Using Simulation and Cultural Competency skill to improve quality care to patients in Saudi Arabia

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Abstract

This paper examines the need for nurses in Saudi Arabia to develop a cultural competency so that they can eliminate healthcare disparity among diverse patients. As the Kingdom contains many different peoples of various ethnic origins, it is important that nurses be able to demonstrate empathy towards and knowledge of these patients' cultures. Simulation is a practice that can promote the acquisition of cultural competency among nursing students. Both low-fidelity and high-fidelity simulation exercises can be helpful in this regard. This paper discusses why simulation is an effective tool, various transcultural nursing models that may be applied, and how simulation can enable students to obtain their cultural competency.

Introduction

In Saudi Arabia there is a need for nurses to develop a cultural competency so that they can eliminate healthcare disparity among diverse patients (Aboshiqah, Tumala, Inocian, Almutairi & Atallah, 2017). As the Kingdom contains many different peoples of various ethnic origins, it is important that nurses be able to demonstrate empathy towards and knowledge of these patients' cultures. Simulation is a practice that can promote the acquisition of cultural competency among nursing students (Bahramen & Swoboda, 2016). Both low-fidelity and high-fidelity simulation exercises can be helpful in this regard. This paper discusses why simulation is an effective tool, various transcultural nursing models that may be applied, and how simulation can enable students to obtain their cultural competency.

As Zakari, Hamadi and Salem (2014) point out, simulation can be an effective way to apply research-based clinical training. Why is this? Simulation allows students to practice hands-on learning in a controlled environment in which there is no real risk to patients. Students can obtain much needed practice (practice makes perfect) and get a feel for the kinds of obstacles that might come their way in the real world. Just like pilots use flight simulators to train on the

ground before learning at the controls of a million-dollar machine in the sky, nurses and nursing students can use simulation to train in a safe environment before entering into the professional realm, where—if a mistake is made—it can be costly in more ways than one.

Additionally, providing quality care to patients does not depend solely on one's technical skill but also on one's cultural competence. In a diverse environment like Saudi Arabia's, care is linked to awareness—awareness of people's differing beliefs, needs, attitudes, desires, and dislikes. Saudi Arabia is a diverse country with many different ethnicities and cultures existing in the Kingdom. Nurses must have cultural competence in order to ensure that there is no health disparity among patients (Bahreman & Swoboda, 2016). Simulation can be effective way to help nurses gain the cultural competence they require in order to ensure that all patients, no matter their ethnicity, in Saudi Arabia receive quality care (Bahreman & Swoboda, 2016). Cultural competency allows nurses to know the right ways to approach patients as well as the approaches to avoid. Cultural misunderstanding can result in safety issues just as much as a lack of technical training can result in them. Thus, it is equally important for nurses and all health care providers to be aware of the different cultures in one's community and of the preferences that are typically associated with those cultures.

This chapter will show how both simulation practice and cultural competency can help health care providers give more quality care to patients in Saudi Arabia. At the same time, it is good to remember that the principles and recommendations provided herein may really be applied all over the world for they are based on universal observations that are inherently supportive of good health care practices, no matter what one's region is.

Simulation

Simulation is an excellent method for improving nurses' skills in university-level training as well as in hospital environments. With the overall objective being to focus on the quality health care indicators—effectiveness, efficiency, timeliness, equitability, etc.—simulation can serve a tremendous purpose in helping nurses to obtain the skills they need to truly become quality care providers. Both high- and low-fidelity simulation have an important role to play in the training of nurses, too. As Munshi, Lababidi and Alyousef (2015) note, "the level of fidelity should be appropriate to the type of task and training stage. A novice can achieve similar or

higher skills transfer with a simple simulator, for example, a clinical vignette, than with a complex training aid such as a simulated environment" (p. 12). The same idea is applied to students at more advanced levels who can benefit more from a high-fidelity simulation: "At more advanced levels of training, the level of fidelity should support higher levels of speed and practice of a task. A simulator is best utilized if used in alignment with educational goals that underpin its use within a program" (Munshi et al., 2015, p. 12). By combining high- and low-fidelity simulation approaches in the education of nurses based on their education level, educators can facilitate the achievement of aims that are appropriate for each respective education level.

How does simulation work? While a great deal of research has been conducted that shows the effectiveness of simulation in developing nursing skills (Lababidi, Munshi, Al-Amar et al., 2015; Ahmed, Al-Mously, Al-Senani et al., 2016), it is worth taking a moment to describe how simulations can be used in advancing the IOM aims of improving quality care. One way that simulation helps nurses to improve their care skills is in the way it can build confidence among them: by practicing that which they know they will be doing in the real world, they can develop good habits under the tutelage and guidance of a teacher or professional who is there to help them every step of the way. A simulation is a controlled or monitored environment where nurses can put into practice the knowledge they have acquired over the course of their education or training. Aside from actual clinical practice, simulation is the most instructive and effective way for nurses to accumulate experience.

Types of simulations that can be effective for learning a new skill in the classroom or in training on the job include:

- Interactive multimedia patient simulation—low fidelity
- Role playing—low fidelity
- Clinical scenarios—high fidelity
- Standardized patient examinations—high fidelity

Moreover, depending on type of instruction required, low-fidelity simulation can be more effective than high-fidelity simulation in some cases. For example, "in laparoscopy training, the low-cost and low fidelity-training box for assessment of skills was found to be superior to high-

cost and high fidelity virtual reality laparoscopy training" (Munshi et al., 2015, p. 13). Neonatal resuscitation programs also benefited more from low-fidelity simulation exercises than from high-fidelity ones (Munshi et al., 2015). However, other types of training benefit more from high-fidelity simulation: for example, "high fidelity was more advantageous than low-fidelity in shoulder dystocia training and nursing learning" (Munshi et al., 2015, p. 13).

As Terzioglu, Tuna and Duygulu (203) affirm, "learning from experience is an importantpart of nursing education" and "using simulation as an innovative teachingstrategy in nursing education" is an effective way to reinforce technique, principles, knowledge, skills and practice (p. 34). Indeed, simulation is so effective because it is in line with the "art of empowering others" that Conger (1989, p. 17) identifies as the root of real leadership. Through simulation exercises, nurses can obtain self-confidence and empowerment—keys to implementing knowledge in practice; skills that can turn them into true leaders.

Since nurses can act as primary care givers, their role in health care both in Saudi Arabia and around the world is to be a true and actual leader. No one can lead without ever having experienced the real thing—and simulation is a method that eases nurses into the real thing so that they are prepared for the surprises that they will undoubtedly encounter in their field. Like soldiers who prepare for war by playing war games, nurses prepare for patients by practicing nursing in simulated sessions.

These sessions can be effected through role playing—a low-fidelity simulation and type of practice in which one nurse or instructor acts as a patient presenting with a certain issue or issues and in which the nursing student or nurse practitioner must make an examination, perform a diagnosis and provide a treatment. Role playing is a highly instrumental and effective strategy for both measuring student knowledge and skill set and for providing students and professionals with invaluable practice time to allow them to hone their craft and perfect their approach to patients. Role playing is an especially effective simulation for beginner students as the low-fidelity nature of the exercise is not too overwhelming and allows them to hone the basics of the craft (Munshi et al., 2015). High-fidelity simulations should be reserved for more advanced students in most cases, except in particular areas where low-fidelity simulations have been shown to be more effective at allow students to attain the desired competencies (Munshi et al., 2015).

Interactive multimedia patient simulation can also be a method to help nursing students and nursing professionals improve their skills and practice their knowledge in action. Students and professionals would use software and computer technology in this type of simulation to obtain practice in treating patients without actually engaging with a real patient. This is different from standardized patient examinations, in which the nurse examines a patient with the assistance of an instructor or team leader. Either is helpful in allowing the nurse to gain experience and since experience is the best teacher, both are suggested practices for nurses in Saudi Arabia.

Simulation can be a highly influential practice that can really make a world of difference in the field of nursing. Fielden (2012) conducted a study of new graduate nurses in Saudi Arabia transitioning into clinical practice and found that simulation was effective in increasing both confidence and competence among the new graduate nurses. Fielden's (2012) recommendation was that a practice development framework in which simulation exercises are pivotal would be a welcome addition to nursing graduate development programs in Saudi universities. The same idea could also be applied to Saudi hospitals where nurses learning a new role can practice that role in simulation exercises before interacting with patients. The important concept to remember here is that simulations offer a safe way for providers to practice their skills and knowledge. Because safety is such a significant part of providing quality care, health care professionals and educators should be very mindful of the power that simulation exercises can have for nursing students and nurse practitioners. Akhu-Zaheya, Gharaibeh and Alostaz (2013) have found the same in their own research: "Nursing students must be educated with the most realistic technologies available to improve patients' safety" (p. e335). Their quasi-experimental research showed that "students trained with high-fidelity simulation achieved higher scores in acquired and retained [basic life support] knowledge and higher self-efficacy perception, indicating the value of simulation in improving knowledge and self-efficacy in nursing students" (p. e335). Thus, the evidence is more than apparent that simulation should be considered an appropriate and effective tool in advancing nurses towards the IOM goal of quality care.

Simulation not only provides nurses with experiential training that can enable them to be safer, timelier, and more effective in providing quality care, it also psychologically prepares them for the job they are about to enter into. This psychological impact has been noted even by

researchers outside of the nursing profession. In the business world, for instance, simulation exercises can have a positive psychological impact on students. Wood and Bandura (1987) performed a study of graduate business students using a managerial practice simulation. They found that the underlying beliefs of the students regarding their abilities to perform governed them towards achieving specific goals and guided them in adopting motivational patterns. The subjects of the study included 20 men and 4 women from a graduate program in a business course. The case study was conducted so that Wood and Bandura might test the hypothesis that "conceptions of ability will influence achieved levels of organizational performance through their effects on the mediating self-regulatory mechanisms" (p. 409). What they found was that the simulation exercise enhanced the students' conception of themselves to a positive degree. This helped to reinforce a positive self-image, which, in a snowball like fashion, reinforced other positive developments in the students' lives—such as self-regulation, self-esteem, and self-confidence. Simply by being afforded the opportunity to do the work in person with a safety net given them via the nature of the simulative exercise, students were able to become better professionals.

Simulation exercises can, in this way, lead to the building of self-efficacy, which is a belief in one's ability to succeed at tasks one has been trained to do. Without self-efficacy, nurses will lack the proper amount of confidence they need to administer to patients. No patient wants to be treated by nurses or care givers who doubt their own ability to practice medicine. At the same time, no patient wants to receive care from practitioners who falsely assume they know more than they actually do. Simulation exercises can help correct behaviors that are wrong and promote right actions. They can weed out bad approaches to care and support the proper approaches—and in this manner they facilitate the development of self-efficacy in a positive way. Self-efficacy is so important, in fact, that researchers have viewed it as a fundamental characteristic of successful individuals. For instance, the findings of Zimmerman, Bandura and Martinez-Pons (1992) indicate that self-efficacy is one of themost significant factors in determining the extent to which students will be motivated to achieve their goals. Indeed, success has been shown to be shaped by goal setting, positive and instructive influence, and students' own sense of self.

Cultural Competency

Another major area that can help nurses deliver quality care is the area of cultural competence. Cultural competence can be defined as "the need to have skills and proficiencies in dealing with persons from various cultures" (Leininger, Maier-Lorentz, 2008). Cultural competence can also be defined as the process by which one effectively meets the needs of others by implementing the efficient/strategic integration of significant aspects of the culture of the other in one's approach to that individual (Hanser, Gomila, 2014).

How is cultural competency achieved? To put it simply, cultural competence is obtained when one engages in a constant process of learning about other cultures as well as one's own: it is a type of study that focuses on becoming culturally aware and culturally wise. The point of this competency for nurses is to provide them with the correct amount of empathy and sympathy needed to approach patients effectively so that no offense is given, no misunderstandings with regard to care are experienced, and safety risks are minimized. Through development of cultural competence, nurses can obtain better and more effective ways of interacting with diverse peoples and ensuring quality care.

Cultural competence also supports the building of relationships, the fostering of trust, the development of appreciation and the mitigation of risk through misinterpretation or offense. As Almutairi, McCarthy and Gardner (2014) show, cultural competence has a considerable role to play in a multicultural nursing workforce. It is as important for nurses to have this competency when engaging with patients as it is for them to have it when engaging with fellow professionals. Indeed, this is especially true in Saudi Arabia where so many nurses are expatriates from diverse cultures and backgrounds. In diverse environments, cultural expectations have to be understood and considered when a nurse engages with a person of a different background. Making the wrong assumptions can lead to grave errors in care.

Additionally, cultural competency is a goal that is feasible, cost-effective, and maneuverable. Nurses can obtain this competency with a little training, using simulations. The simulations are maneuverable. And the feasibility of this practice is well-noted by researchers (Albougami et al., 2016). For these reasons, too, cultural competence is a worth-while objective for nurses in Saudi Arabia, where cost, feasibility and maneuverability issues can determine whether or not a practice is embraced.

Transcultural Nursing Cultural Competence Models

Albougami, Pounds and Alotaibi (2016) identify four different cultural competence models that apply to transcultural nursing: (a) the Giger and Davidhizar Transcultural Assessment Model, (b) the Leininger Sunrise Model, (c) the Purnell Model for Cultural Competence, and (d) the Campinha-Bacote Model of Cultural Competence in Healthcare Delivery. These four models have their strengths and limitations. Albougami et al. (2016) have found that "overall, the Campinha-Bacote model is sufficiently comprehensive to guide empirical research and the development of educational interventions" because its "five components can be used to strengthen the cultural competence of nurses practicing in countries all over the world" (p. 5). A brief examination of each model, however, will help to show some of their individual strengths.

The theory of transcultural nursing can be helpful in explaining why cultural competency is so important and how it can most effectively be obtained. To that end, the Transcultural Assessment Model developed by Giger and Davidhizar (2002) describes clearly the factors that nurses should be aware of when providing care to patients: the six fundamental factors that Giger and Davidhizar considered relevant phenomena in the theory of transcultural nursing are:

- Time
- Space
- Social organization
- Communication
- Environmental control
- Biological variation

The basic idea behind using these indicators, when engaging with patients of a culture, background or ethnicity different from the nurses, is that when presenting for treatment, patients will exhibit or display signs of attitudes or beliefs about how they want care to be provided through these factors. In other words, the way in which they communicate will tell a nurse something about what they value in terms of quality care. The way in which they space themselves in the room, their sense of time, their sense of biology—all of this will be related to

their cultural attitudes and beliefs—and that is what a nurse must be capable of discerning. And that is what transcultural nursing can help the nurse to do.

The theory of transcultural nursing can help nurses to provide therapeutic interventions as well because it offers a framework for them to adhere to while they engage with patients. By using the six factors for making assessments—from time to biological variations—the culturally competent nurse can calculate the unique method that will be most helpful in providing quality care for that particular patient. The method can be as simple as how the nurse stands, the proximity with which the nurse discusses treatment with the patient, the tone the nurse uses, the suggestions the nurse makes when it comes to talking over options, and so on. The idea behind this theory is that the way the nurse behaves sends signals to the patient which can help or hinder the communication necessary for quality care to be delivered. By being culturally sensitive, a nurse will be able to send the right communicative signals to the patient so that no barriers are set up in the path of information flows. As Giger and Davidhizar (2002) point out, people of different cultures tend to possess different manners of communicating with health care professionals because of different beliefs about the body or gender or health; they may have varying attitudes on how much space should be kept between two persons at any one time, and so on. Nurses who have obtained cultural competence will be aware of how culture will inform these different attitudes and they will adjust or modify their own behavior accordingly. After all, it is the patient's experience in the hospital or facility that matters most—not the nurse's. By being aware of the impact that culture can have on a patient's life, beliefs and feelings, a nurse can better implement an acceptable treatment plan that will meet the needs of the patient and serve the nurse's interests as a health care provider. The Institute for Health Care Improvement (2014) has shown that the transcultural assessment tool is helpful for nurses in establishing how to interact with persons of different cultures.

The Leininger Sunrise Model developed by Leininger, who first advanced the theory of transcultural nursing shows the relationship between the various factors and how they inform one another. The double-sided arrows in the graphic below signify a two-way flow in which both elements on either end of the arrow inform one another. In other words, there is a constant communication of sorts between the two elements and nurses may study this graphic to obtain a better understanding of how information flows are conducted when it comes to culture.

Leininger's model is commonly called the Sunrise Model. It may be combined with the model developed by Giger and Davidhizar to enable nurses to develop a more thorough and substantial sense of how cultural factors impact decision making and attitudes in patients.

In the Leininger model, the most important elements that can be impacted by culture are attitudes about technology, religion, kinship, life itself, politics, economic beliefs and education (Melo, 2013). The model is helpful in showing how care, culture and beliefs all work together to create a whole picture of the interactive process. For example, Leininger's model shows that culturally congruent care informs and is informed by culture care preservation, accommodation and structuring. Melo (2013) points out that the model can be used to help students "develop abilities and competencies to identify and understand the multiple factors that influence care, as well as comprehend it from a holistic-humanistic perspective" (p. 20). What Melo's (2013) study showed was that there is a two-way flow between the nurse and the patient and between the culture and the actions of the individual. These elements, moreover, are not static but are constantly informing one another. Beliefs, attitudes, expectations and ideas change just as much as people do over the years—nothing stays the same as it was but through experiences and interactions the way in which people conduct themselves will differ over time. For a nurse to help a patient with treatment or with preventive care, the nurse must be able to see how this two-way communicative flow between the nurse and the patient and between culture and action are demonstrated. The nurse can then react accordingly in a way that helps bring the patient into conformity with the recommendations of the medical community so that the health of the patient is achieved. At the same time, this should be conducted in a way that is satisfying to the patient so that there is no sense of the patient being offended or feeling slighted by a wrong step on the nurse's part. A patient may go into a medical facility expecting to be treated a certain way—and if the provider fails to meet that expectation, the patient may leave and never return. The patient's health may suffer, which would put a strain on the community, which has both social and economic effects.

This is why it is so crucial that nurses obtain the cultural competency. The strength of the theory of transcultural nursing is that it broadens and deepens the knowledge of nurses so that they can better and more effectively interact with diverse patients. In Saudi Arabia such a skill is highly important because the country is so diverse. Even just in the nursing workplace, other

health care providers will be of various cultural backgrounds and as a working professional it is important to know how to communicate with these individuals in an acceptable way. Knowing about the various expectations, assumptions, beliefs, and attitudes of other cultures will help nurses obtain cultural competency.

The Purnell Model for Cultural Competence focuses on helping nurses to understand the different characteristics of various cultures so that nurses can be better prepared to handle patient expectations. This model is based on twelve domains that the nurse should be conscious of: heritage, communication, family roles, workplace issues, bio-cultural ecology, high-risk behavior, pregnancy, nutrition, spirituality, death rituals, healthcare practices and healthcare professionals (Albougami et al., 2016). The idea of these domains is that they enable the nurse to identify effectively the attributes of ethnic groups so as to better provide them the kind of care they desire.

The Campinha-Bacote Model helps the nurse to view cultural competence as a process rather than as a goal. The benefit of viewing it as a process is that there is less stress and focus on knowing every culture beforehand and more emphasis on getting to know the culture of the patient during the act of giving care. In other words, "the nurse attempts to achieve greater efficiency and the ability to work in a culturally diverse environment while caring for the patient, whether an individual, a family, or a group" (Albougami et al., 2016, p. 5). With this model, the nurse aims to develop five components: 1) cultural awareness of both his or her own culture and that of the patient so that the nurse is always aware of potential biases that could alter or diminish the quality of care; 2) cultural skill, which is ability to obtain information about the patient's culture during assessment; 3) cultural knowledge, which is the process of opening the mind to new information about culture; 4) cultural encounter, which is the process of resisting stereotyping and experiencing people of diverse cultures in an authentic and empathetic manner; and 5) cultural desire, which is what compels the nurse to want to learn more about culture and use the information to give better quality care (Albougami et al., 2016). Of the four models, this one has been found by researchers to be the most appropriate for nurses seeking to implement transcultural care in their workplaces (Albougami et al., 2016).

Conclusion

In order for nurses in Saudi Arabia as well as the rest of the world to provide quality care they must first be adequately trained to do so. While there are a number of ways to guarantee that training is effective and efficient, this chapter has focused on two very relevant methods that can be particularly helpful for health care in Saudi Arabia. Those methods are the use of simulation exercises and training in transcultural nursing so that nurses can obtain their cultural competency.

Simulation exercises are helpful because they allow nursing students as well as nurses already working in the field to practice skills and knowledge in a monitored or controlled environment where there is no risk of harming a patient through error or omission. Simulations can be conducted through role playing, through standardized examinations, and through software applications. They are a great way for the nurse or nursing student to build confidence, gain self-efficacy and be on their way to delivering quality care in the real world. All the research shows that simulations are a most effective method for teaching nurses how to treat patients in real life—and this is true for the whole world, not just for Saudi Arabia.

Obtaining cultural competence is another way for nurses to ensure that they can deliver quality care. Cultural attitudes are diverse and when these differences are not recognized, a failure to communicate effectively can result—and this failure can lead to misunderstandings in treatment and a poor quality of care being the end result. To avoid this type of outcome, nurses can achieve cultural competency by studying the Leininger model of transcultural care supplied above as well as the six factors to be aware of developed by Giger and Davidhizar. Likewise, the five components of the Campinha-Bacote Model can help nurses implement this competence in their nursing fields. With these elements in mind, the nursing student and the professional nurse will be better oriented towards identifying the cultural needs of diverse patients.

Cultural competence can be obtained through simulation by providing students with an opportunity to experience working with diverse patients in clinical settings (high fidelity) or in role playing (low fidelity). As Bahreman and Swoboda (2016) note, "a true emergent experience using standardized patients and scenarios highlighting the cultural considerations that nurses need to be cognizant of and comfortable with can provide" the cultural competence that nursing

students require (p. 105). Likewise, Roberts, Warda, Garbutt and Curry, (2014) have shown that "patient simulation is a technique that replicates real-world scenarios in a controlled and nonthreatening environment" (p. 259). High-fidelity simulation can give nursing standards the opportunity to hone their cultural knowledge, cultural desire, cultural encounter, cultural skill, and cultural awareness (as is appropriate according to the Campinha-Bacote Model) to facilitate the acquisition of cultural competence.

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