Are Clinical and Didactic Athletic Training Instructors Demonstrating Effective Mentoring Skills Across All Ethnicities of Athletic Training Students?

A THESIS
Submitted to the Faculty of the School of Graduate Studies and Research of California University of Pennsylvania in partial fulfillment of the requirements for the degree of Master of Science

BY
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CALIFORNIA, PA

THESIS APPROVAL

Graduate Athletic Training Education

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ACKNOWLEDGEMENTS

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Next, I would like to thank to most important people in my life, my parents. You both have been my rock. Dad, you pushed and encouraged me to be my best. You instilled in me that giving up is not an option and that I should give 100% in all my endeavors. Mom, you have been my ear, my shoulder to cry on, and my main support. You knew that times could sometimes get rough and even though you were miles away, you were right beside me to help me get through. You reminded me continuously that if I continued to trust in God I could accomplish anything, because all things work together for good to those who love Him. Thank you, mommy and daddy for being there. I love you.

To my brother and my best friend, you have listened to my frustrations even though you were having your own. At times we are at odds with each other, but when I need you,
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INTRODUCTION

The National Athletic Trainers’ Association Education Council (NATAEC) has indicated that 18% of the athletic training students (ATS) are ethnically diverse (American Indian/Alaskan Native, Asian or Pacific Islander, Black, Hispanic, and Multi-ethnic).\(^1\) The percentage of certified athletic trainers (ATC), according to the Ethnic Diversity Advisory Committee (EDAC), is at 10%.\(^2\) This number shows that not all ATS are pursuing careers in athletic training. These percentages do not emulate the ethnically diverse populations of neither the United States (38%) nor NCAA athletics (35%).\(^3\)\(^-\)\(^5\) The amount of ethnically diverse ATCs should increase to better reflect the national and athletic population, particularly since ATCs work directly with the athletic population.\(^1\)\(^,\)\(^5\) More ethnically diverse ATCs also show the athletes that ATCs can be from any background, and that the athletic training profession is open to ethnic diversity.\(^5\)

To get an increase in ethnically diverse ATCs, high schools should be targeted to recruit ethnically diverse students. This can be done by promoting the athletic training profession at high schools during career days, setting up workshops, and implementing diversity in
promotional brochures and educational materials. According to the difference in percentages of ethnically diverse ATSs and those who pursue the profession, retaining the ATSs is a necessity. Though it is the responsibility of the students to adjust to the constraints of higher education, the help of the instructor is necessary. Instructors should work to become culturally competent by educating themselves on the different cultural backgrounds. The instructors should also resist stereotypes and try to break communication barriers that may exist, as well as implementing multiculturalism into the curriculum to help prepare the ATSs to be able to interact with those that are culturally different.

Mentoring has shown to be influential in the success of students and should be used in athletic training. Mentoring is defined as “a developmental relationship between an individual and a more senior or influential manager or professional”. It is believed that ethnically diverse students should be mentored by someone who is also ethnically diverse. Though it may be effective, it is not imperative for the mentors and mentees to be of the same race. Being mentored by someone of a different race gives the students a feeling of equality.
In order for successful mentoring to occur, the instructor should exhibit certain characteristics such as good communication skills, a development of trust, and congruent values. These characteristics help to form interpersonal relationships between the student and the teacher.\textsuperscript{10} The instructor should also model appropriate professional behaviors as examples for the students.\textsuperscript{11, 12} Mentoring is formed through modeling and interpersonal relationships. With mentoring, student-instructor relationships are developed; which in turn, enhances the athletic training education experience for the students.\textsuperscript{11, 12}

The purpose of this study is to determine if clinical and didactic athletic training instructors are demonstrating effective mentoring skills with their ethnically diverse students. The study would show if there is a difference in student perceptions of athletic training instructors’ behavior due to ethnicity, and due to the relationship with the athletic training instructor.
METHODS

Research Design

A descriptive research design was used for this study. The dependent variable was the score of the questionnaire. The independent variables were undergraduate students’ ethnicity and their relationship to the instructor. A questionnaire was used to collect data on the views of athletic training students about their relationship with their athletic training instructors.

Subjects

Undergraduate and graduate athletic training students (n= 109) enrolled in entry level CAATE athletic training education program (ATEP) in the NATA Districts 1,2,3,4,5,6,8,and 10 were surveyed for this study. Emails were sent to all entry level graduate ATEPs and a random sample of 50 ATEP program directors to ask for their program to participate in the study. Ten of the ATEPs from districts 1,2,3,4,5,6,8,and 10 agreed to participate. Emails were then sent to the participating program directors so that they could forward it to their
undergraduate and graduate students for participation in this study (Appendix C1). Informed consent by the subjects will be implied by anonymous response to the web based questionnaire.

Preliminary Research

Items from an existing questionnaire were used along with items that the researcher developed, so that the questionnaire would be more specific to the study. Preliminary research was conducted with South-western Pennsylvania athletic training students (N=30) to determine the reliability of the questionnaire. The subjects were third and fourth year undergraduate students currently enrolled in a CAATE athletic training education program. The reliability for the questionnaire was measured using Cronbach’s alpha. This form of measurement was used because all items on the questionnaire were on a Likert scale. Cronbach’s alpha estimates the extent to which all items in a test measure the same factors. It also determines how answers to each item in the instrument relate to each other and to the test as a whole. A Cronbach’s alpha of .7 or higher indicates that the instrument has high internal
consistency. A Cronbach’s alpha of .3 or lower represents poor internal consistency.

The questionnaire was broken down into five categories: student participation, instructor’s attitude toward teaching, instructional strategy, humanistic orientation, and instructor’s self-perception. The Cronbach’s alpha for student participation was .809. The instructor’s attitude toward teaching portion of the questionnaire had a Cronbach’s alpha of .803. Instructional strategy had a Cronbach’s alpha of .788. The Cronbach’s alpha for humanistic orientation was .784 and .729 for instructor’s self-perception. The questionnaire as a whole had a Cronbach’s alpha of .749. This shows that the questionnaire has high internal consistency.

Instrumentation

The “Students’ Perceptions of Athletic Training Instructors’ Behavior Questionnaire” (Appendix C2), which was developed by the researcher, was used for this study. Items on the questionnaire were adapted from the “Perceptions of Clinical Teaching Behavior Questionnaire” with the author’s permission (Appendix C3). The adaptation was done by removing the items that were not specific to
the study and by adding demographic items. The questionnaire consisted of a four point Likert scale to score the response of the items. The scores reflect if the subjects strongly disagree (1), disagree (2), agree (4), or strongly agree (5). Although the questionnaire is based on five points there are only four values from which to choose. There are five categories in the questionnaire: Student Participation, Instructor’s Attitude toward Teaching, Instructional Strategy, Humanistic Orientation, and Instructor’s Self Perception. There are a total of 24 items in the five categories with a score range of 120. The score showed if the subjects had a poor perception (0-40), indifferent perception (41-80), or good perception (81-120) of their athletic training instructors’ behaviors. Other demographic info such as ethnicity, relationship perceptions, types of conversations, and type of instructor were also included in the questionnaire.

Procedures

First, approval of the California University of Pennsylvania Institutional Review Board (IRB) was sought (Appendix C4). The survey was then administered to thirty subjects and an item analysis was performed. The
questionnaire was then placed on an approved website to administer for data collection for the study. Subjects were graduate students from entry-level graduate ATEPs of NATA districts 3, 5, 6, and 10, and undergraduate students, who were chosen by randomly selecting five undergraduate ATEPs from each of the ten NATA districts. Emails were then sent to all entry-level graduate ATEPs and the 50 randomly selected ATEPs requesting the program directors to allow their students to participate in the study. Upon agreement, another email was sent to the program directors to forward to their graduate and undergraduate students. The email contained an attachment which provided information regarding the study as well as a link to access the questionnaire to be completed by volunteer graduate and undergraduate ATEP students (Appendix C1).

When the surveys were completed, the data was gathered and analyzed by the researcher using SPSS 14.0. Results of this study were used to determine if athletic training instructors have effective mentoring skills when interacting with their ethnically diverse students.
Hypotheses

The following hypotheses were tested in this study:
1. There will be a significant difference in students’ perceptions of their instructors based on ethnicity.
2. There will be a significant difference in students’ perceptions of their instructors based on their relationship with the instructors.

Data Analysis

A one-way ANOVA was used to determine if a difference exists in students’ perceptions of their instructors based on ethnicity. Also, a second one-way ANOVA was used to determine if a difference exists in students’ perceptions of their instructor based on their relationship with their instructor. The results were analyzed using SPSS 14.0 at an alpha level of \( \leq .05 \).
RESULTS

Demographic Data

The sample consisted of 109 (N=109) undergraduate and graduate athletic training students from ten CAATE accredited programs from NATA districts 1, 2, 3, 4, 5, 6, 8, and 10. All of the students in each program totaled to be 225 students. Of the 225 students 109 students completed the survey, indicating a 48% response rate.

The majority of the students were white (N=92, 84.4%). The other ethnicities, American Indian/Alaskan native (N=2, 1.83%), Asian/Pacific Islander (N=5, 4.59%), Black (N=6, 5.5%), Hispanic (N=2, 1.83%), and Multi-ethnic (N=2, 1.83%) represented 15.6% of the sample population (Table 1). The instructors that the students responded as spending the most time with were the Approved Clinical Instructors (N=56, 51.38%) and the instructors that acted as both the Approved Clinical and Didactic Instructors (N=34, 31.19%), whereas the least students spent most of the most time with the didactic instructors (N=19, 17.43%) (Table 2).
Table 1. Students’ Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaskan</td>
<td>2</td>
<td>1.83%</td>
</tr>
<tr>
<td>Asian or Pacific Islander</td>
<td>5</td>
<td>4.59%</td>
</tr>
<tr>
<td>Black (non Hispanic)</td>
<td>6</td>
<td>5.50%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2</td>
<td>1.83%</td>
</tr>
<tr>
<td>Multi-ethnic</td>
<td>2</td>
<td>1.83%</td>
</tr>
<tr>
<td>White (non Hispanic)</td>
<td>92</td>
<td>84.40%</td>
</tr>
</tbody>
</table>

Table 2. Instructor Students Spend the Most Time With

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved Clinical Instructor (ACI)</td>
<td>56</td>
<td>51.38%</td>
</tr>
<tr>
<td>Didactic Instructor</td>
<td>19</td>
<td>17.43%</td>
</tr>
<tr>
<td>ACI and Didactic Instructor</td>
<td>34</td>
<td>31.19%</td>
</tr>
</tbody>
</table>

All of the students responded that they spent 3-5 days/ week with their instructor. The majority of them had both personal and professional relationships (N=65, 59.63%) with their instructors, while the remaining of the subjects had strictly professional relationships (N=44, 40.37%) with their instructors (Table 3). Almost 72% of the students had a combination of both personal and professional conversations (N=78, 71.56%) with their instructors, whereas the remaining students had only professional conversations (N=31, 28.44%) with their instructors (Table 4).
Table 3. Type of Relationship with Instructor

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Professional</td>
<td>44</td>
<td>40.37%</td>
</tr>
<tr>
<td>Combination</td>
<td>65</td>
<td>59.63%</td>
</tr>
</tbody>
</table>

Table 4. Type of Conversations with Instructor

<table>
<thead>
<tr>
<th>Conversation</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Professional</td>
<td>31</td>
<td>28.44%</td>
</tr>
<tr>
<td>Combination</td>
<td>78</td>
<td>71.56%</td>
</tr>
</tbody>
</table>

Hypotheses Testing

The level of significance for testing all hypotheses was set at an alpha level of $<.05$.

Hypotheses 1: There will be a significant difference in students’ perceptions of their instructors based on ethnicity.

Conclusion: The means of questionnaire scores of the athletic training students of six different ethnicities were compared using a one-way ANOVA. No significant difference was found ($F_{5,103} = 1.166$, $p > .05$) (Table 5). The score of the questionnaire for the athletic training students did not differ significantly between ethnicities.
Hypotheses 2: There will be a significant difference in students’ perceptions of their instructors based on their relationship with the instructors.

Conclusion: The means of questionnaire scores of the athletic training students concerning the relationships with their instructors was compared using a one-way ANOVA. No significant difference was found (F_{1,106} = 1.967, p > .05) (Table 6). The score of the questionnaire for the athletic training students did not differ significantly.

### Table 5. One-way ANOVA of Students’ Perception Scores due to Ethnicity

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1222.359</td>
<td>5</td>
<td>244.472</td>
<td>1.166</td>
</tr>
<tr>
<td>Within Groups</td>
<td>21590.246</td>
<td>103</td>
<td>209.614</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22812.606</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 6. One-way ANOVA of Students’ Perception Scores due to Relationship with Instructors

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>415.112</td>
<td>1</td>
<td>415.112</td>
<td>1.967</td>
</tr>
<tr>
<td>Within Groups</td>
<td>22364.629</td>
<td>106</td>
<td>210.987</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22779.741</td>
<td>107</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Additional Findings

After testing the hypotheses, further statistical testing was conducted using the remaining demographics (types of conversations with instructors, type of instructor, and the relationship with the instructor) and the total score on the questionnaire.

A one-way MANOVA was calculated examining the effect of athletic training students and instructor relationships on the score of the questionnaire. A significant effect was found ($F_{5,102} = 8.16, p = 0.001$) (Table 7). Follow up univariate ANOVAs indicated that professional relationships in the Humanistic Orientation category had significantly lower scores ($F_{1,106} = 5.341, p = 0.023$). Professional relationships in the Instructors Self Perception category also had significantly lower scores ($F_{1,106} = 5.255, p = 0.024$).

<table>
<thead>
<tr>
<th>Source</th>
<th>DV</th>
<th>Type III</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relation.</td>
<td>HOTotal*</td>
<td>90.996</td>
<td>1,106</td>
<td>90.996</td>
<td>5.341</td>
<td>0.023</td>
</tr>
<tr>
<td></td>
<td>ISPTotal*</td>
<td>48.316</td>
<td>1,106</td>
<td>48.316</td>
<td>5.255</td>
<td>0.024</td>
</tr>
</tbody>
</table>

*HOTotal (Humanistic Orientation Total), ISPTotal (Instructors’ Self-Perception Total)
The means of the questionnaire when concerning the type of instructor whom was being evaluated were compared using a one-way ANOVA. A significant difference was found among instructor types ($F_{2,106}=4.266, p < .05$) (Table 8).

Table 8. One-way ANOVA of Students’ Perception Scores due to Type of Instructor

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1699.340</td>
<td>2</td>
<td>849.670</td>
<td>4.266</td>
</tr>
<tr>
<td>Within Groups</td>
<td>21113.266</td>
<td>106</td>
<td>199.182</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22812.606</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The means of the scores on the questionnaire when concerning the types of conversations the athletic training students had with their instructors were compared using a one-way ANOVA. A significant difference was found among conversation types ($F_{1,107}=12.118, p < .01$) (Table 9).

Table 9. One-way ANOVA of Students’ Perception Scores due to Type of Conversations with the Instructor

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2320.789</td>
<td>1</td>
<td>2320.789</td>
<td>12.118</td>
</tr>
<tr>
<td>Within Groups</td>
<td>20491.816</td>
<td>107</td>
<td>191.512</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22812.606</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DISCUSSION

The following discussion section consists of three subsections: Discussion of results, conclusions, and recommendations.

Discussion of Results

The purpose of this study was to determine if athletic training instructors demonstrated effective mentoring skills with their ethnically diverse students. This study enhances the knowledge of the athletic training profession by contributing to the limited number of studies that were conducted on mentoring and diversity in the athletic training field.

It was initially hypothesized that there would be a significant difference in scores on the questionnaire due to students’ ethnicity. Statistical analysis demonstrated that perceptions of the athletic training instructors mentoring skills did not differ among the various ethnicities. The highest scores on the questionnaire were by the Asian/Pacific Islander and American Indian/Alaskan, which ranged from 105 to 108. Mutli-ethnic, White (non Hispanic), and Hispanic students had the next highest
scores that ranged from 98 to 101, while Black (non Hispanic) students had the lowest score of 88. This could indicate that minority students have been experiencing adequate mentoring from their athletic training instructors, but due to insufficient responses from ethnically diverse students the results may be skewed.

It was also originally hypothesized that the scores of the questionnaire would differ due to the types of relationships that the students had with their instructors. The statistical analysis suggested that the types of relationships that the students have with their instructors did not effect their perceptions of the mentoring skills that their instructors’ possessed. Though the scores of those students who had a combination of both personal and professional relationships did not differ significantly from those who just maintained professional relationships, the scores were still higher. This indicates that having a combination of both personal and professional relationships enhances the student-instructor mentoring relationship. This finding supports the research done by Pitney and Ehlerst that even though a student-instructor relationship can be grounded by educational (professional) dimensions and interpersonal foundations, a true mentoring
relationship is when both educational dimensions and interpersonal foundation coincide.\textsuperscript{10}

Along with the hypotheses, another find was that students with professional relationships with their instructors had significantly lower scores in the Humanistic Orientation and Instructors’ Self-Perception categories on the questionnaire. This suggests that athletic training instructors, whom only develop professional relationships may not as effectively demonstrate respect for the student, provide encouragement, and remain reasonably accessible for the student, as those who formed interpersonal relationships with their students. It also shows that instructors may not regularly ask for the students’ feedback and opinions on how they could better educate the students. According to research by Laurent and Weidner\textsuperscript{11}, Humanistic Orientation and Instructor’s Self Perceptions are two characteristics that are considered to be helpful in facilitating students’ learning.\textsuperscript{11} These characteristics refer to the instructors being able to develop interpersonal relationships with their students through showing respect for their students, encouraging the students, and utilizing communication skills to enhance the students learning. These characteristics are also supported by Weidner and Henning\textsuperscript{14},
whom found that developing interpersonal relationships and communication skills with the students should be a standard for athletic training instructors. They found that being a mentor involved showing respect for the diversity of the students, maintaining a positive attitude, being able to communicate effectively, and remaining accessible.

Additional findings also revealed there was a significant difference in the questionnaire scores when the type of instructor was taken into consideration. Didactic instructors had significantly lower scores than those instructors that were Approved Clinical Instructors (ACI) or both. This indicates that those instructors that are ACIs or both are maintaining mentoring relationships with their students. This finding may be due to more interaction that they have with the students during clinical assignments.

Another find, was that the types of conversations that students had with their instructors had significantly different scores. Those instructors that maintained both professional and personal conversations with their students had relatively higher scores than those who only maintained professional conversations. Being able to communicate at both professional and personal level with the students is
important in maintaining an effective relationship as stated in previous research.

Conclusions

Based on the results, it can be concluded that athletic training instructors are demonstrating effective mentoring skills regardless of ethnicity or the types of relationships that are being maintained. The results supported the research that interpersonal relationships play a major role in providing effective mentoring. Athletic training instructors should remain reasonably accessible to their students, demonstrate respect for the students, and show confidence in the skills and abilities of the athletic training students.¹⁰⁻¹⁴

Results also show that communication skills are necessary in the mentoring process. This supports the previous research that athletic training instructors should demonstrate communication skills when mentoring their athletic training students. Instructors should use various teaching styles to ensure that all students are learning. Getting proper feedback from the students can help to ensure that all students are benefiting from what is being taught. They should also be able to provide constructive
feedback to their students, explain themselves clearly, listen effectively, and provide positive encouragement to the students.\textsuperscript{10-14}

Though the results were not as expected, this study contributes to the limited research on ethnic diversity and mentoring in athletic training. This study points out that those instructors who maintain only professional relationships should try to be more accessible, demonstrate respect, and encouragement with their students to develop a more interpersonal relationship.

Recommendations

Considering that athletic training students interact more with their athletic training instructors, it is logical for them to act as mentors for their athletic training students. It is recommended that didactic instructors go beyond having professional relationships by developing interpersonal foundations (congruent values, trust, and personal relationships), so that they would have more effective mentoring relationships with their students. It is also recommended that instructors maintain proper communication skills with their students by being able to communicate on a professional and personal level. This
helps to maintain mentoring relationships that have already been developed.

While this study only examined ten CAATE accredited athletic training education programs, it is recommended by the researcher to examine a greater amount of schools to obtain a response rate that can be generalized to the athletic training student population as a whole. It is also recommended that ethnic demographics of each athletic training education program be obtained before distributing the questionnaire so that the desired population participates in the study. This needs to be done so that the responses are better distributed among ethnicities, which will in turn decrease the risk of having skewed results.
REFERENCES


APPENDICES
APPENDIX A

REVIEW OF THE LITERATURE
Ethnic diversity is a topic of concern in athletic training. More ethnically diverse students are joining the athletic training education programs (ATEP), but there are not many ethnically diverse athletic training instructors for them to relate to. Due to this, athletic training instructors are faced with a dilemma in socializing the ethnically diverse students so that the students matriculate through the ATEP. The purpose of this paper is to first identify and define diversity and its importance to the field of athletic training. Secondly, encourage ethnic diversity in athletic training and how to retain ethnically diverse students will be explained, as well as the roles of didactic and clinical instructors.

Ethnic Diversity in Athletic Training

Diversity is defined as a discrepancy, or difference from what is normal or expected. When speaking of social exclusiveness, diversity is defined as ethnic, socioeconomic, and gender variety in a group, society, or institution. Diversity is considered being different than the majority. Diversity covers a wide range of categories.
Race, religion, gender, and age are just a few of things that would make a population diverse. This paper focuses on the racial aspect of diversity, which is often called ethnic diversity. In the United States, Caucasians are considered the majority, while individuals that belong to the Asian, Hispanic, African American, Indian and other races are considered to be ethnically diverse or minorities.²

The American population is continuously becoming more ethnically and culturally diverse. According to the United States Bureau of Consensus, the population of those that are not Caucasian has increased from 34.9% in the year 2000 to 37.8% in the year 2005.³ This does not include those who are in the United States illegally.²,³ With the increase of ethnic diversity in the U.S. population, there should be more awareness and adaptation to the cultural changes. The changes in the ethnicity of the population not only causes changes in the community, but also causes changes the workplace and educational settings. People of different cultural backgrounds now work and interact with each other everyday. This calls for each person to become culturally aware and accept the differences among each other. If this
does not occur there will be less productivity and advancement in the workplace and school settings.

Diversity issues that encompass the athletic training profession are noticed when referring to interaction of athletes, athletic training students, and athletic training instructors. The athletic population in the three NCAA divisions is 35% ethnically diverse, which reflects that of the U.S. population. This has been a concern for athletic trainers considering that the athletic training profession is dominated by Caucasians. Though trained to provide quality health care for their athletes, interaction with the percentage of athletes that are non-caucasian was not part of an athletic trainer’s training. There are language barriers, socioeconomic differences, and perceptions that may hinder the patient-athletic trainer relationship.

Becoming culturally competent and aware can help boost the athletic training profession by promoting its importance to the diverse population and grasping the attention of ethnically diverse students who have hopes of pursuing the health care profession. Failure to be able to interact with ethnically diverse athletes can result in failure to enhance the success of the athletic training profession. Patients do not want to be treated by someone
who can not communicate with them or understand them.\textsuperscript{5} This hinders the athletic training profession because of the reputation that is gained by those athletic trainers who do not know how to interact with a diverse population. These athletic trainers fail to uphold principles one and five of the National Athletic Trainers’ Association (NATA) Code of Ethics.\textsuperscript{5} Principle one states that “members shall respect the rights, welfare, and dignity of all individuals.”\textsuperscript{6} At the same time, “members shall not engage in any form of conduct that constitutes a conflict of interest or that adversely reflects on the profession” is stated by principle five.\textsuperscript{6} In order for the profession to continue to grow, athletic trainers must become aware of the diverse changes and try to work towards developing ways to better serve patients.\textsuperscript{5,6}

The Ethnic Diversity Advisory Committee (EDAC) is a committee that advocates sensitivity and understanding toward ethnic and cultural diversity and address issues related to the athletic training profession regarding ethnic diversity.\textsuperscript{5,7,8} The EDAC has been collecting data from the NATA members to monitor recruitment and retention of ethnically diverse athletic training students and show the growth of diversity in the NATA.\textsuperscript{5,7} In the year 1998, EDAC had reported that the amount of the ethnically diverse
members was 7%. By the year 2002, the percentage increased to almost 10%. This is not a dramatic change, but it is an indication that diversity is increasing.\textsuperscript{7}

Along with the changes in the NATA membership, there has also been a noticeable change in the amount of ethnically diverse students in the athletic training educational settings. The NATA Educational Council indicated that 18\% of athletic training students were from minority populations.\textsuperscript{5} There is an 8\% difference in the amount of ethnically diverse students enrolled in the ATEP and the amount of ethnically diverse ATCs, showing that not all the students are finishing the ATEP or going on to pursue careers in athletic training. Athletic training instructors need to work towards being culturally competent so that they can better interact with their students to ensure their enrollment and graduation from an ATEP.

Recruiting and Retaining Ethnically Diverse Students into the Athletic Training Education Program

The ATEP should have an ethnically diverse population that emulates or is better than that of the US. With this populations being around 35\%, the ATEP population should be above the 18\%. For the ATEP ethnic diversity to increase, more ethnically diverse students should be recruited.
Recruitment

Perrin\textsuperscript{8} has described three actions that can be taken to increase the recruitment of ethnically diverse students. First, ATC’s should encourage districts and states to sponsor programs designed to attract ethnically diverse students. Secondly, diversity must be shown in athletic training promotional and educational materials. This gives prospective students a visual on the diversity in the profession and also lets them know that this is a profession for them. Thirdly, there should be a group of ethnically diverse athletic trainers to act as speakers that will promote and increase awareness of athletic training as a profession open to ethnic diversity at high school career days or other educational and professional related events.\textsuperscript{8}

Athletic trainers should find ways to educate students on the career opportunities that are available for them in the athletic training profession. Setting up workshops and career days for students helps provide information on what can be expected in the profession. Also inviting the students to spend the day with an ATC gives the students first hand experience at what they can expect when working as an athletic trainer.\textsuperscript{8}
Retention

After ethnically diverse students are recruited into the ATEP, their enrollment must be retained. Although it is the students’ job to be able to adjust to school and its challenges, the instructors should be there to assist. The athletic training instructors should become more culturally competent. This is when athletic trainers develop skills to remove ethnic, religious, political, and social barriers between themselves and those with whom they interact. The NATA Athletic Training Competencies support the need of cultural competence in the Psychological Intervention and Referral area when it indicates that there should be professional requirements that involves sociocultural awareness and relative competence. Cultural competence includes resisting stereotypes, acknowledging that there are cultural differences, increasing knowledge of other cultures, and trying to break communication barriers that may be present.

The ATEP should also work towards implementing multiculturalism into the curriculum. According to Sleeter, multicultural education can be implemented through five approaches. The first is teaching the cultural different, which increases ethnically diverse students’
performances. Second is human relations, which employs sensitivity training to show students that all are the same because they are different and all are equal. Single group study is the third approach. This calls for independent focus on different ethnic groups, their histories, and current conditions. The fourth approach focuses on redesigning schools and schooling processes to make them more just. Last is the multicultural and social reconstructionist approach, which is also known as critical multiculturalism. This approach prepares students to develop and use social skills to be active participants.\(^5,10\) Adding multiculturalism into the curriculum helps to prepare athletic training students to be able to interact with those that are culturally different.

**Mentoring**

Another way to increase the retention of ethnically diverse students is to implement a mentoring program. Mentor can be defined as a developmental relationship between an individual and a more senior and influential manager or professional.\(^11\) Mentoring has shown to be influential in the success of many students and should be used in athletic training. There are two types of mentoring; formal and informal.\(^12\) Formal mentoring involves
programming that is set up by institutions and is mostly geared towards work based learning. Informal mentoring focuses more on the psychosocial and career development needs. It includes faculty accessibility support and presence of minority faculty and staff.\textsuperscript{12} Studies show that people that are similar are more likely to be attracted to one another than those that are not.\textsuperscript{11,12} This supports the idea that ethnically diverse students should be mentored by those who are ethnically diverse. Though this may be effective, it has also been shown that it is not imperative for ethnically diverse students to be mentored by ethnically diverse instructors.\textsuperscript{11,13} Students that are mentored by someone of a different race would give them a sense of equality, but in order for this to happen effectively the mentor must work to develop a positive atmosphere for whom they are mentoring. Also it is almost impossible for ethnically diverse students to be mentored by ethnically diverse faculty considering that the ethnically diverse student population greatly outnumbers the ethnically diverse faculty population.\textsuperscript{13} This means that having a mentor of a different race is not something that can be avoided.
According to the research performed by Pitney, athletic training mentors should have certain characteristics within three categories, interpersonal foundations, educational dimensions, and mentoring prerequisites. Being able to communicate on a personal level, show eagerness to help, share experience, be accessible, have a sense of humor, and care for the students are the mentoring prerequisites that a mentor needs to gain trust from their students to develop an interpersonal foundation. Interpersonal foundations has trust, congruent values, and personal relationships as the main characteristics that a mentor should have. Similar values and establishment of trust assisted in the development of personal and professional relationships.

Educational dimension included facilitating knowledge and skill development, individualizing learning, and encouraging professional perspectives. Facilitating knowledge and skills meant helping students improve their clinical skills and enhance their critical thinking and problem solving skills. Mentors should work towards providing a comfortable environment while enhancing their students learning process.

Considering that ATSs interact the most with their athletic training instructors, it would be logical for
Athletic training instructors have many responsibilities. They have the job of being either didactic instructors, clinical instructors, or both. This raises the question if it is actually an athletic trainers’ responsibility to act as mentors for athletic training students. This next section explains the roles and responsibilities of the athletic training instructors in regards to their students.

Roles and Responsibilities of Athletic Training Instructors

According to the NATA Education Council, clinical supervision requires the ATC to plan, advise, direct, and evaluate the students athletic training experience by maintaining personal/ verbal contact. While the role has been defined, there have been no guidelines set for ATCs to follow until recently. Research based standards were developed for clinical instructors by Weidner and Hennings, and were then analyzed by experienced ATC’s to determine their importance. Seven primary standards were developed which included legal and ethical behavior, communication skills, interpersonal relationships, instructional skills, supervising and administrative
skills, evaluation and performance, and clinical skills and knowledge.\textsuperscript{16}

Legal and ethical behaviors requires that the ATC act as a role model by maintaining NATABOC certification, providing services within the Role of Delineation and that are consistent with state and federal legislation, and abiding by the Code of Ethics.\textsuperscript{16} Communication skills are needed to be able to properly communicate with coworkers and program directors, athletes, and students. The ATC should provide timely and constructive feedback to the students and be able to explain themselves clearly and concisely.\textsuperscript{16-19} Interpersonal relationships call for the ATC to act as a mentor by forming interpersonal and professional relationships with their students. The ATC should have a positive attitude and be accessible to the students. It is also imperative that the ATC recognizes and show respect for the diversity of their students.\textsuperscript{16,18}

Instructional skills are implemented by preparing students for the profession through didactic teaching and clinical experiences. The ATC should use various teaching styles to ensure that all students are learning. Weakness of the students in certain areas should be recognized by the ATC so that they may be improved.\textsuperscript{16-19} Supervisory and administrative skills is when the ATC makes it known what
is to be expected of the ATS, supervises the ATS to be able to intervene if they are putting an individual at risk, and completes paperwork on student evaluations and clinical experience. Evaluation of performance requires the ATC to give evaluate and provide constructive feedback to the ATS and to also communicate with the program director on the students status. Clinical skills and knowledge recommends that the ATC stay up to date with new findings and evidence based practices to ensure that the students are getting the most current education.\textsuperscript{16,17,19}

Other studies were based on important athletic training instructors' characteristics as perceived by ATS, program directors, and clinical instructors.\textsuperscript{17-19} The results of these studies were directly related to the ACI standards developed by Weidner and Henning.\textsuperscript{16} The most important characteristics of the studies were interpersonal relationships (nurturing), mentoring, and modeling. Interpersonal relationships is described as the athletic trainer showing respect for their ATS and confidence in the ATS’s skills and abilities.\textsuperscript{18,19} The ATC should be up to date on skills and knowledge in athletic training, demonstrate appropriate mannerisms while working with peers; students; and athletes, and should abide by all rules in the athletic training room and Code of Ethics.
Students tend learn by example, which, in this case, is the ATC. This is what is deemed as modeling.\textsuperscript{17,19} ATC’s should act as models to show the students what should be done as an athletic trainer. Demonstrating actions that would not be considered appropriate will give the students the idea that they could do the same. This can mis-guide the students, so the ATC must act in the appropriate manner to ensure that the students are not misled.\textsuperscript{17,19} Mentoring is formed through modeling and interpersonal relationships. With mentoring forms student-instructor relationships, which in turn enhances the athletic training education experience for the students.\textsuperscript{15,19}

Summary

Diversity is being different from what is considered normal. So when speaking of ethnic diversity, belonging to a race that is not considered the primary race is what is being referred. The population in the US is continuously becoming ethnically diverse with an ethnic population of 37.8\%. The continuous growth is being reflected in the student population of athletes, which is now at 35\%, and is starting to show in ATEPs, at 18\%.\textsuperscript{4,5}
The ATEP should, however, have an ethnically diverse population which more closely reflects the US and student-athlete populations. This can be done through recruitment and retention of Athletic training students in ATEPS. Program directors and college recruiters should work to recruit ethnically diverse students by promoting the profession at high school career days, having workshops, and by implementing diversity in promotional and educational materials. Inviting students to the athletic training room for a first-hand experience of the profession may also increase recruitment.

Once ethnically diverse students are enrolled in the ATEP, there should be methods to maintain their enrollment. Becoming culturally competent, incorporating multiculturalism in the curriculum, and mentoring can enhance the educational experience for ATS. Implementing these, especially mentoring, into the ATEP will make the student more comfortable and confident in their experience. Mentoring is especially important because it allows students to develop interpersonal and professional relationships with their instructors.

As an ATC and mentor, the ATC should uphold certain characteristics. The ATC should always be accessible to the students, keep a positive attitude, model professionalism,
trustworthiness, and demonstrate respect for diversity in students. This helps to provide a comfortable learning environment for the students.
APPENDIX B

The Problem
Statement of Problem

The field of athletic training is growing continuously. With its growth, the profession is striving to be more ethnically diverse. The number of ethnically diverse certified athletic trainers has increased but it is still drastically low. This, in turn, can hinder future ethnically diverse students from pursuing athletic training careers. This may go unnoticed by the clinical and didactic instructors that are not ethnically diverse. These instructors should have interpersonal and mentoring relationships with their students to help provide a comfortable and encouraging learning environment for the ATS so that they would continue their athletic training education. The purpose of this study is to determine if clinical and didactic athletic training instructors are demonstrating effective mentoring skills with their ethnically diverse students.

Definition of Terms
The following definitions of terms were operationally defined for this study:
1. Athletic Training Instructor (ATI) - A certified Athletic trainer that teaches in a CAATE accredited athletic training education program (ATEP). The ATI may
hold the position of program director, didactic instructor, or clinical instructor.

2. Athletic Training Student - A student that is enrolled in an entry level graduate ATEP

3. Cultural Competence - the development of skills to remove ethnic, religious, political, and social barriers between person and with whom he or she interacts.

4. Diversity - discrepancy or difference from what is normal or expected.

5. Ethnic Diversity - belonging to a underrepresented ethnic group that is not considered the majority in a population.

6. Formal Mentoring - mentoring that consists of programming geared toward work based learning that are set up by the institution.

7. Informal Mentoring - mentoring that includes faculty accessibility and focuses on the psychosocial and career development needs of the students.

8. Interpersonal Foundations(relationships) - relationship developed between the instructor and the student through trust and congruent values.

9. Mentor - a developmental relationship between an individual and a more senior and influential manager or professional.
10. Modeling - the demonstration of appropriate professional behaviors for students to observe.\textsuperscript{19}

**Basic Assumptions**

The following are the basic assumptions for this study:

1. All participants will answer the questionnaire honestly and the best to their ability.
2. The instrument will be reliable once tested and adapted.
3. Content validity is added by having content experts review the questionnaire.

**Limitation of the Study**

The limitations of this study are as follows:

1. There would not be adequate time to have surveys completed. The web based survey was launched during the time that most students were on spring break or preparing for final exams.
2. ATEPs will choose not to participate in the study, taking away from the desired population size.
3. Because the ethnic demographics are not known of each program, there may not be the desired amount of ethnically diverse students to participate in the study.
4. Although programs from eight of the ten districts agreed to participate it is unknown if students from each program actually participated in the study.

Significance of Study

The issue of diversity should be addressed by the athletic training profession. Only 10% of the ethnically diverse; including African American, Hispanic, American Indian or Eskimo, and Asians; were recorded as members of the National Athletic Trainers’ Association. This is far from being diverse, but it is an increase from the previous years. In colleges approximately 18% of the students are ethnically diverse. Athletic training students that are ethnically diverse do not have many ethnically diverse instructors or certified athletic trainers to serve as role models or mentors. Studies have shown that ethnically diverse students seem to be more drawn to or more comfortable approaching an instructor or advisor that have the same ethnic background as themselves. Seeing someone in a successful position that is from the same ethnic background attracts ethnically diverse students. These are individuals that ethnically diverse students can identify with. This does not mean that ethnically diverse athletic training students can only be mentored by
ethnically diverse instructors. The increase of diversity in classrooms brings about new obstacles that the class and clinical instructors may have to face in order to have a successful student teacher relationship and development and advancement of the student.\textsuperscript{13} Instructors that are not ethnically diverse must find ways to better interact with the students. There are many situations that ethnically diverse students experience that may not be noticed by the instructors because they can not relate to their students. Due to this, some ethnically diverse students may not continue their education in athletic training or may decide not to work in the athletic training field. This study should show if instructors are actually relating to their ethnically diverse students and encouraging them to continue in the athletic training program.
APPENDIX C

Additional Methods
APPENDIX C1

Email to ATEP Program Directors
Dear (Program Director’s name)

   My name is Chevonne Goff and I am a graduate athletic training student at California University of Pennsylvania. I am currently working on my master’s thesis and would like for your graduate athletic training education program students to participate in my study. The aim of the study is to determine if athletic training instructors have effective mentoring skills with their ethnically diverse students. The study has been approved by the California University of Pennsylvania Institutional Review Board (IRB). The online questionnaire should take a maximum of 20 minutes to complete. This questionnaire has been modified with the permission of the original author, was then validated, and found reliable. This survey is requesting that your students give their perceptions of their athletic training instructors’ mentoring skills. There are no foreseeable risks involved for your students who participate in this study; and informed consent is implied by their anonymous response. Further, all information will be destroyed once the study is completed.

If you agree to have your students participate in this study, please reply to this email no later than March 9, 2007, and include the number of students that are currently enrolled in your graduate program. Upon your agreement, I will send you an email containing instructions and a link to the survey so that you can forward it on to your students. I look forward to your students’ participation.

I want to thank you for considering my survey as it is my hope that by allowing your students to participate in this study will help the growth of the athletic training profession to enhance diversity by identifying mentoring skills that athletic training instructors should possess. Having insight from current students can give athletic training instructors an idea of what mentoring skills can be used to strengthen athletic training education programs in the motivation of not only ethnically diverse students, but all athletic training students to continue their education in the profession. Overall, your students’ participation in this study will help to develop a better understanding of what is needed to enhance the growth of the athletic training profession. Again, I appreciate your time and attention that you have given to my thesis project.

Sincerely yours,

Chevonne Goff
Dear Student,

My name is Chevonne Goff and I am a graduate athletic training student at California University of Pennsylvania. I am currently working on my master’s thesis and would like for you to participate in my study by completing a questionnaire. The aim of the study is to determine if athletic training instructors have effective mentoring skills with their ethnically diverse students. I am asking that all entry level graduate athletic training students participate regardless of their ethnic background.

The “Students’ Perceptions of Athletic Training Instructors’ Behavior Questionnaire” will only take about 20 minutes to complete. It will consist of questions that ask your view on mentoring skills of the athletic training instructor that you spend the most time with, be it clinical or didactic (classroom) instructor.

I want to inform you that this study has been approved by the California University of Pennsylvania Institutional Review Board (IRB), there are no foreseeable risks involved in participating in this study, and your name will not be asked so that your identity will remain anonymous. Your instructors will not be able to review any of your responses because responses are sent to me only. If you agree to participate please go to the following link: http://surveyshare.com/survey/take/?sid=49799. Please read directions carefully before starting the questionnaire.

It is my hope that your contribution to this study will help the growth of the athletic training profession to enhance diversity by identifying mentoring skills that athletic training instructors should possess. Having insight from current students can give athletic training instructors an idea of what mentoring skills can be used to strengthen athletic training education programs in the motivation of not only ethnically diverse students, but all athletic training students to continue their education in the profession. Overall, your participation in this study will help to develop a better understanding of what is needed to enhance the growth of the athletic training profession.

Thank You,

Chevonne Goff
APPENDIX C2

Students’ Perceptions of Athletic Training Instructors’ Behavior Questionnaire
Students’ Perceptions of Athletic Training Instructors’ Behavior (Modified with Permission)

Directions: Please answer the following demographic questions about yourself and the athletic training instructor that you spend the most time with.

1. Your ethnicity
   ____ Caucasian  ____ African American  ____ American Indian
   ____ Asian  ____ Latino  ____ Other
   Please specify ____________

2. Your athletic training instructor’s ethnicity
   ____ Caucasian  ____ African American  ____ American Indian
   ____ Asian  ____ Latino  ____ Other
   Please specify ____________

3. Is your instructor a (please choose one)
   ____ Clinical Instructor
   ____ Didactic (classroom) Instructor

4. Please describe your relationship with the athletic training instructor that you spend the most time with. Please include how frequently you meet with the instructor and what conversations with that instructor include.

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

Using the following scale, rate the athletic training instructor that you spend the most time with, on what you perceive as the characteristics that they exhibit. Please print neatly.

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</table>

A. Student participation

5. ________ Provides opportunities for me to practice both problem-solving skills.
6. ________ Encourages me to raise questions.
7. ________ Allows me to perform tasks on my own.
8. ________ Encourages me to share my knowledge and experience.
B. Clinical Instructor attitude toward teaching

9. _______ Listens attentively to me.
10. _______ Shows enthusiasm for teaching.
11. _______ Is energetic.
12. _______ Stimulates interest in the subject.

C. Instructional strategy

13. _______ Regularly provides feedback regarding my performance.
15. _______ Compliments me for good performance.
15. _______ Explains information in a clear, organized manner.
16. _______ Communicates what is expected of me.
17. _______ Explains the basis for his/her actions.

D. Humanistic orientation

18. _______ Demonstrates sensitivity to others’ needs.
19. _______ Stresses physical aspects of injury.
20. _______ Stresses psychological aspects of injury.
21. _______ Establishes a solid rapport with me.
22. _______ Demonstrates respect for me.
23. _______ Offers professional encouragement.
24. _______ Remains accessible to me.

E. Self Perception

25. _______ Is willing to admit when he or she does not know.
26. _______ Is self critical.
27. _______ Accepts constructive criticism.
28. _______ Recognizes own limitations.
APPENDIX C3

Perceptions of Clinical Teaching Behavior Questionnaire
Chevonne, attached is the questionnaire. See answers below. Good luck.
I hope your research goes well.
Dr. Laurent

Tim Laurent EDD VATL ATC
Program Coordinator, Athletic Training
Program Coordinator, Exercise Physiology
1501 Lakeside Drive
Lynchburg VA 24501
P: 434.544.8726
F: 434.544.8365
Laurent@lynchburg.edu

-----Original Message-----
From: GOF4801 - GOFF, CHEVONNE [mailto:GOF4801@cup.edu]
Sent: Thursday, September 28, 2006 9:17 AM
To: Laurent, Tim
Subject: Clinical Instructors' and Student Athletic Trainers' Perceptions article

Dr. Laurent,
My name is Chevonne Goff and I am doing research for my master's thesis that is close to your research on helpful clinical instructor characteristics as perceived by the clinical instructors and the student athletic trainers. I am interested in three things. First, does the survey used for your study have a reliability value after the pilot study was performed?

I do not have a reliability value. All information from the survey came from the literature but not the specific instrument.
secondly, is it possible for you to send me a copy of your survey to view?

Attached.

And finally, if the questions in the survey can be used for my study may I have permission to use these questions?

Yes you may use it.

Please get back to me when you can. I can be reached at this email address gof4801@cup.edu. Hope to hear from you soon.

Thank you,

Chevonne Goff
Perceptions of Clinical Teaching Behavior

Your participation in this project is greatly appreciated. Please mark your responses directly on this form.

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For CLINICAL INSTRUCTORS only

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<td>b. Master’s degree</td>
</tr>
<tr>
<td></td>
<td>c. Doctoral degree</td>
</tr>
</tbody>
</table>

Assume a Clinical Instructor possesses the characteristics listed below. Indicate how helpful each characteristic would be toward facilitating student learning.

Use the following scale for rating instructor characteristics. Please print neatly.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</table>

Among the Least Helpful

A. Student participation

1. ________ Provides opportunities for students to practice both technical and problem-solving skills.
2. ________ Encourages students to raise questions.
3. ________ Allows students to perform tasks on their own.
4. ________ Encourages students to share their knowledge and experience.

11. Clinical Instructor attitude toward teaching

5. ________ Listens attentively to students and athletes.
6. ________ Shows enthusiasm for teaching.
7. ________ Is dynamic and energetic.
8. ________ Stimulates interest in the subject.

12. Problem-solving

9. ________ Draws upon related experience of the student to help in problem solving.
10. ________ Discusses practical application of knowledge and skills.
11. ________ Emphasizes conceptual comprehension rather than factual recall.
12. ________ Emphasizes problem solving rather than solutions.
13. ________ Asks questions that stimulate problem solving.
13. Instructional strategy

14. _______ Regularly provides feedback regarding student performance and progress.
15. _______ Compliments students for good contributions, observations, or performance.
16. _______ Explains information in a clear, organized manner.
17. _______ Communicates what is expected of the students.
18. _______ Has an interesting style of presentation.
19. _______ Explains the basis for actions and decisions.

14. Humanistic orientation

20. _______ Demonstrates sensitivity to athletes’ needs.
21. _______ Stresses physical and psychological aspects of injury.
22. _______ Establishes a solid rapport with the students.
23. _______ Demonstrates respect for the students.
24. _______ Offers professional support and encouragement.
25. _______ Remains accessible to students.

15. Knowledge and research

26. _______ Discusses current developments in Athletic Training.
27. _______ Discusses divergent points of view.
28. _______ Cites important references.
29. _______ Occasionally challenges points presented in texts and journals.
30. _______ Directs students to useful literature in the field.
31. _______ Is actively involved in research.

16. Modeling

32. _______ Consults with others when needed.
33. _______ Manages clinical emergencies well.
34. _______ Works effectively with health care team members.
35. _______ Maintains rapport with patients/athletes.
36. _______ Actively and regularly engages in clinical practice.
37. _______ Demonstrates skills for the students.
38. _______ Displays confidence.

17. Self Perception

39. _______ Is willing to admit when he or she does not know.
40. _______ Is self critical.
41. _______ Accepts constructive criticism.
42. _______ Recognizes own limitations.
From above, please list the overall 10 most helpful and 10 least helpful Clinical Instructor characteristics. You do not need to rank order your selections.

10 most helpful overall (use numbers)  
10 least helpful overall (use numbers)

Thank you for your participation. Please return the completed survey to your program director.
APPENDIX C4

Institutional Review Board Form
PROTOCOL for Research Involving Human Subjects

Institutional Review Board (IRB) approval is required before beginning any research and/or data collection involving human subjects

(Reference IRB Policies and Procedures for clarification)

Project Title Are Clinical and Didactic Athletic Training Instructors Demonstrating Effective Mentoring Skills with Their Ethnically Diverse Students?

Researchers/Project Director Chevonne M.S. Goff

Phone # 585-978-9615 E-mail Address gof4801@cup.edu

Faculty Sponsor (if required) Dr. Linda Platt Meyer

Department Health Science and Sports Studies

Project Dates January 2007 to April 2007

Sponsoring Agent (if applicable)

Project to be Conducted at Web-based Survey

Project Purpose: ☑ Thesis ☐ Research ☐ Class Project ☐ Other

Keep a copy of this form for your records.

Required IRB Training

The training requirement can be satisfied by completing the online training session at http://irbnet.nih.gov/. A copy of your certification of training must be attached to this IRB Protocol. If you have completed the training at an earlier date and have already provided documentation to the California University of Pennsylvania Grants Office, please provide this.
Please attach a typed, detailed summary of your project AND complete items 2 through 6.

1. Provide an overview of your project-proposal describing what you plan to do and how you will go about doing it. Include any hypothesis(es) or research questions that might be involved and explain how the information you gather will be analyzed. For a complete list of what should be included in your summary, please refer to Appendix B of the IRB Policies and Procedures Manual.

2. Section 46.11 of the Federal Regulations state that research proposals involving human subjects must satisfy certain requirements before the IRB can grant approval. You should describe in detail how the following requirements will be satisfied. Be sure to address each area separately.

   a. How will you insure that any risks to subjects are minimized? If there are potential risks, describe what will be done to minimize these risks. If there are risks, describe why the risks to participants are reasonable in relation to the anticipated benefits.

   b. How will you insure that the selection of subjects is equitable? Take into account your purpose(s). Be sure you address research problems involving vulnerable populations such as children, prisoners, pregnant women, mentally disabled persons, and economically or educationally disadvantaged persons. If this is an in-class project describe how you will minimize the possibility that students will feel coerced.

   c. How will you obtain informed consent from each participant or the subject's legally authorized representative and ensure that all consent forms are appropriately documented? Be sure to attach a copy of your consent form to the project summary.

   d. Show that the research plan makes provisions to monitor the data collected to insure the safety of all subjects. This includes the privacy of subjects' responses and provisions for maintaining the security and confidentiality of the data.

3. Check the appropriate box(es) that describe the subjects you plan to use.

   - Adult volunteers
   - Mentally Disabled People
   - CAL University Students
   - Economically Disadvantaged People
   - Other Students
   - Educationally Disadvantaged People
   - Prisoners
   - Fetuses or fetal material
   - Pregnant Women
   - Children Under 18
   - Physically Handicapped People
   - Neonates

4. Is remuneration involved in your project? ☐ Yes or ☑ No. If yes, Explain here.

5. Is this project part of a grant? ☐ Yes or ☑ No. If yes, provide the following information:

   Title of the Grant Proposal

   Name of the Funding Agency
Dates of the Project Period

6. **Does your project involve the debriefing of those who participated?**  ☐ Yes or ☒ No

   If Yes, explain the debriefing process here.

7. **If your project involves a questionnaire interview, ensure that it meets the requirements of Appendix __ in the Policies and Procedures Manual.**
1. The purpose of this study is to determine if clinical and didactic athletic training instructors are demonstrating effective mentoring skills with their ethnically diverse students to assist in their retention in the athletic training education program. A descriptive research design will be used for this study. The dependent variable will be the score of the questionnaire. The independent variables will be students’ ethnicity and relationships with the athletic training instructor. Graduate athletic training students from NATA districts 1-10 will be solicited to volunteer via email contact. The email will be sent to the program director of each program requesting them to forward the study’s intent and survey site to their graduate students. Two hypotheses will be involved in this study. The first is that there would be a difference among racial groups’ insight on the “Students’ Perceptions of Athletic Training Instructors’ Behavior Questionnaire” due to ethnicity; and the second is that there would be a difference among racial groups’ insight on the “Students’ Perceptions of Athletic Training Instructors’ Behavior Questionnaire” due to relationships.
The research will be conducted using the "Students' Perceptions of Athletic Training Instructors' Behavior Questionnaire" that was adapted from a previous questionnaire with the author's permission. Before administering the questionnaire, preliminary research will be conducted to determine validity and reliability using an item analysis. The questionnaire will be administered as a web based survey. The results will be gathered and analyzed using SPSS 13.0.

2.

a. There will not be any foreseeable risks involved in this study.
b. A mass email will be sent to graduate ATEPs in NATA districts 1-10 to participate in this study to prevent any bias.
c. Informed consent will be implied by anonymous response to the questionnaire.
d. The identity of the subjects will remain anonymous. Responses of the questionnaire will only be viewed by the researcher and destroyed once the study is complete.
Project Director's Certification
Program Involving HUMAN SUBJECTS

The proposed investigation involves the use of human subjects and I am submitting the complete application form and project description to the Institutional Review Board for Research Involving Human Subjects.

I understand that Institutional Review Board (IRB) approval is required before beginning any research and/or data collection involving human subjects. If the Board grants approval of this application, I agree to:

1. Abide by any conditions or changes in the project required by the Board.
2. Report to the Board any change in the research plan that affects the method of using human subjects before such change is instituted.
3. Report to the Board any problems that arise in connection with the use of human subjects.
4. Seek advice of the Board whenever I believe such advice is necessary or would be helpful.
5. Secure the informed, written consent of all human subjects participating in the project.
6. Cooperate with the Board in its effort to provide a continuing review after investigations have been initiated.

I have reviewed the Federal and State regulations concerning the use of human subjects in research and training programs and the guidelines. I agree to abide by the regulations and guidelines aforementioned and will adhere to policies and procedures described in my application. I understand that changes to the research must be approved by the IRB before they are implemented.

Professional Research

Project Director's Signature

Student or Class Research

Student Researcher’s Signature

Supervising Faculty Member’s Signature if required

Department Chairperson’s Signature

ACTION OF REVIEW BOARD (IRB use only)

The Institutional Review Board for Research Involving Human Subjects has reviewed this application to ascertain whether or not the proposed project:

1. provides adequate safeguards of the rights and welfare of human subjects involved in the investigations;
2. Uses appropriate methods to obtain informed, written consent;
3. Indicates that the potential benefits of the investigation substantially outweigh the risk involved.
4. Provides adequate debriefing of human participants.
5. Provides adequate follow-up services to participants who may have incurred physical, mental, or emotional harm.

☑ Approved    ☐ Disapproved

Chairperson, Institutional Review Board

02-23-07

Date
REFERENCES


ABSTRACT

Title: Are Clinical And Didactic Athletic Training Instructors Demonstrating Effective Mentoring Skills With Their Ethnically Diverse Students?

Researcher: Chevonne M.S. Goff

Advisor: Dr. Linda Platt Meyer

Date: May 2007

Research Type: Master’s Thesis

Purpose: The purpose of this study is to determine if clinical and didactic athletic training instructors are demonstrating effective mentoring skills with their ethnically diverse students.

Problem: Ethnically diverse students are inadequately represented in athletic training education programs. It should be determined if athletic training instructors are demonstrating effective mentoring skills that can be used to retain ethnically diverse students in athletic training education programs.

Method: A descriptive research design was conducted. One Hundred nine graduate and undergraduate students from NATA Districts 1, 2, 3, 4, 5, 6, 8, and 10 volunteered to participate. The instrument used was “Students’ Perceptions of Athletic Training Instructors’ Behavior Questionnaire”.

Findings: Instructors are demonstrating effective mentoring skills. There were no significant differences in the questionnaire scores in relation to ethnicity and to the types of relationship with the instructor.