CULTURAL COMPETENCY PERCEPTIONS OF PHYSICIAN ASSISTANT STUDENTS

A Research Project by

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BA Human Biology, University of Kansas, 2005

Submitted to the Department of Physician Assistant
and the faculty of the Graduate School of
Wichita State University
In partial fulfillment of
The requirements for the degree of
Master of Physician Assistant

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College of Health Professions
Department of Physician Assistant

I hereby recommend that the research project prepared under my supervision by Amy M. Hook entitled Cultural Competency Perceptions of Physician Assistant Students be accepted as partial fulfillment for the degree of Master of Physician Assistant.

Approved:

________________________________________________________________________
Richard D. Muma, PhD, MPH, PA-C, Chair and Associate Professor
Department of Physician Assistant

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Richard D. Muma, PhD, MPH, PA-C, Research Advisor
Department of Physician Assistant

May 7, 2008
Date
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ACKNOWLEDGEMENTS

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ABSTRACT

Introduction: Cultural competency education has become increasingly important in health care education in order to treat patients in a nation of diversity. A standardized way of introducing cultural competency material and testing its effectiveness has not yet been formalized. Methodology: The purpose of this study was to analyze whether cultural competency attitudes of physician assistant students changed after completing a cultural competency curriculum based on a federally funded diversity workforce grant. A pre and post intervention survey of 15 questions was completed by a class of 42 physician assistant students. Results were analyzed using the Chi-Square statistic. Results: Attitudes regarding cultural competency were primarily unchanged from before and after completing the cultural competency curriculum. However, one item was statistically significant in terms of a relationship between pre and post intervention. Students initially believed that PAs cannot give excellent health care without knowing the patients’ understanding of their illness. However, after completing the cultural competency curriculum, students believed that PAs could do so. Conclusion: This preliminary study of PA students’ attitudes of cultural competency represents the attitudes of one class of PA students, where no significant changes were seen. Further studies are recommended in order to assess a variety of PA programs and cultural competency curricula.
INTRODUCTION

The need for cultural competency among health care professionals has become more and more evident as the diversity of cultures in the United States has continued to rise.\textsuperscript{1} The U.S. Census Bureau projected that by 2050 the proportion of the population of non-Hispanic whites will drop from 69.4\% in the year 2000 to 50.1\%.\textsuperscript{2} North America’s demography has changed so rapidly that health care providers have been caring for members of cultures different than their own.\textsuperscript{3-5} Of the total number of Physician assistants (PAs) who are practicing in the United States, 83.4\% are white.\textsuperscript{6} The literature has revealed a gap of health care between majority and minority populations.\textsuperscript{5,7} For these reasons, action of some health care training programs have been taken in order to provide culturally competent health care which will likely decrease the barriers to care that exist for some cultural groups.\textsuperscript{1}

LITERATURE REVIEW

A literature review was performed using the following key terms: cultural competency, cultural awareness, physician assistant, culture education, cultural competency education, and culture attitudes. The databases used for this review of the literature were Medline, CINAHL, and Health Sciences full-text collection.

A wide number and variety of health care education programs have instituted cultural competency programs in recent years in hopes to improve cultural competency in the health care field. Few studies have evaluated the outcomes of these programs.\textsuperscript{7,8} According to the Accreditation Standards for Physician Assistant Education, a Physician Assistant program must provide instruction in cultural issues and their impact on health care policy.\textsuperscript{9} It has been recommended that the Physician Assistant Education Association develop a cultural competency core curriculum specific for physician assistant education. This would standardize the curricula
and facilitate changes across the country.\textsuperscript{10} However, this has not been done to date and left to PA programs to decide how this should be implemented.

Utilizing cultural competency skills in patient care was said to help provide and serve diverse clients and communities more effectively.\textsuperscript{11} It has also been found that better-educated providers who have had prior cultural competence training were more likely to score higher on the cultural competence assessment exams, designed to measure cultural diversity, experience, awareness, sensitivity, and competence behaviors.\textsuperscript{4} The success and expected positive outcome of cultural competency training in education has produced a need for physician assistant programs, as well as other health care programs, to incorporate culture competency courses into their curricula in order to deliver culturally competent health services.\textsuperscript{1,7} Cultural competency training has been a promising approach for improving the knowledge, attitudes and skills of health care professionals at any level.\textsuperscript{12}

At Baylor College of Medicine Physician Assistant Program in Houston, Texas, two curriculum innovations were instituted in order to address the cultural competence of its students. A study done by Schneider, Thompson and Celis evaluated the cultural competence course during the preclinical curriculum and an intensive Spanish language course during clinical rotations. It was concluded that the inclusion of a cultural competence curriculum seemed to be correlated with positive increases in the cultural competence of some students. Various educational approaches were recommended to address each area of the multiple dimensions of cultural competence.\textsuperscript{13}

A study done by Parkhurst and Ramsey used a problem-based learning approach in a clinical laboratory setting to evaluate the physician assistant students’ cultural competence in communication. The students were subjected to ten modules where they were evaluated while
interacting with simulated patients in standardized scenarios. Students were given feedback from the patients and moderator and were told their strengths and weaknesses. Qualitative written evaluations compared the students’ performances from the first and second years of PA school. An improvement in cultural competence was noted from the first to second year.\textsuperscript{14}

Cultural competency programs that have been instituted early in health care education have led to an increased understanding of multiculturalism.\textsuperscript{3, 8, 15} It has been shown that increased cultural competency is produced by early classroom experiences that teach basic principles of cultural competency. Basic principles include the instruction of fundamental definitions and concepts that allow for later learning of a more in-depth understanding of cultural competency.\textsuperscript{1, 16}

Another component to the development of cultural competency is continued training opportunities for students throughout their education, including pre-clinical and clinical education.\textsuperscript{1} Studies have also shown that submersion in a cultural group leads to greater sensitivity and awareness to that group. Individuals can then integrate newly obtained competence into health care practice.\textsuperscript{1, 7}

A study by Crosson, Deng, Braqueau, Boyd and Soto-Greene that evaluated medical students found that the attitudes of students were positively affected by cultural competence education.\textsuperscript{17} Another study by Eshleman and Davidhizar showed that cultural competency is successfully learned and applied to health care in nursing through a variety of learning strategies such as storytelling, articles, learning from childhood, cultural analysis, cultural dinner, guest speakers, international health exercise, and limericks.\textsuperscript{3}

Cultural competency is a mechanism that may change the health outcomes of minority Americans by changing the patient’s ability to receive and apply information regarding their own
While the literature discusses the need for cultural awareness, knowledge, attitudes and skills to improve disparities, it does not describe exactly how health systems are to become culturally competent. Several models for cultural competency have been created. One model includes basic principles such as cultural awareness, cultural knowledge, cultural skill, cultural encounter, and cultural desire.

Parish believed that a person cannot truly become competent in a specific culture without prolonged immersion in that culture and that a person cannot make assumptions about the beliefs and values of a patient based solely on their appearance or association with a cultural group. Parish also believed that it is necessary to develop a standard approach to interviewing patients that will allow them to express their beliefs.

A review of educational models and methods to teach culturally appropriate care was performed by Hobgood, Sawning, Bowen and Savage. It was concluded that the disparities and outcomes in health care between the majority and minority populations was a widespread and well-documented problem in the United States today. It was recommended that a reliable assessment of methods be developed with educational interventions. The development and inclusion of cultural-training programs were necessary in order to show the importance of culture to patients and to improve cultural appropriateness of health care delivery. Emergency medicine educators were described as being leaders in cultural-competency education. Delivery of culturally competent care was instilled into daily habits. The curricula were flexible and were evaluated by direct observation or OSCE (objective structured clinical examination) experiences.

A study by Symington and Cooper described that there were key components of curricula from PA programs. These included teaching culturally appropriate history taking skills, using
problem-based learning, clinical experiences with self reflection, a curriculum that begins early in the didactic year and understanding that evaluation of patients individually was necessary. They also suggested other educational tools, such as presentations, written assignments, exams, discussion groups, debates, and OSCEs with the use of a translator, should be further investigated to gage their usefulness in evaluation a students level of cultural competency. The purpose of this study was to evaluate whether the cultural competency content in one PA education program led to changes in cultural competency attitudes among its PA students.

METHODOLOGY

Design

This study was administered through the Department of Physician Assistant at Wichita State University between August 2005 and May 2007. A fifteen question survey was adapted from the Health Beliefs Attitudes Survey (HBAS) and approved by Wichita State University’s IRB to measure a change in attitudes among the Wichita State University PA students from the time that they began the cultural competency curriculum in 2005 until they completed the didactic and clinical components of the cultural competency curriculum in 2007. The didactic component of the cultural competency education included a set of classroom lectures over one semester on understanding cultural competency. The clinical components included clinical rotations in rural, underserved, metropolitan, and suburban clinics and hospitals. Students attended these rotations once weekly throughout the didactic year and on a daily basis throughout the clinical year of education. Students were to gain cultural competence through first-hand clinical experience with cultures different from their own.

Participants

Participants of this study included 42 students of Wichita State University’s PA program
who began the program in 2005 and completed it in 2007. Students consented to participation by completing a cultural competency survey.

Measurement

Students were asked to complete a survey of 15 questions that assessed their cultural competence. All participants were asked to rate their responses using a Likert scale ranging from strongly agree to strongly disagree. This survey was modified from the Health Beliefs Attitudes Survey (HBAS) that was used in a study to assess medical student attitudes toward cultural competency issues, which was constructed by a group of nationally recognized cultural competency experts.17

Data Analysis

The data was analyzed using frequency and a chi-square test. The relationships between the results before and after the curriculum intervention were evaluated using the chi-square statistic to determine if significant relationships existed.

RESULTS AND DATA ANALYSIS

The primary purpose of this study was to evaluate the attitude changes concerning cultural competency in PA students before and after completion of a cultural competence program. The target population of this study was physician assistant students at Wichita State University (n=42). Surveys, which consisted of 15 Likert type questions, were given to the participants in the classroom setting and were collected before and after the cultural competency program. No surveys were excluded from the results, but two students declined to complete the initial survey. The survey data was manually entered into an Excel spreadsheet, and then imported into SPSS version 15.0 for analysis.
Descriptive Statistics

Demographic Profile

The survey included the collection of demographic information including age, race, and gender. The mean age of respondents was 25.95 (n=40), +/- SD 4.713 years for the pretest and 26.83 (n=42), +/- SD 4.471 years for the posttest. As expected the race of the respondents on the pretest and posttest was similar and included 2.5% African American, 7.5% Asian/Pacific Islander, 2.5% American Indian, 80% Caucasian, 5.0% Hispanic, and 2.5% other race. Likewise the gender of the respondents on the pretest and posttest was 23% male and 77% female (n=40) (Table 1).

Table 1

<table>
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Research Question

The research question measured by the survey attempted to evaluate whether or not cultural competency content in physician assistant education led to a change in cultural competency attitudes among physician assistant students.

Quantitative Data

To determine whether cultural competency attitudes changed, a chi-square statistic was used to evaluate whether there were any significant relationships between the pre and posttest results. Table 2 depicts the results from the pre and posttest. There was only one significant relationship. The remaining attitudes remained unchanged.

The question of whether PAs can give excellent health care without knowing the patients’ understanding of their illness showed a significant difference (p<.05) before cultural competency content was implemented versus completing it. On the pretest, 30% (n=12) strongly agreed or agreed with the question, while 64.3% (n=27) strongly agreed or agreed on the posttest.
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*df=5, p<.05
DISCUSSION

The need for culturally competent health care workers has become increasingly important. The United States has become more culturally diverse, and in order to effectively treat patients, the cultural barrier between patients and health care providers must be corrected.

Limitations of this study included a small sample size. This could be changed in the future by analyzing future classes of this PA program and also by evaluating students from other PA programs across the nation.

One item on the cultural competency evaluation form demonstrated a significantly different relationship from the pretest to the posttest results. The statement was that PAs can give excellent health care without knowing patients’ understanding of their illness. The students predominantly disagreed with this statement on the pretest, but agreed after taking the cultural competency component and completing their PA education. This may have indicated that the students became more confident in their own care giving skills after completing PA school. The question may have been misleading to the respondent making them believe that a PA can give excellent health care and treat correctly and effectively.

Summary of results as compared to literature

As the literature suggested, cultural competency courses in health care education would have theoretically led to culturally competent health care providers. As many cultural competency programs have been instituted into health care education, few studies have been performed to analyze the effectiveness of these courses. The literature showed that students who learned cultural competency early in health care education obtained an increased understanding of multiculturalism. This study involved graduate level students, which could explain why little change was observed from before and after receiving the cultural competency component of their
education. It could simply have implied that the students were already culturally competent from previous education. The literature revealed that students who were exposed to cultural competence education early in education showed a higher level of cultural competence.\textsuperscript{3, 8, 15}

Another possibility was that the specific curriculum used for this class of PA students was not adequate to evoke a change of cultural competency attitudes. This related to the literature in the sense that few studies have been done to analyze the effectiveness of any given cultural competency program. A standardized and researched method of teaching may have been necessary in order to ensure effective cultural competence in PA students.

There were differing demographic factors between this study and the one from which it was adapted. In this study the participants from Wichita State University’s PA program were 76.9% female. The Crosson, Deng, Boyd and Soto-Greene study consisted of a more even gender breakdown, split evenly at 50%\textsuperscript{17}. Of the Wichita State participants 80% identified themselves as Caucasian, 7.5% as Asian/Pacific Islander, 5% as Hispanic, 2.5% as African American, 2.5% as American Indian, and 2.5% as other racial/ethnic background. Of the Crosson, Deng, Boyd and Soto-Greene study participants, 50% identified themselves as white, 32% as Asian American, 9% as Hispanic, 3% African American, and 7% identified themselves as other racial/ethnic backgrounds.\textsuperscript{17} A higher female and Caucasian demographic was apparent in this study.

The study by Crosson, Deng, Braqueau, Boyd and Soto-Greene showed a positive change in the medical students’ attitudes on cultural competency after completing cultural competency curriculum. The survey questions from that study were grouped into four components; opinion, belief, context and quality. The results showed a significant change from pre and post tests in two of those components, belief and opinion.\textsuperscript{17} The one question that showed significant change
in Wichita State University’s PA program was included in the quality component of the study it was adapted from, which showed a similar result between the two study groups. The Wichita State PA class did not show any significant change otherwise.

A study done by Majumdar, Browne, Roberts and Carpio measured a group of healthcare providers who underwent cultural sensitivity against a group who did not. Many similarities of the results between the two groups were found, including the understanding of multiculturalism, cultural awareness, experience interacting with people of other cultures, and comfort in interacting with people of other ethnic groups. These results could be compared to this study of Wichita State University’s PAs by arguing that the cultural sensitivity induced little change in the attitudes or beliefs of the participants. It differed in the fact that changes were seen regarding work questions dealing with cultural differences. Those who underwent cultural sensitivity sought more information on cultural beliefs and were more likely to adopt health care literature than the control group.

A study by Cooper Brathwaite surveyed participants twice prior to cultural competency education and at one week and three months after completing the course. Initially, no statistical significance of cultural competency was seen. However, significance was seen between the survey results one week and three months post completion of the course, which indicated that the level of cultural competence increased over time following the course. The course was effective in increasing the participants’ overall cultural competence up to three months following the course. The results of the survey of the Wichita State PA participants show only the immediate attitudes of the participants on cultural competency, whereas the attitudes could have improved over time.
Overall significance of the study

Overall, a significant change in cultural competency attitudes was not observed in this study. These results may indicate that cultural competency education at this physician assistant program may not have been adequate for this class of students, and reevaluation may be needed. It may have also indicated that more time was needed for the effects of the cultural competency education to have been evident. However, it should be noted that there was a high level of cultural competence before any intervention occurred.

Conclusion

Further studies are needed on cultural competency programs in order to find a standardized way of improving health care for the culturally diverse. A standardized way of testing the cultural competency attitudes may also be crucial. Implementing cultural competency education early in health care education may have a positive influence on students’ attitudes of cultural competency.
REFERENCES


APPENDIX

WICHITA STATE UNIVERSITY
DEPARTMENT OF PHYSICIAN ASSISTANT
CULTURAL COMPETENCY EVALUATION FORM

Instructions: The following survey was developed to assess cultural competence of PA students at Wichita State University. Please answer every question to the best of your knowledge using this survey. There are no right or wrong answers. Results of this survey will likely assist those interested in learning more about PA student cultural competence in general. No identifying marks will be included on the survey. This process will likely eliminate harm to you, protect your privacy and prevent discrimination of any kind. You will not incur any personal expense, other than time, in connection with this research project. All data will be kept in a locked file cabinet. This survey has been approved by the WSU IRB. Please return your survey to the WSU PA office, room AH 325. The approximate time to complete the survey is 5 minutes.

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<thead>
<tr>
<th>DEMOGRAPHIC INFORMATION</th>
<th>RACE</th>
<th>AGE</th>
<th>GENDER</th>
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<th>ITEM (Please mark your response in the right-hand columns for each question)</th>
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<tbody>
<tr>
<td>1. PAs should ask patients for their opinions about their illnesses.</td>
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<td>2. It is important to know patients’ point of view for the purpose of diagnosis.</td>
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<td>3. Patients may lose confidence in PA if PA asks their opinion about their illness or problem.</td>
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<td>4. Understanding patients’ opinions about their illnesses helps PAs reach correct diagnosis.</td>
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<td>5. PAs can give excellent care without knowing patients’ opinions on their illnesses or problems.</td>
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<td>6. Understanding patients’ opinions about their illnesses helps PAs provide better care.</td>
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<td>7. PAs can give excellent health care without knowing patients’ understanding of their illness.</td>
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<td>8. PAs should ask their patients what they believe is the cause of their illness.</td>
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<td>9. PAs should learn about their patients’ cultural perspective.</td>
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<td>10. PAs can learn from their patients’ perspectives on their illnesses.</td>
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<td>11. PAs should ask their patients why they think their illness has occurred.</td>
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<td>12. PAs should ask about how an illness is impacting a patient’s life.</td>
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<td>13. PAs should make empathetic statements about their patients’ illnesses.</td>
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<td>14. PAs should ask patients for their feelings about their illnesses.</td>
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<td>15. PAs do not need to ask about patients’ personal lives or relationships to provide good health care.</td>
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THANK YOU FOR COMPLETING THIS SURVEY!
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