

**AN EVALUATION OF HEALTH LITERACY EDUCATION: EFFECTS ON
CULTURAL COMPETENCE, KNOWLEDGE AND ATTITUDES OF
ASSOCIATE DEGREE NURSING STUDENTS**

by

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Abstract

Health literacy and cultural competence in healthcare are now a priority focus of major health organizations. Healthcare professionals realize that patient-centered care is dependent upon clear communication and understanding. Due to the limitations in teaching time available and the amount of information that needs to be covered, student nurses receive minimal education on health literacy and communication methods with limited English Proficient (LEP) patients. This project focused on the development of an educational program for second year Associate Degree Nursing (ADN) students in order to increase cultural competency and health literacy prior to entering the clinical area. This program included learning about Health Literacy, patient assessment models, cultural differences in communication methods, and self-awareness with an expected outcome of increased cultural competence of nursing students. This project used the *Inventory for Assessing the Process of Cultural Competence among Healthcare Professionals – Student Version* (IAPCC-SV) as a measurement tool of students' cultural competence and health literacy proficiency. The evaluation process used a pre and post-survey method. The result of this project revealed that the provided educational program increased students' knowledge from *culturally aware* to *culturally competent* and *culturally proficient* as measured by the IAPCC-SV.

Keywords: *cultural competence, health literacy, limited English proficient, nursing education, patient-centered care*

Dedication

I would like to dedicate my work to the Associates Degree in nursing class of 2014. They have truly been an inspiration to me and have kept me focused on my educational goals. Their positive attitude and love of learning has made this project possible.

“Let whoever is in charge keep this simple question in her head (not, how can I always do this right thing myself, but) how can I provide for this right thing to be always done?”

– Florence Nightingale, *Notes on Nursing: What It Is, and What It Is Not*

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CHAPTER 1. INTRODUCTION

Communication is one of the most important aspects of patient care. Without clear and accurate communication between healthcare workers and Limited English Speaking (LEP) patients, it is difficult to build trust and rapport. Nevertheless, it is necessary to accurately and effectively treat patients. The United States (U. S.) Census Bureau has found that nearly twenty percent of the population is not primary English speakers and although many have enough English comprehension for daily functioning, they have difficulties comprehending medical knowledge and terminology (Shin & Kominski, 2010). This gap in understanding has been proven to lead to medical errors and adverse events. Standardized nursing education provides a minimal level of health literacy education and the gaps in knowledge prevent students from delivering culturally competent care (Cormier & Kotrlik, 2009). The purpose of this project is to provide enhanced health literacy education to Associate Degree Nursing (ADN) students in order to increase cultural competence and skills, such as health literacy needs assessment and the use of interpreter services.

The ability to communicate is essential to access the healthcare system. Without the ability to communicate effectively, the appropriate needs of the patient will not be met. Brach, et al. (2012) describes the attributes needed for organizations to be health literate based on the Institute of Medicine (IOM) recommendations. Part of these initiatives includes securing access to methods of communication for those who have

language barriers and supplying the appropriate education to health care personnel involved in their care. Several studies have been conducted on both the importance of interpreter use and the barriers of interpreter use in the clinical setting. From these, it is concluded that using professional interpreter services has a positive influence on both patient outcomes and satisfaction (Gany et al., 2007; Jacobs et al., 2007; Rose, et al., 2010).

Although healthcare facilities have interpreter services and other ways to communicate, they fail to educate their nurses how to use them effectively with patients. Education on these systems is lacking, especially amongst the nursing student population. In order for nursing students to be adequately prepared for providing care in the clinical setting, their educational program must include health literacy. Most curricula do include learning on providing patient education but they do not specifically include information on addressing low health literacy. The U. S. Department of Health and Human Services [HHS] (2013a) “Healthy People 2020” list Health Communication and Health Information Technology as major goals.

Nature of the Capstone Project

The nature of the project is to validate the effectiveness of a health literacy educational program designed for ADN nursing students on achieved level of cultural competence as measured by the *Inventory for Assessing the Process of Cultural Competence among Healthcare Professionals – Student Version* (IAPCC-SV).

Description of the Problem, Environment, and Target Population

In order to meet patients’ communication needs, this project provided education to student nurses on health literacy and competent use of interpretive services.

Previously, the ADN nursing students were oriented to the clinical setting over one day (6 hours), which did not include education on health literacy or the services available LEP patients. This project implemented a practice change in nursing student education to include relevant information on health literacy and communication methodology specific to current patient populations cared for by the student nurse. The health literacy program created is for second-year students in an ADN program. This project was initiated in the academic setting prior to the start of student clinical rotations. This educational project was completed over the final semester of the ADN program. Implementation began shortly after the start of the semester with the post education survey completed prior to graduation at the end of the semester.

The ADN program chosen for this project was a cohort of 35 students that are part of a technical college in a rural New England state. The college provides both brick and mortar campuses and sites where learning is achieved via interactive television. All clinical experiences are face to face in healthcare facilities and simulation. The majority of the participating students are non-traditional adult learners with previous college coursework or careers. Each of these students has passed the NCLEX-PN and acquired state licensure as a Licensed Practical Nurse (LPN) in the state prior to enrolment in the ADN program.

Purpose of the Capstone Project

The goal of this project is to show that by educating students about health literacy one can help improve their cultural awareness and, therefore, the ability to communicate and care for LEP patients. In order to improve communication with patients, it is important to develop educational awareness of the services available to nursing students

that will help assess LEP patient needs. With improved communication comes increased patient satisfaction and better patient outcomes. The IOM has recommendations for organizational attributes to increase health literacy (2004). These initiatives include improving access to interpretive services and supplying appropriate education to providers (Brach, et al., 2012).

Significance of the Capstone Project

Health literacy is the cornerstone for providing equal and culturally competent care across the nation. In order to provide this, health care personnel need to be educated in the topics that lead to the main problems. The IOM (2004) recognizes that in order to minimize health disparities in the United States, issues in health literacy need to be addressed and the first interaction of nurse-patient is the best place to start.

As stated previously, the first part of any patient encounter begins with language. Without understanding on the part of both nursing staff and patients, culturally competent care cannot happen. Patients will be less likely to seek medical care if they find their needs are not being met or they are not being understood (The Joint Commission, 2010). Ineffective communication leads to mistrust between patient/provider and an increase in incidence of adverse events.

Nursing students are core providers in the health care setting and due to their learning focus may spend significant more amounts of time with individual patients. These students are in the perfect position to assess and address the patient's health care literacy needs (Centers for Disease Control and Prevention, 2011). By implementing a practice change in nursing student education and orientation involving increased

awareness of health care literacy, one-step in the improvement of overall health literacy is complete.

Definition of Relevant Terms

Culture

The Office of Minority Health (2001) describes culture as being a combination of the thoughts, actions, customs, beliefs and values of specific special groups.

Health Literacy

Health literacy is described as a person's ability to comprehend and use health information in order to make healthcare decisions and follow treatment instructions (Weiss, Reed & Kligman, 2003).

Health outcomes

Health outcomes are changes in the health status of a person or group directly related to the planned interventions of health care personnel (World Health Organization, 1998).

Limited English Proficient Patient

LEP patients are those whose primary language is not English and are unable to communicate effectively in English. They are unable to fully comprehend medical information because they have not developed a fluency in the English language (HHS, 2013b, paragraph 1)

Associate Degree Nursing Student

For this project, an ADN student is defined as one enrolled in the final semester of required courses in a two-year school of nursing at a state college in New England.

School of Nursing

The school of nursing facility involved in this project is described as a two-year accredited associate degree nursing program.

Assumptions

The main assumption was that nursing curriculum provides student nurses with all of the information needed to practice as an entry-level nurse. In reality, many essential topics are covered very briefly or not at all. It is assumed that employers upon graduation will provide these gaps in education (Cormier & Kotrlik, 2009). Health literacy is a topic that has minimal coverage within the curriculum. It is important for students to have this knowledge before going to the clinical setting, as it is necessary for delivery of patient-centered care and quality nursing care.

Limitations

This project involved ADN students in their final year of study prior to the start of their clinical experience. The start of the academic year has limited hours to deliver educational material and orient nursing students to the clinical setting. This means that the educational module must be able to fit within these time constraints, yet be comprehensive enough to cover the objectives. The college chosen has multiple campuses across the entire state, which made travel to other sites a limitation as well.

Capstone Project Objectives

The objective of this project is to raise student awareness about health literacy and improve cultural competence through participation in a health literacy educational program. Communication is vital to competent patient care. In 2007, a study by the U.S. Census bureau showed that twenty percent of the U.S. population speaks primary

languages other than English (Shin & Kominski, 2010). Although many have some understanding of Basic English, most find it difficult to comprehend medical information. This lack of comprehension between patient and practitioner leads to medical errors and lower patient satisfaction (Wu, Leventhal, Ortiz, Gonzalez, & Forsyth, 2006).

Using an educational program in health literacy and communication to include interpretive services, nursing students can demonstrate an increase in competency for evaluating the need of communication tools for use with LEP patients. This, in turn, will lead to an increase in beneficial patient outcomes, satisfaction and quality of care (Garrett, Dickson, & Whelan, 2008). This learned knowledge will remain with students throughout their careers and make them leaders in practice, promoting social change through action.

CHAPTER 2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Theoretical Framework

Resolving communication barriers with LEP patients is only one facet to the larger need of health literacy. Health literacy affects almost a third of the population and current studies reveal the need for health literacy frameworks, which will ensure relevant practice change. There are several theoretical models, which drive the research in health literacy.

Health Literacy Framework

The IOM developed a conceptual model called the health literacy framework (HLF). This framework focuses on three areas in researching health literacy. These are culture and society, the education system, and health system (Weld, Padden, Ramsey, & Garmon Bibb, 2008). Within this framework, individuals bring limitations to health care involving literacy, economic status, language, physical and mental abilities. By using this framework, deficits in health literacy are recognized and a plan for resolution is made and implemented (see Figure 1).

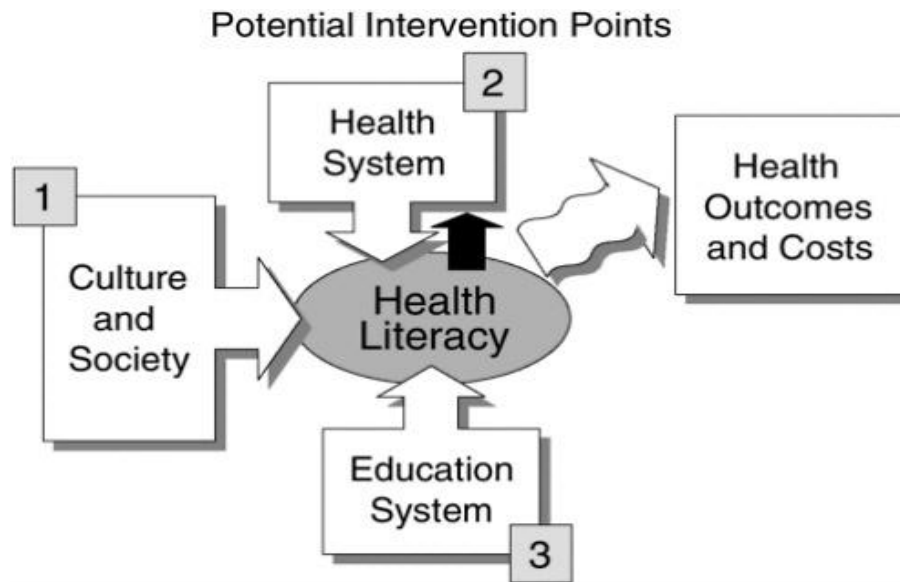


Figure 1: The Health Literacy Framework Model: patients' health outcomes and costs influenced by culture and society, the health system and the educational system.

Paasche-Orlow and Wolf Model

Influenced by the HLF is the Paasche-Orlow and Wolf (POW) model. This is a conceptual model based on health literacy as a multifactor problem. This model believes that effective provider/patient communication and interactions are imperative to reaching health literacy (Weld et al., 2008). There are several other frameworks currently used in research, which are based on patient/provider interaction, education and access.

Iowa Model

The Evidence-based Practice clinical model chosen for this study was the Iowa model. This model was developed specifically for nursing to translate knowledge into nursing practice. The Iowa model emphasizes the importance of the entire healthcare system in the development of nursing practice and choosing new practices (Dontje, 2007). It is important to consider the providers, patients and the facility infrastructure

when determining practice change. This model has several steps leading to development of a clinical practice change.

First, identification of the specific practice need must be accomplished. This identification will initiate the entire process. Once this need is identified, it must be found as a priority problem for the organization. The second step in this process is a current and complete literature review of evidence and a collection of relevant articles in support of the determined need. Once significant evidentiary support is acquired, implementation and evaluation of the practice change follow (Dontje, 2007).

Summary of Relevant Research

Based on the clinical question of this project, a comprehensive literature search was performed. Keywords used in searching included: health literacy, nursing student education, interpretive services, and communication barriers. This search was limited to articles written in English and published within the last ten years. Articles were chosen based on their relevance to the proposed project and include both qualitative and quantitative research. One study used qualitative methods, four used quantitative methods and one used a combination of both methods. Jirwe, Gerrish and Emami (2010) used recorded interviews in a qualitative study to determine the student nurse experience with health literacy communication. Hoang, LaHousse, Nakaji and Sadler (2011) used a mixed method survey with both qualitative and quantitative components to determine if an educational program increased cultural competence in medical students. Kalet, et al. (2005) used quantitative surveys to evaluate the effectiveness of cultural awareness and health literacy education provided to medical students. McCleary-Jones (2012) developed a quantitative study using pre and post-surveys to assess Bachelor of Science

Nursing (BSN) students' knowledge of health literacy before and after implementation of health literacy education. Cormier and Kotrlik (2009) used quantitative methods to assess the health literacy knowledge and experience of BSN students. The final study by Hunter and Krantz (2010) used pre and post surveys in a quantitative method to determine if nursing students' knowledge and awareness of cultural competence increased after implantation of an education program.

The studies looked at using professional interpreters versus ad hoc interpreters (family members, bystanders, etc.) and concluded that professional services were second only to having language-concordant providers. The studies also concluded that there are several barriers to the use of professional interpreter services in the healthcare setting, with the most prevalent being those of cost, availability, and education (Gany et al., 2007; Jacobs et al., 2007; Rose, et al., 2010). These studies also found direct correlations between increased health literacy education for nursing students and comfort/confidence in communication with LEP patients. Hoang, et al. (2011) and Kalet, et al. (2005) studied medical students to determine if cultural competency education increased health literacy knowledge and increased student use of interpreter services. They found that the students who had specific education on cultural competence/health literacy scored much higher on knowledge exams and had more positive attitudes in relation to caring for LEP patients.

McCleary-Jones (2012) and Cormier and Kotrlik (2009) both conducted studies measuring student nurse health literacy knowledge in traditional nursing programs and compared to the addition of a specialized health literacy program. These studies showed that nursing students have a low level of health literacy knowledge, but through

implementation of specific education in health literacy, students had an almost fifty percent increase in health literacy scores and were more knowledgeable in how to apply that knowledge in the clinical setting.

CHAPTER 3. CAPSTONE PROJECT DESIGN

Project Design and Description

This project was comprised of an educational program delivered to the ADN students prior to the start of clinical learning. The following project design included pre and post- evaluations that were completed by the students. The evaluation tool used was the *Inventory for Assessing the Process of Cultural Competence among Healthcare Professionals – Student Version* (IAPCC-SV) developed by Dr. Josepha Campinha-Bacote. This tool uses a Likert-type survey to measure cultural competence and attitudes of healthcare workers and has been previously and successfully proven in validity and reliability (Fitzgerald, Cronin, & Campinha-Bacote, 2009). The Likert scale used asked the students to respond to questions based on a scale of agreement from 1 (*strongly disagree*) to 4 (*strongly agree*). Likert scales have been validated to be good indicators of subject levels of satisfaction, knowledge and understanding (McLeod, 2008).

The IAPCC-SV survey used in this project consisted of twenty Likert style questions. The same questions were used for both the pre and post-survey and all students received the same surveys. The student completed the surveys without the project administrator or faculty present. This process was used to ensure anonymity and responses that are more truthful. Instructions were given to all students and the right to participate was emphasized as clearly their choice. Students were provided with written information regarding consent and the project. The students' participation was voluntary.

Prior to implementation, it was important that each stakeholder or group knew what his or her role in the practice change was. They needed to be aware of how this project did affect them, what methods were used and how responsibility was allocated (Cohen, et al., 2004). With this specific process, the administration needed to be aware of the project timeline, what groups it affected, and what resources were needed. They also needed to be aware of any costs or legalities that may have been involved. The clinical faculty needed to know if the change would affect their time with the students, the assignments the students are given, and any additional training needed to work with the students. Students needed to know why this change is important, how it will enhance their education and details of the process.

Within this project, there were several key stakeholders: Agent of change, faculty, facility, students, and administration personnel. To begin the project, the agent of change (myself) worked with the administration of the college. Collaboration between the agent of change, clinical faculty, and the target students was also a priority. In order to educate students on relevant and necessary skills, communication between the agent of change and the clinical settings was thorough. Through this communication, the specific interpreter services and patient demographics were discovered, which helped to focus the learning. Several meetings were held with key stakeholders of the academic institution and permission to implement this project was received. The faculty responsible for education of the ADN students was briefed on the nature of this project and was supportive.

Implementation of this project began with identification of the scope of the project. The project provided ADN students with education on health literacy and

interpretive services in the healthcare setting. A timeline was developed to include all steps in the process. The educational program was formulated and learning sessions were scheduled. The project developers comprised the program objectives and anticipated potential barriers to program success. With this project, the main objectives were to improve healthcare literacy knowledge and student cultural awareness. The agent of change acted as the overall facilitator of this process but worked closely with key stakeholders.

Evaluation is the process of collecting information about a program's characteristics and outcomes in order to make decisions about effectiveness and future needs (Hodges & Videto, 2011). This process was continuous throughout the project. When evaluating a program, certain aspects reviewed to determine success. Questions that should be answered are as follows: was the program implemented as expected, were the goals reached, were resources used appropriately, did the benefit of the program offset the cost, and is there a clear link between activities and goals (Hodges & Videto, 2011). The purpose of project evaluation is to make sure that the program did what it intended. As previously stated, the IAPCC-SV tool was used to measure the effectiveness of the educational program on students' cultural competence.

Rationale for Design Framework

The purpose of this project was to accumulate data about the health literacy project and present its effect on the cultural awareness level of ADN students. The IAPCC-SV survey tool was chosen because of its direct correlation to evaluate awareness, knowledge, skill, encounters and desire in terms of cultural competence of healthcare students. Hunter and Krantz (2010) used the IAPCC-R tool in their study

design of evaluating nursing students' cultural competence relative to the implementation of an educational program on cultural competence. This study found significant improvement in students' post-survey results ($p < 0.001$). Kalet et al. (2005) and McCleary-Jones (2012) also completed similar quantitative studies using the pre and post-survey approach to measuring students' health literacy knowledge and understanding. The quantitative pre and post-survey approach, upon which this project is based, has been validated to show satisfactory measurement of students' health literacy knowledge and cultural competence.

Capstone Project Intervention

Through Evidence-Based Practice (EBP), the need for health literacy education has been proven as a priority for competent patient care. Although this need is commonly known, there are still gaps in current education of healthcare personnel that present as barriers to competent patient care. Through the introduction of a health literacy education program for nursing students, this EBP is validated, therefore contributing to the empirical knowledge process. Chinn and Kramer (2011) state that empirical knowledge requires validation in the clinical setting in order to accomplish and meet set nursing goals.

The health literacy and interpreter services educational program was the intervention. There were three components completed during this intervention: the pre-survey, the educational program, and the post-survey. The IAPCC-SV was administered as a pre-survey tool prior to the start of nursing clinical, while students were preparing for the clinical setting. The educational program created provided students with knowledge and information in health literacy including:

- The definition of health literacy
- How health literacy can affect patient outcomes
- What tools are used to assess health literacy
- How to recognize low health literacy in patients
- Strategies for teaching LEP patients
- Interpreter use and access

(McCleary-Jones, 2012)

The IAPCC-SV tool was used again as a post-survey in order to be able to correlate the students' previous levels of understanding with those after the intervention.

Assessment Tools

A data analysis was performed from the results of the IAPCC-SV tool. The information gathered was correlated in order to compare pre and post-survey scores. The IAPCC-SV tool used was a twenty-question Likert style survey that measured student perceptions based on a 1-4 Likert scale with 1 representing *strongly disagree* and 4 representing *strongly agree*. The questions within this tool were distributed into five categories: *awareness*, *knowledge*, *skill*, *encounters*, and *desire*. The tool also scored an overall level of cultural competence out of four categories: *culturally incompetent*, *culturally aware*, *culturally competent*, and *culturally proficient* (Fitzgerald, Cronin, & Campinha-Bacote, 2009).

CHAPTER 4. ANALYSIS OF IMPACT

Quantitative Data

Out of 35 ADN students, 34 ($n=34$) participated in the pre-survey and education program. The post-survey was completed by 32 out of the original 34 students ($n=32$). Two students participating in the project left the ADN program prior to project completion. The IAPCC-SV pre-survey resulted in 17 (50%) of students with overall scores of *culturally aware* (41-59 points) and 17 (50%) of students with overall scores of *culturally competent* (60-74 points). The IAPCC-SV post-survey resulted in six (18.8%) of students with overall scores of *culturally aware*, 23 (71.8%) of students with overall scores of *culturally competent*, and three (9.4%) of students with overall scores of *culturally proficient* (see Figure 2). The overall mean pre-survey score was 59.8, which correlates to *culturally aware*, whereas the overall mean post-survey score was 66.3, which correlates to *culturally competent*. The mean of the pre and post-samples was used to calculate the t -test ($t = 4.5883$) which showed statistical significance of $p < 0.0001$.

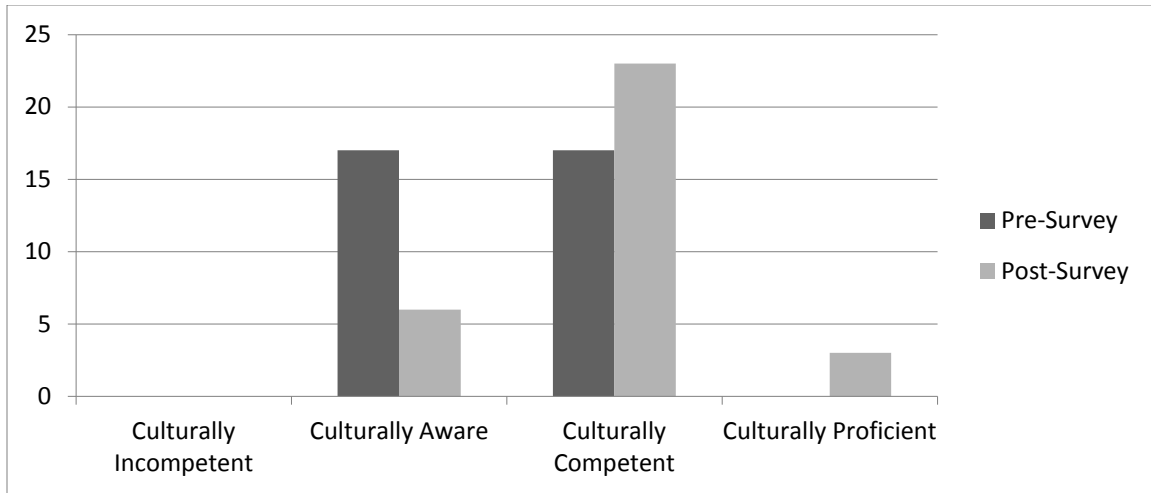


Figure 2. Comparison of the number of students scores in each of the four IAPCC-SV categories of cultural competence.

The five categories assessed by the IAPCC-SV tool are *cultural awareness* (questions 1,3,15), *cultural knowledge* (questions 4,6,8,9,12), *cultural skill* (questions 7,17,18), *cultural encounters* (questions 10,11,13,14,19) and *cultural desire* (questions 2,5,16,20). The most significant differences seen between pre and post-survey answers (based on Likert scale of 1-4) were seen in the categories of skill (pre mean- 2.71; post mean- 3.23), knowledge (pre mean- 2.47; post mean- 2.97) and desire (pre mean- 3.35; post mean- 3.58).

CHAPTER 5. IMPLICATIONS AND CONCLUSIONS

Implications for Practice

Many hospitals or clinical areas have educational programs for their staff members about health literacy, but student nurses often are not given the same learning opportunities. They are, however, expected to care for the same populations of patients. Due to lack of education, they may find the patient encounter highly stressful and not receive the full potential of the learning experience (Jirwe, Gerrish, & Emami, 2010).

Recent studies from The Joint Commission have found that knowledge of health literacy assessment and skills will increase communication between health care staff and patients, leading to fewer adverse events and higher patient satisfaction (TJC, 2010). Through revising the current standards of student education to include specific education on health literacy issues, LEP communication and awareness will increase and student-patient interactions will improve.

Summary of Outcomes as Related to Evidence-Based Practice

The outcome of this project was to increase ADN student health literacy and cultural competence by providing an educational program. This outcome has been met as shown by student reporting via the IAPCC-SV of their increase in awareness, knowledge, skill, encounters and desire. Post-survey results show an increase in the mean answers for every question asked. These findings correlate with those of similar studies

previously completed by Hunter and Krantz (2010), Kalet et al. (2005), and McCleary-Jones (2012)

Conclusions

Health literacy is the cornerstone for providing equal and culturally competent care across the nation. In order to provide this, health care personnel need to be educated in the topics that lead to the main problems. The IOM (2004) recognizes that in order to minimize health disparities in the United States, issues in health literacy need to be addressed and the interaction of nurse-patient is the best place to start. Nursing students are core providers in the health care setting and due to their learning focus may spend significant more amounts of time with individual patients. These students are in the perfect position to assess and address the patient's health care literacy needs (CDC, 2011). The health literacy framework supports that patients will be less likely to seek medical care if they find their needs are not being met or they are not being understood (TJC, 2010).

The ultimate outcome of this project was to promote and increase cultural competence and health literacy in nursing students. The data collected supports the implementation of the educational program in achieving this goal. The small sample size ($n = 34/32$) is a definite limitation and the fact that the group, although representative of the entire college was a convenience sample. Another factor to consider was the timing of the educational program. The students involved in the project were already in their final year of study. In order to affect the most change, the educational program may need to be delivered earlier in the students' curriculum, which would allow for more clinical

implementation and practice. Future study should include a larger sample group and implementation of the program in the first semester of student learning.

This project has an important impact on the future of nursing and health literacy as a focus problem nationally. Through educating nursing students, this knowledge will remain with them throughout their careers and promote the nursing profession. This, in turn, will increase the quality of nursing care and benefit the patient population as a whole.

REFERENCES

- Brach, C., Keller, D., Hernandez, L. M., Baur, C., Parker, R., Dreyer, B., ... Schillinger, D. (2012). *Ten attributes of health literate health care organizations*. Discussion paper prepared for the Institute of Medicine Roundtable on Health Literacy. Retrieved from http://www.iom.edu/~media/Files/Perspectives-Files/2012/Discussion-Papers/BPH_HLit_Attributes.pdf
- Centers for Disease Control and Prevention [CDC]. (2011). *CDC health literacy for health professionals training*. Retrieved from: <http://www.cdc.gov/healthliteracy/training/>
- Chin, P. L. & Kramer, M. K. (2011). *Integrated theory and knowledge development in nursing* (8th ed.). St. Louis, MO: Mosby.
- Cohen, D., McDaniel, R. R., Crabtree, B. F., Ruhe, M. C., Weyer, S. M., Tallia, A., ... Stange, K. C. (2004). A practice change model for quality improvement in primary care practice. *Journal of Healthcare Management*, (49)3, 155-168.
- Cormier, C. M. & Kotrlik, J. W. (2009). Health literacy knowledge and experiences of senior baccalaureate nursing students. *Journal of Nursing Education*, 48(5), 237-248. doi: 10.999/01484834-20090416-02
- Dontje, K. J. (2007). Evidence-based practice: Understanding the process. *Topics in Advanced Practice Nursing eJournal*, (7)4. Retrieved from http://www.medscape.com/viewarticle/567786_4

- Fitzgerald, E. M., Cronin, S. N., & Campinha-Bacote, J. (2009). Psychometric testing of the inventory for assessing the process of cultural competence among healthcare professionals-student version (IAPCC-SV). *Journal of Theory Construction & Testing*, 13(2), 64-68.
- Gany, F., Leng, J., Shapiro, E., Abramson, D., Motola, I., Shield, D. C., Changrani, J. (2007). Patient satisfaction with different interpreting methods: A randomized controlled trial. *Society of General Internal Medicine*, 22(Suppl 2), 312-318. doi:10.1007/s11606-007-0360-8
- Garrett, P. W., Dickson, H. G., & Whelan, A. K. (2008). Communication and healthcare complexity in people with little or no English: The communication complexity score. *Ethnicity & Health*, 13(3), 203-217. doi: 10.1080/13557850701837328.
- Hoang, L., LaHousse, S. F., Nakaji, M. C., & Sadler, G. R. (2011). Assessing deaf cultural competency of physicians and medical students. *Journal of Cancer Education*, 26, 175-182. doi: 10.1007/s13187-010-0144-4
- Hodges, B. C., & Videto, D. M. (2011). *Assessment and planning in health programs* (2nd ed.). Jones & Bartlett. [Kindle Edition].
- Hunter, J. L. & Krantz, S. (2010). Constructivism in cultural competence education. *Journal of Nursing Education*, 49(4), 207-214. doi: 10.3928/01484834-20100115-06
- Institute of Medicine [IOM]. (2004). *Health literacy: A prescription to end confusion*. Committee on Health Literacy. Retrieved from: http://books.nap.edu/openbook.php?record_id=10883

- Jacobs, E. A., Sadowski, L. S., & Rathouz, P. J. (2007). The impact of an enhanced interpreter service intervention on hospital costs and patient satisfaction. *Journal of General Internal Medicine*, 22(Supp 2), 306-311. doi: 10.1007/s11606-007-0357-3
- Jirwe, M., Gerrish, K., & Emami, A. (2010). Student nurses' experiences of communication in cross-cultural care encounters. *Scandinavian Journal of Caring Sciences*, 24, 436-444. doi: 10.1111/j.1471-6712.2009.00733.x
- The Joint Commission [TJC]. (2010). *Advancing effective communication, cultural competence, and patient- and family-centered care: A roadmap for hospitals*. Retrieved from <http://www.jointcommission.org/assets/1/6/ARoadmapforHospitalsfinalversion727.pdf>
- Kalet, A. L., Mukherjee, D., Felix, K., Steinberg, S. E., Nachbar, M., Lee, A., ... Gany, F. (2005). Can a web-based curriculum improve students' knowledge of, and attitudes about the interpreted medical interview. *Journal of General Internal Medicine*, 20, 929-934. doi: 10.1111/j.1525-1497.2005.0193.x
- McCleary-Jones, V. (2012). Assessing nursing students' knowledge of health literacy. *Nurse Educator*, 37(5), 214-217. doi: 10.1097/NNE.0b013e318262ead3
- McLeod, S. A. (2008). Likert scale. Retrieved from <http://www.simplypsychology.org/likert-scale.html>
- Office of Minority Health. (2013, May 03). *National standards for culturally and linguistically appropriate services in health care*. Retrieved from <http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlID=15>

- Rose, D. E., Tisnado, D. M., Malin, J. L., Tao, M. L., Maggard, M. A., Adams, J., ... Kahn, K. L. (2010). Use of interpreters by physicians treating limited english proficient women with breast cancer: Results from the provider survey of the Los Angeles women's health study. *Health Services Research*, 45(1), 172-194. doi: 10.1111/j.1475-6773.2009.01057.x
- Shin, H., & Kominski, R. (2010). *Language use in the United States*. Retrieved from <http://www.census.gov/hhes/socdemo/language/data/acs/ACS-12.pdf>
- U.S. Department of Health and Human Services [HHS]. (2013a). *Healthy People 2020*. Retrieved from: <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=18>.
- U. S. Department of Helath and Human Services [HHS]. (2013b). *Limited English Proficiency (LEP)*. Retrieved from: <http://www.hhs.gov/ocr/civilrights/resources/specialtopics/lep/index.html>.
- Weiss, B., Reed, R., & Kligman, E. (1995). Literacy skills and communication methods of low-income older persons. *Patient Education and Counseling*: 25(2), 109-119. PII: 0738-3991(95)00710-H.
- Weld, K. K., Padden, D., Ramsey, G., & Garmon-Bibb, S. C. (2008). A framework for guiding health literacy research in populations with universal access to healthcare. *Advances in Nursing Science*, 31(4), 308-318. doi: 10.1097/01.ANS.0000341411.25048.91
- World Health Organization [WHO]. (1998). Health Promotion Glossary.. Retrieved from: <http://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf>.

Wu, A. C., Leventhal, J. M., Ortiz, J., Gonzalez, E. E., & Forsyth, B. (2006). The interpreter as cultural educator of residents: Improving communication for Latino parents. *Archives of Pediatrics & Adolescent Medicine*, 160(11), 1145-1150. doi: 10.1001/archpedi.160.11.1145

APPENDIX A. STATEMENT OF ORIGINAL WORK

Academic Honesty Policy

Capella University's Academic Honesty Policy ([3.01.01](#)) holds learners accountable for the integrity of work they submit, which includes but is not limited to discussion postings, assignments, comprehensive exams, and the dissertation or capstone project.

Established in the Policy are the expectations for original work, rationale for the policy, definition of terms that pertain to academic honesty and original work, and disciplinary consequences of academic dishonesty. Also stated in the Policy is the expectation that learners will follow APA rules for citing another person's ideas or works.

The following standards for original work and definition of *plagiarism* are discussed in the Policy:

Learners are expected to be the sole authors of their work and to acknowledge the authorship of others' work through proper citation and reference. Use of another person's ideas, including another learner's, without proper reference or citation constitutes plagiarism and academic dishonesty and is prohibited conduct. (p. 1)

Plagiarism is one example of academic dishonesty. Plagiarism is presenting someone else's ideas or work as your own. Plagiarism also includes copying verbatim or rephrasing ideas without properly acknowledging the source by author, date, and publication medium. (p. 2)

Capella University's Research Misconduct Policy ([3.03.06](#)) holds learners accountable for research integrity. What constitutes research misconduct is discussed in the Policy:

Research misconduct includes but is not limited to falsification, fabrication, plagiarism, misappropriation, or other practices that seriously deviate from those that are commonly accepted within the academic community for proposing, conducting, or reviewing research, or in reporting research results. (p. 1)

Learners failing to abide by these policies are subject to consequences, including but not limited to dismissal or revocation of the degree.

Statement of Original Work and Signature

I have read, understood, and abided by Capella University's Academic Honesty Policy ([3.01.01](#)) and Research Misconduct Policy ([3.03.06](#)), including the Policy Statements, Rationale, and Definitions.

I attest that this dissertation or capstone project is my own work. Where I have used the ideas or words of others, I have paraphrased, summarized, or used direct quotes following the guidelines set forth in the *APA Publication Manual*.

Learner name and date	<u>Lisa M. Sullivan 02/08/15</u>
Mentor name and school	<u>Lydia Forsythe, PhD, Capella University, School of Public Service Leadership</u>