

Using Virtual Simulation to Improve Bariatric Cultural Sensitivity

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Abstract

The incidence of obesity in the United States is reaching epidemic proportions, with over one third of the population (Centers for Disease Control [CDC], 2016a) or 93 million (Obesity Action Coalition [OAC], n.d.) being affected. Nurses can reverse the level of socially tolerable prejudice and stereotyping behavior seen in healthcare (OAC. n.d.; Sutin & Terracciano, 2013). The bariatric population must be recognized as having its own cultural identity. Effective and long-lasting cultural competency training through virtual simulation can offer a much-needed remedy, providing essential knowledge and skills needed to help fulfill the American Nurses Association's (ANA; 2015) expectations of the professional nurse. This proposed change project proposed a pilot study to compare the effectiveness of Second Life (SL; Linden Research, 2016) to Shadow Health (2015). The registered nursing staff from two different nursing units in one hospital would be randomly assigned to participate in one of the virtual worlds. Participant evaluation is expected to be accomplished through pre- and post-intervention self-assessments using Cultural Competence Assessment Instrument-University at Chicago (CCAI-UIC), which has displayed excellent reliability with a Cronbach's alpha of 0.76-0.82 (Balcazar et al., 2009).

Keywords: obesity, bariatrics, virtual simulation, Second Life, Shadow Health, cultural, competence, registered nurse, pilot study, self-assessment

Chapter One: The Problem

Cultural differences create abundant challenges for healthcare professionals (Holleran, 2010). Nurses' attitudes and knowledge of applicable health disparities for cultures such as race, nationality, religious beliefs, sexual preference, and even political views can affect the care provided (Govere, Fioravanti, & Tuite, 2016). Another culture which is often overlooked is the bariatric population group, who also require culturally sensitive and competent nursing care (Lansing, McGuire, Palmersheim, & Baird, 2009; Obesity Action Coalition [OAC], n.d.).

The obesity stigma has a wide-ranging scope beyond just the disapproving glance (OAC, 2015). Huizinga, Cooper, Bleich, Clark, and Beach (2009) found physicians had a negative impression and less respect for 39% of the obese study participants having a mean body mass index of 32.0 kilograms per meter squared (kg/m^2). Patients who do not sense their healthcare professional values they may be more inclined to delay medical treatments, display appointment or medication noncompliance, and experience adverse health concerns (Huizinga et al., 2009; Mirsu-Paun, Tucker, & Hardt, 2012; Tucker et al., 2016). Depression and low self-esteem see greater incidences in the obese population, which tends to lead to more unhealthy lifestyles (Fruh et al., 2016; OAC, 2015; Phelan et al., 2015). Since nurses may adopt attitudes based on the opinions they see displayed by physicians, caring for the obese patient could provoke anxiety for nurses feeling unsuited for the role (Kirk & Penney, 2010). Rather than being part of the problem, professional nurses need to be part of the team desiring to tackle this "complex problem, requiring complex intervention" (Kirk & Penney, 2010, p. 21).

Professionalism, health promotion, disease prevention, and cultural sensitivity are part of the heartbeat of nursing (American Association of Colleges of Nursing [AACN], 2008a), therefore endeavoring to meet these goals means only the best for the involved

stakeholders. Included stakeholders include much more than just the patient, family, and healthcare worker. Word of mouth testimonials, whether positive or negative, can be far reaching, (Trusov, Bucklin, & Pauwels, 2009) potentially causing the public to seek or refuse care from a specific facility. Communities benefit from award winning schools, as well as having excellent and preferred health care options, which include accessible and well-equipped first responders. A physician's livelihood depends largely on his patients feeling comfortable with the delivered care. Past practices of not treating obese patients equally and sensitively must be put to rest for a healthcare facility and community to thrive.

Rationale

Even though the AACN (2008b) chose to include bariatrics in its educational resources for undergraduate cultural competency training, articles reviewed revealed race and ethnicity to be much more commonplace (Long, 2012; Mareno & Hart, 2014). As part of its implementation of bariatric services in 2015, Mercy Hospital Jefferson's (MHJ) clinical registered nursing (RN) staff were required to engage in a cultural sensitivity course focusing on the obese patient. This educational program was offered online in a lecture format, but fell short of its potential to leave an enduring impression due to its limited mode of delivery. Today, MHJ's bariatric services coordinator offers live in-services in hopes of achieving better retention secondary to immediate feedback and questions answered (C. Klittich, personal communication, August 31, 2016). "Knowledge alone isn't always enough to produce behavioral changes" (Katrandjian, 2012, para. 5), but adding virtual simulation, such as that offered by Shadow Health (2015), may offer the participant safe opportunities to converse with and assess the bariatric patient. Current healthcare issues such as clinical reasoning, communication, and technical skills are addressed using Shadow Health's "digital clinical experiences" (DCE; 2015, para. 1.). Boosting students'

application of knowledge and theoretical understanding to everyday situations and issues is a huge benefit of experiential learning (The University of Texas at Austin, 2015).

Background

Obesity is defined as having a body mass index (BMI) of 30.0 or higher, and can be further divided into three subcategories (Centers for Disease Control and Prevention [CDC], 2016b; World Health Organization [WHO], 2016). Dividing the weight in kilograms by the person's height in meters produces the BMI (WHO, 2016). Per the CDC (2016a), obesity in the United States has become more prevalent since 1999, with adults showing increasing rates, now at 37.7%, compared to the youths, age 2-19 years, which have leveled off at 17.2%. More characteristic among middle-aged (40.2%) and older adults (37.0%) than in younger adults (32.3%), obesity also seems to target females (38.3%) over males (34.3%) (CDC, 2016a). This difference becomes less significant in older adults over 60 years of age (CDC, 2016a). Overall, obesity rates in the US are estimated at 36.5% per the CDC (2016a), or 93 million as reported by the OAC (2016). Remarkably, even though obesity is represented by over one third of the US population (CDC, 2016a), there remains a level of socially tolerable prejudice and stereotyping behavior which must be overcome before there will be a corrective turn in the obesity epidemic (OAC, n.d.; Sutin & Terracciano, 2013). Effective and long-lasting cultural competency training through virtual simulation can offer a much-needed remedy, providing essential knowledge and skills needed to help fulfill the American Nurses Association's (ANA; 2015) expectations of the professional nurse.

PICO(T) Question

When performing research aimed at improving health care delivery, foreground questions formed as a PICO(T) are used in guiding each step (Melnyk & Fineout-Overholt, 2015). The

groundwork for performing research is laid by incorporating the research details of population, studied intervention, a comparison technique, measured outcomes, and a time period into a beginning question (Riva, Malik, Burnie, Endicott, & Busse, 2012). For the purposes of this paper, the PICO(T) question currently used is: Would providing a simulated learning experience improve medical-surgical nurses' knowledge, skill, and attitude in the delivery of culturally-competent care of the bariatric patient when compared to their previous learning through lecture? The planned population is the RN staff currently employed on the fourth floor and 5 West nursing units of MHJ. Virtual simulations wherein nurses can actively converse with and assess the obese patient will provide a unique learning experience. Nurses will be able to create questions rather than choosing from a bank of preformed queries. Comparison will be against the previous learning and retention gained through a lecture format. Outcomes will be determined by comparing a pretest to a posttest.

Significance to Nursing Practice

Patient-centered care is at the core of nursing, and being in tune with the various cultures encountered within healthcare is part of that focus. Per Mirsu-Paun et al. (2012), there are three definitive attributes for patient-centered culturally sensitive care. Behaviors must mirror that which the patient desires and should be versatile in keeping with the patient situation as the bigger picture of patient-provider relationship evolves (Mirsu-Paun et al., 2012). Patients who experience caregiver sensitivity are emboldened to better determine their personal health journey (Mirsu-Paun et al., 2012).

Although the Institute of Medicine's (IOM; 2002) report, "Unequal Treatment: What Health Care System Administrators Need to Know about Racial and Ethnic Disparities in Healthcare," focuses on racial and ethnic differences, it remains on target regarding the need for

culturally sensitive care for the bariatric population. Multiple dissimilarities exist between the obese and those of an ideal weight, such as being less likely to seek preventative care, having less access to screening examinations and more frequent appointment delays or cancellations, in addition to less quality time spent with the health care provider (OAC, n.d.).

Increasing medical expenses can be partly attributed to the prevalence of obesity. The obese population saw 42% more healthcare costs in 2006 (Finkelstein, Trogon, Cohen, & Dietz, 2009). Heightened healthcare spending may be argued to be secondary only to increased medical costs found in supplies, procedures, or insurance, however increased obesity incidence is decidedly the trigger (Finkelstein et al., 2009). Unfortunately, unless health care professionals realize how their cultural insensitivity affects the obesity epidemic, medical costs will continue to rise because of the disparities noted by the IOM (2002) and Finkelstein et al. (2009).

Whether in the undergraduate or staff development arena, the nurse educator plays a significant role in the evolution of culturally sensitive behaviors, knowledge, and attitudes. There is some argument that concordance in the nurse:patient relationship helps to foster cultural sensitivity (Waite & Calamaro, 2010), but the fact that a large portion of nurses (55%) are obese counters that debate (Han, Trinkoff, Storr, & Geiger-Brown, 2011). Rather than relying solely on being compatible with the patient, nurses need to play an active role in cultural sensitivity by engaging in educational opportunities as well as performing a cultural assessment on each patient (Waite & Calamaro, 2010).

Theory

Desired outcomes are achievable through the marriage of Leininger's (2004) Theory of Culture Care Diversity with Kolb's (2015) Experiential Theory. Because this proposed project aims to improve nursing's cultural sensitivity at MHJ through an innovative educational process,

it needs to include tools supported by theories revolving around these essential topics.

Culture theory. Leininger's Culture Care Theory (CCT) was developed over several years of research, using the ethnonursing research method created by Leininger (Johnson & Webber, 2015). The theory's ethnonursing research method uses enablers to "facilitate the discovery of informants' ideas and stories in natural and unstructured ways" (McFarland & Wehbe-Alamah, 2015, p.74). The sunrise enabler, so named for its shape, demonstrates the relationships among the many multifarious factors to be ruminated before teaching cultural care (Clarke, McFarland, Andrews, & Leininger, 2009; Leininger, 2004; McFarland & Wehbe-Alamah, 2015; Mixer, 2011).

Whereas, holistic, patient-centered care is the goal of the CCT, it is a suitable framework for settings outside the undergraduate level, such as for the staff development educator. Although this proposed change project is aimed at cultural sensitivity for the bariatric population, nurses must remember the CCT can apply to patients admitted for diagnoses seemingly unrelated to the patient's size. Leininger's CCT directs nurses in caring for their patients, regardless of their complex needs and diagnoses (Clarke et al., 2009).

Educational theory. This change project revolves around the implementation of a teaching strategy, and therefore it obviously must include an educational theory. Supplying nurses with only a nursing theory and an enabler will fall short of procuring successful cultural sensitivity training. An educational tool capable of effectively relaying information will help to insure nurses retain the material and put it into use at the patient's bedside. Constructivism maintains that learning is most effective when based on the actual experience rather than only acquiring knowledge through methods such as reading or lecture (Pettigrew, 2015). Based on constructivism, Kolb's (2015) Experiential Learning Model has four elements involved in the

learning cycle, but they may be taken in any order (Pettigrew, 2015). This allows for flexibility and preference on the learner's part, which could likely change depending on the individual's current life events. Active problem solving lends itself to knowledge becoming embedded in nursing practice, rather than being only at the surface level to be easily lost over time (Curran, 2014). Through contemplation, dialogue, dissection of the topic, and assessment or interpretation of the material, this ingraining process encourages students to take time to digest the information secured (Gibbs & Priest, 2010). This practice ignites the spark needed for lifetime learning, which helps students gain discernment and comprehension (Gibbs & Priest, 2010).

Experiential learning is at the cornerstone of the simulation teaching strategy. Simulated situations, whether virtual or more tactile in nature, provide safe environments wherein students can best grasp a concept without endangering or embarrassing a real patient (National League of Nursing [NLN], 2015). Skills can be practiced until the learner feels proficient and comfortable in engaging the same practices in the real world. Through this safe environment, simulations allow learners to venture through various response options, even though they may seem completely wrong and dangerous (Kilmon, Brown, Ghosh, & Mikitiuk, 2010; NLN, 2015). The inventory investigated by Hunter and Krantz (2010) helped to prove that constructivist teaching methods, such as interacting with someone of a different culture, can emphatically have a valuable effect on student' cultural competence levels. The authors were surprised to see fewer persuasive results related to cultural awareness and encounters, but they felt this could improve with the building of self-confidence (Hunter & Krantz, 2010).

Definitions

As suggested by the quote: "You can manage what you can measure; what you can

measure you can define; what you can define you can understand” (Saxena, 2016. Para. 1), defining basic concepts is critical to the success of any research project. Clear definitions lead to clear measurements (Saxena, 2016).

Culture encompasses a specific group or society’s customs, way of life, and behaviors (Merriam-Webster, 2015). Cultural traits pertaining to different groups will vary as the individuals will be multifaceted and dynamic, making the concept “very elusive and nebulous” (Epner & Baile, 2012, p. ii33). Nurses need to be cautious of stereotyping patients based solely on their race, nationality, age, gender, or diagnosis (Epner & Baile, 2012).

Culturally competent care or sensitivity refers to the “broadest holistic means to know, explain, interpret, and predict nursing care phenomena to guide nursing care practices” (Clarke et al., 2009, p. 235). Consequently, cultural sensitivity results in improved patient care, decreased health disparities, and enhanced access to health care (National Institutes of Health [NIH], 2016).

Learning style encompasses the most ideal means by which students find themselves taking in and retaining information (Pettigrew, 2015; Zoghi et al., 2010).

Obesity can be generally associated with a BMI of 30 or greater and is represented by the disproportionate amount of body fat related to the individual’s height (Merriam-Webster, 2015). Obesity’s increasing incidence has caused the WHO (2003) to consider it an epidemic carrying with it unrelenting comorbidities, threatening “to overwhelm both developed and developing countries” (para. 2).

Virtual simulation pertains to application of assessment or communication techniques within a fictitious computer-based environment (Stanford School of Medicine, 2016). Complete or immersed virtual simulation involves the use of specialized equipment such as designated glasses, headphones, and clothing (Stanford School of Medicine, 2016). For the purposes of this

proposed change project, however, immersed virtual reality does not apply due to its limited availability for students to use within their home or per their personal schedule. Virtual simulation allows for the repeated review and eventual accomplishment of required and essential skills (Kilmon et al., 2010).

Summary

Culturally sensitive care is patient-centered and holistic care, and thus requires communication with the patient. One cannot simply assume he knows the needs and desires of patients based on their age, gender, family, presumed culture, or diagnosis (Epner & Baile, 2012). Task-orientation does not truly depict the roles of professional RNs, but rather they should have the goal of authentically understanding the different aspects of their patients' overall health.

Patients are more likely to feel confident in their healthcare providers when they experience culturally sensitive, patient-centered care (Tucker, Marsiske, Rice, Nielson, & Herman, 2011). The saying that practice makes perfect offers an ideal picture of what can be gained by using simulation to build confidence to provide culturally competent care. During an interview, Leininger commented that the CCT "has given nurses guidance, hope, and confidence and made nurse think about the most complex and difficult phenomena of human caring and cultural caring (Clarke et al., 2009, p. 236).

Providing high-quality, holistic, and culturally sensitive care for the bariatric client requires nurses to have available the necessary resources and education (Lansing et al., 2009). Staff development specialists play a key role in promoting patient-centered care for their institution, leading to decreased complications and length of stay rates (Lansing et al., 2009). Employing virtual stimulation of bariatric culturally sensitive care within staff

development will help ensure nurses are better prepared to deliver superior patient care. New educational programs cannot be put into action without first researching and establishing their value.

Chapter Two: Literature Review

Bedside nurses possess the best opportunities to understand their patients' cultural differences (Calvillo et al., 2009; Ume-Nwagbo, 2012) because of their daily interactions, which helps to shape their perspective when assessing for any cultural disparities. Cultural differences seen in the obese population should also be acknowledged in the interest of providing these patients with equal, safe, and superior care (Calvillo et al., 2009).

An important first step in any research improvement project is to formulate a PICO(T) question. A well-formulated scientific question leads to a detailed literature search after recognizing crucial criteria (Duke University, 2016). The PICO(T) question for the current change project is: Would providing a simulated learning experience improve medical-surgical nurses' knowledge, skill, and attitude in the delivery of culturally-competent care of the bariatric patient when compared to their previous learning through lecture? Just as curriculum design must start with the final goal in mind (Caruana, 2015), the PICO(T) question maps out the appropriate research course.

A thorough literature review is a basic ingredient in any research, helping to show that vital investigative steps have not been overlooked (Kim, 2015). The reader is assured that meticulousness has been followed in producing reliable and authentic information (Kim, 2015). Increasing the number of sources in the literature review amplifies the trustworthiness of a study (Kim, 2015). The current change project paper will review more than 30 scholarly sources.

Rigor

Johnson and Webber (2015) explain that "epistemologically significant research" is the foundation of a literature review in the formation of evidence-based professional nursing practice (p. 21). Research studies selected for inclusion in this change proposal literature review

concentrated on cultural competency or sensitivity and the tools used in their development, as well as the methods used in the evaluation process. The literature search focused on full-text scholarly, peer-reviewed, English language articles dated within the last seven years obtained through the credible databases of EBSCOhost and ProQuest. Preference was given to studies from the last five years. Through a Google search, grey literature such as committee reports and fact sheets from websites such as the CDC, WHO, and OAC were utilized.

A successful search for relevant literature starts with choosing pertinent key words. Ideal key words will not only lead to applicable articles, but will provide quicker and better results than searching for phrases (Lebanon Valley College, 2016). Key words chosen for this project include cultural, competence, sensitivity, obesity, bariatric, simulation, virtual, and Second Life.

Literature Review

Simulation. Experiential learning, including that known as “informal curriculum,” encourages active student engagement by incorporating interactive formats (Ming-Jung, Yao, Lee, Hwang, & Beach, 2010, p. 663). Ideally, simulation gives students a direct connection with an experience and provides an opportunity for critical reflection, wherein participants may analyze, reconsider, and question the information received, thereby making the learning more tangible (Rogers, 2011; Bart, 2012). Whereas simulation permits learning to be the primary focus rather than teaching, students have freedom to create their own knowledge by “letting their imagination fly” (Esteves, Fonseca, Morgado, and Martins, 2011, p. 634). Simulation, regardless of the method, offers students and experienced nurses opportunities to rehearse and perfect needed skills. Virtual simulations should provide students with experiences which are otherwise not available as well as enhance their problem-solving learning opportunities (Rogers, 2011). Nurses who have been practicing for several decades, also known as seasoned nurses, are

probably more familiar with task trainers in the form of mannequins or individual body parts, which can be used in learning proficiencies such as bed baths, occupied bed linen changes, and intravenous access abilities (Nehring, 2010). Recent nursing graduates are more acquainted with high-fidelity simulators. Hands-on learning experiences, even if using the hands created through a computer-based format, yield multiple positive results, such as improved problem solving, technical skill performance, and critical thinking through safe environments (Rogers, 2011). Overall cost-effectiveness, time, and space flexibility, as well as being student-centered are added benefits of computer-assisted virtual simulation (Rogers, 2011). Simulations provide the student with problem-based learning, allowing the student to experience possible real-life situations repeatedly without risk of patient harm or student anxieties stemming from negative remarks from a teacher (Rogers, 2011). Long (2012) felt that if individuals expect professional nursing care which embraces cultural sensitivity, it must therefore be part of the educational process; it certainly will not happen by accident and therefore should include virtual simulation to achieve promising results in student cognizance, comprehension, and confidence in working with patients of varying cultures.

Challenges can be found when investigating simulated learning experiences for the classroom. Onello and Regan (2013) explain that high-fidelity simulations should not be limited to reactions to critical or emergent situations. More time or focus needs to be placed on “risk-sensitization” or the prevention of those situations by recognizing the patient’s condition is deteriorating (Onella & Regan, 2013, para. 7). Associated costs can directly or indirectly affect an organization’s ability to adopt and implement simulation equipment or software (Ravert, 2010; Reyn, 2010).

Available in many forms, virtual simulation allows users to intermingle within a digital

world, often incorporating tactile, or hands-on, simulation (Nehring, 2010). Gaming is one example of virtual simulation that has become very popular as a useful and effective teaching strategy for decision making, and makers of computer-based simulations are taking advantage of these same principles (Nehring, 2010; Rogers, 2011). Whether fashioned as a game or solely as an instructional method, Second Life (SL; Linden Research, 2016) offers role-playing through an adopted avatar. Creativity is a key ingredient in simulation programming or learning in general (Isaacson, 2011). Almost as if through a window, users can visualize multiple avatars working together on a task. Desiring to evaluate the use of SL in nursing education, Rogers (2011) interviewed 16 students before and after their exposure to six digital clinical scenarios within a SL world referred to as “Critical Life” (p. 609). The first interview investigated students’ attitudes related to simulation as a learning tool, which aligns with the chosen constructivist theory (Rogers, 2011). Recognizing that the typical SL simulation allows for participants to avoid collaboration and confrontation, Rogers (2011) designed his simulation to strongly encourage partnerships and relationship building, thus protecting the learning sequence. Through this teamwork, all decisions were required to be unanimous, pushing for evidence-based practice and leadership development (Rogers, 2011). Jang and Ryu (2011) also used SL in testing the applicability of gaming to real-life situations in fostering leadership skills.

While the SL format can display multiple avatars, another simulated learning environment known as Shadow Health configuration, presents the patient and the user on the screen. The user appears as only a set of hands seemingly able to extend through the computer screen and thus can perform assessment techniques such as percussion or palpation (Kelley, 2015). While this is very beneficial for improving advanced physical assessment and interview skills, the Shadow Health option does not demonstrate other nursing skills such as body

positioning (Kelley, 2015). Rogers (2011) found students appreciated being able to work in teams within the virtual environment, which would be more ideal for SL scenarios. Through deliberation, consideration of possible substitutions, understanding stated positions, persuasion, and inquiry, collaboration expands the knowledge of those involved (Rogers, 2011; Weimer, 2011).

Through a reflective journaling process, both Shadow Health (Kelley, 2015) and SL call for students to consider the clinical decisions made and why those conclusions were drawn, and as well as an explanation of any strengths or weaknesses in specialized skills, taking into consideration any prior experiences or literature consulted (Rogers, 2011). Kolb (2015) described the importance of not only embracing an experience, but also reflecting on it, transforming it into knowledge; one without the other is futile (Kolb, 2015). Levett-Jones, Bowen, and Morris (2015) expressed strong beliefs in the need to provide transformative experiences in nursing education, capable of “challenging students to ‘think like a nurse’” (p. 92). In Shadow Health, students can use and improve their critical thinking skills as part of the journaling process (Gainesville Area Chamber of Commerce, 2012; Kelley, 2015). Formative evaluations such as journaling or debriefing periods (NLN, 2015) push students to engage in self-examination and work as equals within a team atmosphere, including conversations with the teacher (Esteves et al., 2011). Esteves et al. (2011) also found it was important for students to receive constructive comments to help alleviate any uncertainties, thus calling for teachers to understand the significance of supportive observations. Simulation generally presents the students with less anxiety regarding teacher comments. This proposed change project centers not only on communication, but also on behaviors and skills associated with caring for the bariatric client. Although Rogers’ (2011) simulation world did not include technical skills, the results did

suggest students would be better prepared to learn and accomplish similar skills because the information is presented in a more advantageous manner. Educators should strongly consider integrating comparable strategies to augment traditional learning strategies (Jang & Ryu, 2011; Rogers, 2011). In addition to the self-reflective journaling process, Shadow Health also has available a scoring mechanism, which provides faculty with more reliable and valid assessments (Gainesville Area Chamber of Commerce, 2012).

Whereas SL (Linden Research, 2016) and Shadow Health (Kelley 2015) allow the user to participate in the simulation experience, virtual communities such as The Neighborhood (Giddens, 2007), Mirror Lake (Curran, Elfrink, & Mays, 2009), Stilwell (Walsh, 2010), and Wiimali (Levett-Jones et al., 2015) allow the user to observe a digital community involving an ongoing story of fictional characters (Giddens, 2007; Giddens, Hrabe, Carlson-Sabelli, Fogg, & North, 2012), which takes advantage of the Benner et al. (2010) “power of context” (as cited by Giddens, Hrabe et al., 2012). Contextual learning enables nurses to become even more captivated by their patient’s status and therefore helps them notice small condition changes (Curran et al., 2009). Sound clinical judgement is largely dependent on the extent to which nurses know their patients and truly communicate with them (Curran et al., 2009). Comparable to SL (Linden Research, 2016) and Shadow Health (Kelley, 2015), virtual community designers understand the value of interpretative pedagogy, story-telling, and case studies as substantiated teaching strategies (Giddens, 2007). Wiimali (Levett-Jones, 2015) offers users access to a blog, allowing participation in an online discussion, further deepening the users’ perspectives, which parallels the reflection journaling process of Shadow Health (Kelly, 2015) and SL (Linden Research, 2016).

The Neighborhood was employed in three of the studies reviewed (Giddens, Shuster, &

Roehrig, 2010; Giddens, Hrabe et al., 2012; Giddens, North, Carlson-Sabelli, Rogers, & Fogg, 2012). Using undergraduate nursing students, Giddens, Shuster et al. (2010) performed a descriptive and comparative study, in which all the students were exposed to The Neighborhood for three college terms. Students completed surveys following the educational experiences, providing personal demographic information, as well as opinions on their impression of the virtual community format and its use within the courses of study (Giddens, Shuster et al., 2010). Giddens, Hrabe et al. (2012) performed a quasi-experimental study looking at commitment and academic accomplishments among baccalaureate nursing students in a university nursing program in the Southwest. Their study involved two classes covering the same curriculum but on different campuses, which later proved to be a limitation, keeping them from being able to teach identical content on the same day (Giddens, Hrabe et al., 2012). Although several variables were noted, the researchers confidently explain the positive findings found in the experimental group (Giddens, Hrabe et al., 2012). Greater student engagement was seen when less instructional time is spent behind a podium, and learner-centered approaches such as virtual simulation are included (Giddens, Hrabe et al., 2012). Rogers (2011), however, states some teachers may have concerns in combining traditional teaching strategies with simulations. Giddens, North et al. (2012) performed a correlational study to look specifically at the virtual community's ability to teach and improve cultural competence through The Neighborhood's presentation of multiple diverse stances and points of view among the virtual personalities.

Ease of use and availability of simulation options for the user are important points to consider. Both Shadow Health (Kelley, 2015) and The Neighborhood (Giddens, 2007) allow for flexibility in students' schedules by permitting participation at any time, which also can also promote user engagement. SL (2016) requires more than one individual to be present or signed

into the system.

While flexibility with signing into these simulations is helpful, faculty must also be conscientious of their students' possible need for advanced computer capabilities. Whereas the Levett-Jones et al. (2015) Wiimali boasts being free and requiring no complex computer specifications, Shadow Health (2016) has a list of preferred internet browsers, memory, operating system, and graphics. The complexity involved in creating SL's interactions requires substantial technological advancements and maintenance (Giddens, Shuster, & Roehrig, 2010), all of which would likely become costs passed on to the consumer.

Great importance can also be placed on the cultural differences seen in different national or international regions. Both Mirror Lake (Curran et al., 2009) and Wiimali (Levett-Jones et al., 2015) had local demographic data incorporated in their development. The Ohio State University College of Nursing faculty created Mirror Lake with the community of Franklin County, Ohio in mind (Curran et al., 2009). Wiimali reflects the region surrounding The University of Newcastle in New South Wales, Australia and includes over 80 stories (Levett-Jones et al., 2015). The Neighborhood contains six nurses and 40 patients in the United States (Giddens, 2007; Giddens, Shuster et al., 2010); Mirror Lake involves a hospital, a Canadian retirement, and 62 families (Curran et al., 2009); Stilwell depicts 60 individuals in the United Kingdom (Walsh, 2010). While this may make the simulation less transferable to other nursing education programs, it does increase the level of connectedness to the patients for the nurses in those regions. Giddens, Shuster et al. (2010) explained that while their study saw positive results with the use of The Neighborhood, it could not necessarily generalize the findings because the study was done with only nursing students in the Southwest.

Outcomes. Exemplar research measurement tools must accurately, truthfully, and

sensitively summarize a construct, while removing “subjectivity and guesswork” (Polit & Beck, 2012, p. 329). While no method is perfect, self-report or observational methods tend to be less reliable than those which are biophysiological (Polit & Beck, 2012). A very commonly used objective measure of reliability, Cronbach’s alpha is used to describe a tool’s internal consistency and is conveyed as a number between zero and one (Tavakol & Dennick, 2011). When communicating research results, numbers are more accurate than words alone (Polit & Beck, 2012). Cronbach’s alpha should be closer to one, while not exceeding 0.90, which could suggest redundancies (Tavakol & Dennick, 2011).

This literature review revealed several studies choosing to use self-assessment surveys (Tucker et al., 2007; Balcazar, Suarez-Balcazar & Taylor-Ritzler, 2009; Ellenwood & Snyders, 2010; Mirsu-Paun, Tucker, Herman, & Hernandez, 2010; Sanner, Baldwin, Cannella, Charles & Parker, 2010; Hunter & Krantz, 2010; Mirsu-Paun et al., 2012; Wall, Tucker, Roncoroni, Allan, & Nguyen, 2013; Govere et al., 2016; Tucker et al., 2016), which Long (2012) felt would have questionable reliability due to possible social-desirability, or essentially the desire to be politically-correct. Long (2012) reviewed several studies using numerous evaluation tools, some of which demonstrated positive aspects, but fell short of efficaciously determining cultural competence. Using a quasi-experimental design, Sanner et al. (2010) developed a forum through which to assess students’ cultural sensitivity. First actualized in 2008, this forum lasted three hours, included a crucial speaker, a communal meal, and ended with a small group participatory activity (Sanner et al., 2010). Prior to and following the forum, participants completed Pascarella et al.’s (1996) Openness to Diversity/Challenge Scale (ODCS), an eight-item self-assessment survey using the Likert scale (as cited by Sanner et al., 2010). As reported by Pascarella et al. (1996) and Wortman (2002), the ODCS has a Cronbach’s alpha of 0.83 to 0.84

(as cited by Sanner et al., 2010).

Both Hunter and Krantz (2010) and Govere et al. (2016) were influenced by Campinha-Bacote's (2003) cultural competence model, the Process of Cultural Competence in the Delivery of Healthcare Services. Govere et al. (2016) assessed the cultural competence of undergraduate nursing students using Campinha-Bacote's (2002) Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R). Govere et al. (2016) explained it as a 20-item analysis tool, having an excellent construct validity with a Cronbach's alpha of 0.78-0.96, ideal for measuring different aspects of cultural sensitivity in healthcare professionals. For this study, the students completed the IAPCC-R before and after completing an assigned online educational module, the Culturally Competent Nursing Modules (CCNM), which was created by the U.S. Office of Minority Health, a division of the U.S. Department of Health and Human Services (USDHHS; Govere et al., 2016). Hunter and Krantz (2010) used the model in the development of a graduate course on cultural diversity. Although the original model included cultural desire, the authors felt it was not something to be taught through an educational course, therefore it would not be an applicable measurement for the study (Hunter & Krantz, 2010). The model's four remaining components, remembered by the acronym "ASKED," include cultural awareness, cultural skill, cultural knowledge, and cultural encounters provided the base for the courses (Hunter & Krantz, 2010). Using the IAPCC-R, students' status of cultural competence was evaluated as well as any changes in other levels of cultural sensitivity, namely cultural incompetence, cultural awareness, and cultural proficiency (Hunter & Krantz, 2010). Even though Hunter and Krantz (2010) chose not to include cultural desire as a teachable topic, it remained a part of the chosen inventory and demonstrated the most significant improvement. In contrast to Govere et al. (2016), this article also used the IAPCC-R

but stated it was a 25-item tool with a Cronbach's alpha ranging from 0.77 to 0.87. Students' statuses of cultural competence were evaluated as well as any changes in other levels of cultural sensitivity, namely cultural incompetence, cultural awareness, and cultural proficiency. Scores were also evaluated in determining any correlations with teaching modes, web-based or traditional classroom (Hunter & Krantz, 2010). This inventory method was found to be very beneficial as it could score cultural competence in general while also incorporating several subscales, all with one tool, which agreed theoretically with the basis for these cultural competence courses. Citing Campinha-Bacote (2003), Hunter-Krantz (2010) explained how the IAPCC-R's results can be converted to a nominal scale, using the terms "cultural incompetence, cultural awareness, cultural competence, and cultural proficiency" (p. 209). However, when later discussing the study results, they referred to the nominal categories of "cultural knowledge, cultural skill, cultural desire, and overall cultural competence" (Hunter & Krantz, 2010, p. 210).

Balcazar et al. (2009) also appreciated the need for a validated tool for measuring cultural competence and described the process taken by Suarez-Balcazar et al. (n.d.) in fashioning such an instrument. The resulting Cultural Competence Assessment Instrument-University of Illinois at Chicago (CCAI-UIC) is a 24-item self-assessment using the Likert scale and was validated with the assistance of 477 vocational therapy professionals (Balcazar et al., 2009). Depending on the component, the CCAI-UIC's Cronbach alpha was 0.76 to 0.82 (Balcazar et al., 2009).

Featuring a longer, more detailed self-assessment, Ellenwood and Snyders (2010) used the Intercultural Development Inventory (IDI) as part of a mixed methodological tactic to assess cultural understanding. The IDI was a 60-item pre- and post-test based on Bennet's (1986) Developmental Model of Intercultural Sensitivity (DMIS; as cited by Ellenwood & Snyders, 2010). Per de Vellis (1991), sections of the IDI were found to have a Cronbach's alpha of at

least 0.80 (as cited by Ellenwood & Snyders, 2010). Students were guided through an eight-week pilot study wherein they interacted in an online format and eventually met personally with someone of a different culture, thereby confirming their own cultural uniqueness (Ellenwood & Snyders, 2010). Students' comments and scores on the IDI indicated more experiential learning opportunities may be more helpful than structured online assignments (Ellenwood & Snyders, 2010).

The Tucker et al. (2007) Patient-Centered Culturally Sensitive Health Care Intervention Program, which was based on the Patient-Centered Culturally Sensitive Health Care Model (PC-CSHC), focused on the education of both healthcare workers and patients as well as making any needed logistical changes to clinic environments. One of the main efforts for Tucker et al. (2007) was the construction of "inventories" (p. 686) with which to better measure cultural sensitivity from the patient's viewpoint. Focus group findings revealed that patients, irrespective of their specific race, ethnicity, or identified gender, valued quality communication skills, personalized treatment, and competent performance of the healthcare worker (Tucker et al., 2007). Various self-assessment inventories were then created based on specific groups of patients, healthcare workers, or care settings (Tucker et al., 2007). Not noted in other self-assessment tools, the Tucker et al. (2007) inventories permitted patients to add in any comments on behaviors not already listed, which advocates for personalized care, which is less stereotypical and more culturally sensitive. Mirsu-Paun et al. (2010) sought to validate the Tucker-Culturally Sensitive Health Care Inventory (T-CSHCI), which was developed to address limitations noted in existing cultural assessments. This form's 141 items were actions and mindsets identified by patients as being desirable, which the participants would rate using the Likert scale (Mirsu-Paun et al., 2010). Using a convenience sample, this inventory was found to

be reliable, with a Cronbach's alpha ranging from 0.77 to 0.94, but the small sample size limited the study's effectiveness (Mirsu-Paun et al., 2010). This same tool was used in assessing the cultural sensitivity of the same population. The participants were given several forms to complete, some of which were used in the validation of the tool and others to assess for cultural sensitivity (Mirsu-Paun et al., 2010; Mirsu-Paun et al., 2012). A similar cultural sensitivity inventory, the Tucker-Culturally Sensitive Health Care Office Staff Inventory-Patient Form (T-CSHCOS-PF), was used in assessing healthcare clinic staff from patients' perspectives by Wall et al. (2013). Detailed procedures were created for the selection and recruitment of sites and patients (Wall et al., 2013). Exceptional internal consistency, found in a Cronbach's alpha of 0.97, resulted from using detailed training systems in place for all members of the team (Wall et al., 2013). Wall et al. (2013) found that cultural sensitivity training needs to be tailored to the office staff. Whereas the Wall et al. (2013) study included an evaluation of healthcare office staff cultural sensitivity from the patient perspective, the Tucker et al. (2016) took the opposite approach, allowing office staff to perform a self-assessment, using the Tucker-Culturally Sensitive Healthcare Office staff Inventory-Self Assessment Form (T-CSHCOSI-SAF). This instrument was comprised of 62 items, using the same items as those seen on the T-CSHCOSI-PF (Tucker et al., 2016). Errors within a scholarly paper such as that presenting research findings can cause one to question the validity of the findings. Tucker et al. (2016) erroneously referred to the current tool by referring to it as the Tucker-Culturally Sensitive Healthcare Office Staff Inventory-Office Staff Form, rather than a self-assessment form and the Mirsu-Paun et al. (2010) research focused on a provider's inventory yet later referred to it as a patient inventory. While these errors could be cause for concern, this author feels they are more consistent with typographical oversights missed in the editing process, and do not reflect on the credibility of the

studies.

As opposed to tools to measure the levels of attained cultural competence, some authors searched for methods which would prove useful in cultural competence educational processes (Watts, Cueller, & O'Sullivan, 2008; Balcazar et al., 2009). Watts et al. (2008) sought to design a plan for incorporating better cultural competency learning opportunities at the University of Pennsylvania's nursing program. This was accomplished by first creating a new job position through which a new cultural integrity initiative would be generated, through which students and faculty would become engaged in the plan, culminating in the promotion of a considerate environment for all cultures (Watts et al., 2008). Following Bloom's Taxonomy, concise sample case scenarios showing multicultural interactions were shown to faculty members, followed by a debriefing period, which allowed for reflection and further development of critical thinking (Watts et al., 2008). Organization was key to this meeting, as the coordinator's guide included suggested questions and objectives (Watts et al., 2008). Eventually, the team established the Blueprint for Integration of Cultural Competence in the Curriculum (BICCC), a 31-item instrument to be used for evaluating cultural competence among faculty and students (Watts et al., 2008), which was based upon Kotter's (1995) framework for understanding the intricacies of organizational change. Although not a trial type research study, Balcazar et al. (2009) agreed with Watts et al. (2008), in recognizing the importance of Bloom's taxonomy when formulating a conceptual framework by incorporating "critical awareness...cultural knowledge...skills development..." (p. 1155) and "practice/application...of the previous components" (p. 1155). The affective domain is demonstrated by self-reflection, which is key to identifying and understanding any personal biases toward individuals who may be different (Balcazar et al., 2009). Reaching cognitive domain objectives is seen by achieving a level of true appreciation

and acquaintance with other cultures, including those not observable with the naked eye (Balcazar et al., 2009). Psychomotor domain objectives are portrayed through communication skills and putting all these elements into daily practice (Balcazar et al., 2009). An important piece of the Balcazar et al. (2009) framework is the support of the organization, which is profoundly important as healthcare professionals “do not function in a vacuum” (p.1158). It makes little difference the ambition held by a nurse to be culturally competent if the hospital fails to offer educational sessions or address any multicultural issues (Balcazar et al., 2009).

Conceptual frameworks offer visual images in stimulating or capturing students’ attention and thinking processes (Hallock, 2012). When combined with reading assignments or lecture, frameworks help solidify the subject or thought being relayed (Hallock, 2012). Balcazar et al. (2009) found limited validated conceptual frameworks within their literature review and therefore sought to create one using essential components found through their research.

The inventory investigated by Hunter and Krantz (2010) helped to prove that constructivist teaching methods, such as interacting with someone of a different culture, can emphatically have a valuable effect on student’ cultural competence levels. The authors were surprised to see fewer persuasive results related to cultural awareness and encounters, but they felt this could improve with the building of self-confidence (Hunter & Krantz, 2010).

The Population. When determining desired course objectives, the teacher must consider the applicable student population. The same holds very true for researchers in choosing a relevant population. The chosen population group will have its own characteristics, including age, prior experiences, and racial or ethnic cultural differences (Narozny, 2010), which will also include place of upbringing or current residence. Many of the reviewed studies chose to focus on healthcare providers, with most being in nursing (Giddens, Hrabe et al., 2012; Giddens,

North, Carlson-Sabelli, Rogers & Fogg, 2012; Govere et al., 2016; Rogers, 2011; Sanner et al., 2010; Watts et al., 2008). Out of 120 students which were available, the Sanner et al. (2010) study focused on a convenience sample of 47 public university students in the southeastern United States. These students attended a forum which included a nursing education speaker who was an expert on cultural diversity (Sanner et al., 2010). The studied population was comprised primarily of females (85%), students over 24 years-of-age (62%), and 49% were non-Caucasian, (Sanner et al., 2010). The study authors felt the forum interventions were more effective in these subsets of the student population (Sanner et al., 2010). Interestingly, the nursing major was well represented in the sample, at 82% (Sanner et al., 2010). Although all students were invited to attend bias may have been introduced into the study by giving extra credit to nursing students for participation (Sanner et al., 2010). The undergraduate nursing students voluntarily participating in the Govere et al. (2016) study were part of convenience sample of 13 juniors and five seniors enrolled in medical-surgical nursing courses. Most of the sampled students were female, Caucasian, English speaking, and averaged 21 years-of-age (Govere et al., 2016). Several of the students had either received previous cultural competence training or had traveled abroad (Govere et al., 2016). Ellenwood and Snyders (2010) elected to study 13 graduate level psychology students, six of whom were from a United States university and seven were from South Africa, most of which were female and had never resided anywhere different than their home culture. The authors recognized that this small group of students may have been a limitation and therefore suggest incorporating a larger sample in the future (Ellenwood & Snyders, 2010). Mirsu-Paun et al. (2010) found cultural competence among medical students not well researched and chose to utilize the Tucker-Culturally Sensitive Health Care Inventory-Provider Form (T-CSHCI-Provider Form) for this purpose. This sample population consisted of

217 medical students from the southeastern United States, all of whom were in the last two years of medical school (Mirsu-Paun et al., 2010). With a participation rate of 18.1%, the sample group came from a larger invited group of 1,199 students, had mean age of 26 years and was predominantly non-Hispanic Caucasian (Mirsu-Paun et al., 2010). It appears the exact same student population was active in the Mirsu-Paun et al. (2012) study. The Tucker et al. (2016) study participants were from 67 healthcare offices across the US, with 510 staff persons taking part. The overwhelming majority of the participants were female (87.5%), with Caucasians (40%) dominating the race/ethnicity category, and the age range of 25 to 34 years was seen most at 30.9% (Tucker et al., 2016). The Hunter and Krantz (2010) study included participation from 76 nursing students taking either a web-based (n=52) or a traditional classroom (n=24) based graduate level course on cultural competence were included in the quasi-experimental pre- and post-test design. The online course was offered during the summer and the live traditional format was used for the fall course (Hunter & Krantz, 2010). All the students were enrolled in the same university located in an urban setting within the midwestern United States (US; Hunter & Krantz, 2010).

In contrast to the previous studies, the Tucker et al. (2007) and Wall et al. (2013) studies involved patient groups. The focus group utilized by Tucker et al. (2007) to create their inventories consisted of 135 patients from north-central Florida, and was evenly distributed between African Americans, Hispanics, and non-Hispanic Caucasians. All patients were lower ranked socio-economically and were being treated in clinics serving a large portion of lower-income patients (Tucker et al., 2007). Wall et al. (2013) enlisted the assistance of 1,191 patients from 67 different clinic sites to act as study participants. The clinic locations varied from across the US, with the most (50%) being found in the western portion of the country, and a large

amount (71.4%) being described as community-based (Wall et al., 2013).

Just because a study population does not seem to be related to healthcare does not mean the applicable research study results cannot be applicable. For example, many business concepts are transferrable to healthcare. Utilizing 808 Korean gaming enthusiasts, Jang and Ryu's (2011) study was not related to healthcare at all, but rather investigated the use of gaming for the building of leadership skills. Large healthcare organizations can prove to be a challenging atmosphere calling for leadership to take advantage of an establishment's diversity and "efficiently utilize resources when designing management processes, while encouraging personnel to work towards common goals" (Al-Sawai, 2013, p. 285).

Cultural Competence. The diversity explosion creates opportunities for healthcare workers to encounter someone of a different culture (Balcazar et al., 2009). Effectively and successfully caring for patients of differing cultures requires much more than any racial, ethnic, and linguistic attributes. It makes no difference with which cultural group the healthcare worker best identifies, there can and will be challenges when interacting with patients, families, or coworkers of differing beliefs, values, and traditions (Balcazar et al., 2009). The first step toward cultural sensitivity is a personal yearning to make a difference (Balcazar, 2009). Being able to clearly define cultural competence has proven to be a challenge in the literature, thus leading to difficulty in creating tools to attain and measure the same (Balcazar, 2009). Just as teachers use Bloom's Taxonomy as a guide in the educational realm, healthcare workers, and therefore their instructors, must remember how cognitive, psychomotor, and affective core competencies must be used to "bridge the provider-patient cultural gap" (Watts et al., 2008, p. 137). Staff development specialists are not excluded, as seasoned nurses may have not had cultural competency during their schooling and staff should have reviews of the material

available because information is likely to change, calling for a constant adaptation of skills.

Race and ethnicity clearly dominates cultural competence literature (Tucker et al., 2007; Balcazar et al., 2009; Mirsu-Paun et al., 2010; Sanner et al., 2010; Long, 2012; Govere et al., 2016; Lewis, Edwards-Hampton, & Ard, 2016). Long's (2012) article focused on preparing students to care for cultures within differing races and ethnicities, but also mentioned alternative sexual identities. These factors play a role in patients' healthcare views and their relationships with the nurse (Long, 2012). She also mentioned that because the included cultures within the US alone are climbing astronomically, it is not ideal to only teach "do's and don'ts" as they may contribute to further stereotypical behavior (Long, 2012, p. 104). Sanner et al (2010) discussed how nursing views these cultures and their challenges. Govere et al. (2016) tended to use an all-encompassing term of "cultural groups" (p. 156), in addition to racial and ethnic groups. Balcazar et al. (2009) cited the US Census Bureau (2000) when describing the increasing diversity of the US, with non-European Caucasian descent individuals becoming the minority in larger cities. Balcazar et al. (2009) did go a little further by describing possible factors contributing to diverse cultures by categorizing them as "observable and non-observable" (p. 1155). Familiar factors in addition to those previously discussed are life-stages, identified gender, physical or psychological impairments, and even appearance while those not as obvious include educational levels, any religious connections, socio-economic standing, and those having experienced persecution (Balcazar et al., 2009). Regardless of what is determined to be a diverse culture, becoming culturally competent clearly calls for repeated interactions with various cultures and improving one's cultural comprehension through self-reflection (Balcazar et al., 2009). Results from the T-CSHCI-Provider form used by Mirsu-Paun et al. (2010) were divided into smaller sections, which could then be used in better assessing for the presence or lack of

cultural sensitivity as well as determining potential research needs. Mirsu-Paun et al. (2010) recognized that future medical students, not to mention patients and other healthcare professionals, can also benefit from this endeavor because culturally sensitive care had not previously been a necessary concept in medical schools. Other groups experiencing cultural sensitivity disparities were mentioned, but for the Mirsu-Paun et al. (2012) study, the focus remained as many mentioned before, highlighting any differences along the racial or ethnic lines.

Cultural competence in healthcare is by no means limited to the hospital setting. Physician offices have proven to also be critical components of overall healthcare. Tucker et al. (2007) sought to describe the Patient-Centered Culturally Sensitive Health Care Model (PC-CSHC) and its use in linking culturally-sensitive care in the clinic setting to patient health. This included any necessary changes in the physical environment to better create a sense of “comfort and belonging” for clients, and of important note, involving administrators and staff in the change process (Tucker et al., 2007). Similarly, the Tucker et al. (2013) study was designed to investigate for any relationships or connections between healthcare office staff and patients’ adherence to treatments and appointments. Finding that even those who seemingly play insignificant roles within the office can have a tremendous impact on patients’ perceptions, Wall et al. (2013) strongly suggests all office staff be included in any attempts to improve their cultural sensitivity, and therefore increase patient satisfaction (Wall et al., 2013). Regarding cultural descriptions of the sample participants, Wall et al. (2013) is comparable to others in describing its sample in terms of race, ethnicity, age, education, and income levels; there is no mention of weight or history of oppression. When describing limitations to their study, Wall et al. (2013) suggested there may have been different results if there had been a greater presence of minorities, if there had been a way to connect with noncompliant patients, or if it were possible

to have study information in more languages. As previously mentioned, Tucker et al. (2016) also aspired to assess for culturally sensitive attitudes within the healthcare office staff population by using a convenience sample rather than a random version, even though the results would not be considered generalizable. Recognizing how self-assessments can be potentially unreliable due to inherent “socially desirable” responses, Tucker et al. (2016, p. 3) cite the recommendations of Davis et al. (2006) to consider combining self-assessments with external observations of healthcare office staff to patient interactions.

Bariatrics. Cultural sensitivity is a very convoluted subject to broach and adding obesity to the mix may lessen the ability to understand the topic (Lewis et al., 2016). Aspects such as socioeconomic differences, race and ethnic diversities, the ability or desire to consider various weight loss interventions, physician communication styles, access to healthcare, muscle efficiency and energy expenditures, metabolic flexibility, insulin resistance, as well any genetic influences can all affect the establishment of obesity cultural competence (Lewis et al., 2016). Understanding the cobwebbing network created by these factors is key to a restored cultural sensitivity for all involved, providing “more insight to help direct patient engagement and treatment strategies” (Lewis et al., 2016, p. 287).

While this literature review revealed several articles discussing principally racial or ethnic cultures (Tucker et al., 2007; Balcazar et al., 2009; Mirsu-Paun et al., 2010; Sanner et al., 2010; Long, 2012; Wall et al., 2013; Govere et al., 2016), there were much fewer articles highlighting the need for bariatric cultural sensitivity (Camden, Brannan, & Davis, 2008; DeLuca, 2009; Hignett & Griffiths, 2009; Lansing et al., 2009; Knutsen, Terragni, & Foss, 2011; Lewis et al., 2016). The National Culturally and Linguistically Appropriate Services (CLAS), established by the USDHHS (2013), describes behaviors by which health disparities related to

cultural differences should be reduced or eliminated. These standards provide “a blueprint” for guiding individuals and organizations toward culturally competent care (USDHHS, 2013, para. 20), which can and does include the bariatric population. The lack of research literature found on bariatric cultural competence speaks volumes to the lack of understanding of this population as having its own form of culture and promotes the need for further research. While DeLuca (2009) and Lansing et al. (2009) both provide excellent, thought-provoking concepts to consider, such as the health disparities and stigma associated with obesity, the information presented is not part of research studies they have performed. Hignett and Griffiths (2009) also looked at similar risks associated with the bariatric population, and using a qualitative approach with focus interviews, effectively evaluated the bariatric pathway through the healthcare environment.

Employing a different approach, Knutsen et al. (2011) interviewed 12 patients participating in the preparatory process for bariatric surgery, which included a class, in hopes of enabling them to make necessary lifestyle transformations. Realizing the importance of patients taking an active position in their own health, this study aligns with Gilbert’s (1995) opinion on empowerment (as cited by Knutsen et al., 2011). Considering how inequitable care can contribute to further avoidance of healthcare or deepening depression (Camden et al., 2008; Lansing et al., 2009; Lewis et al., 2016), methods of healthcare and communication which empower the obese patient should be a priority for healthcare professionals (Tucker et al., 2007). Knutsen et al. (2011) saw positive results were seen but are also questioned because of the possibility the participants may have taken part in or provided what could be construed as correct or appropriate answers to guarantee having their surgery. A few of the Knutsen et al. (2011) participants verbalized they had been resistant of the class requirement, but eventually found themselves feeling as part of a team or group of friends, largely a result of feeling respected,

which falls in line with the success seen by Weight Watchers (2016).

Taking a different stance, Lewis et al. (2016) explains that obesity is not a culture which stands alone, with no relation to other cultural factors. Their literature review looked at epidemiological patterns relating to obesity, after which they identified gaps where more research is needed (Lewis et al., 2016). It is important for healthcare providers to understand the intricate interactions between obesity and various demographic factors in the interest of seeing improved patient outcomes (Lewis et al., 2016).

Per LaVeist, Gaskin, and Richard (2009), health disparities and subsequent deaths resulting from inferior or inequitable care is estimated to cost \$1.24 trillion in the US (as cited by USDHHS, 2013). Obese patients deserve healthcare services equaling that of non-obese patients (Lansing et al., 2009), enforcing the need for scholarly literature discussing bariatric cultural competency.

Comparison. Comparison is a critical part of current research methods and can take various forms, such as comparing different concepts side by side or comparing differences from point A to point B (Carpi & Egger, 2008). Watts et al. (2008), Long (2012), Sanner et al. (2010), Govere et al. (2016), Ellenwood and Snyders (2010), and Mirsu-Paun et al. (2010) evaluated the effectiveness of various teaching methods. Realizing there was a need for an effective framework for cultural competence in nursing curricula, Watt et al. (2008) developed the BICCC as part of a transformation process in the University of Pennsylvania's School of Nursing. The BICCC included portions of the Association of American Medical Colleges' (2005) Tool for Assessing Cultural Competence, reflecting Bloom's Taxonomy in knowledge, skills, and attitudes (as cited by Watts et al., 2008). Surveyed faculty reported an overall increase in cultural sensitivity within their courses.

Rather than comparing changes, Long (2012) and Sanner et al. (2010) reviewed different teaching methods. Long (2012) found that lecture may provide an easier format for distributing large amounts of information, but can also be accompanied by students' poor retention and lack of effective behavioral changes. Sanner et al. (2010) found that combining lecture with hands-on activities had a statistically substantial impact on stimulating students' openness to diversity. Long (2012) found that cultural competence approaches are commonly relayed using group discussions, along with pre-and post-test self-assessments, but can eventually lack clearly positive outcomes. Sanner et al. (2010) used pre- and post-test methods but failed to match it to the demographic information collected at the beginning of the process, thus limiting the study's findings. Giving students a writing assignment is far more valuable as an assessment tool rather than as a learning tactic because this style will only appeal or apply to a limited number of students (Long, 2012). Kardong-Edgren, et al. (2005) found clinical experiences to be an ideal teaching format for cultural competence education (as cited by Long, 2012). However, there are inherent drawbacks found in limited clinical settings, patients, supervising faculty, and competing for those settings and patients with other schools (Long, 2012). Simulation provides a "safe and controlled" setting for the introductions and acquisition of new skills, but higher costs of needed equipment may prove to be a liability (Long, 2012, p. 105). Napholz (1999) reviewed mentoring as a teaching strategy, but was unable to determine if it was effective in producing the needed results (as cited by Long, 2012). Enlisting the assistance of community members in teaching healthcare professionals may prove fruitful in portraying a unique picture of different cultures, especially as it would likely include a learning, cooperative conversation (Long, 2012). Total immersion seen with studying abroad may not necessarily increase cultural competence, but it does help to decrease anxieties related to different cultures (Long, 2012). Long (2012)

concluded that no one method was found to far outweigh any other, concluding that additional research is needed before cultural competence teaching methods and practice can truly be evidence-based.

Much the same as the Watts et al. (2008) evaluation of a curricula tool, Govere et al. (2016) assessed the effectiveness of the USDHHS' online Culturally Competent Nursing Modules (CCNM) in undergraduate nursing education. Improved cultural competence was found, with 11% of students scoring as culturally competent increasing to 67% following completion of the CCNM, which is suggested to be attributed to their multi-session quality (Govere et al., 2016). Citing Thom, Tirado, Woon, and McBride's (2006), findings that brief cultural competence training is much less effective, Govere et al. (2016) boasted of the CCNM's content including several meetings with various teaching strategies. Based on these findings, Govere et al. (2016) endorsed the CCNM as an effective cultural competence training tool and its cost effectiveness makes it an excellent option.

In contrast, Ellenwood and Snyders (2010) were concerned with students' attitudes which may be present prior to cultural competence training. Remembering the concept of the social judgement theory as described by Park, Levine, Kingsley-Westerman, Orfgen, and Foregger's, (2007) the authors felt that involvement with people from different cultures can lead to the realization that negative impressions were misdirected (as cited by Ellenwood & Snyders, 2010). Improved cultural sensitivity was seen with students expressing their gratitude in learning of cultures different than their own (Ellenwood & Snyders, 2010). This is very impressive as many of the students started out as being ethnocentric, which means harboring feelings of their personal culture being central and defensive against any other group (Ellenwood & Snyders, 2010). But even those students who seemed to believe in a more universal system, resenting any

specific cultural characteristics, were beginning to realize they could acknowledge those differences without losing their own distinctiveness (Ellenwood & Snyders, 2010).

Theory

Leininger's Cultural Care Theory (CCT) (2006) provides extensive and holistic avenues through which cultural care can be explained (as cited by Mixer, 2011) and presents an ideal model for use in this change project. The PICO for this proposed improvement project calls for increased culturally competent care for the bariatric patient using virtual simulation. The literature reviewed demonstrates experiential teaching methods, consistent with the CCT, can successfully promote cultural competence. Although not specifically mentioned in the reviewed articles, the CCT and the sunrise enabler were seen in action as multiple variables were considered as possibly affecting the sample population's view of cultural competence.

Summary

The current literature review revealed the key points of the PICO question were sufficiently addressed. Virtual simulation can be a very useful tool in creating or strengthening the cultural awareness of the healthcare workforce, and because self-awareness is key to this process, involving a self-assessment measurement tool as seen in much of the literature is ideal (Mirsu- Paun et al., 2010; Ellenwood & Snyders, 2012; Giddens, Hrabe et al., 2012; Giddens, North et al., 2012; Tucker et al., 2016). Most of the literature revolved around healthcare professionals and therefore can be considered applicable to this proposed change project (Tucker et al., 2007; Balcazar et al., 2009; Ellenwood & Snyders, 2010; Hunter & Krantz, 2010; Mirsu- Paun et al., 2010; Sanner et al., 2010; Rogers, 2011; Giddens, Hrabe et al., 2012; Giddens, North et al., 2012; Long, 2012; Mirsu-Paun et al., 2012; Wall et al., 2013; Govere et al., 2016; Lewis et al., 2016; Tucker et al., 2016). Although it did seem that race and ethnicity were the primary

areas of cultural diversity, other potential aspects of cultural differences were mentioned, including obesity (Mirsu-Paun et al., 2010). The information gleaned here remains valuable, as patients need to be assessed individually without stereotyping. Both the constructivist theory and the CCT can be seen in play. The constructivist theory not only relies on current experiential learning but also takes into consideration past experiences brought to the situation (Hunter & Krantz, 2010), which doubtlessly plays a role in an individual's identification with a specific culture, intensifying the argument for self-awareness in cultural competence training.

The proposed change project will begin with cultural competence self-assessments to be done by the medical-surgical nurses employed on the fourth floor and 5 West nursing units of MHJ, who will then be instructed to spend time within a cultural competence virtual community, possibly constructed within Shadow Health (Kelley, 2015) or SL (Linden Research, 2016).

Following the findings of the literature review, the proposed change project needs to include pre- and post-intervention self-assessment as a measurement tool. The virtual simulation should involve various patient cultures, such as races, ethnicities, religious affiliation, weight, and identified gender, to better enable the healthcare worker to individualize their care.

An educational experience must be explicit and purposely intentional (Giddens, North et al., 2012); nothing positive will result from a plan being hastily thrown together.

Chapter Three: Making the Change

The human body represents an interweaving of multiple smaller systems, each affecting or being affected by the others in some way; an important detail for specialized physicians to remember. Similarly, all nurses, regardless of their perspective, must envision the patient as an intricate machine having many connected parts. With part of its foundation being in holistic care, Leininger's Cultural Care Theory (CCT; 2004) calls for nurses to also remember the patient is more than a compilation of assorted body systems, but also a collection of other identifiable characteristics. Characteristics, such as race, ethnicity, nationality, religion, and sexual preference or identity, are often the cause of discrimination or assignment of a stigma. Surprisingly, the obese population also faces discrimination based solely on their size. Negative attitudes are part of the stigma attached to obesity and affect the quality of care delivered (Phelan et al., 2015; The Obesity Society, 2016). Equitable care must include cultural sensitivity for the bariatric patient.

Evidence-based practice is essential to bringing unbiased care to the bedside. A quality PICO(T) question must first be formulated to guide a literature review (Lansing Community College Library, 2016). The chosen PICO(T) for this change proposal is: Would providing a simulated learning experience improve medical-surgical nurses' knowledge, skill, and attitude in the delivery of culturally-competent care of the bariatric patient when compared to their previous learning through lecture? By integrating Bloom's Taxonomy in the PICO(T), in-depth learning will be more likely to transpire because of the change process.

The current literature review demonstrated that positive outcomes can be found when integrating simulation in the educational environment. Several simulation methods are available

and can be chosen based on the learning methods most applicable to the student population. Whereas virtual worlds, such as Second Life (SL; Linden Research, 2016) and Shadow Health (2015) allow the student to actively participate in the learning sequence, virtual communities, such as Mirror Lake (Curran et al., 2009), The Neighborhood (Giddens, 2007), Wiimali (Levett-Jones et al., 2015) and Stilwell (Walsh, 2010), allow the student to observe an ongoing, unfolding storyline involving several individuals. The virtual world options can also include an evolving account, such as that seen with Shadow Health's (2015) fictional patient, Tina Jones, who has a new chief complaint with each return visit to the clinic depicted in the individual video segments. The critical difference between virtual worlds and communities lies within the student's level of participation. Observing the story portrayed in a virtual community may be influential, possibly contributing to the changing of perspectives and techniques, but it will not likely compare to the increased concrete learning available through the virtual world.

Kolb's (2015) Experiential Theory provides part of the foundation for this proposed change project. Citing Keeton and Tate (1978), Kolb explains that experiential learning involves the student being "directly in touch" with the subject matter (2015, p. xviii). For that reason, both SL's (Linden Research, 2016) and Shadow Health's (2015) virtual worlds are chosen for this change project. While Shadow Health (2015) falls short of providing the user with hands-on experiences seen in patient positioning or handling specialty equipment, both of which are needed features in learning about cultural sensitivity of the bariatric patient, it does deliver excellent opportunities for patient interviews and assessment. SL can prove to be challenging to navigate, creating a steep learning curve for participants less comfortable with technology (Wiecha, Heyden, Sternthal & Merialdi, 2010). Both modalities have advantages and disadvantages which need to be investigated for their suitability in cultural competency

education.

Intervention

Medical-surgical nurses need to be prepared for a wide variety of diagnoses and patient conditions. It is imperative to include patients' diverse diagnoses and cultural identities when creating interventions to increase cultural sensitivity in nurses. Incorporating various patient characterizations in the learning environment, including those with differing body shapes and sizes, is critical to the success of any cultural educational program. It is also important to remember the body size of the health professional, as this can potentially challenge the ability to easily care for the patient. SL (Linden Research, 2016) allows for the customization of avatars, including body size and shape. Virtual simulation provides a medium allowing for various patient profiles to be created and reshuffled to generate new portrayals, which leads to nurses providing competent care. Even though nurses today may not have reviewed a specific diagnosis or disorder during nursing school, they can, with critical thinking skills, interpret and analyze any given information, make inferences based on that information, evaluate the data for relevance, explain and justify treatment approaches, and perform self-reflection assessments throughout the situation (Nair & Stamler, 2013). Combining virtual simulation with a push for the use of critical thinking skills can result in exemplary healthcare, regardless of the diagnosis or culture.

By having this proposed change project include the creation of two new virtual worlds within SL (Linden Research, 2016) and Shadow Health (2015), it becomes possible for participants to be randomly assigned to either simulation opportunity, rather than having each nursing unit complete a simulation assigned to that unit. The participants' evaluations will be used to assess for one simulation being more effective than its counterpart.

Normally, SL (Linden Research, 2016) has several participants interacting in one context. For this proposed change project, this would require at least two to three participants to be engaged in the program simultaneously. Preference would go to a program wherein participants could sign in and complete the educational opportunity at their own convenience. If they would choose to do this when away from the workplace, they could still receive pay as the program could keep track of their participation and time spent in the process. However, assigning staff to scheduled appointments will help ensure the educational experience is completed, while also reducing the chances of friends joining together to complete the simulation, thus improving opportunities for cultural awareness and critical thinking, while attempting to reduce the possibility for egocentric communication (Savitsky, Keysar, Epley, & Carter, 2011)

Unfortunately, SL's (Linden Research, 2016) computer generated scripted agents, or non-player characters (NPC), are typically only programmed for elementary speech and movements, and would not be able to play the role of the bariatric patient. With this being the case, the proposed change project is then altered to allow multiple users simultaneously, with one of them being required to assume the role of the obese patient, allowing for empathy to lead to improved decision making. The World Health Organization (1997) determined empathy to be a necessary life skill, making it more possible to manage one's own environment (as cited by Colombini, 2015). While allowing for participants to repeat the virtual simulation as desired, the simulation program will be created in such a way that would require the participant to play the roles of the patient, primary nurse, and assisting nurse at least once each.

Considering how anticipation and enthusiasm are essential ingredients to success in business ventures or when instituting any change (DeMers, 2015), employees will be exposed to various forms of advertisement and communication of the upcoming innovative educational

experience. Starting six weeks prior to the virtual simulation experience, during the weekly huddle staff meetings, employees will be notified and reminded of the future virtual simulation opportunity. At five weeks preceding the event, there will be an email with an accompanying professional miniature poster delivered to the employees. Larger professionally designed and created signage will be displayed on the nursing units and in common areas, such as the hallways and cafeteria, starting at four weeks before the event. Reminder emails, again with professionally designed artwork, will be sent three weeks beforehand. Participants will be given two weeks to then complete a pre-existing obesity sensitivity training, followed by four weeks to complete the virtual simulation.

A convincing argument or debate generally starts with providing factual data from scholarly resources (Schrage, 2014; Baer, 2015). The Mercy Health System utilizes HealthStream (2016) for a large portion of its online educational offerings. Prior to beginning the virtual simulation portion, participants will first be introduced to the statistics of obesity and the importance of cultural competence for this group through a pre-existing HealthStream (2016) course entitled “Sensitivity: Considerations and Issues with the Obese Patient.”

To provide an effective virtual simulation experience focusing on the bariatric population, a nursing care theory and an educational theory were chosen. Leininger’s (1995) CCT contributes the concept of delivering care which remembers and acts on the health outcomes of people having cultural backgrounds which may resemble or differ from the healthcare professional (as cited by Clark et al., 2009). Leininger (1995) suggested performing a culturalogical assessment consisting of an all-inclusive, holistic overview of the patient, which leads to “tailor-made” care (as cited by Clark et al., 2009, p. 234). The virtual simulations of this change project involve an interview and assessment process, helping to contribute toward such a

culturalogical assessment. When contemplating educational theories, it is crucial to consider which learning methods and teaching strategies can best meet the identified learner needs (Taylor, Breed, Hauman, & Homann, 2013). Learning best takes place when there is more active participation by the student. Discussion delivers an average of 50% retention, while experiential learning carries 75% retention and 90% is seen when students can immediately use the skill and apply the information (NDT Resource Center, n.d.). For this reason, Kolb's (2015) Experiential Learning Theory, or constructivism, provides the best fit for a cultural competence educational opportunity. Following the virtual simulation, participants will "construct new meanings" through collaborative reflection (Hunter & Krantz, 2010, p. 208) while still in their SL (Linden Research, 2016) avatar form.

Method

Making use of a pilot test offers numerous benefits (U.S. Department of Health and Human Services [USDHHS] n.d.). Starting a project out on a smaller scale helps substantiate that the program is ready for a full-scale application. This proposed change project will first start by using the RNs on the fourth floor and 5 West nursing units of Mercy Hospital Jefferson. There are 64 RNs staffing these departments, with 37 on the fourth floor and 27 on 5 West. The fourth floor RN staff includes one who has been practicing for 35 years, 29 with one to five years' experience, four with five to 10 years' experience, and three with 10 to 20 years' experience. Interestingly, there are also licensed practical nurses on this unit, with one having practiced for 40 years, one with 25 years' experience, and two who have recently graduated from training. The RN population on 5 West is comprised of three graduate nurses, 12 with one to five years' experience, five who have been practicing for five to 10 years, and seven who have been practicing for over 10 years. To apply a large project to the hospital's entire RN staff could

prove to be a monumental task, therefore it is critical to move forward using a smaller group to enhance the making of any changes. The target population's reaction can better be assessed through a pilot study (USDHHS, n.d.). A smaller number of people completing the simulation will mean fewer assessments and project feedback to review. However, this author feels the pilot study will provide formative evaluations useful in improving the program and creating sufficient data to assess the effects of the intervention on the nurses involved. The current plan for four weeks being allotted for the simulation portion of the program may be found to be inadequate or too much, which is why starting with a pilot test is best, as it allows for better decisions to be made when applying the project on a larger scale (USDHHS, n.d.). A hospital wide change project will be initiated following a successful pilot test.

Participant Evaluation

As seen in the literature review, a pre-intervention self-assessment will be devised to determine the current cultural competency of the nurses involved in the change project. The nurses' available time must also be considered in this process. While longer, more detailed self-assessments may have proven to be more reliable, with a higher Cronbach's alpha, they could potentially lead to increased socially desirable answers as the nurse attempts to complete the survey more quickly. Initially, the Campinha-Bacote's Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R; Transcultural C.A.R.E. Associates, 2015) was the chosen tool, but it was then found to be copyrighted, requiring a fee of up to \$40 per participant. This cost could be expected to preclude its use being adopted not only in a pilot format, but certainly for future assessments of every nurse within the institution, especially when taking staff turnover into consideration. Instead, the 24-item Cultural Competence Assessment Instrument-University at Chicago (CCAI-UIC), created by

Balcazar, Suarez-Balcazar, Taylor-Ritzler et al. (2009) will be used, as it was found to be available for download from the internet. No information was found regarding a need to obtain permission for the use of this tool. This tool has displayed excellent reliability with a Cronbach's alpha of 0.76-0.82 (Balcazar et al., 2009).

Project Evaluation

Determining methods which are best for project evaluation will provide not only summative, but also formative assessment opportunities, thereby providing "guidance for leveraging best practices" useful in following a project's progress and measure its overall effectiveness (Prosci, 2016, para. 13). Following Prosci's (2016) suggestions, project evaluations will include tracking time spent in the simulation process, the frequency and content of calls to the educational department for assistance on the topic, employee feedback, and monitoring for any differences in cultural competence on the annual employee evaluations. In addition, the simulation software will be configured to perform pre- and post-intervention assessments of the participants' actions and communication. For a cultural competence project to be truly effective, there must be an adoption of new behaviors and attitudes, thereby making these methods ideal for this purpose.

Limitations

When developing any sort of change or improvement process, it is vital to remember to address any possible limitations, barriers, or ethical considerations (National Institute for Health and Clinical Excellence, 2007). One such example for this proposed change project falls in the previously mentioned costs associated with each use of Campinha-Bacote's IAPCC-R (Transcultural C.A.R.E. Associates, 2015). While this tool could potentially be one of the best options to evaluate the participants' cultural competence, most institutions will not even consider

using it over something which could essentially be free.

Most of the evaluation tools were found to be self-assessment driven using a Likert scale, but bariatrics was not a part of the sentences to be graded. Most of the topics related more to race and ethnical differences. It would be better if the tool measuring bariatric cultural sensitivity would either be more generic or recognize bariatrics as a culture by including obesity sensitivity in the statements.

Ethical considerations for this project include the need to attempt to randomly assign participants to their virtual simulation appointments. As mentioned earlier, part of the reasoning here is to avoid friends completing the project with friends, who would likely share cultural points of view. By completing the simulation with people less familiar, there may be a chance for actions and communication which are more accurate. Savitsky et al. (2011) found that when strangers communicate, there is less opportunity for the “closeness-communication bias,” wherein less information is provided as it is assumed the person on the receiving end of the communication already understands the message (p. 269).

Recommendations

In agreement with Long (2012), additional research should be performed to find a tool more reliable than those revealed through this literature review and should also involve the development of a tool taking a form other than a self-assessment. The tools discussed in this literature appraisal were found to have a Cronbach’s alpha of a minimum of 0.72, with most being 0.97. The Tucker-Culturally Sensitive Health Care Inventory (T-CSHCI) was also found to be reliable in terms of its Cronbach’s alpha of 0.94, but it needs to be re-evaluated because Mirsu-Paun et al.’s (2010) study sample size was too small. As previously mentioned, a Cronbach’s alpha over 0.90 may not be beneficial as it can suggest redundancies (Tavakol &

Dennick, 2011). Long (2012) felt the self-assessment design potentially contributed to answers being socially desirable. By establishing a cultural competence evaluation tool that adopts a different method, perhaps cultural competence could be more reliably measured.

In addition, a cultural competence assessment tool needs to be broad enough to include the bariatric culture. As mentioned previously, racial, ethnic, and language differences seem to dominate the assessment tools discovered in this literature search.

Summary

At 93 million, U.S. obesity rates have reached a point where bariatric cultural competence is long past due (OAC, 2016). The stigma, socially tolerable prejudice, and stereotyping behavior connected to obesity present a hurdle which must be overcome to change the downward health trends associated with obesity (OAC, n.d.; Sutin & Terracciano, 2013). Compelling and ongoing cultural competency instruction through virtual simulation offers an indispensable means capable of providing crucial knowledge and skills needed in fulfilling the American Nurses Association's (ANA; 2015) expectations of the professional nurse.

The first step in researching for evidence-based practice is to create a PICO(T) question. As reviewed earlier, the PICO(T) question for the current change proposal is: Would providing a simulated learning experience improve medical-surgical nurses' knowledge, skill, and attitude in the delivery of culturally-competent care of the bariatric patient when compared to their previous learning through lecture? By first creating the PICO(T) question, an appropriate research course can be developed and pursued.

Choosing a theoretical foundation is also a key component in the quest for evidence-based practice. To provide ideal, all-inclusive patient care, nurses must not forget to address any applicable cultural concerns, including those of the bariatric population. Recognizing that

nursing must not only be humanistic and scientific, but also transcultural, Leininger's CCT has this cultural care as its cornerstone as it considers it to be the comprehensive holistic avenue by which a nurse can recognize, describe, interpret, and foresee nursing care (Petiprin, 2016). This change proposal also incorporates an educational component. Experiential teaching methods have proven to result in ingrained learning. Virtual simulation in the form of SL (Linden Research, 2016) or Shadow Health (2015) with a reflective element provides a unique, innovative opportunity to actively involve participants in the process of acquiring the knowledge, attitude, and skills necessary for cultural competence. Nursing is positioned at such a place to reverse the wave of culturally stereotypical behavior.

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