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ORIGINAL RESEARCH

Athletic Training Preceptors' Levels of Cultural Competence: A Cross-Sectional Study

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Context: The field of athletic training promotes cultural competence education to prevent negative consequences in health care that can result from a lack of cultural awareness. While prior studies have assessed cultural competence among faculty, students, and athletic trainers, no study has specifically focused on preceptors.

Objective: The objective of this study was to assess cultural competence among a subsection of athletic training preceptors.

Design and Setting: Cross-sectional online survey.

Patients or Other Participants: Active preceptors from Commission on Accreditation of Athletic Training Education (CAATE) accredited programs in good standing from two districts of the National Athletic Trainer's Association.

Measurements: The Cultural Competency Assessment (CCA) consists of 27 Likert-type response items split into the Culture Awareness and Sensitivity (CAS) subscale and the Cultural Competence Behaviors (CCB) subscale. Higher scores indicate higher cultural competence. Descriptive statistics were used to analyze the data.

Results: Sixty-five preceptors of the estimated 260 were included in the analysis. The combined average score on the CCA was 89.72 $\pm$ 11.46 out of 135 (67.9%). A paired-samples *t*- test revealed that preceptors scored significantly better in the CAS compared to the CCB [$t(64) = 12.47$, $P < .001$], with averages of 37.27 $\pm$ 3.47 out of 55 (67.77%) and 52.44 $\pm$ 10.08 out of 80 (65.5%), respectively.

Conclusions: This study provides data on athletic training preceptor's awareness and behaviors relative to cultural competence. Results demonstrate a need to further develop cultural competence among preceptors. The role of a preceptor has been shown to have a great influence on student development and retention in the profession. Preceptors should be considered as another source of knowledge of cultural competence.

Key Words: Clinical education, diversity, equitable health care

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KEY POINTS

- There are several gaps in knowledge surrounding cultural competence in athletic training education. Regarding further efforts in this domain, the emphasis should be placed on educational programs responsible for teaching cultural competence.
- Culturally competent behaviors are currently lacking in athletic training. Researchers and educators can use cultural competence assessments as a way of tracking the development of culturally competent behaviors among educators, preceptors, and future clinicians.
- The role of a preceptor is invaluable in a student's development. It is important that efforts to develop cultural competence in athletic training be inclusive in considering the importance of the preceptor's role in student development.

INTRODUCTION

Demographic changes reflecting greater diversity in the US population and in student-athlete populations have prompted an awareness of the need for more culturally competent health care providers. By the time the 2020 census results are reported at least half of the US youth population is expected to be part of a minority race or ethnic group.[1] These demographic changes are also reflected in the National Collegiate Athletic Association, in which ethnic/diverse minorities represent approximately 44% of the Division I student-athlete population, a percentage that has steadily increased by at least 1% each year since 2012.[2] In contrast, as of September 2018, approximately 80% of the National Athletic Trainers' Association (NATA) membership self-identified as white/non-Hispanic.[3] This growing racial disparity between athletic trainers (ATs) and patients emphasizes the need for culturally competent behaviors among clinicians so that they are able to provide the highest quality of care to all patients. This disparity is especially concerning as health outcomes are worse among ethnic and racial minorities. These outcomes are rooted in sociocultural factors, such as structural racism in health care, that prevent racial and ethnic minorities from accessing care as well as in inequities attributed to social determinants of health, including education, socioeconomic status, and employment.[4–6]

To address concerns about health care outcomes, it is important that clinicians develop cultural competence to better address sociocultural differences that could be encountered in the treatment of patients.[7,8] In creating a culturally competent health care system, clinicians learn to recognize an individual's culture and its effect in all levels of that patient's health care.[7] Achieving cultural competence requires the assessment of an individual's culture and how it influences interactions with the entire health care system.[7] The culturally competent clinician would also integrate beliefs and practices and consider disease prevalence and incidence and treatment outcomes in different patient populations.[7] Clinician awareness and engagement in more culturally competent behaviors is therefore aimed at preventing biases or the possibility of overlooking sociocultural factors that could affect patient care. Perhaps the most significant concern is that the lack of cultural competence of clinicians or the health care system could lead to negative consequences, such as lower quality of care, patient dissatisfaction,[9] and inefficiencies in the health care system.[10]

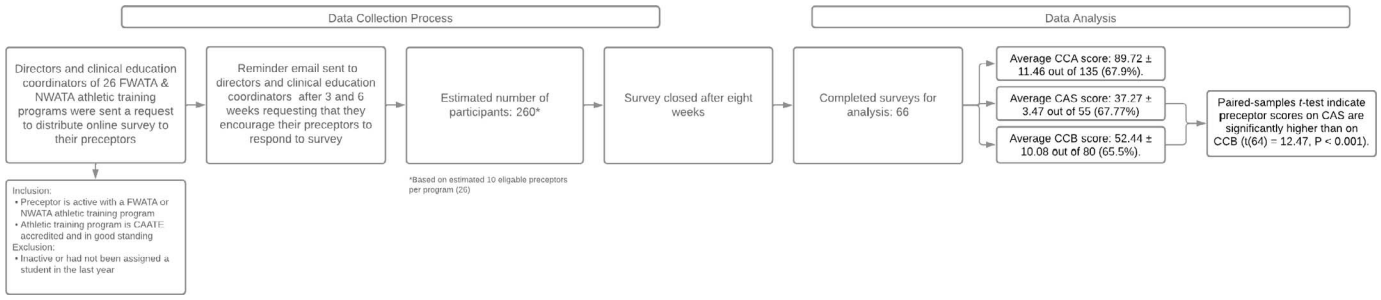
Literature surrounding cultural competence in athletic training is limited. Previous studies in athletic training have assessed cultural competence in educators,[11] undergraduate students,[12] and the general athletic training profession.[13] Findings indicate that self-reported knowledge of cultural competence concepts exists, and these populations report awareness of cultural issues.[11–13] However, culturally competent behaviors in interactions between patients and ATs do not reflect this awareness.[11–13] This indicates that while these 3 populations believe themselves to be culturally competent in action, they lack culturally competent behaviors. In addition, higher levels of cultural competence in ATs is predicted by sex and race.[13] Specifically, ATs who self-identified in the racial categories of *multiracial/other* and *Black/African American* scored higher in the Cultural Competence Assessment (CCA). These observations can also be noted in workforce studies[14] in which white/Caucasian females and racial/ethnic minority men and women tend to find more value and feel more comfortable with issues of diversity when compared to white/Caucasian men.

While prior studies have focused on educators, students, and, more broadly, the larger athletic training population, preceptors specifically have gone unnoticed in the literature. The role of a preceptor is invaluable to athletic training programs and student learning. Like program faculty, preceptors are held in high regard by students as a source of knowledge, mentorship, and professional authenticity, and they are often sought in decision making.[15,16] Specifically, preceptors impact student persistence in the profession by displaying excitement for the field of athletic training.[15,17,18] Students also value the preceptor's efforts in reinforcing classroom concepts and the ability to apply the concepts at their clinical sites.[18] Modeling by preceptors contributes to ongoing student learning and development, and their importance can be further explained through social learning theories.[19] Therefore, the objective of our study was to determine the cultural competence levels of a subsample of preceptors in athletic training programs currently accredited by the Commission on Accreditation of Athletic Training Education (CAATE) in West Coast districts 8 and 10.

METHODS

This study uses a cross-sectional survey study design to assess preceptors' cultural competence. Data were collected through

Figure. Methodology flow chart.



a survey that was distributed to preceptors in the Far West Athletic Trainers' Association (FWATA) and Northwest Athletic Trainers' Association (NWATA) districts of the NATA (Figure). The survey employs the CCA, which is composed of 2 subscales that assess cultural awareness and sensitivity and cultural competence behaviors.[20] Data were analyzed using descriptive statistics. Furthermore, scores on each subscale were compared for significant differences. To ensure the quality of this study we employed the STROBE assessment tool.[21]

Participants

Participants were preceptors from CAATE-accredited undergraduate and graduate professional programs from the FWATA and NWATA districts of the NATA. Participants surveyed were from a convenience sample based on their geographic location and included the states of Nevada, California, Hawaii, Alaska, Oregon, Washington, Idaho, and Montana. Potential participants were initially contacted through an email sent through program directors and clinical education coordinators of programs within the states within the FWATA and NWATA. Participants were excluded if they had not been assigned an athletic training student within the last year and were therefore considered inactive. Additionally, athletic training programs were excluded if they were not active or in good standing, as classified by the CAATE. The research group estimated there to be 260 eligible preceptors for both FWATA and NWATA districts.

Survey Instrument

The survey contained the 27-item CCA[20] as the primary inquiry. The CCA was designed to measure cultural diversity experience, cultural awareness and sensitivity, and cultural competence behaviors.[20] The survey instrument is published and does not require permission to distribute.[20] Among other health care professions, the CCA has also been used in a prior study[11,13] to assess cultural competence in certified ATs. The survey was administered online through a Qualtrics link sent via email to each preceptor.[22]

Descriptive statistics were used to analyze data acquired from the participants.[20] The CCA consists of 2 subscales, the 11-item Culture Awareness and Sensitivity (CAS) subscale, and the 16-item Cultural Competence Behaviors (CCB) subscale.

The CAS measures cultural awareness and sensitivity with a 5-point Likert-type response with response options of *strongly agree, agree, disagree, strongly disagree,* and *no opinion*.[20] The CCB subscale measures cultural competence behaviors with response categories of *always, often, at times, never,* and *not sure*.[20] Each response is given a score of 1 to 5, with 3 of the statements or behaviors being reverse-scored. The scores are added together with the maximum score possible for the entire CCA, which is equal to 135 (100%). Higher scores for the CCA are indicative of higher levels of knowledge in cultural competence, more positive attitudes, and greater frequency of culturally competent behaviors.[20] The CCA has an internal consistency reliability of $\alpha = .92$. Cronbach's α values for the CCB and CAS subscales were reported at .93 and .75, respectively.[20]

Procedures

An initial email was sent out to directors and clinical education coordinators of programs located in the FWATA and NWATA districts of the NATA. The email addressed to the programs requested that the survey link be forwarded to the program's preceptors. Data were collected through Qualtrics.[22] Survey time requirements were estimated to be between 10 to 15 minutes. Participation was entirely voluntary, and if at any point in the survey participants felt uncomfortable or, for any reason, decided not to continue, they could exit out of the survey page, and their responses were not recorded. Only fully completed surveys were included in the analysis, as the survey tool requires that all questions be answered for score calculations.[20] Follow-up emails like the initial recruitment email were sent out to the clinical education coordinators and program directors within 3 weeks and 6 weeks after the initial email. The survey was available for completion for a total of 8 weeks. After 8 weeks, the data acquired were analyzed using descriptive statistics.[20] A paired samples *t*-test was used to determine any differences between scores on the 2 subscales. This protocol was deemed exempt by the institution's review board because of the expected minimal risk posed to participants.

RESULTS

A total of 83 preceptors started the survey, but only 65 surveys were considered complete and included in our analysis. Of these, 44 preceptors self-identified as "white/non-Hispanic," while the other 21 self-identified as a minority (Table). The research group estimated that there were 260 eligible preceptors for both FWATA and NWATA districts through estimated averages and program size, making the estimated response rate of the present study approximately 24.6%. Individual preceptor scores for the CCA were summed automatically by the Qualtrics survey form.[20,22] The combined average score for all preceptors on the CCA was 89.72 ± 11.46 out of 135 (67.9%). On the CAS preceptors scored an

Table. Race/Ethnicity Demographics

Race/Ethnicity	No. (%)
White, not Hispanic/Latino	44 (68)
Two or more races	9 (14)
Hispanic/Latino of any race	6 (9)
Asians, not Hispanic/Latino	3 (5)
Black or African American, not Hispanic/Latino	2 (3)
Native Hawaiian or Other Pacific Islander, not Hispanic/Latino	1 (2)
Other/prefer not to answer	0 (0)
American Indian or Alaskan Native, not Hispanic/Latino	0 (0)
Total	65 (100)

average of 37.27 ± 3.47 out of 55 (67.77%) and in the CCB they scored 52.44 ± 10.08 out of 80 (65.5%).[20] A paired-samples *t*-test revealed that preceptors scored significantly better on the CAS compared to the CCB [$t(64) = 12.47$, $P < .001$].

DISCUSSION

A higher score for the CCA demonstrates greater levels of cultural competence.[20] While the authors of the CCA have not provided a specific range that would indicate where an individual must score to be considered culturally competent, previous studies have provided some guidance. Two prior studies[11,13] used the same assessment used in our study to determine the cultural competence of athletic training professionals and educators. In their results, the ATs surveyed scored an average of 68.5% (4.80 ± 1.51 out of 7.0), while educators scored 76.14% (5.33 ± 0.66 out of 7.0).[11,13] While their scores are reported in the context of the Likert scale they used, a 7-point rather than a 5-point scale, and one that was different from the scale used by the authors of the CCA in the present study, the percentage score they provided can be a reference for the present study.[11–13,20] Our results fall in line with those of these previous studies, with an average score of 67.9%. However, these scores demonstrate that there is room for improvement of cultural competence in athletic training preceptors. To be considered a good score, these scores should be closer to 135 (100%), as indicated by authors of the CCA.[20]

The current study also identified a statistical difference between CCB and CAS scores, indicating that there is a gap between awareness of and sensitivity to cultural competence when compared to culturally competent behaviors. As prior studies[11,13] have concluded, this finding illustrates that while athletic training preceptors may have knowledge of cultural competence conceptually, they are less likely to exhibit the skills and behaviors that reflect this knowledge. While both aspects of cultural competence require improvement, educators should place an additional emphasis on developing culturally competent skills and behaviors among their preceptors. This is imperative among preceptors, given their role in student development, as students tend to learn from observing positive or negative behaviors.[19]

Since preceptors are invaluable to a student's education and the development of clinical skills, these lower scores, which demonstrate a lack of cultural competence among preceptors, warrant improvement in cultural competence among preceptors. Athletic training program leaders should see preceptors as another source for student learning of culturally competent skills and should therefore require preceptors to improve these skills to benefit student learning.

Previous authors[15,16] have indicated that preceptors are held in high regard by students as a source of knowledge and mentorship. Students also value their experience with their preceptors and in their clinical sites, which helps with the reinforcement and application of classroom concepts.[18] Therefore, a suggestion moving forward is to include specific cultural competence training for preceptors and to add cultural competence as part of the student's clinical rotation requirements. Traditionally, athletic training programs require certified ATs to complete training before they can become preceptors. As part of this training, program leaders could require and implement cultural competence training for preceptors to improve their own skills and to be able to mentor students in the clinical setting. While there is little consensus regarding tools for teaching cultural competence, we can draw ideas and strategies from other fields. This literature indicates that several formats and strategies can be effective in the teaching of cultural competence. A few suggestions include workshops or courses, immersion programs, or simulations, all of which have proven to be effective.[23,24] Perhaps of greatest importance is the content that is being taught through any of these strategies. To avoid shortcomings in efforts to increase cultural competence among preceptors and all ATs, it is important to teach beyond the patient-clinician encounter.[25,26] This means considering sociocultural factors that impact a patient's health, including, but not limited to, economic or systemic contexts that could limit or prevent patients from seeking health care or their ability to carry through with their care.[25,26]

The current study adds to this body of literature on cultural competence, specifically by assessing another population that has demonstrated a meaningful impact on student education.[16–18] Our study demonstrates that there is a need to improve cultural competence among this population, which should encourage athletic training programs to direct additional attention to preceptor education on cultural competence. Doing so would allow more student exposure to culturally competent knowledge and behaviors.[19] Programs can use the CCA and the presented scores to track the development of cultural competence.[20,27] Although experts have expressed that it is not expected for health care providers to achieve complete cultural competence, they should continue to strive for improvement to better serve the populations with which they interact, especially as these populations become more diverse.[1,7,20] We recommend that future research efforts include the use of the CCA as an assessment tool to test the effectiveness of cultural competence learning programs, including the assessment of training strategies along with training times and frequency.

Limitations

The present study had limitations. There is always a risk of response bias in survey research. While the authors of the CCA have attempted to limit the impact of bias on their assessment tool, there still exists the possibility that participants will respond to each assessment item based on what they

perceive to be socially desirable.[20] In turn, the scores of each participant could be skewed higher or lower to reflect their perceptions of the desired response. The tool itself presents with a notable limitation in that it was not developed for athletic training specifically. This should be considered in future research and warrants the development of additional methods of cultural competence assessment that are specific for ATs. There is also a limitation in the districts that were included. Only preceptors from 2 out of the 10 NATA districts were included as part of this study. Differences in the demographic composition between these districts and the NATA overall may impact the generalizability of the results.

The NWATA demographic data indicate that 81.6% (n = 1427) of their district's membership self-identify as Caucasian, while the other 18.36% fall into 1 of 8 racial/ethnic categories, including Asian/Pacific Islander (4.63%, n = 81) and Hispanic (4.51%, n = 79) as the second and third most-represented groups (NWATA, email communication, September 2021). However, the FWATA district of the NATA is more diverse. Only 53.2% (n = 1648) of the FWATA membership identify as Caucasian, while the 2 most-represented groups include Hispanic (15.56%, n = 482) and Asian and Pacific Islanders (14.53%, n = 450) (NATA, email communication, November 2021). Finally, the survey's most significant limitation was its sample size and response rate, as only approximately 24.6% of the estimated eligible population participated.

CONCLUSIONS

Our study demonstrated an agreement with the findings of previous studies[11–13] in athletic training in indicating there is room for improvement toward becoming a culturally competent profession. Educators and preceptors alike should reflect upon these results as an indication of the current state of cultural competence within the profession. By emphasizing concepts of cultural competence in athletic training clinical education, not only could student's views of the world around them change but it could directly impact how they learn and interact with patients and colleagues.[19,28,29] The emphasis for further research in this domain should be placed on effective methods for acquiring cultural competence among preceptors and enhancing teaching methods that could be utilized in a clinical setting to develop cultural competence among students.

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