Measuring Cultural Competence from a global perspective

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Abstract

Background: The United States is compiled of various races, religions and cultures and thrives on this diversity. Healthcare professionals in the US provide services to this diverse society. In order to do so effectively they must embrace cultural competence as an essential component in their delivery of services. Therefore, the ability to measure cultural competency levels is essential for healthcare professionals and educators. Given that a consistent method using a global worldview perspective to assess one's cultural competence in the practice of patient centered care is not present, the purpose of the study was to develop a valid and reliable tool that could be used to assess cultural competence in healthcare professionals utilizing the Purnell Global (worldview) Model for Cultural Competence established in 1991 Purnell. Methods: For content validity six experts participated in two Delphi Rounds resulting in 80% agreement for all survey questions addressing their appropriateness, clarity, sequentially and construct. To establish internal consistency data from 42 health professional students who completed the Global (worldview) Cultural Competence Survey were tallied and the Cronbach's alpha of .819 was obtained.

Discussion/Conclusion: Assessing cultural competence levels of health professionals and students is important as we seek to provide culturally competent care to diverse populations of patients. Based upon the study findings the Global (worldview) Cultural Competence Survey is a valid and reliable tool to assess cultural competency in health professionals and students. Using a pre-post intervention design faculty can use this tool to assess the effectiveness of educational strategies employed to develop cultural competency levels in health profession students.

INTRODUCTION

Diversity in the United States has increased the need to both understand cultural competence and increase the level of cultural competent care among those providing healthcare services (Velde, 2003). The literature suggests that improved provider-client communications, improved compliance with medical regimens, greater patient satisfaction with care and better health outcomes may all be associated with providing culturally competent care (Fortier & Bishop, 2003).

As we seek to understand how healthcare providers can increase their level of cultural competence, we must first explore the term culture. According to Larry Purnell culture is a pattern of learned behaviors from family members, educational institutions, religious institutions, or social groups (Purnell, 2005). These learned behaviors are transformed into beliefs, norms, values, and ways of life. Culture involves shared beliefs passed from one person or group to another and is often passed from generation to generation, becoming integrated as part of the identity of the individual, as well as translating into all aspects of life. Subcultures, which exist in every culture, consist of groups that have different experiences than the dominant culture and are often distinguished by language, education, social economic factors, or sexual orientation. These characteristics allow a person or population of this subculture to feel unified with others by their nationality, language, socioeconomic status, education, sexual orientation, or other factors (Purnell, 2005). The behaviors within a subculture influence communication, expression, and development of relationships. Cultural differences influence work ethics and life experiences. These cultural influences can become challenging, causing healthcare professions to look at the environment and themselves in relationship to their beliefs, norms, values when delivering care to others (Dupre, 2007). As one begins to understand how they interact with others in their work and or professional environment, they begin to develop awareness, understanding and appreciation of themselves and of others, which eventually leads to the development of "cultural competence" and "culturally competent care." Culturally competent care involves a multi-dimensional construct. Therefore, it is not enough for healthcare practitioners to understand the meaning of culture. In order to deliver culturally competent healthcare, they must be knowledgeable of more than a list of cultural traits and ethnic groups; they must learn to demonstrate cultural competency in their delivery of healthcare and understand the meaning of cultural competence (Dupre, 2007). A culturally competent person can provide healthcare services within an environment where people may have different values, beliefs, human behaviors, or customs than the individual healthcare provider.

In healthcare, the term "cultural competence" specifically refers to an understanding that the person possesses the knowledge and skills to communicate with people that represent diverse cultures (Purnell, 2005). Purnell's (2005) definition of cultural competence purports that cultural competence results from some general knowledge of different cultures and consciously applying this knowledge to different situations supports these aforementioned ideas. Based upon this insight, Purnell's model of cultural competence consists of 12 constructs. By using 12 domains the model offers an opportunity to identify various cultural meanings that are essential for a culturally competent encounter between a healthcare professional and their client/patient. The

Purnell Model suggests that constructs should be general and specific and not focus on one group or culture but rather be considered a global model. Purnell defines global as concepts related to global society. The phenomena related to global society include world communication and politics; conflicts and warfare; natural disasters and famines; international technology; advances in health sciences; space exploration and the expanded opportunities for people to travel around the world and interact with persons from a diverse society (Purnell, 2005). These global events affect all societies and directly or indirectly force changes in lifeways (ways of life), worldviews and acculturation patterns. The model is a holistic organizing framework, which means the model is a system conceptualized from biology, anthropology, sociology, economics, geography, history, ecology, physiology, psychology, political science, pharmacology, nutrition as well as theories from communication, family development, and social support (Purnell, 2005). The model has specific questions and a format for assessing culture. These questions assess cultural competence across different disciplines and practice settings.

As we look more closely at the Purnell Model, we see there are two levels, macro and micro, which encompasses several concepts, which measure various aspects associated with being culturally competent. The macro level includes concepts of global society, community, family, and person. The micro level includes twelve domains of culture, which includes nutrition, pregnancy, death rituals, spirituality, healthcare practices, health-care practitioners, overview/heritage, communication, family roles and organization, workforce issues, bio-cultural ecology, and high-risk behaviors.

The Purnell Model of Cultural Competence also addresses several constructs and concepts. The model is more consistent with the complexity of cultural competence and the effect global society has on culturally competent healthcare providers (Purnell, 2005). The model has specific questions and a format for assessing culture, which sets it apart from other models, which may be specific to a certain ethnic group or healthcare profession. Interestingly, Larry Purnell, PhD, RN, FAAN who developed the Purnell Model began his insightful reflection on this topic in 1989 when as a university professor he accompanied several nursing students into a community hospital for clinical observations. The students were primarily Caucasian and from middle and upper- class families and were encountering staff and patients from lower socioeconomic backgrounds (Purnell, 2005). The patients and staff were primarily from Appalachia and were from a different culture from the students. After this encounter, it became obvious to Purnell that students needed to become more culturally competent. The Model for Cultural Competence was established in 1991 as Purnell, continued to realize the importance of having a framework for learning about cultural competence (Purnell, 2005). While continuing to teach undergraduate courses and reflecting on the education and practice experience, he realized that students and staff would benefit from a framework for learning about their culture as well as different cultures. Staff and students had made comments about the lack of a model and provided clarification that ethnocentric behaviors and lack of cultural awareness, cultural sensitivity, and cultural competence existed (Purnell, 2005). The model provided students and staff the opportunity to learn about what impacts their values, beliefs and ways of life while, evaluating those of their patients. The model provides a circular diagram of four concentric rims consisting of global society, community, family, and

person. The first, outermost rim represents global society, described as world politics, space exploration, or natural disasters. The second rim represents community, a group of persons with common interests and identity, who live within the same area. The inner third rim represents family, is defined as two or more persons who are connected emotionally, however may or may not live near each other. Family can also be a person that is non-blood related who has the same emotional connection. The innermost rim represents the person who is a human being capable of adapting to their environment including biological, physiological, and psychological changes. All four rims surround12 pie-shaped wedges representing cultural concepts and domains that provide the conceptual framework for the Purnell Model (Purnell, 2005). The domains and concepts are essential for assessing cultural attributes of an individual, family, or group and include nutrition, high-risk behaviors, pregnancy, death rituals, spirituality, health-care practices, health-care practitioners, overview/heritage, communication, family roles and organization, workforce issues, and bio cultural ecology (Purnell, 2005). Although the model consists of rims and domains, which are specific to the model there is a darkened, empty circle within the center of the circle, which represents unknown phenomena, practices, and characteristics of the individual, or group. Within a healthcare environment, this area can contract or expand with the level of cultural knowledge and skills the healthcare professional possesses. Finally, there is a jagged line at the bottom of the circle, which represents the nonlinear concept of cultural consciousness. This area represents the worldviews of a person, which may be influenced by their own culture. These worldviews are not easily changed and may be associated with race, gender, color, nationality, or religious practices including the use of prayer (Purnell, 2005).

In reviewing the literature, it was clear that a consistent method for the assessment of one's cultural competence in the practice of patient centered care is not present. Recently, five primary tools have emerged within the literature to assess cultural competence. The five tools focus on common themes, which include cultural awareness, cultural knowledge, cultural skill, cultural desire, cultural encounters and cultural diversity. These tools include the Cross-Cultural Adaptability Inventory (CCAI) by Kelly and Meyers, The Inventory for Assessing the Process of Cultural Competence (IAPCC) by Campinha-Bacote, The Inventory for Assessing the Process of Cultural Competence Revised (IAPCC-R) by Campinha-Bacote, The Cultural Competence Assessment (CCA) by Schim, Doorenbos, and Benkert, and the Cultural Competence Self -Assessment Questionnaire (CCSAQ) by Mason. Of the five tools, the IAPCC and IAPCC-R by Campinha-Bacote are considered the "gold standard" of the industry however there are still challenges raised in the literature as to whether these tools are really assessing cultural competence or some other sub-construct. While these five tools have been used to access cultural competency, they do not enable the healthcare professional to address the person's needs and abilities from a global perspective and thus supporting a truly patient centered care practice model. Based upon the reasons noted above, the Purnell Model was used as the theoretical frame for the design of the survey tool used in this research to assess cultural competency. The tool developed from the Purnell model was designed not to focus on one healthcare profession, racial or ethnic group, rather, to focus on all healthcare professional students to provide a holistic and global perspective on cultural

competency. Understanding health professionals' level of cultural competency from a general and specific perspective will ultimately help educators to develop appropriate learning experiences that can support healthcare professionals' abilities to practice in a more culturally appropriate manner.

Understanding health professionals' level of cultural competency from a general and specific perspective will ultimately help educators to develop appropriate learning experiences that can support healthcare professionals' abilities to practice in a more culturally appropriate manner. Based upon the reasons noted above, the Purnell Model was used as the theoretical frame for the design of the survey tool used in this research to assess cultural competency. The tool developed from the Purnell model was designed not to focus on one healthcare profession, racial or ethnic group, rather, to focus on all healthcare professional students to provide a holistic and global perspective on cultural competency. A tool based on the Purnell Model of cultural competency would allow healthcare professionals to assess cultural competence from a global action-oriented perspective and presents a potential solution for overcoming ethnocentrism and encourages the healthcare professional to consider the whole person (Black, 2002). Thus, the purpose of this study was twofold. First, to develop a tool based upon Purnell's Model of cultural competence (Global (worldview) Cultural Competence Survey-GWCCS). Second, to establish content validity and item reliability of the Global (worldview) Cultural Competence Survey.

PROCEDURE

Principal Investigator developed the Global (worldview) Cultural Competence survey and established survey validation for both content validity and internal consistency(item-reliability). To determine content validity and internal consistency (item reliability) of the Global (worldview) Cultural Competence survey was administered to health science professional faculty members of the School of Health and Medical Science and School of Nursing at Seton Hall University. Specifically, for content validity, faculty members were selected if they had taught research coursework or had experience in survey design research, taught content on cultural awareness to students within the School of Nursing or Health Sciences Programs, and were a health professional, thus deeming them a content expert. Portney and Watkins (2009) explains "content validity" as a type of measurement validity that demands that an instrument be free from the influence of factors irrelevant to the purpose of the instrument's measurement (Portney & Watkins, 2009).

The panel of content experts reviewed the instrument to determine if the items in the questionnaire satisfied the content domains. Only the items with higher than 80% consensus were included in the final questionnaire. The original questionnaire had fifty- three (53) items. The survey underwent two reviews by the content expert faculty members. By the second Delphi process round, content validation for the questionnaire was reached resulting in a 58-item survey.

Specifically, the content expert panelists for this Delphi process were asked to provide feedback (yes /no) for each question on the survey regarding its appropriateness, clarity, sequentially and construct. When a content expert answered "no" they were asked to either provide a suggestion or comment, as to why they did not believe the question was appropriate, clear, appropriately placed in the survey and or addressed the construct of interest.

Content expert feedback was reviewed to improve the questionnaire and reach the face and content validity for this tool. Content expert feedback for the first round of the Delphi was requested within one week of receipt of the survey. The survey tool was revised based on the combined suggestions of the expert panelists by the PI. Eighty percent agreement of the panel was sought for each question. When an individual question did not reach 80% agreement, the question was modified. During the second round of the Delphi process experts were asked to review and respond only to those questions not reaching the agreement percentage and were requested to provide their response within one week of receipt. The proposed 80% agreement for content validity was met on each question on the survey following the second round, thus a third round of the Delphi process was not required.

After obtaining content validity the survey instrument was then validated for internal consistency (item-reliability). The Primary Investigator (PI) provided a solicitation letter with the survey to the department secretary of the GPHS Seton Hall University in an envelope; who in turn distributed the envelope containing the solicitation letter and survey to a classroom of students in their final professional year within the School of Health and Medical Sciences Professional Programs at Seton Hall University and School of Nursing at Seton Hall University within their respective classrooms. Prior to distribution of the survey the PI received confirmation from the School of Health and Medical Science Dept. Chairperson that the department secretary could distribute the letter of solicitation and survey on behalf of the PI. Item reliability (internal consistency) was important to establish since it reflects the extent to which items measure various aspects of the same characteristic and nothing else (Portney &Watkins, 2009).

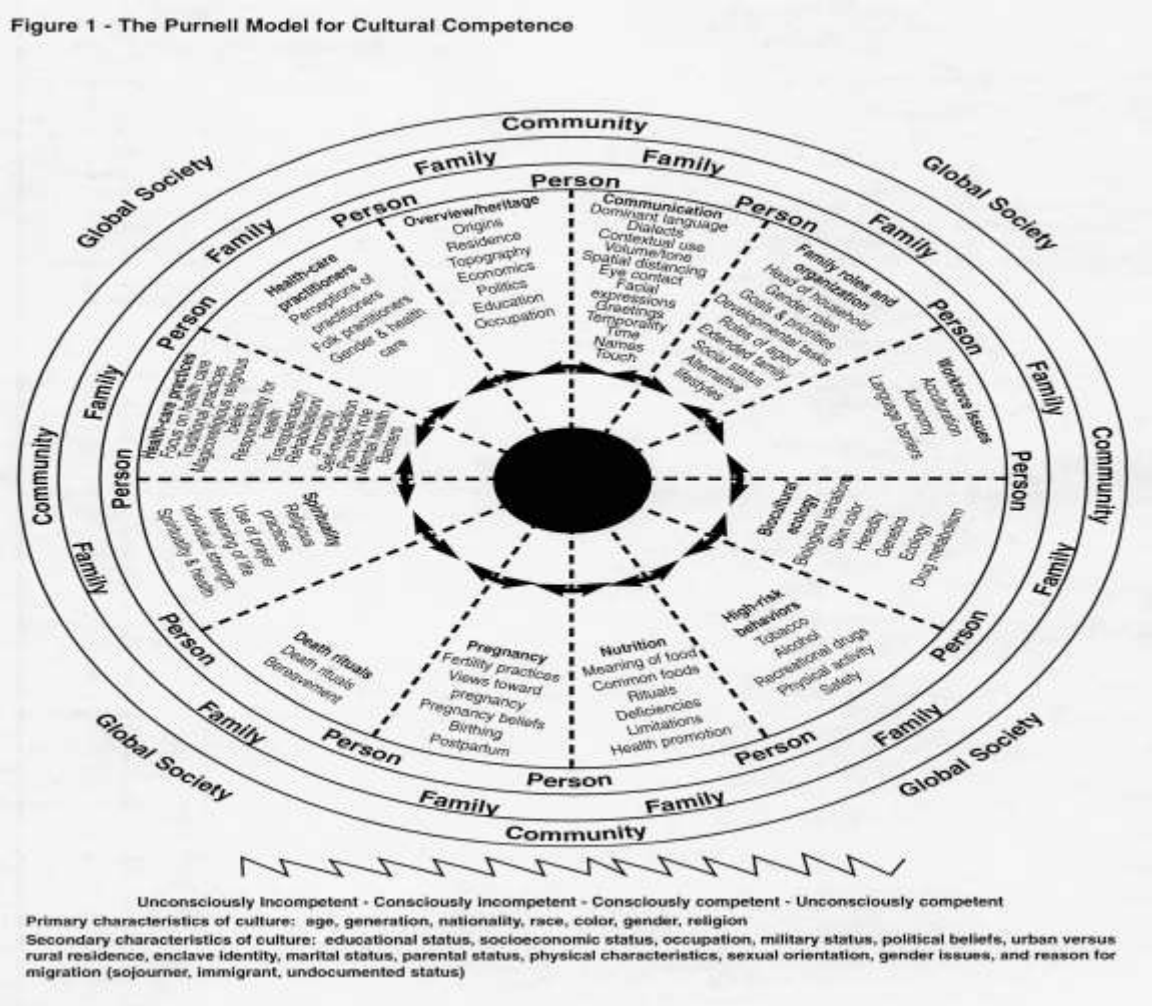
RESULTS

Based upon 42 health professional students Global (worldview) Cultural Competence Survey total scores, an overall, Cronbach's alpha of .819 was obtained. However, it was important to further determine the Cronbach alpha for each of the surveys 5 sections on the Global (worldview) Cultural Competence Survey. Sections 1 to 4 of the GWCCS survey employed an ordinal scale and included questions focused on the Purnell Model as well as additional information. Section 5 employed a nominal scale and included questions concerning demographics. Of the 58 questions in total the following distribution of questions were noted: Cultural Competence (30 questions), Cultural Competence Definitions (6 questions), Curriculums (5 questions), Belief Towards CC in HS Professional Education (4 questions) and Demographics (13 questions). Only the thirty questions from Section one on Cultural Competence were used to Assess Cultural Competence.

The thirty questions centered on the entire Purnell Model. The twelve (12) constructs, outlying rim, third rim, second rim, and inner rim. The 12 constructs were Overview/Heritage, Communication, Family Roles and Organization, Workforce Issues, Bio cultural Ecology, High Risks Behaviors, Nutrition, Pregnancy, Death Rituals Spirituality, Healthcare Practitioners. The outlying rim represented global society, the third rim represented community, the second rim represented family, and the inner rim represented the person. Definitions of Cultural Competence, Curriculum, and Roles of Cultural Competence were included in the second through fourth sections of the survey. Information concerning the survey participant's

demographics was included in section five. Section five contained classification of variables that were mutually exclusive and thus characterized as a nominal scale. Some of the questions asked in the demographic section of the survey included questions about a student's gender, age, race/ethnic category, specific health science professional program, years of practice as a professional, area of clinical experience or if they had traveled internationally. All of the questions in section one through section four comprised of categorical items that ranged from one extreme through a neutral point to the opposite extreme, thus an ordinal scale. Each category of response was given a numerical value from 1 to 5 with options from Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree respectively.

Determining the total score of the Cronbach's alpha for all thirty questions used to assess Cultural Competence was important for the study. Cronbach's coefficient alpha (α) is the statistical index used to measure internal consistency. The index ranges from 0.00 to 1.00. The indices for Overview/Heritage, Communication, Family Roles and Organization, Workforce Issues, Bio cultural Ecology, High Risks Behaviors, Nutrition, Pregnancy, Death Rituals Spirituality, Healthcare Practitioners, Global Society Community, Family, Person, were calculated separately from Definitions of Cultural Competence, Curriculum, and Roles of Cultural Competence. This was done to ensure the Cronbach's on the sections of the survey used to assess cultural competence and the additional sections which provided additional information were at the appropriate rate. A separate analysis of the Cronbach's alpha for the entire Purnell Model was ran which included the 12 constructs, outlying, second, third, and inner rim (Figure 1. and Table 1.). According to Portney & Watkins (2009), a scale with strong internal consistency should only show a moderate correlation among the items, between .70 and .90. Items with too low correlation would probably measure different traits. Conversely, if the items have too high a correlation, they are probably redundant, and the content validity of the scale might be limited (Portney & Watkins, 2009). A separate analysis of the Cronbach's alpha for Family Role was .324, Nutrition .342, Pregnancy .303, Spirituality .601, Health Practices .032, Healthcare Practitioners .612, Community .111, Person .236, Definition of Cultural Competence .636, Curriculum .744, Role of Cultural Competence .905, and Demographics .086. It is appropriate to conclude that Cronbach's α index obtained was .819 for all the items (30 questions used to assess cultural competence) which concludes that the instrument is closer to the acceptable range and that the items on the scale are measuring the same attribute.



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DISCUSSION

The focus of this research study was to develop and validate a survey, framed in the Purnell model, which could be used to understand level of cultural competency among health professions students and professionals from a global perspective. The Global (worldview) Cultural Competence Survey was constructed from emergent themes reviewed in the literature and rooted in the Purnell model (Purnell, L. (2005); Velde, B., Wittman, P., & Bamberg, R. (2003); Campinha-Bacote, J. (1999); Capell, J., Vennstra, G., & Dean, E. (2007); Dupre, A.M. & Goodgold, S. (2007) to assess levels of cultural competence among healthcare professional students.

Using the Delphi process of content expert review the GWCCS survey-content validity was reached following the establishment of 80% agreement across the experts for clarity, organization and appropriateness after a 2-round process. Item Reliability was then established based upon 42 health professional students' responses on the GWCCS which resulted in total Cronbach's alpha of .819.

Based upon both the content validity and item reliability established for the Global (worldview) Cultural Competence Survey -the GWCCS developed by the PI can be used to assess Cultural Competence in health professional students supporting a global worldview perspective specific to nutrition, high risk behaviors, pregnancy, death rituals, spirituality, health-care practices, health-care practitioners, overview/heritage, communication, family roles and organization, workforce issues, and bicultural ecology.

The GWCCS rooted in the Purnell's model attempts to explain the complexities associated with cultural competence and can be used within educational environments to assist with evaluating the development of students' cultural competence level. The GWCCS must be further tested in health professionals to ensure that it is valid in assessing cultural competence levels in healthcare professionals. However, one would assume that the survey would be appropriate to use in assessing cultural competence from a global perspective in clinical practice based upon the construct being assessed, cultural culture competency (Purnell, 2005). Using a tool such at the GWCCS to assess cultural competence from a global worldview further enhances our understanding of cultural competence and thus can positively influence healthcare practices.

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Global (Worldview) Cultural Competency Survey (GWCCS)

The Health Science Profession supports the promotion of Cultural Competence (CC). As a Health Science Professional understanding your perceptions regarding CC is important to the further development of CC in Health Science education and practice. Therefore, we ask that you complete the following survey which we have created to gain insight on the current status of CC in the health sciences. Your responses will be held in the strictest of confidence and will be anonymous. The data will only be reported in aggregate form. Participation in this study is completely voluntary, by completing this survey you are giving your consent to participate in the study.

Definitions for the purposes of this survey

Culture: implies that the integrated pattern of human behavior that includes thoughts, communications, actions, customs, beliefs, values and instructions of racial, ethnic, religious, or social group.
Competence: implies having the capacity to function effectively (in practice and in everything you do).
Cultural Competence: Behavioral patterns, arts, beliefs, values, customs, Lifeways (customary manner of living, a way of life) and all other products of human work and thought characteristics of a population of people that guides their worldview and decision making (Purnell, L 2003).

Part 1

INSTRUCTIONS: For each question below, you will find 5 responses, from Strongly Disagree, 1 to Strongly Agree, 5. Circle the answer that most closely reflects how you would answer the question today. It should take approximately 30 minutes to answer all questions.

Please circle only one response for each question using the rating scale below:

Strongly Disagree	***Disagree***	***Neutral***	***Agree***	***Strongly Agree***
1	***2***	***3***	***4***	***5***

1. I reflect on and examine my own heritage (cultural).

1-Strongly Disagree 2-Disagree 3-Neutral 4-Agree 5-Strongly Agree

2. I accept family roles and how it is organized within a person's household.

1-Strongly disagree 2-Disagree 3- Neutral 4-Agree 5-Strongly Agree

3. How an individual performs in the healthcare work environment may be related to healthcare practices from their country of origin.

1-Strongly Disagree 2-Disagree 3-Neutral 4-Agree 5-Strongly Agree

4. Specific ethnic and racial origins may result in differences in the way drugs are metabolized by the body.

1-Strongly Disagree 2-Disagree 3-Neutral 4-Agree 5-Strongly Agree

5. Nutrition includes a person's value or importance of the role that food holds in their daily life experiences.

1-Strongly Disagree 2- Disagree 3-Neutral 4-Agree 5-Strongly Agree