

National Collegiate Athletic Association Division I Football Players' Perceptions of Women in the Athletic Training Room Using a Role Congruity Framework

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Context: Previous researchers have demonstrated that male and female athletes feel more comfortable with treatment by a same-sex athletic trainer for sex-specific injuries and conditions.

Objective: To address football players' comfort with care provided by same-sex and opposite-sex athletic trainers for sex-specific and non-sex-specific injuries and conditions through the lens of role congruity theory.

Design: Cross-sectional study for the quantitative data and qualitative study for the qualitative data.

Setting: Two National Collegiate Athletic Association Division I Football Bowl Series university football programs.

Patients or Other Participants: Male football players within the 2 university programs.

Data Collection and Analysis: We replicated existing methods and an existing survey to address male football players' comfort levels. Additionally, an open-ended question was used to determine male football players' perceptions of female athletic trainers. Paired-samples *t* tests were conducted

to identify differences between the responses for the care given by a male athletic trainer and for the care given by a female athletic trainer. Three categories were analyzed: general medical conditions, psychological conditions, and sex-specific injuries. The qualitative data were coded and analyzed using content analysis.

Results: Male football players were more comfortable with treatment by a male athletic trainer (mean = 3.61 ± 1.16) for sex-specific injuries and conditions than they were with treatment by a female athletic trainer (mean = 2.82 ± 1.27 ; $P < .001$). No significant results were found for comfort with overall psychological conditions, although a female athletic trainer was preferred over a male athletic trainer for the treatment of depression (mean = 3.71 ± 1.07 versus mean = 3.39 ± 1.16 , respectively; $P < .001$). Qualitative data provided support for role congruity theory.

Conclusions: Both quantitative and qualitative evidence were provided for the support of role congruity theory.

Key Words: comfort level, gender-specific medicine

Key Points

- Male football players were more comfortable with male athletic trainers for treatment of both general medical conditions and sex-specific injuries and conditions.
- With respect to care for depression, the football players preferred female athletic trainers. However, the players indicated similar levels of comfort with both male and female athletic trainers for overall psychological conditions.
- The football players exhibited a greater level of comfort with male athletic trainers and perceived female athletic trainers to fit into more stereotypical gender roles, which are characterized by traits that are incongruous with those perceived to be necessary for a leadership position.

Since the passage of Title IX legislation in the United States, more opportunities have been available to females in sport, with female collegiate team participation increasing from only 16 000 participants in 1968 to more than 180 000 participants in 2008.¹ Even as the number of women playing sports has increased, men still dominate the ranks of athletic administration, including athletic training positions.¹ Although the number of women in athletic training has increased and will undoubtedly continue to grow as women's interest and opportunities in athletics further expand, female head athletic trainers (ATs) are still underrepresented at the National Collegiate Athletic Association (NCAA) Division I level.^{1,2} Despite the fact that women have assumed head athletic training positions in some Division II and Division III athletic programs, the number of women at Division I and

in professional programs has been limited. Almost all schools in all divisions of college athletics have an AT, but only 15.2% of NCAA Division I schools have female head ATs.³

Furthermore, when examining specific sports, football is the most cost intensive of the collegiate sports, with Division I universities spending, on average, more than \$2 million per year on their programs, well above the amount spent on any other male sport or female sport teams.⁴ In addition, football is among only a few high-profile sports, including basketball and baseball, in which women's access into the athletic training room has been limited. Specifically, Coakley⁵ described the perception of football as a game for the tough and strong and, therefore, as a sport requiring masculinity. Thus, football is one of the last male-dominated areas of sport, as demonstrated by

the lack of women in football athletic training rooms.³ The continued dominance of men in sport leadership¹ and the fact that hegemonic masculinity continues to pervade traditionally male-dominated sports have created a challenge for women who have struggled to become head ATs.⁶ Stereotypical gender-role expectations and resistance to women in the male locker room are partially accountable for this underrepresentation.⁷ In addition, male athletes reported discomfort when provided care by female ATs, especially when the injuries or conditions were of a more intimate nature.⁸ Although preferences for same-sex practitioners have varied across various health care settings, evidence⁹ indicates that when a condition is more intimate, a preference does exist. The findings of Franks and Bertakis¹⁰ were similar to those seen for other health care professionals⁸: most males and females prefer to receive health care from a practitioner of the same sex if and when the injury or condition is of a more intimate nature.

Role congruity theory¹¹ provides an interesting framework to better understand the lack of women in head AT positions, specifically at Division I schools competing in the Football Bowl Subdivision (FBS) and the Football Championship Subdivision. Role congruity theory¹¹ indicates that based on stereotypical gender-role expectations, women are perceived as not having the stereotypical traits required of successful leaders, and if they do demonstrate success as leaders, they are negatively evaluated for acting outside of their stereotypical gender role. According to Eagly and Karau,¹¹ the key to role congruity theory is the effort to go beyond social role theory and to examine the congruity among gender roles and other roles—particularly leadership roles.

WOMEN IN ATHLETIC TRAINING

Few female ATs are involved with high-revenue sports, professional sports, or male sports in general.¹² According to the National Athletic Trainers' Association,¹² of its 30 000 members, 61 female ATs held positions in women's professional sports, whereas only 2 female ATs held positions in men's professional sports. Recently, the first woman was hired in Major League Baseball (by the Baltimore Orioles) as a physician and orthopaedic surgeon.¹³

Furthermore, through a longitudinal analysis of athletic administration representation at the collegiate level, Acosta and Carpenter¹ determined that most collegiate athletic departments had an AT but fewer than one-third of these schools had a female head AT. Division III schools had the highest percentage of women as head ATs (36.8%), and only 15.2% of Division I schools had female head ATs.¹ In addition, a limited number of women occupied the position of head AT for football at the Division I level. It should also be noted that the head AT at the Division I level is often the head AT for football. Thus, female ATs have been and continue to be underrepresented in leadership positions.¹⁴

Female ATs may face discrimination as they try to progress to head athletic training positions, specifically in Division I schools competing in FBS and Football Championship Subdivision football. One ongoing issue that may plague female ATs trying to advance in male sports is the perception that male athletes feel uncomfortable with female ATs, especially with respect to injuries and conditions of a more intimate nature.⁸ Another contribut-

ing factor that may affect female ATs concerns the location of athletic training rooms for men's sports; older facilities may still have athletic training rooms located near, and in some instances inside, the men's locker rooms. This can create an environment that is both uncomfortable for male athletes and unwelcoming for female ATs.¹³

ROLE CONGRUITY THEORY

Social role theory is one potential theoretical framework that may provide insight into why fewer women than men are in Division I head AT positions. Social role theory contends that there are qualities and behavioral tendencies believed to be desirable for each sex as well as expectations regarding the roles men and women should occupy.^{11,15} Women are stereotyped as more communal and men as more agentic.¹¹ Communal attributes, such as being compassionate, helpful, kind, sympathetic, interpersonally sensitive, nurturing, and generous, are typically ascribed to women. Agentic attributes include being aggressive, forceful, self-confident, and self-sufficient, and these attributes are typically ascribed to men.¹¹ Descriptive gender-role stereotypes describe how women are, and prescriptive gender-role stereotypes describe how women should behave. Descriptive gender-role stereotypes indicate that women are more communal and men are more agentic. Prescriptive gender-role stereotypes indicate that women's behavior should fit more communal roles rather than agentic roles and that men's behavior should fit more agentic roles rather than communal roles.¹⁶

Following the tenets of social role theory, role congruity theory proposes that a prejudice exists against potential female leaders because leadership ability is more stereotypically attributed to men (agentic) than to women (communal).¹¹ Role congruity theory can also be used to examine the congruence between stereotypical female gender roles and women's positions in management and leadership. When gender roles are applied to men and women, certain jobs can be viewed as more appropriate for men or women,^{17,18} which can result in prejudice toward women in male-dominated fields; a perceived incongruity exists between what is expected of women based on their gender role and the expectations of leaders.¹⁶⁻²¹

MALE ATHLETES' PERCEPTIONS OF FEMALE ATs

Regarding ATs, male and female athletes reported that female and male ATs had the same level of education and background and did not have a preference for male or female ATs for general injuries or conditions. However, when considering treatment for "sex-related" or "gender-specific" injuries or conditions, athletes indicated a preference for an AT of the same sex.⁸ In addition, athletes were equally comfortable with male and female ATs when seeking help with psychological conditions. Male athletes indicated their discomfort with female ATs for sex-specific injuries or conditions, and this discomfort was not due to a perceived lack of experience or competence of female ATs. Drummond et al⁸ contended that these perceptions may be culturally embedded.

In summary, although researchers have studied athletes' perceptions of male and female ATs in general, players' perceptions of female ATs in the sport of football have not been investigated. Therefore, using role congruity theory,

our purpose was to examine Division I football players' comfort with and perceptions of female ATs with regard to treatment for general and sex-specific conditions as well as for psychological conditions.

Based on the literature, and using role congruity theory as our framework, we hypothesized the following: (1) Football players will have higher comfort levels with male ATs than with female ATs for general medical conditions; (2) Football players will have higher comfort levels with female ATs than with male ATs for psychological conditions; and (3) Football players will have higher comfort levels with male ATs than with female ATs for sex-specific conditions.

METHODS

Participants

We studied players in 2 NCAA Division I FBS university football programs. These programs were chosen based on their different geographical locations (northeast and southeast). The population sampled included all players listed on the rosters of each university's program. All players on the roster were asked to participate unless they were younger than 18 years; minors were not included in the sample.

Instrument

The instrument used for this study was a preexisting survey entitled *Gender Comfort With Athletic Trainer Questionnaire*, developed by Drummond et al.⁸ at the University of Tulsa. Permission was obtained from the authors to use and modify items in their questionnaire. This questionnaire consists of 2 parts, one each related to the male and female athlete. For the purpose of this study, we used only the part relating to the male athlete. This part has 4 distinct sections: (1) a demographic section, (2) a section with 10 general comfort questions, (3) a section with 20 scenarios to determine comfort with a male AT, and (4) a final section with 20 scenarios to determine comfort with a female AT. Additionally, an open-ended question was added at the end of the survey, as follows: "Please indicate how you would describe a female athletic trainer (ie, characteristics, attributes, perceptions)."

Each comfort item was based on a 5-point Likert scale, anchored by 1 (*very uncomfortable*) and 5 (*very comfortable*). For each scenario rated as uncomfortable, the athlete was asked to select a reason for the discomfort. The reasons for discomfort provided were *gender related*, *level of confidence in athletic trainer*, *level of experience of athletic trainer*, and *other*. If the category of *other* was selected, the athlete was asked to specify the issue that influenced the level of discomfort.

Procedures

The study received institutional review board approval before data collection began. We assessed content validity and internal consistency using the Cronbach α . For the female AT scenario, the Cronbach α was 0.95; for the male AT scenario, the Cronbach α was 0.88. Face validity was confirmed by 3 experts in athletic training and Division I athletics (1 athletic training program director, 1 head AT, and 1 athletic training graduate student).

We contacted head ATs from 2 major Division I universities via telephone and e-mail to obtain consent to distribute questionnaires to their football players and to determine the appropriate number of questionnaires. The Gender Comfort With Athletic Trainer Questionnaire was provided by mail to one head AT and by hand delivery to the other head AT. Each AT was instructed in the administration of the questionnaire. The ATs were told to instruct the football players that they were being asked to participate in a study regarding their comfort levels with ATs as they related to various injuries. Each player who wished to participate was instructed to fill out the questionnaire and then leave it in the box on the way out. Questionnaires were administered to a total of 140 football players.

The questionnaire was prefaced with a cover page explaining the study process, participant confidentiality, and time commitment necessary for completion. Each athlete was handed a questionnaire when he entered the athletic training room. Completion of the questionnaire was purely voluntary. The questionnaires were then returned via mail from one institution and via personal delivery from the other.

Analysis

To analyze the quantitative data, the survey questions were divided in a manner similar to the analysis conducted by Drummond et al.⁸ The specific items regarding general medical conditions included 4 questions about hypertension, urinary tract infections, gastrointestinal illnesses, and sexually transmitted infections, as well as questions about injuries to the upper body (head/neck, shoulder, breast/chest, and ribs), midbody (hip, groin, abdomen, and back), and lower body (ankle and knee). Psychological conditions were addressed with 3 questions regarding depression, addictions, and eating disorders. Finally, sex-specific questions asked about the testicle, scrotum, and penis for men. These categories were analyzed together and individually by examining specific conditions within each category.

The analysis consisted of using paired-samples *t* tests to examine differences between responses for care given by a male AT and a female AT. These analyses were done for the 3 categories of injuries and conditions: general medical conditions, psychological conditions, and sex-specific injuries. All quantitative data analyses were performed with STATA version 8.0 (StataCorp LP, College Station, TX).

The single open-ended question at the end of the survey asked participants to describe female ATs in terms of characteristics, attributes, and perceptions. To assure validity of the categories, 2 independent coders used content analysis to code the data. For content analysis, the data are viewed as a whole and then subdivided into categories, patterns, and themes. Inductive analysis was used to create the categories, themes, and patterns as they emerged from the data.²² The coders analyzed the data separately and then compared and discussed the results. This process involved reviewing the responses provided by the participants, developing topics for each, and then narrowing the topics to create a small number of categories. The purpose of this process is to simplify the complex statements into manageable themes.²²

RESULTS

Overall, 104 total surveys were completed, yielding a 74.3% response rate (northeast = 57 athletes, southeast = 47 athletes). Seven surveys were considered incomplete and were not used in the data analysis process (northeast = 4, southeast = 3). The remaining surveys that were handed out were not returned.

Athlete classifications by year in school and race/ethnicity are presented in Table 1. Participants ranged in age from 18 to 24 years, with an average age of 19.83. A total of 42.31% (n = 41) of the sample was white, 46.15% (n = 46) was African American, 1.92% (n = 2) was Hispanic, and 8.65% (n = 8) was other. Freshmen accounted for 35.58% (n = 34), sophomores for 28% (n = 26), juniors for 22.12% (n = 23), seniors for 11.54% (n = 11), and graduate students for 2.88% (n = 3).

Results for the paired-samples *t* tests for injury and condition scenarios are displayed in Table 2. Hypothesis 1 predicted that football players would prefer male ATs for general medical conditions (hypertension, urinary tract infections, and gastrointestinal problems). This hypothesis was supported by the data, as the football players reported being more comfortable with male ATs (mean = 3.61 ± 0.91) than with female ATs (mean = 3.43 ± 0.86; *P* < .05).

Hypothesis 2 predicted that football players would be more comfortable with female ATs when receiving treatment for psychological conditions. However, these results were not supported by the data. For overall psychological conditions (eg, depression, addictions, and eating disorders), football players reported being slightly more comfortable with female ATs (mean = 3.69 ± 0.84) than with male ATs (mean = 3.60 ± 0.90), but the differences were not statistically significant. Therefore, the overall results did not support Hypothesis 2.

Hypothesis 3 predicted that football players would prefer male ATs for overall sex-specific conditions. Our results support this hypothesis and were statistically significant: football players reported feeling more comfortable with care by male ATs (mean = 3.61 ± 1.16) than by female ATs (mean = 2.82 ± 1.27; *P* < .001) for sex-specific injuries (ie, testicle, scrotum, and penis injuries).

In addition to examining general medical conditions and sex-specific conditions, we conducted paired-samples *t* tests on each individual indicator of the overall measures (Table 3). No significant results were found in the indicators predicting care for general or sex-specific conditions. However, analysis of the individual psychological conditions revealed that one indicator, depression, differed for football players based on the sex of the AT. Football players were more likely to prefer a female AT (mean = 3.71 ± 1.07) for the treatment of depression than they were a male AT (mean = 3.39 ± 1.16; *P* < .001).

Content analysis was conducted on the qualitative data. In the open-ended question, participants were asked to describe female ATs in terms of characteristics, attributes, and perceptions. The responses were coded as (1) *evidence of gender-role stereotyping*, (2) *the same or equal to male ATs*, or (3) *other*. Of all the surveys completed (N = 97), 71.1% (n = 69) were returned with the open-ended question completed. Overall, 58% (n = 40) of the participants' answers demonstrated evidence of gender-

Table 1. Sample Demographics (N = 97)

Characteristic	Overall, n (%)
Race	
White	41 (42.26)
African American	46 (47.42)
Hispanic	2 (2.06)
Other	8 (8.24)
Education level	
Freshman	34 (35.05)
Sophomore	26 (26.80)
Junior	23 (23.71)
Senior	11 (11.34)
Graduate	3 (3.09)
	Mean ± SD (range)
Age, y	19.83 ± 1.31 (18–24)

role stereotyping, whereas 33.3% (n = 23) thought female and male ATs were the same or equal, and 8.7% of answers (n = 6) were coded as *other*.

Of the responses, 58% (n = 40) indicated that respondents applied gender-role stereotypes to female ATs. For example, 1 participant described a female AT as “A caring person, mother like, attentive,” whereas another stated, “I would describe female athletic trainers to be softer and more understanding with emotional issues, whereas a male would not be equipped for that more nurturing role.” Another player stated, “I would say they are more caring and nurturing, gives one a sense of comfort when you are injured. I would prefer males when there is a more serious injury [sic] that needed attention though.” Other comments included the following:

Nice, gentle, caring, organized
 Nice and very careful and helpful
 Kind, loving, affectionate
 Willing to help (caring, energetic, hardworking, encouraging, easy to talk to)
 Caring, sensitive
 Female athletic trainers might carry a confidence around but couldn't deliver on certain needs for certain sports. An athletic trainers should be able to related to the sports, females can't do for all sports [sic]
 Nice, smiley, laugh

In terms of the qualitative data, 33.3% (n = 23) of participants indicated that female ATs were the same or equal to male ATs. Examples of participants' statements included the following:

I don't have a gender bias when it comes to female verse [sic] male athletic trainers. They are just as capable and knowledgeable.
 I feel that I am extremely comfortable with a female athletic trainer. It really does not matter to me at all if it's a female or male.
 The same as any other athletic trainer. Gender should have no impact on performance of the attributes of an athletic trainer.
 A trainer just needs to know to get me back on the field no matter what gender.
 Equal and capable

Table 2. Comfort Reported by Football Players With Female or Male Athletic Trainer Addressing Injury and Illness Scenarios (Mean ± SD)^a

Injury or Illness	Male Athletic Trainer	Female Athletic Trainer
General medical conditions	3.61 ± 0.91	3.43 ± 0.86 ^b
Psychological conditions	3.60 ± 0.90	3.69 ± 0.84
Sex-specific conditions	3.61 ± 1.16	2.82 ± 1.27 ^c

^a Range = 1 (*very uncomfortable*) to 5 (*very comfortable*).

^b Paired-samples *t* test: *P* < .05.

^c Paired-samples *t* test: *P* < .001.

Lastly, 8.7% (n = 6) of participants reported responses that were coded as *other*. These responses included “smart,” “a human being,” and “I would describe them based upon how I thought they were giving medical advice.”

DISCUSSION

Our purpose was to determine male football players' comfort levels with and perceptions of female ATs when dealing with the treatment and care of injuries and conditions. Role congruity theory was used for the theoretical framework.

When asked their perceptions of female ATs, football players used gender-role stereotypical characteristics. More than half described a female AT using communal terms consistent with the gender roles stereotypically attributed to women (eg, caring, nurturing, affectionate). These findings were similar to those of Walk,⁶ who also found incongruity with the presence of female athletic training students in the athletic training room of traditionally male-dominated sports. Female athletic training students were subjected to gender stereotyping and given the labels of “moms, sisters, and ladies.”⁶ In our study, a smaller percentage (approximately one-third of participants) indicated similar perceptions of males and females with regard to competence as ATs. Thus, male football players held stereotypical perceptions toward female ATs. These qualitative findings provide support for the results revealed in the analyses of the questionnaire data. Clearly, some prejudice based upon the sex of the AT was evident from the qualitative analysis. Despite the same required education and training, female ATs were still not perceived as being equal to male ATs.

Overall, in support of hypothesis 1, male football players felt more comfortable with male ATs for both general medical conditions and sex-specific injuries. This result is similar to that of Drummond et al,⁸ who noted that athletes experienced discomfort when the injury or condition was sex specific and when the athlete was cared for by a member of the opposite sex. Additionally, most males and females prefer health care by a physician of the same sex if the injury or condition is considered more intimate.^{9,10,21} Perhaps female ATs are not viewed as competent or as knowledgeable in dealing with sex-specific injuries simply because of their sex.

For psychological conditions, no differences were seen in terms of the athletes' tendency to seek treatment by either male or female ATs. However, when analyzing the

Table 3. Comfort Reported by Football Players With Female or Male Athletic Trainer Addressing Psychological Conditions (Mean ± SD)^a

Psychological Condition	Male Athletic Trainer	Female Athletic Trainer
Overall	3.60 ± 0.90	3.69 ± 0.84
Depression	3.39 ± 1.16 ^b	3.71 ± 1.07
Addictions	3.60 ± 1.04	3.67 ± 0.94
Eating disorders	3.82 ± 0.97	3.70 ± 1.02

^a Range = 1 (*very uncomfortable*) to 5 (*very comfortable*).

^b Paired-samples *t* test: *P* < .001.

psychological conditions separately, we found that participants felt more comfortable with a female AT than a male AT when seeking treatment for depression. Because there is a social stigma associated with depression, the potential exists that the football players could be viewed as “weak” if they divulged this information to male ATs, and as a result, they feel more comfortable discussing this issue with female ATs.⁸ Because of their prescribed gender roles for women, football players may find it easier to talk to female ATs about depression. Several football players attributed typical communal characteristics to female ATs (eg, sensitive, caring, and understanding), providing support for role congruity theory.

Based on our results, it appears that the roles of “female” and “football AT” were perceived as incongruent by football players. The qualitative data provided several examples of female ATs being viewed as supportive, caring, and nurturing, which indicates incongruity between the roles of being female and being an AT. Therefore, a woman filling a leadership role (eg, head AT for a Division I football program) in which assertiveness would be expected may present a higher level of incongruity and discomfort to football players than does a man filling the role. This incongruity could account for the male football players' lower levels of comfort with a female being an AT as a result of the intimate nature of sex-specific injuries.

Given the male dominance associated with the sport of football and the lack of women serving in the role of football ATs, our findings could be explained through the framework of role congruity theory. The stereotypical feminine attributes (eg, kind, sympathetic, compassionate) the male football players used to describe a female AT were incongruent with the qualities of someone who works in a Division I football athletic training room (an environment that is male dominated). That is, incongruity exists between women and their presence in the male-dominated football environment. In this sense, female ATs may be perceived as stepping outside their prescribed gender roles simply by being in an athletic training room for a male sport. Because football is viewed as a sport for the tough, strong, and masculine,⁵ the presence of women in the football training room environment can be viewed as a violation of prescribed gender-role stereotypes. Role congruity theory indicates that backlash against women occurs when they violate their stereotypical gender roles; therefore, the football athletic training room may be viewed by football players as an inappropriate place for women.

In summary, these results provided both quantitative and qualitative evidence in support of role congruity theory. Male football players were more comfortable with treatment by a male AT for both general medical

conditions and sex-specific injuries and conditions. Although no differences were noted for comfort with overall psychological conditions, the football players did indicate a preference for a female AT over a male AT with respect to treatment of depression. Therefore, these male football players indeed had perceptions and levels of comfort with ATs that demonstrated support for role congruity theory. They perceived a greater level of comfort with male ATs and perceived female ATs in more stereotypical gender roles that are not congruent with the traits perceived as necessary for a leadership position in athletic training.

Limitations

Our findings are compelling, but certain limitations must be noted. Overall, the sample size and representation of only 2 major Bowl Championship Subdivision universities restrict the generalizability of the findings. These results should not be interpreted as indicating a preference for the sex of the AT but rather only reflect the comfort level of the male football athletes. In addition, previous researchers²³ have noted that ATs report discomfort in treating intimate injuries of opposite-sex athletes, which may have influenced the perceptions of athletes in this study. Based on the design of the current study, we could not identify if this factor affected the perceptions of the male football players being evaluated. Finally, limiting the survey to a single open-ended question to discuss their perceptions of female ATs may not have provided the participants with an opportunity to fully explain those perceptions.

Recommendations

Future investigators should examine the attitudes and perceptions of football coaches and administrative staff to evaluate if their perceptions are limiting opportunities for female ATs in football and perhaps for other male sport teams at the collegiate level. This information is of particular importance as more women graduate from athletic training programs and enter the field of athletic training.² Further, interviews should be conducted with female ATs to learn about their perceptions of gender stereotyping when working with male sport teams. Researchers should explore whether athletes are less likely to report injuries/conditions as a result of discomfort with opposite-sex ATs. It is important to determine if care may be insufficient because athletes are uncomfortable seeking aid from opposite-sex ATs, particularly with respect to sex-specific injuries and conditions. In addition, studies could be designed to analyze comfort levels of female athletes being treated by male ATs. Lastly, workshops and seminars for athletes, coaches, and ATs may be a way to educate and initiate dialogue regarding inaccurate perceptions of the skills and abilities of opposite-sex health care providers in athletic training and other health care settings.

REFERENCES

- Acosta RV, Carpenter LJ. Women in intercollegiate sport: a longitudinal, national study thirty one year update (1977–2008).

- http://www.womenssportsfoundation.org/binarydata/WSF_ARTICLE/pdf_file. Accessed February 12, 2008.
- Shingles RR. *Women in Athletic Training: Their Career and Educational Experiences* [dissertation]. East Lansing: Michigan State University; 2001.
 - Anderson MK. Women in athletic training. *J Phys Ed Rec Dance*. 1992;63(3):42–44.
 - Cheslock J. *Who's Playing College Sports? Money, Race and Gender*. East Meadow, NY: Women's Sports Foundation; 2008.
 - Coakley J. *Sport in Society: Issues and Controversies*. 7th ed. New York, NY: McGraw-Hill; 2004:202–241.
 - Walk SR. Moms, sisters, and ladies: women student trainers in men's intercollegiate sport. *Men Masculin*. 1999;1(3):268–283.
 - Hosick M. Athletic training as a career is no longer a man's domain. *NCAA News*. <http://www.ncaa.org/wps/portal/ut/p/kcxml/04>. Accessed March 24, 2008.
 - Drummond JL, Hostetter K, Laguna P, Gillentine A, Del Rossi G. Self-reported comfort of collegiate athletes with injury and condition care by same-sex and opposite-sex athletic trainers. *J Athl Train*. 2007;42(1):106–112.
 - Kerssens JJ, Bensing JM, Andela MG. Patient preference for genders of health professionals. *Soc Sci Med*. 1997;44(10):1531–1540.
 - Franks P, Bertakis KD. Physician gender and primary care. *J Women's Health (Larchmt)*. 2003;12(1):73–80.
 - Eagly AH, Karau SJ. Role congruity theory of prejudice toward female leaders. *Psychol Rev*. 2002;109(3):573–598.
 - Baranick K. A pioneer in the field of athletic training will speak. *The Barometer*. <http://media.barometer.orst.edu/media.com>. Accessed December 21, 2007.
 - Curran K. Health careers for women in professional sports. Women's Sports Foundation. <http://www.womenssportsfoundation.org/cgi-bin/iowa/career/article.html>. Accessed March 5, 2008.
 - Perez PS, Cleary MA, Hibbler DK. Women in athletic training: striving for equity. http://eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1a/ef/59.pdf. Accessed December 3, 2007.
 - Eagly AH, Wood W, Diekmann A. Social role theory of sex differences and similarities: a current appraisal. In: Eckes T, Trautner HM, eds. *The Developmental Social Psychology of Gender*. Mahwah, NJ: Erlbaum; 2000:123–174.
 - Heilman ME. Description and prescription: how gender stereotypes prevent women's ascent up the organizational ladder. *J Social Issues*. 2001;57(4):657–674.
 - Cejka MA, Eagly AH. Gender-stereotypic images of occupations correspond to the sex segregation of employment. *Pers Social Psychol Bull*. 1999;25(4):413–423.
 - Garcia-Retamero R, Lopez-Zafra E. Prejudice against women in male-congenial environments: perceptions of gender role congruity in leadership. *Sex Roles*. 2006;55(1–2):51–61.
 - Sartore ML, Cunningham GB. Weight discrimination, hiring recommendations, person-job fit, and attributions: fitness-industry implications. *J Sport Manage*. 2007;21(2):172–193.
 - Heilman ME, Wallen AS, Fuchs D, Tamkins MM. Penalties for success: reactions to women who succeed at male gender-typed tasks. *J Appl Psychol*. 2004;89(3):416–427.
 - van Engen ML, van der Leeden R, Willemsen TM. Gender, context, and leadership styles: a field study. *J Occup Psychol*. 2001;74(5):581–598.
 - Patton MQ. *How to Use Qualitative Methods in Evaluation*. Newbury Park, CA: Sage; 1987:144–164.
 - Drummond JL, Velasquez BJ, Cross RS, Jones ML. Self-reported comfort in athletic training of gender-specific and non-gender specific injuries and issues. *J Athl Train*. 2005;40(3):211–217.

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