible for global health policies at non-governmental organizations (NGO), greater population-level health exposure opportunities, and further clinical sessions at a parasite clinic (Asgary et al., 2012). The generalizability of the results for medical residents and healthcare workers

including PHNs, is its strongest feature. The qualitative aspect of the study also supplied rich, useful feedback and perspectives from the residents on the need for further education on this topic. Weaknesses included a small sample size, a short clinical exposure time of two weeks, and that the course was elective so those who enrolled already had some level of interest in the topic. Asgary et al. (2012)'s study showed a deficit in knowledge and practice for global health issues, but also a promising attitude toward reaching a better understanding of it.

Aadnanes et al. (2018) conducted a study in Norway on knowledge, attitudes, and practices of general practitioners (GP) who did or did not have asylum centers, around TB. This quantitative, non-experimental study was conducted with a cross-sectional survey of 30 questions assessing demographic data, TB knowledge, and attitudes and practice. GPs were chosen from Eastern Norway because this area accounts for 60% of the country's TB cases and the plurality of its municipalities with asylum centers. According to Aadnanes et al. (2018), "the questionnaire consisting of 30 questions was based on a KAP survey template." The template was adjusted to account for Norwegian language, environment, and national TB treatment guidelines that were reviewed by TB experts and municipal medical officers. A total of 195 GPs completed the survey of whom 42% worked in a municipality with an asylum center (Aadnanes et al., 2018). The response data were answered through SurveyMonkey and imported to SPSS 18. Analysis of variance (ANOVA) was used to analyze the differences in knowledge with the GPs working near or not near an asylum center (Aadnanes et al., 2018).

The survey resulted in a TB knowledge score of 8.3 ± 2.0 out of 14 total possible points. An adequate knowledge of TB was a score of 8 and above a 9 was considered

good (Aadnanes et al., 2018). No significant difference was found between those working in municipalities with asylum centers and those that do not. The specific questions related to signs and symptoms, chemotherapeutics, and proper procedures for screening of immigrants for TB had correct response rates of less than 35% (Aadnanes et al., 2018). The ease with which the research was conducted, and the size of the sample strengthened the findings. The calculated sample size was 247 participants and the actual size of 195 diminished the findings, However, this was still sufficient to conduct a statistical analysis (Aadnanes et al., 2018). Since Eastern Norway is the region with the highest TB burden it was selected, it is possible that results were artificially higher than a countrywide survey which would have included regions less afflicted and less familiar with the disease. Aadnanes et al.'s (2018) study did show a need for further education of providers. Providers must be well-versed in the disease they are treating if they are also to be culturally competent in supplying care.

Experiences of Minority Groups with IDs

Low-incidence industrialized countries continue to see growth in immigration. Among low-incidence TB countries, the rate of disease can be 10-20 times higher among immigrant groups compared to non-immigrants (Tomas et al., 2013). A significant disparity exists in how immigrants may come to a country. They may enter legally as workers, family members, refugees or asylum seekers, or students. Some may enter illegally due to conflicts or poor economic circumstances in their home country. Perceptions of TB can vary widely but may include misunderstanding about how the disease is transmitted and the nature of LTBI. Fear, stigma, embarrassment, isolation, and difficulty accessing healthcare related to TB also occur (Wieland et al., 2012). As with

TB, there are significant disparities between different cultural groups and infectious diseases such as people living with HIV (PLWH). According to Wali et al. (2019), migrants comprise less than 16% of the population of the European Union (EU) but account for 40% of PLWH. This disparity is observed in the US as well, though not as severe as the EU with PLWH born outside the country making up 16.3% of new HIV diagnoses when accounting for 13% of the total population (Prosser et al, 2012).

A qualitative study by Wieland et al. (2012) sought to identify the perceptions of TB in immigrants and refugees. In an ethnographic tradition, ten focus groups were conducted with 83 participants. Wieland et al. (2012) chose an adult education center in Rochester, NY, USA with an enrollment of 2,500 students along with 60 staff. Both students and staff were invited to take part, and only those from high-incidence TB countries were enrolled. Standard questions were developed to use in the audio-recorded focus groups with the goal of eliciting learners' perceptions of TB and perceived barriers to obtaining treatment (Wieland et al., 2012). Seven focus groups were conducted in English, two in Somali, and one in Spanish. The Somali-language focused group was conducted by a native speaker for one session, and the second session along with the Spanish session had medical translators. To analyze the themes elicited the researchers used NVIVO-8 software to code and sort them into the health beliefs model created for the study.

The researchers found significant misconceptions about the nature of the disease and 27 inaccurate statements were recorded about transmission and prevention that were not elicited by the researchers (Wieland et al., 2012). Four themes were identified about the groups' perceptions: fear of the disease and the consequences of a diagnosis; secrecy

and shame to avoid social consequences; isolation from others that break social ties and prevent access to healthcare; and lastly a belief that diagnosis was a punishment or curse that was divine in nature for past misdeeds (Wieland et al., 2012). The study was conducted in three languages with participants from a wide array of backgrounds giving it rich data in responses. Only one site was used for the study, and one of the Somali language sessions and the Spanish language session were conducted with medical translators, which is less ideal. Cultural nuances in language can be lost or misinterpreted which could weaken the quality of the results. The study showed the importance of religious and cultural factors in the care of TB patients as a factor in providing care.

Tomas et al. (2013) conducted a systematic review of available qualitative research to explore perceptions, knowledge, attitudes, and treatment adherence along with social consequences. Using an ethnographic approach, Medline, Scopus, JSTOR, and Embase were searched in English, French, and Spanish with 3,150 articles initially identified. After eliminating duplicates, reviewing titles and abstracts for relevancy, this was reduced to 200 which the researchers read the full text of and reduced to 30 for inclusion in the review. The findings were categorized into four groups. The first category was knowledge, attitudes, and beliefs about TB, which found low levels of knowledge about the disease and many, widespread misconceptions among respondents in the studies. The second category examined respondents' experiences seeking healthcare where concerns about its effect on immigration status, dissatisfaction or cultural differences with medical providers, and a desire to self-treat or self-medicate. The third category examined treatment and prophylaxis where reports of lack of awareness of free treatment, lack of sensitivity and ability to establish a relationship with

health care workers on the same cultural terms, and difficulty with medication side effects. The last category centered around social repercussions where reports of fear of stigmatization, the perception that health care workers would treat patients differently and diagnosis brought shame to the community or invited discrimination against immigrants (Tomas et al., 2012).

The strength of Tomas et al. (2012)'s study were a good sample size and the inclusion of French and Spanish studies along with English, and the use of four databases to conduct the search. Limiting the study were the variety of ways that qualitative research was conducted, such as focus groups or individual interviews, and trying to make common comparisons. There was an age limit applied to the studies reviewed with the oldest being from 1993 (Tomas et al., 2012). Conditions such as TB transmission rates, migration, and attitudes may have significantly shifted since this time. The review reveals common themes that are still applicable to TB care today such as the perception of the quality of care provided by health care workers and the importance of a relationship that is culturally appropriate.

Wali et al. (2019) conducted a systematic review to identify randomized controlled trials (RCT) that incorporated any intervention to improve treatment adherence as part of their treatment research. The review sought to evaluate how many of the RCTs did this according to a twenty-point tool used to evaluate the degree to which research is done from a culturally competent perspective. Some of the items included on this tool included whether research staff were representative of the cultural groups represented in the sample, if members of the cultural groups were involved in data analysis from the study, and whether data collection was framed to facilitate the cultural groups, among

others. The researchers used MEDLINE, EMBASE, and the Cochrane Database of Systematic Reviews to search titles and abstracts of RCTs and limited them to ones conducted in Organization for Economic Co-operation and Development (OECD) countries and published in English. From this search, 559 articles were found and a total of 80 RCTs were included in their analysis. From the twenty-point assessment tool the highest score was 12 for one RCT with a median score of 2.5 for all RCTs.

The review found that most HIV treatment adherence trials participants were not representative of the target population. The strength of this systematic review demonstrates that it is possible to evaluate the degree to which research is conducted from a culturally competent perspective. The difficulty, and a limitation of this review, is that there is a lack of standardization in how this is reported in these trials. For this review, the researchers had to search for information, such as demographics, manually to then compare it to the assessment tool used. The absence of basic information such as gender, ethnicity, or sexuality prevented the inclusion of many RCTs in the review. This makes it difficult to assess the cultural competence of research methods when this basic data is unavailable. From the RCTs that did include this basic data, the researchers were able to demonstrate that most did not have research samples proportional to the populations affected by HIV. At a minimum, the review demonstrates the need for future research to be more substantial in the demographic data they report about their sample sizes so that representativeness and culturally competent research can be more reliably evaluated.

Effects of Cultural Competency Training

Concerns from patients on how they are treated or perceived to be treated has been a theme found in the literature. The attitudes of health care workers towards cultural competency, training for it, and its utility are also critical to assess. A qualitative, ethnographic study conducted by Kaihlanen et al. (2019) sought perspectives of health care workers in taking a cultural competency course. At a large primary hospital in southern Finland, 14 registered nurses (RN) and six practical nurses (PN) from seven different inpatient units enrolled in a cultural competency training for four hours for four weeks that included lectures, discussions, and web-based activities (Kaihlanen et al., 2019). Of the 20 initial enrollees, 10 participated in semi-structured, small group interviews that examined their views on the quality and usefulness of the training. Researchers with a background in nursing conducted audio-recorded interviews which lasted between 30-40 minutes. The transcripts from audio were then coded by the researchers into themes and subthemes.

The first theme Kaihlanen et al. (2019) identified was the general utility of training where the participants expressed satisfaction with identifying cultural competence issues in broader sense outside of health care settings. The second theme was utility on a personal level where the participants identified changes in their own thinking and how it could be employed in their practice. The third theme focused on its utility for patients where the participants felt an improved awareness of different cultural features of their patients. The fourth and fifth themes pertained to the quality of the training and improvement suggestions, respectively. They reported satisfaction with the training, but also suggested including people from different ignorant groups, among other suggestions.

The strength of this study included its rich, detailed responses from the focus groups, but weakening it was a small sample size (n=20) of which only half (n=10) took part in the focus groups, and those that took part may have already had a positive view of the subject (Kaihlanen et al., 2019). The study did demonstrate receptiveness among these health care workers, and specifically nurses, to such an intervention even if its generalizability is weak.

A RCT conducted by Lin and Hsu (2020) sought to examine the effect of cultural competency training on nurses' self-assessment of their cultural competence in care. At a medical center in northern Taiwan, researchers used G Power.31 software to estimate a suitable sample size out of 1,228 registered nurses (RN) which yielded 82 participants. These RNs must have received formal nursing education and have been working for at least one year. The researchers adjusted the final sample to 100 to account for a potential attrition rate of 20% (Lin & Hsu, 2020). A permuted block of four was used to assign random numbers to the participants to divide them into the experimental and control groups. Single blinding was employed where the researchers did not know who was in the control or experimental group. Both groups completed a pre-test (T0) for baseline data and the experimental group received 12 hours of cultural competence training in the form of lectures over four weeks (Lin & Hsu, 2020). A posttest was completed after the four weeks (T1) for both groups along with another at the eight-week mark (T2). The data analysis was conducted with IBM SPSS 20.0 (Lin & Hsu, 2020).

The results showed a small difference in knowledge at T0 with the experimental group scoring slightly lower (3.09) than the control group (3.11). After the cultural competence training course, the experimental group scored higher (3.17 at T1 and 3.23 at

T2) than the control group (3.04 at T1 and 3.17 at T2) (Lin & Hsu, 2020). A total of three participants dropped out, all from the experimental group, strengthening the study's results with a sample size larger than was estimated to be needed. The nature of randomized controlled trials diminishes its generalizability to health care workers, and specifically nurses, along with the fact that the trial occurred in a single medical center in northern Taiwan. However, its demonstration of increased knowledge scores among nurses receiving training is highly relevant to this literature review.

Conclusion

The effect of cultural competency training on health care workers and their receptiveness to it is supported by research in this literature review. The review also demonstrates the area of global health will continue to become more relevant in practice for providers in countries where diseases from various parts of the world are changing typical epidemiologic patterns. The greater movement of people between countries assures that infectious diseases that already show disparities in its burden among different cultural groups, will continue to bring this issue to the forefront of practice. The views, experiences, and opinions of various immigrant groups are critical to establishment of a cultural competency training program and the views of health care workers, and specifically nurses, must also be incorporated. The effects of cultural competency training of public health nurses on nurses' knowledge and rates of treatment compliance among foreign-born adults with tuberculosis disease or infection remains an important topic for further research.

Conceptual/Theoretical Framework

The guiding theory for the research question being presented is Madeleine Leininger's Culture Care Theory. This theory has been formulated since the mid-1950s and was first introduced in 1991 through the publishing of her first book, *Culture Care Diversity and Universality* (Leininger, 2002; McEwen & Willis, 2018). Leininger asserted that the core of nursing was caring and "There can be no curing without caring but caring could exist without curing" (Bhat et al., 2015). Leininger identified that knowledge related to culture care in a growing and ever more diverse world is crucial to a nurse's success. Through this knowledge, the theory's central purpose is to identify and explain universal and diverse factors based in culture that influence health, well-being, illness, and death.

The Sunrise Model was created to illustrate these factors and their relationship to patient care. Seven factors are identified in Leininger's Sunrise Model: (a) educational; (b) economic; (c) political and legal; (d) cultural values, beliefs, and lifeways; (e) kinship and social factors; (f) religious and philosophical; and (g) technological factors (Leininger, 2002). Through identification of these factors, the theory's purpose is for them to be incorporated into practice to provide meaningful and successful care. Three modes to provide culture care in practice emerged in the theory: (a) culture care preservation and/or maintenance; (b) culture care accommodation and/or negotiation; and (c) culture care repatterning and/or restructuring (Leininger, 2002). These modes provide a basis to implement proposed interventions that account for the seven factors in the Sunrise Model for future research involving culture care.

Street et al. (2013) used Leininger's theory on culture care in a qualitative study to explore cultural factors affecting the decision to breastfeed among African American and white women. One hundred eighty-six women were interviewed of which 119 were white and 67 were African American. Influences of family, known benefits of breastfeeding, influences of friends, and personal choice emerged as the main themes influencing breastfeeding initiation in participant responses. The researchers coded participant responses and tied them to factors from the Sunshine Model with educational and kinship/social factors as the most significant (Street et al., 2013). The researchers identified that nurses caring for pregnant women must inquire about the role of culture in any breastfeeding discussion. Though less significant to the main themes, cultural values, beliefs, and lifeways along with technological factors were also identified as playing a role in breastfeeding initiation (Street et al., 2013).

McCullagh et al. (2015) conducted a small, qualitative study in Michigan with six migrant seasons farmworkers to assess cultural health practices. Serving as the organizing framework for the study, the Sunrise Model was used to analyze themes generated from participant interviews. The research revealed economic factors as the most significant determinant of healthcare utilizations (McCullagh et al., 2015). Many of the farmworkers did not have health insurance and so care was prohibitively expensive. Though not singled out by the researchers, the educational factor was present in the responses. Many of the farm workers reported prolific self-medication with over-the-counter drugs; mostly non-steroidal anti-inflammatory drugs (NSAID). This was primarily influenced by economic factors but undeniably had an educational aspect with the risks of high-dose or long-term use of NSAIDs not being known to the workers. Most importantly, when

compared with Street et al. (2013) this study reinforces the appropriateness of choice for Culture Care Theory as the guiding framework for the proposed study. This is due to the model's clear defining of the seven factors and their consistent use in terms of understanding between the two studies analyzed (McEwen & Willis, 2018).

Methods

Purpose

The purpose of this research project was to assess the effect of cultural competency training on the self-confidence of public health nurses in the subject. The goal of the Educational Intervention is to promote greater cultural competence to provide better patient care and increase the likelihood of success in an infectious disease investigation.

Design

The quasi-experimental design of this research project included a pre-test, educational intervention, and posttest with one group. The tests were used to evaluate if the educational intervention increased public health nurses' self-confidence in the subject during infectious disease investigation. The Iowa Model of Evidence-Based Practice was used to inform the design and operation of this educational intervention. It was chosen due to its origination at the University of Iowa Hospital system specifically as a tool for nurses to use research findings to improve patient care (Iowa Model Collaborative, 2017). The Iowa Model supplies a pathway for the evaluation of the clinical issue this study identified. Through the model, the clinical question has been identified, a search for evidence has been conducted, the evidence has been evaluated, and the educational intervention and subsequent evaluation of the evidence from the intervention are the subject of this project.

Sample/Site

The study used a convenience sampling plan whereby all members of the Massachusetts Association of Public Health Nurses' (MAPHN) Southeast Chapter were

invited to participate in the research during a regularly scheduled meeting on November 1st, 2022. The invitation to participate in the educational intervention and research study was announced through an email listserv by the MAPHN Southeast Chapter president in a regularly scheduled reminder about the upcoming meeting (Appendix A & B).

Inclusion criteria included any public health nurse that is currently responsible for infectious disease investigation at the state or local level. The exclusion criteria included those members who had not yet completed an infectious disease investigation.

Procedures & Measurement

PHNs in Massachusetts work in a variety of settings such as municipal, county, and state government. Job responsibilities and daily work schedules vary dramatically therefore the decision was made to hold the educational intervention during a regularly scheduled professional meeting. PHNs are generally supported in their participation of professional organizational activities, such as MAPHN, and most participants were expected to have time to complete the posttest, the sole part of the research being done outside of the meeting, during their daily work. There was the potential for a minority of participants needing to complete the posttest in their own time, depending on the needs of their individual employer, and this time was not compensated. Nurses who completed the educational session were eligible for continuing education credits required for license renewal.

The study proposal was submitted to the executive committee of MAPHN's Southeast Chapter for their approval and a letter of support for the project was obtained (Appendix C). After approval, members of MAPHN were sent an email explaining the purpose of the study, the potential risks and benefits, the measures undertaken to

maintain confidentiality, the estimated time required to participate, and that informed consent is implied by virtue of participation along with a written disclosure on the day of the meeting (Appendix D).

The pre-test and posttest was based on the Confidence in Managing Challenging Situations (CMCS) Scale developed by Walsh et al. (2021). The CMCS consists of two sections of questions measuring self-confidence, the first with 9 questions and the second with 12, where participants use a 5-point Likert scale where 4 equals “high confidence” and 0 equals “no confidence” (Walsh et al., 2021). Only the first section of questions was used for the testing due to their applicability to the specific nature of infectious disease investigation. The CMCS assigns scores of 0-29 as “low confidence,” 30-60 as “confident,” and 61-84 as “high confidence.” Since 12 of the 21 questions in the scale have been eliminated, the tabulated responses of the participants were multiplied by 2.33 to be rated in the CMCS’s original scale (Appendix E).

Prior to the beginning of the educational session, all participants drew a folded paper having a number between 1 and 50 from a basket with what was to be their assigned number for the pre and posttest. The MAPHN Southeast Chapter president distributed two sign-in sheets prior the educational session. The first sheet asked for the participant’s email and assigned number. This sheet was kept by the MAPHN president and was not viewed by or came into the possession of the co-investigator at any time. The MAPHN president kept this list in a locked drawer in her office for use if a participant forgot their assigned number when completing the posttest.

Those not wishing to participate and only wanting to obtain CE credit were instructed not to write their name and email address. The second sheet passed around was

an email sign up to receive the posttest via a Qualtrics survey and the sheet was handed directly back to the MAPHN president for verification that no participant had written their assigned number on the sheet. Those not wishing to participate in the research and only wanting to obtain CE credit will were instructed not to write their name and email address. The list was then placed in a sealed manilla envelope that the co-investigator stored in a lockbox in their home office.

All participants were given a paper pre-test with the nine-question self-confidence scale to write their participant number on and complete the survey. Participants were instructed to blank their survey if they do not wish to participate in the research and only obtain the CE credit. The MAPHN Southeast Chapter president collected the written surveys and placed them in a manila envelope, sealed it, and returned it to the co-investigator at the conclusion of the session. This manilla envelope was stored in a lockbox in the co-investigator's home office.

At the conclusion of the educational session participants were given a paper certificate for their CE credit where they wrote in their own names. Two weeks after the conclusion of the educational intervention the posttest was sent to the participants via email. A single email reminder was sent five days after the posttest was initially distributed reminding any who have not taken the survey to please do so. One week after the Qualtrics survey was sent, the survey closed.

Institutional Review Board

As this study involved human subjects, it was submitted for and received approval from the Rhode Island College Institutional Review Board (IRB) on an exempt status (Appendix F). Exempt review was sought as the study involved minimal risk to the

participants, was voluntary, and none of the PHNs invited were identified as being from vulnerable populations.

Ethical & Human Subject Considerations

The ethical considerations for this study were satisfied consistent with the Belmont Report guidelines. Respect for persons was maintained by voluntary participation of subjects with the right to withdraw at any time. The risk for undue influence was low as MAPHN is a professional organization, not an employer, and the researcher had no authority over participants. Informed consent was obtained via the invitation email or informational letter which made clear to subjects that completing the survey implied consent through an additional written statement given on the day of the educational intervention. The risk of participation was low as there was no foreseen possible harm and a potential benefit associated with the cultural competence course consistent with beneficence. The potential benefit of the cultural competence course was made known to all participants and with no potential harm the risk to justice is low (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). The pre-test was conducted with a paper form where only the participant number was written and not identifiable by the researcher. Data without identifying information was stored on a password-protected flash drive with 128-bit encryption in the possession of the researcher to maintain maximal confidentiality. The flash drive was stored in a locked file cabinet in the researcher's home office. Information from the posttest conducted via Qualtrics was not identifiable by the researcher based on the participant number not being known to them. The data from the posttest was stored on the same, encrypted flash drive as the pre-test data.

Educational Session

The educational session used was Self-confidence of Public Health Nurses in Cultural Competency During Infectious Disease Investigation continuing education (CE) session. This educational session was created by the co-investigator and received approval for 1 CE credit from the Northeast Multistate Division (NEMSD). The session was created with desired learning outcomes of: 1) participants being able to use the RESPECT model, a tool developed by the United States Office of Minority Health for assessing patient encounters for cultural competency; 2) being able to identify facilitators and barriers to culturally competent care, and; 3) being able to identify ways to incorporate cultural competence into said encounters (Appendix G). The session was delivered in-person at a regularly scheduled MAPHN chapter meeting on November 1st, 2022, and consisted of content lecture, group work, and question and answer sessions (Appendix H). Nurses who completed the session were eligible for one hour of CE credit that may be credited toward their biennial Massachusetts nursing license requirements. The session was offered for free and those that did not wish to participate in the research project were still able to obtain the CE credit.

Data Analysis

The CMCS's Likert-style questions were analyzed pre and posttest for improvement in nurses' self-confidence in cultural competency during infectious disease investigation. With a hypothesis that training will have an effect on nurses' culture competence proficiency and a null hypothesis that it will not, a t-test was performed on the 9 questions of the CMCS utilizing IBM SPSS 29 statistical software.

Evaluation and Dissemination

The results of the findings were disseminated to all MAPHN's Southeast Chapter members, which by design included the participants. Consistent with the Iowa Model, if findings support the hypothesis, then practice changes will be explored with the executive committee. Practice changes will then be evaluated in consultation with the Massachusetts Department of Public Health Bureau of Infectious Disease Tuberculosis Control Program, the organization of the state that can require implementation. With the hypothesis supported, this intervention may be implemented statewide to increase overall confidence of public health workers in cultural competency. Lastly, the findings will be published as this writer's major paper and will therefore be available in Rhode Island College's Digital Commons and presented at the end-of-semester major project presentation session. This study may provide the impetus for other areas of nursing to explore the need for culture competence training.

Results and Discussion

A convenience sample (n=15) was obtained at the November 1st, 2022, Southeast MAPHN Chapter meeting. All fifteen attendees completed the pre-test and 73% (n=11) completed the posttest. From the randomly selected numbers the pre-test of those that did not complete the posttest or entered an invalid number were excluded (n=4). A paired t-test was conducted on pretest and posttest data to examine the effect of the cultural competency continuing education credit. The mean self-confidence score increased from the pre-session (M=56.34, SD \pm 12.32) to the post-session (M=67.99, \pm 8.45), t=2.85, one sided p =.009 as seen in Figure 1. Notably, the pretest mean score of the group would be rated as “confident” according to the CMCS scale and the mean score of the posttest increased to “high confidence.” The mean increase in scores was 11.65, or a 21% increase, with a 95% confidence interval of 7.77 to 15.53.

Figure 1. Pretest and Posttest Means

	N	Mean \pm SD	t	df	p
Pre-test	11	56.34 \pm 12.32	2.85	10	.009
Posttest	11	67.99 \pm 8.45			

The first question of the pretest and posttest asked what number the participant drew while questions two through 10 reflect the CMCS seen in appendix A. For the purposes of discussion of the results, the nine question CMCS scale is described as

questions one through nine reflecting questions two through ten on the actual pre and posttest completed.

The aggregate responses of the pretest and posttest for each question were also calculated for statistical significance. Questions 1, 4, 6, 7, and 8 had p values of <0.05 while questions 2, 3, 5, and 9 had p values exceeding this as seen in Figure 2. The questions that reached statistical significance were those that the nurses rated themselves lower in confidence in their pretest and those that did not reach statistical significance were questions that nurses rated themselves highly on.

Figure 2. Pretest and Posttest Means by Question

Question	Pre-test	Posttest	Paired samples t-test		
	M	M	SD	t	p one-sided
Q1	4.024	5.931	3.265	1.936	0.041
Q2	6.99	7.41	1.749	0.803	0.220
Q3	6.143	7.202	2.177	1.614	0.069
Q4	5.719	7.202	2.154	2.283	0.023
Q5	7.414	8.261	2.154	1.305	0.111
Q6	6.355	7.837	2.609	1.884	0.044
Q7	6.990	8.473	2.154	2.283	0.023
Q8	5.931	7.837	2.914	2.170	0.028
Q9	6.778	7.837	2.827	1.242	0.121

Questions 2, 3, 5, and 9 asked the nurses to rate their confidence: (1) promoting the health, well-being, rights, and dignity of people; (2) advocating on behalf of patients

and clients & recognizing and managing any ethical challenges presented (3) building therapeutic relationships with people; (4) being self-aware and recognizing how values, principles, and assumptions affect practice, respectively. These questions did not reach statistical significance through t-testing but did have a mean increase in score from pretest to posttest as seen in Figure 3.

Figure 3

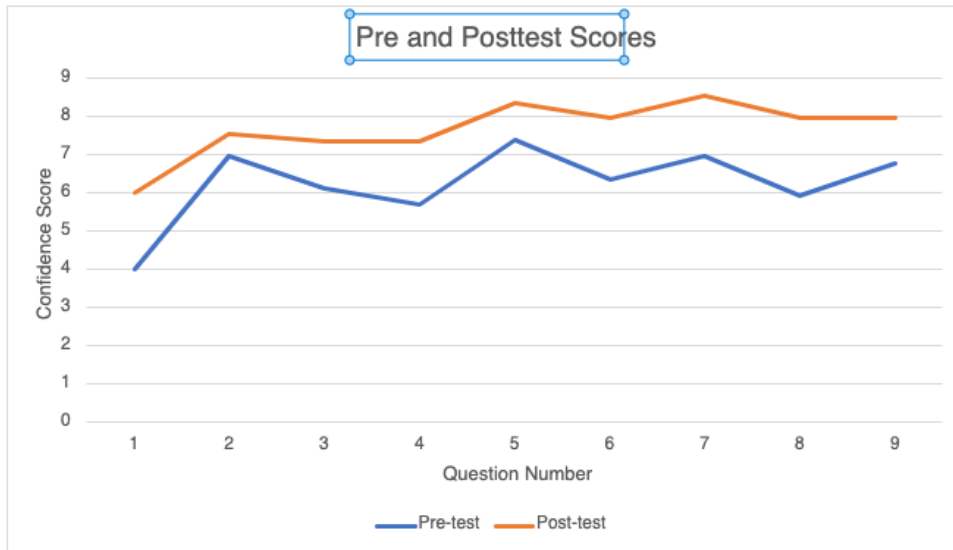
	Mean Pretest	Mean Posttest	Percentage Change
Questions 2, 3, 5, 9 (p >0.05)	6.831	7.678	+12%
Questions 1, 4, 6, 7, 8 (p <0.05)	5.804	7.456	+28%

Questions 1, 4, 6, 7, and 8 asked the nurses to rate their confidence: (1) understanding the legislation relevant to the protection of vulnerable adults; (2) working with service users, carers, and families; (3) enabling patients and clients to make their own decisions and choices; (4) recognizing when people are anxious or in distress and responding effectively; (5) in acting as a change agent and providing leadership to enhance peoples wellbeing, respectively.

Question 1 had the lowest posttest mean score at 5.931 as seen in Figure 4. This supports further expansion on legislation relevant to the protection of vulnerable adults as part of the continuing education credit used for the educational intervention. Questions 3 and 4 both had the next lowest posttest mean score of 7.202 which indicates that advocating on behalf of patients and clients & recognizing and managing any ethical

challenges presented and working with service users, carers, and families also have opportunity for the educational intervention to address with greater breadth.

Figure 4. Pretest and Posttest Confidence Score Mean by Question



Summary and Conclusion

The results of this research support cultural competency training of public health nurses. Though the small sample size (n=11) was a limitation, the data gathered support the value of this intervention along with areas for improvement or expansion. Firstly, the data from this group support the continued use of the modified CMCS scale for measurement of confidence in cultural competency interventions. This provides researchers with a valuable alternative to the Cultural Competency Assessment (CCA), a far lengthier measurement tool developed by Schim et al (2003) that is still dominant in cultural competency research. It would behoove future research utilizing the modified CMCS scale to develop an alternate method of randomly assigning numbers for pretest and posttest data comparison. Two post-tests had to be excluded from the results because they reported the same assigned number for the posttest, and one was excluded for reporting a number that was never assigned further limiting the research. Combining values that the participant could remember but remain sufficiently non-identifiable, such as the first letter of town you were born in, and the last four digits of your childhood phone number could be one alternative.

Despite these limitations, the mean improvement between pretest and posttest scores and their overall statistical significant support the value of the quality improvement project. The data provide a pathway for expansion of the topic along with lessons to mitigate some of the limitations encountered in this research. The expansion of this project, and its applicability outside of the niche world of infectious disease investigation, can also be inferred. The applicability of cultural competency to other areas

of practice is supported by existing research and supported by continued demographic changes in all areas of healthcare.

Implications and Recommendations for Advanced Nursing Practice

The literature review and demonstrated improvement in confidence seen in this research indicate a gap in confidence in and knowledge of culturally competent care. Advanced practice registered nurses (APRN), and advanced public health nurses (APHN) in particular, are in key positions to effectuate change within their respective areas of practice. The hallmark of public health nursing practice is identifying the needs of a population and designing interventions to address them. The APHN focuses on improving the systems which we use to promote the public health and recognizing that achievement of this goal requires frequent adjustment and evaluation.

Increasing culturally competent care is not a goal isolated to the realm of the APHNs. Though this research project targeted the unique field of governmental public health nurses during ID investigations, the goal of culturally competent care applies to all sectors of nursing and healthcare. The American Nurses Association (ANA) identified the provision of culturally competent care as one of their 17 standards of practice (Marion et al., 2016). The ANA emphasizes the intrinsic, holistic nature of practice that encompasses nursing of which incorporating cultural needs is a key component. The provision of a culturally competent workforce of nurses is a goal that may be met in part through the expansion of education-focused projects such as this research to other areas of nursing.

The United States Department of Health and Human Services' Healthy People 2030 initiative places a strong emphasis on social determinants of health (SDOH) and measures to reduce and ultimately eliminate health disparities (Office of Disease Prevention and Health Promotion, n.d.). The literature review for this research has

demonstrated a wide range of disparities focused on ID. Disparities in countless other areas of health measurement such as rates chronic disease, oral health, and substance use exist and research projects such as this may be adaptable to the unique practice environment of the nurse. The principal goal of Healthy People 2030 is to reduce the health disparities we see across the healthcare system and thus require culturally competent care to be better incorporated into other areas of nursing in the pursuit of this goal.

The United States has always been undergoing demographic changes because of immigration from different parts of the world at different times in history. It was remarked by several members of MAPHN's Southeast Chapter that they had recently received refugees from the Afghanistan and Ukraine conflicts. Continued rapid globalization, economic pressures, disease, famine, and armed conflict have and will continue to increase contact between peoples of vastly different cultural backgrounds. This fact means it is a duty of the APHN, and nurses throughout our healthcare system, to incorporate cultural competency as a facet to all individual, population, or public health-level interventions. Nurses must be encouraged and supported to engage in further cultural competency interventions to better prepare their peers and the systems in which they work to meet this the sublime goals of Healthy People 2030 and the ANA standards of practice.

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Appendix A

Recruitment Letter



Rhode Island College
Zvart Onanian School of Nursing
RI Nursing Education Center
600 Mt. Pleasant Ave
Providence, RI 02908
August 23, 2022

Dear Members:

My name is Nicholas Crowninshield and I am a Master of Science in Nursing (MSN) student at Rhode Island College and member of the Massachusetts Association of Public Health Nurses (MAPHN). As part of my degree requirements, I am completing a research project to measure the self-confidence of public health nurses in the subject of culture competency as it pertains to infectious disease investigation. At the regularly scheduled MAPHN chapter meeting on November 1st, 2022, I will conduct a one-hour training session for which one continuing education credit (CE) will be offered.

The training session will involve completion of a nine question pre-test which will be completed on site immediately prior to the education session. Two weeks following the education session the same nine question survey will be sent to you via email and serve as the post-test to measure for any difference in self-confidence in the education subject.

The pre and post-test are anonymous, no personally identifiable information will be collected, and these tests will be analyzed for aggregate (group) data only. There are no foreseeable risks to participation in this study and you have the right to refuse participation or withdraw at any time without penalty. The data collected will be analyzed by me and included in my final project submission in written form. Your participation in the research project is greatly appreciated, however it is not required to receive the CE credit.

I sincerely hope you will agree to participate and want to thank the members of our chapter of MAPHN for welcoming me into this forum for this project. If you have any questions or concerns you may reach me at ncrowninshiel_5315@email.ric.edu or 401-484-2389. My faculty advisor, Lynn P. Blanchette PhD, RN, PHNA-BC is also available at lblanchette@ric.edu

Sincerely,

Nicholas Crowninshield, BSN, RN

This nursing continuing professional development activity was approved by the Northeast Multistate Division Education Unit, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation

Appendix B
Recruitment Flyer

**PUBLIC HEALTH NURSES WANTED FOR CULTURE
COMPETENCY TRAINING – CE CREDIT AVAILABLE**

Self-Confidence of Public Health Nurses in Culture Competency During Infectious Disease
Investigation 

I am seeking registered nurses that currently serve as Public Health Nurses (PHN) in Massachusetts to participate in a culture competency training as part of my master's degree final project at Rhode Island College. The training will take place during a regularly scheduled MAPHN chapter meeting on November 1st, 2022. Your participation in the research project is greatly appreciated, however it is not required to receive the CE credit.

Participation Includes:

- 1 Pre-training questionnaire (10 minutes)
- 1 face-to-face training session on culture competency (60 minutes)
 - 1 Program evaluation for CE (10 minutes)
- 1 Post-training questionnaire, two-weeks after training session (10 minutes)
 - Total time commitment: 1 hour, 30 minutes

This nursing continuing professional development activity was approved by the Northeast Multistate Division Education Unit, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.

This research is being conducted under the supervision of Lynn P. Blanchette, PhD, RN, PHNA-BC lblanchette@ric.edu

with approval from:
Tiffany Zike, MPH, RN
tzike@needhamma.gov

my contact information:
Nicholas Crowninshield, BSN, RN
ncrowninshiel_5315@email.ric.edu

Appendix C

Institutional Letter of Support



Massachusetts Association of Public Health Nurses

Rhode Island College
Institutional Research Board
600 Mount Pleasant Avenue
Providence, RI 02908

August 5, 2022

To whom it may concern,

This letter is provided as agreement to serve as a collaborating agency on Nicholas Crowninshield's research project titled "*Cultural Competency of Public Health Nurses and Tuberculosis Treatment Adherence*" which will involve project promotion and recruitment, informational meeting(s), pre- and post-survey, and an educational session. The student will be supported to use MAPHN-Southeast Chapter's virtual and quarterly in-person conferences as a site for participants. MAPHN-Southeast Chapter's in-person meetings rotate between different venues on the metro Boston area.

Our organization is completely supportive of this opportunity to support Mr. Crowninshield's work in whatever way we can and look forward to the project outcomes.

Sincerely,

Tiffany Zike, MPH, RN
President- Southeast MAPHN Chapter

Appendix D

Day of Project Statement



Rhode Island College
Zvart Onanian School of Nursing
RI Nursing Education Center
600 Mt. Pleasant Ave
Providence, RI 02908
July 25, 2022

Dear Members:

My name is Nicholas Crowninshield and I am a Master of Science in Nursing (MSN) student at Rhode Island College and member of the Massachusetts Association of Public Health Nurses (MAPHN). As part of my degree requirements, I am completing a research project to measure the self-confidence of public health nurses in the subject of culture competency as it pertains to infectious disease investigation. At the regularly schedule MAPHN chapter meeting on November 1st, 2022, I conduct a one-hour training session for which one continuing education credit will be offered.

The training session will involve completion of a nine question pre-test which will be completed on site immediately prior to the education session. Two weeks following the education session the same nine question survey will be sent to you via email and serve as the post-test to measure for any difference in self-confidence in the education subject.

The pre and post-test are anonymous, no personally identifiable information will be collected, and these tests will be analyzed for aggregate (group) data only. There are no foreseeable risks to participation in this study and you have the right to refuse participation or withdraw at any time without penalty. The data collected will be analyzed by me and included in my final project submission in written form.

I sincerely hope you will agree to participate and want to thank the members of our chapter of MAPHN for welcoming me into this forum for this project. If you have any questions or concerns you may reach me at ncrowninshiel_5315@email.ric.edu or 401-484-2389. My faculty advisor, Lynn P. Blanchette PhD, RN, PHNA-BC is also available at lblanchette@ric.edu. The Rhode Island College Institutional Review Board is reachable at 401-456-8672 and IRB@ric.edu.

Sincerely,

Nicholas Crowninshield, BSN, RN

Appendix E

Adjusted CMCS Confidence Scale

Q1 What is the number you drew at the training on November 1st, 2022? (**write response**)

Please **circle** your response for the remaining questions

Q2 What is your level of confidence in understanding the legislation relevant to the protection of vulnerable adults?

- No Confidence (0)
- Little Confidence (2.33)
- Some Confidence (4.66)
- Confidence (6.99)
- High Confidence (9.32)

Q3 What is your level of confidence in supporting and promoting the health, well-being, rights, and dignity of people?

- No Confidence (0)
- Little Confidence (2.33)
- Some Confidence (4.66)
- Confidence (6.99)
- High Confidence (9.32)

Q4 What is your level of confidence in advocating on behalf of patients and clients & recognizing and managing any ethical challenges presented?

- No Confidence (0)
- Little Confidence (2.33)
- Some Confidence (4.66)
- Confidence (6.99)
- High Confidence (9.32)

Q5 What is your level of confidence in working with service users, carers, and families?

- No Confidence (0)
- Little Confidence (2.33)
- Some Confidence (4.66)
- Confidence (6.99)
- High Confidence (9.32)

Q6 What is your level of confidence in building therapeutic relationships with people?

- No Confidence (0)

Little Confidence (2.33)
Some Confidence (4.66)
Confidence (6.99)
High Confidence (9.32)

Q7 What is your level of confidence in enabling patients and clients to make their own decisions and choices?

No Confidence (0)
Little Confidence (2.33)
Some Confidence (4.66)
Confidence (6.99)
High Confidence (9.32)

Q8 What is your level of confidence in recognizing when people are anxious or in distress and responding effectively?

No Confidence (0)
Little Confidence (2.33)
Some Confidence (4.66)
Confidence (6.99)
High Confidence (9.32)

Q9 What is your level of confidence in acting as a change agent and providing leadership to enhance peoples' wellbeing?

No Confidence (0)
Little Confidence (2.33)
Some Confidence (4.66)
Confidence (6.99)
High Confidence (9.32)

Q10 What is your level of confidence in being self-aware and recognizing how values, principles, and assumptions affect practice?

No Confidence (0)
Little Confidence (2.33)
Some Confidence (4.66)
Confidence (6.99)
High Confidence (9.32)

Thank you!

Appendix F

Rhode Island College Institution Review Board Approval

12/3/22, 5:23 PM

Mail - Crowninshield, Nicholas K. - Outlook

From: NoReply@TOPAZTI.net <NoReply@TOPAZTI.net>
Sent: Friday, August 12, 2022 12:22:02 PM
To: Blanchette, Lynn P. <lblanchette@ric.edu>; Institutional Review Board - Rhode Island College <irb@ric.edu>
Subject: IRB: #2223-2334 (Blanchette, Lynn) approved

Greetings,

The proposal for the project referenced below has been DETERMINED EXEMPT by the Institutional Review Board (IRB).

You can use the letter you drafted but have copies to give participants with IRB contact information.

Project title: Self-confidence of public health nurses in culture competency during infectious disease investigation

Approval #: 2223-2334
Type of review: EXEMPT
Proposal type: Original
Principle Investigator: Blanchette, Lynn
Fees received: 1. No fees -- RIC supervised or sponsored
Funding status:

You do not need to submit any renewals for this project.

An exemption is not the same as approval. This protocol has been reviewed to ensure it meets the criteria for an exemption, but it has not been reviewed for approval. Investigators are encouraged to adhere to the same ethical standards of research for non-exempt research. References to the IRB status cannot say that it was **approved**, but must say that the study was determined to be Exempt from Continuing Review. Any changes to the scope or methods of your research may change its status and must be reviewed by the IRB before implementation.

Best Regards,

Emily Cook, Ph.D.
Professor
Chair, IRB
Rhode Island College
IRB@ric.edu

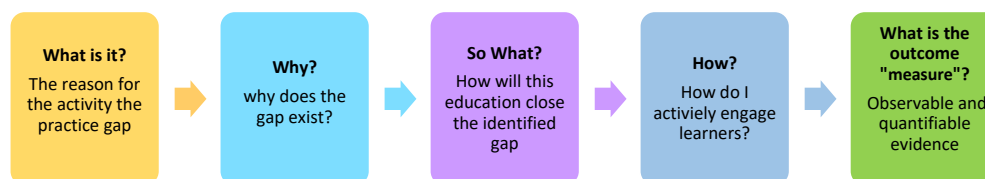
Appendix G

Educational Design Process

EDUCATION DESIGN PROCESS – ANSWER THESE QUESTIONS AS YOU PLAN YOUR PROGRAM

A. Identify the target audience for the education activity. (Check all that apply)

- Registered Nurses - RNs
- Advanced Practice Registered Nurses - APRNs
- RNs in Specialty Areas (Identify Specialty): _____
- Interprofessional e.g., Pharmacists, social workers, Physicians - (Describe): _____
- Other-Describe: _____



**Dickerson, P. (2018). Differentiating outcomes and objectives. Handouts, Sigma Nursing Repository.

B. Desired learning outcome(s): (What will the outcome be as a result of participation in this activity?)

Outcomes are measured to determine the impact of educational activities on patient care and professional development of the learner. TIP: Specific outcomes related to this activity must be documented in the space provided. (See [Outcomes vs Objectives](#))

Desired learning outcome(s)

- At the conclusion of the activity, public health nurses will be able to:
 - o Apply the seven points of the RESPECT model for culturally competent care.
 - o Provide an example of one facilitator or barrier to care due to cultural differences in patient encounters.
 - o Identify one way to incorporate cultural enablers or barriers for patient encounters.

Area of impact (check all that apply):

- Nursing Professional Development Patient Outcome Other- Describe:

N. Outcome Measure(s): (A quantitative statement as to how the outcome will be measured to assess the impact of this educational activity in closing the identified gap):

The outcome measurement should provide evidence that the gap has been closed.

- 80% of public health nurses will report the ability to apply RESPECT tool to patient encounters
- 80% of public health nurses will be able to identify one barrier to related to culture competency
- 80% of public health nurses will be able to identify one way to incorporate a culture competency facilitator to patient care

Appendix H

Educational Planning Table

Q. EDUCATIONAL PLANNING TABLE (LIVE & ENDURING)

<i>NOTE: If the activity is 3 or more hours, a full agenda timeline from registration to closing is also required. If desired, attach a copy of the program flyer for the timeline</i>			
CONTENT of Activity	TIME FRAME	PRESENTER/ FACULTY/AUTHOR	LEARNER ENGAGEMENT STRATEGIES
Provide an outline of the content to be presented, related to each learning outcome, in sufficient detail to determine consistency with learning outcomes, selected learner engagement strategies and appropriate time allotted. <i>(Restatement of learning outcomes does not meet the criteria)</i>	List the number of minutes for each topic/ content area and/ or active learner engagement strategies:	R List the presenter, faculty person or author for each content area.	List the learner engagement strategies to be used by Faculty, Presenters, Authors <i>Examples:</i> Question/Answers, Audience response system, Role Play, small group discussion, analyzing case studies, think pair-share, time for reflection, discussion groups <i>TIP:</i> A slide presentation using PPT is not a learner engagement strategy.
Introduction – introduce presented, reason for	10:55 AM – 11:00 AM (5 minutes)	Nicholas Crowninshield, BSN, RN	Lecture
Demographic change in the United States, definitions	11:00 AM – 11:05 AM (5 minutes)	Nicholas Crowninshield, BSN, RN	Group Discussions
Presentation of RESPECT tool to patient interactions, culture facilitators/barriers identified using tool	11: 05 – 11:30 AM (20 minutes)	Nicholas Crowninshield, BSN, RN	Questions/answers
Case Study discussion applying RESPECT tool	11:30 AM – 11:50 AM (20 minutes)	Nicholas Crowninshield, BSN, RN	Case study analysis, Role Play
Questions/Discussion	11:50 AM – 12:00 PM (10 minutes)	Nicholas Crowninshield, BSN, RN	Questions/answers