

Perceptions of Leadership Opportunities and Effectiveness Among Athletic Trainers: A Comparison Across Racial and Ethnic Groups

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Context: Diverse representation in athletic training leadership is essential for fostering inclusion and innovation in the profession. Despite efforts to enhance leadership diversity, disparities persist, underscoring the need to explore barriers to leadership and the effectiveness of leadership in meeting the needs of athletic trainers (ATs).

Objective: To examine racial and ethnic differences in ATs' desire, pursuit, and attainment of leadership positions in the profession in addition to perceptions of current leadership effectiveness.

Design: Cross-sectional, web-based survey.

Patients or Other Participants: A purposeful sample of 1173 racially and ethnically diverse ATs from an organized professional network followed by a random sample of 6000 members of the National Athletic Trainers' Association. A total of 488 participants completed the survey for a 14.7% response rate.

Data Collection and Analysis: Data were collected via a web-based survey, including 7 demographic items, 4 Likert-scale items, and 5 open-ended questions. Independent samples Kruskal-Wallis, χ^2 , and analysis of variance tests were

used to compare differences between subgroups, with pairwise testing conducted using the Bonferroni correction.

Results: Irrespective of race and ethnicity, most ATs expressed desire for and pursuit of leadership positions in the profession; 56.5% of ATs reported attaining such roles, primarily at departmental or institutional levels. African American ATs perceived greater barriers to attaining leadership positions due to their race and ethnicity and felt their needs were less met by current leadership than their White counterparts.

Conclusions: Systemic biases and in-group favoritism may impede attainment of leadership positions in athletic training organizations and influence perceptions of leadership effectiveness for racial and ethnic minority ATs. Consequently, a pressing need exists for intentional efforts to diversify leadership within athletic training and foster more inclusive leadership. Implementing strategies, such as diversifying selection processes and promoting allyship, are critical to ensuring equitable opportunities and advancing diversity within leadership.

Key Words: service, diversity and inclusion, concordance

Key Points

- Regardless of race and ethnicity, most athletic trainers desire and actively pursue leadership positions.
- Most athletic trainers in this study held leadership positions within their departments or institutions, while significantly fewer attained leadership roles with state, district, or national-level professional organizations.
- African American athletic trainers see race and ethnicity as a leadership barrier, while White athletic trainers do not.
- Racial and ethnic minority athletic trainers, especially African Americans, find current athletic training leadership less effective than White athletic trainers.
- Efforts to diversify leadership should focus on equity through diverse selection and appointment processes and fostering allyship.

Leadership plays an integral role in the advancement of the athletic training profession. According to Carr et al, leadership within athletic training can be viewed from 2 distinct perspectives: leadership roles tied to an individual's employer or volunteer leadership roles pursued independently of employment, such as professional service on a committee.¹ Many athletic trainers (ATs) are appointed leadership roles within their organizations as an extension of their immediate roles and responsibilities. However, professional leadership roles such as those at the

state, district, or national level are voluntary, requiring ATs to pursue nomination, election, or participation in a specific committee.

The National Athletic Trainers' Association (NATA) is a professional membership association founded in 1950 with the mission of representing, engaging, and fostering the continued growth and development of the athletic training profession and advocating for ATs as unique health care providers.² At the end of 2024, the NATA represented over 35 477 ATs.³ Membership of the NATA is composed of 11

geographic districts, each with a director elected by the district's members. The 11 district directors comprise the NATA's Board of Directors (BOD) along with the NATA's President, Vice President, and Secretary/Treasurer.⁴ In addition to the BOD, the NATA retains 28 committees, councils, or commissions in which members may volunteer and be appointed to serve relative to their professional interests.⁵ The NATA works in collaboration with other nonmember organizations including the Board of Certification, which focuses on AT certification and consumer protection; the Commission on Accreditation of Athletic Training Education, which focuses on accreditation and the provision of quality education; and the NATA Research & Education Foundation, which focuses on research and scholarship for those in the profession to form the Athletic Training Strategic Alliance.⁶ As an organization, the NATA plays an important role in guiding the profession; thus, its leadership is important, as it provides strategic vision and direction for the athletic training profession.

Leadership within athletic training is not only about guiding the profession but also about fostering innovation and responding to the needs of its diverse membership. Effective leadership is essential for ensuring that the profession remains adaptive, forward-thinking, and aligned with the evolving needs of both clinicians and the communities they serve. Previous researchers have associated organizational leadership diverse in race and ethnicity with positive outcomes such as improved decision-making quality, enhanced creativity, and greater overall performance.⁷ The cognitive diversity hypothesis is a management theory that posits that the variety of perspectives arising from cultural differences among team or organizational members fosters creative problem-solving and drives innovation.⁸ People with diverse backgrounds and experiences often see the same problems from different perspectives and thus propose novel and effective solutions.⁹ Proposing a range of solutions for a single problem can increase the chance that one of the proposed solutions or a combination of them will adequately solve the problem. Robust problem-solving processes are valuable to organizations because they can better equip them to adapt to changing conditions. For example, authors of 1 study indicated that nearly half of the revenue of companies with more diverse leadership comes from products and services launched in the past 3 years.⁹ In an increasingly challenging and multigenerational business environment, this type of magnified innovation means that organizations are better able to quickly adapt to changes in member demand.⁹

Recent efforts to increase racial and ethnic diversity in athletic training leadership are beginning to take shape slowly. In 2017, 7.5% of BOD members and committee leaders for the NATA self-identified as racially and ethnically diverse.¹⁰ Likewise, 11.4% of NATA committee members identified themselves as either Black, Asian or Pacific Islander, American Indian or Alaskan Native, Hispanic, multiethnic, or other.¹⁰ After the implementation of numerous initiatives related to diversity, equity, inclusion, and access (DEIA), in 2023, the proportion of racially and ethnically diverse individuals serving on the BOD or as committee leaders has increased to 10.5%.¹⁰ Similarly, the proportion of racially and ethnically diverse NATA committee members has risen to 14.9%.¹⁰ However, it should be noted that, when members of the NATA Ethnic Diversity Advisory Committee are excluded, the percentage of racially and ethnically diverse committee members drops to 13.6%.¹⁰

To further advance DEIA initiatives in athletic training, it is crucial to determine whether desire, pursuit, and attainment of leadership differs among ATs of different ethnic groups. Additionally, it is important to explore how ATs perceive their race and ethnicity as a barrier to obtaining a leadership position. Lastly, assessing how well current leadership is perceived to meet the needs of ATs across racial and ethnic demographics is key. Therefore, the purpose of this study is threefold: (1) to examine racial and ethnic differences in ATs' desire, pursuit, and attainment of leadership positions in the athletic training profession; (2) to determine racial and ethnic differences in ATs' perceptions of race and ethnicity as a barrier to obtaining leadership positions; and (3) to investigate racial and ethnic differences in perceptions of the effectiveness of current athletic training leaders in meeting their needs. Understanding these dynamics can give important insights into members' perceptions of leadership which can guide the NATA as well as other members of the Athletic Training Strategic Alliance in the development of programs and services that better service members and address their specific needs, ultimately enhancing engagement and satisfaction. Furthermore, data obtained can promote diversity in leadership that not only aligns with broader professional values of equity and inclusion but also enhances the effectiveness and innovation of the NATA by leveraging a wider range of perspectives and experiences. Thus, the findings in this study could be vital for driving meaningful change and ensuring the long-term success and relevance of the NATA.

METHODS

Design

We used a web-based cross-sectional survey to collect data for this study. This approach allowed us to efficiently examine racial and ethnic differences in ATs' desire, pursuit, and attainment of leadership positions; assess their perceptions of race and ethnicity as a barrier to obtaining leadership roles; and evaluate their views on the effectiveness of current professional leadership in meeting their needs using a single survey instrument. The A.T. Still University Institutional Review Board deemed this study as exempt research.

Participants

For this study, we first recruited a purposeful convenience sample of racially and ethnically diverse ATs from the TTT. The TTT is a private networking group of racial and ethnic minority ATs with 1173 members at the time of participant recruitment. This group represents the largest known centralized space for racial and ethnic minority ATs to informally connect and collaborate, offering us a unique opportunity to access a diverse sample of ATs from a demographic historically underrepresented in leadership research. Given the inability of NATA's Survey Service to target participants by race and ethnicity, TTT was essential for exploring leadership aspirations and barriers specific to ATs from racial and ethnic minority groups. To respect participant confidentiality and ensure that the group remains a supportive environment for its members from historically marginalized populations, we intentionally chose to refer to the group only by its acronym. After enlistment of individuals from the convenience sample, we then recruited a random sample

of 6000 certified ATs who were in good standing as members of the NATA.

Instrumentation

We developed a web-based survey, hosted on the Qualtrics (Qualtrics LLC) platform, consisting of 7 demographic items, 4 Likert-scale items, and 5 open-ended questions that were relevant to participants' perceptions of diverse representation in athletic training leadership. Participants self-reported their race and ethnicity in accordance with recognized racial and ethnic categories set by the NATA. Categories for selection included African American, Asian or Pacific Islander, White, Hispanic, American Indian, multiethnic, and prefer not to say or other. The collective terms *racial and ethnic minority groups* and *racial and ethnic minority ATs*, in which the term *minority* was used only as a modifier, were used in reference to these individuals and these groups in accordance with updated guidelines published by the American Medical Writers Association.¹¹ Because the skip logic function of Qualtrics was used, participants did not always receive every survey item.

After the development, we sent the survey to 3 ATs for face and content validation. The first (not an author) was a Black, woman-identifying AT employed in the secondary school setting with leadership experience at the institutional, state, district, and national levels. The second (not an author) was a Black, woman-identifying AT with practice experience in college or university and professional settings as well as leadership experience at her institution as well as district and national levels of athletic training. The third AT (J.M.C.) was a White, woman-identifying AT employed in higher education with over a decade of survey research expertise as well as leadership experience at the institutional, state, district, and national levels. These individuals were selected based on their expertise in AT leadership, their professional experience with DEIA initiatives, and their familiarity with survey development and validation processes. While the panel's gender composition was not a deliberate factor in the selection process, it reflects the limited population of Black, indigenous, and people of color ATs in leadership roles, particularly those with expertise in research or survey instrument design. Given the focus of this study on racial and ethnic representation, we prioritized the inclusion of individuals with the necessary professional and lived experience, regardless of gender. Furthermore, the feedback solicited during the validation process was primarily technical, addressing aspects such as clarity, relevance, and comprehensiveness of the survey items. As such, the gender of the panelists was not anticipated to have a significant influence on the validity of the instrument.

We also asked the content reviewers to complete the survey on their own (ie, answer each item but not formally submit their responses to us) to determine the estimated completion time. Since it would be possible to potentially identify pilot participant responses, we opted to have the content reviewers establish the survey completion time rather than conduct a formal pilot test due to the potentially sensitive nature of the survey items. Based on the feedback from the content reviewers, we slightly revised the wording of 3 survey items and provided additional selection responses to 2 demographic items to ensure inclusivity. The estimated time to complete the survey was confirmed to be 10–15 minutes.

Procedures

The research survey was distributed in 2 phases to maximize reach to ATs from Black, indigenous, and people of color populations. First, in February 2023, the principal investigator (A.H.W.) sent a participation request to members of the TTT. The TTT is hosted in GroupMe (Microsoft Corp), a mobile group messaging application. The participation request included a brief overview and purpose of the study, the estimated time of completion, and a URL link to the anonymous web-based survey. Once this phase concluded, the survey was distributed to a random sample of certified ATs via the NATA Survey Service. To minimize the risk of duplicate responses, the messaging included in the NATA survey explicitly stated that it was the same survey previously distributed to TTT members. Recipients were instructed not to complete the survey again if they had already participated. In May 2023, an email was sent by the NATA Survey Service on our behalf to a random sample of 6000 ATs that met our inclusion criteria. During distribution, 82 emails were returned as undeliverable, 6 people voluntarily marked the email as spam, and 7 people responded to the email that they did not wish to participate with a request to be removed from future distributions. While we did not employ a technical mechanism to identify duplicate submissions, the inclusion of messaging regarding prior distribution to the TTT was designed to limit redundancies.

Data Analysis

The primary variables of interest in the current manuscript were (1) desire to obtain a leadership position at any level in athletic training, (2) pursuit of a leadership position at any level in athletic training, (3) attainment of a leadership position in athletic training and to what level, (4) perception of race and ethnicity as a barrier to attaining a leadership position in athletic training, and (5) how well ATs believed their needs as ATs are being addressed by current professional leadership.

Demographic characteristics (age, race and ethnicity, gender, and years of practice) were then examined to see if significant variation existed in the outcome variables as a function of the demographic characteristics. To render analyses interpretable and provide proportional representation that avoided overemphasizing any particular participant group, small cell sizes for racial and ethnic groups including Asian or Pacific Islander, American Indian, multiethnic, and prefer not to say or other were collapsed into the other category. Independent samples Kruskal-Wallis, χ^2 , and analysis of variance tests were used to compare differences between subgroups—pairwise testing was conducted using the Bonferroni correction to account for inflated type-I error rates. All analyses were conducted in SPSS (version 29.0; IBM Corp).

RESULTS

A total of 488 participants completed the survey for a 14.7% response rate. A summary of participant demographics can be found in Table 1. Participants were approximately 41 years of age, on average (SD = 11.68), and most identified as woman (n = 270) and White (n = 288). Participants were most frequently employed in secondary schools (n = 148),

Table 1. Participant Demographics

	<i>n</i> (%)
Age, y, mean $\pm$ SD	40.89 $\pm$ 11.68
Gender, No. (%)	
Man	201 (41.8%)
Woman	270 (56.1%)
Nonbinary	3 (0.6%)
Other	7 (1.5%)
Race, No. (%)	
African American	114 (23.7%)
Asian or Pacific Islander	8 (1.7%)
White	288 (59.9%)
Hispanic	28 (5.8%)
American Indian	3 (0.6%)
Multiethnic	19 (4.0%)
Prefer not to say or other	12 (4.4%)
AT status, No. (%)	
Yes	466 (96.9%)
No (athletic training student)	13 (2.7%)
No	2 (0.4%)
Employment setting, No. (%)	
College or university	123 (26.4%)
Higher education	38 (8.2%)
Professional sports	27 (5.8%)
Secondary school	148 (31.8%)
Health care administration or rehabilitation	27 (5.8%)
Military	15 (3.2%)
Occupational health or industrial	14 (3.0%)
Performing arts	3 (0.6%)
Physician practice	20 (4.3%)
Other or not currently employed as AT	51 (10.9%)
Leadership history, No. (%)	
Yes	272 (57.6%)
No	200 (42.4%)
Leadership type, No. (%)	
Departmental	177 (36.8%)
Institutional	131 (27.2%)
State	97 (20.2%)
District	79 (16.4%)
National	63 (13.1%)
International	4 (0.8%)

Abbreviation: AT, athletic trainer.

followed by colleges or universities ($n = 123$) and higher education institutions ($n = 38$). As for race and ethnicity, participants most frequently identified as White ($n = 288$), followed by African American ($n = 114$), and Hispanic ($n = 28$).

Desire and Pursuit of Leadership Positions

Descriptive statistics for the desire for and pursuit of leadership outcomes by race and ethnicity can be found in Table 2. Overall, participants expressed a desire to obtain a leadership position in athletic training, with 34.9% ($n = 168$) indicating obtaining a leadership position as *desirable* and an additional 21.0% indicating it as *very desirable*. While 24.3% ($n = 117$) of participants were neutral in their desire to achieve a leadership position, 10.2% ($n = 49$) reported a leadership position as *undesirable* and 7.7% as *very undesirable*. Similar findings were indicated for the pursuit of a leadership position, as 7.5% rated the pursuit of a leadership position as *essential* in addition to 18.9% ($n = 91$) who ranked pursuit as a *high priority* and 32.8% ($n = 158$) who ranked pursuit as a *medium*

Table 2. Descriptives for Desire and Pursuit of Leadership Outcomes by Race^a

	Desire for Leadership		Pursuit of Leadership	
	Median	IQR	Median	IQR
African American	5.00	4.00–6.00	3.00	2.00–4.00
White	5.00	4.00–5.00	3.00	2.00–3.00
Hispanic	5.00	4.00–5.25	3.00	2.00–4.00
Other	4.00	2.00–5.00	2.00	2.00–3.00

Abbreviation: IQR, interquartile range.

^a $N = 472$.

priority. About a quarter (25.4%) of participants rated the pursuit of a leadership position as *low priority*, and merely 13.5% ($n = 65$) rated it as *not a priority* at all.

Independent samples Kruskal-Wallis tests revealed significant differences in the desire to obtain a leadership position among racial and ethnic minority groups ($P = .011$), with African American participants reporting stronger desires than racial and ethnic minority individuals in the other category ($P = .010$). For the pursuit of leadership, no significant differences were observed between racial and ethnic minority and White groups ($P > .054$). Pairwise comparisons further detailed these findings, highlighting that the observed differences in desire were primarily between African American participants and those racial and ethnicity minority individuals classified as other.

Attainment of Leadership Position

More than half (56.5%) of participants overall indicated they had held a leadership role at some point throughout their athletic training careers; 36.8% ($n = 177$) held departmental positions and 27.2% ($n = 131$) held institutional positions. As for positions within athletic training professional organizations, 20.2% ($n = 97$) held leadership positions at the state level, 16.4% ($n = 79$) held leadership positions at the district level, and 13.1% ($n = 63$) held leadership positions at the national level. Descriptive statistics for leadership roles (at each level) by race and ethnicity can be found in Table 3. While the χ^2 analysis for departmental leadership roles by race and ethnicity revealed a significant χ^2 statistic ($\chi^2 [3] = 8.79$, $P = .032$), cell comparisons revealed no significant pairwise comparisons (all P values $> .05$). For the institutional level outcome, the χ^2 test was statistically significant ($\chi^2 [3] = 10.59$, $P = .014$), and pairwise comparisons showed that Hispanic individuals had more institutional leadership roles than African American individuals ($P < .05$). The χ^2 statistic was also significant for state-level leadership ($\chi^2 [3] = 9.04$, $P = .029$), with pairwise comparisons showing that White individuals held state leadership roles more often than African American individuals ($P < .05$). The effects for district and national leadership roles were not statistically significant (all χ^2 's < 4.02 , all P values $> .260$).

Race and Ethnicity as a Barrier and Perception of Needs Being Met

Descriptively, responses were mixed regarding the perception of race and ethnicity as a barrier to obtaining a

Table 3. Descriptives for Leadership Roles (at Each Level) by Race^a

	Departmental		Institutional		State		District		National		International	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
African American	30	84	21	93	14	100	18	96	15	99	1	113
White	115	174	87	202	71	218	49	240	40	249	1	288
Hispanic	15	15	13	17	5	25	6	24	4	26	1	29
Other	17	31	10	38	7	41	6	42	4	44	1	47

^a *N* = 481.

leadership position; 74.5% of African American participants perceived their race and ethnicity to serve as a barrier (*somewhat, moderate, or extreme*) to the attainment of a leadership position in the athletic training profession; 5.0% of African American respondents perceived their race and ethnicity as *not a barrier at all*; 14.4% of White participants perceived their race and ethnicity to function as a barrier to obtaining a leadership position; and 75.7% of White respondents reported race and ethnicity as not a barrier at all. Responses of Hispanic participants and those categorized as other racial and ethnic minority groups were varied; 35.7% perceived race and ethnicity as a barrier (*somewhat, moderate, or extreme*), while 42.9% professed race and ethnicity to be not a barrier at all. Similarly, 42.5% of participants of other racial and ethnic minority groups reported race and ethnicity as a barrier (*somewhat, moderate, or extreme*), while 37.5% viewed race and ethnicity as not a barrier at all.

Most participants reported that their needs were being addressed to at least some extent by current leadership in athletic training organizations. White participants were most likely to report their needs being met, with 92.9% reporting their needs as ATs being addressed whether minimally, moderately, or extremely. African American participants were least likely to report their needs being met, with 88.0% reporting current athletic training leadership to be minimally, moderately, or extremely addressing their needs.

Descriptive statistics for the perceptions of race and ethnicity as a barrier and perception of needs being met variable by race and ethnicity can be found in Table 3. Independent samples Kruskal-Wallis tests were conducted and revealed a significant omnibus test for both the perceptions of race and ethnicity as a barrier outcome (Kruskal-Wallis [3] = 186.49, $P < .001$) and the perception of needs being met outcome (Kruskal-Wallis [3] = 16.14, $P = .001$). For the perceptions of race and ethnicity as a barrier outcome, pairwise comparison showed that the only nonsignificant difference was in regard to the Hispanic-other pairwise comparison ($P = 1.00$)—comparisons were significant for the White-other ($P = .001$), White-Hispanic ($P = .005$), White-African American ($P < .001$), other-African American ($P < .001$), and Hispanic-African American ($P < .001$) comparisons. African Americans had the highest median, followed by Hispanic and other, then Whites. In other words, individuals identifying as African American were most likely to report their race and ethnicity as a barrier, followed by those categorized as Hispanic or other. White individuals were least likely to report their race and ethnicity as a barrier in obtaining a leadership position. For the perception of needs being met outcome, only the African American-White comparison was statistically significant ($P = .001$). Simply put, White and Hispanic individuals were more likely to report

their needs being met by leadership than African Americans and individuals of other race and ethnicity categories.

DISCUSSION

Although leadership has been extensively studied across various professions, research on leadership within athletic training remains limited. Even less explored is the intersection of leadership with race and ethnicity, underscoring the distinct contribution of this study to the field. It is important to note that race and ethnicity are social constructs, shaped by historical, cultural, and societal contexts, rather than biological determinants. Previous researchers have argued that physical diversity, reflected in characteristics such as race and ethnicity, enhances performance by enabling team members to contribute diverse cognitive attributes shaped by their experiences and demographic backgrounds.¹² This cognitive diversity, encompassing differences in unobservable traits such as attitudes, values, and beliefs, can help to cultivate a culture in which every voice is appreciated.¹³ The cognitive diversity that may be fostered by increasing racial and ethnic in athletic training leadership teams can encourage diverse thinking approaches, leading to well-rounded solutions that are crucial for both individual and organizational success.¹³ Recognizing this, in this study, we first sought to investigate ATs' desire for, pursuit of, and attainment of leadership roles across racial and ethnic groups. Most ATs across racial and ethnic groups expressed a desire to obtain a leadership position, whether within their organization or through service at the state, district, or national level. Similarly, most ATs, regardless of race and ethnicity, prioritized the pursuit of a leadership position, at least to some degree. As a natural condition of the job, ATs have an effect on the people they work with. Their role in building relationships, along with navigating the challenges and rewards of collaboration, may naturally foster leadership ability and, thus, we suspect a desire for and pursuit of leadership opportunities.¹⁴ We believe this supports our finding that ATs appear to want and be equally committed to seeking out leadership roles, regardless of their racial or ethnic background.

Most ATs in this study reported having held a leadership position at some point in their athletic training careers; however, these roles were predominantly within their department or institution. In contrast, a significantly smaller percentage of ATs indicated attaining leadership roles within their state, district, or national professional organizations. Regarding roles within professional athletic training organizations, disparities were observed primarily between White and African American participants, with White ATs more frequently holding state-level leadership positions than their African American counterparts. Although, in this study, we did not explicitly

assess aspirations for service roles with state, district, and national athletic training organizations, the strong overall desire for leadership suggests ATs from racial and ethnic minority groups likely aspire to district and national leadership opportunities. Encouragingly, the persistent racial and ethnic disparities in the leadership of athletic training professional organizations may be showing signs of improvement, underscoring the need for continued efforts to promote equity and inclusion at all levels of leadership.

Efforts to enhance diversity within athletic training leadership have led to small but measurable improvements, including increased representation in state, district, and national leadership roles and the establishment of initiatives focused on DEIA. However, disparities persist, as racial and ethnic minority ATs remain underrepresented in key decision-making positions such as President, Vice President, Secretary/Treasurer, and BOD roles within AT professional organizations. These disparities highlight systemic barriers that continue to shape leadership pathways. A critical factor influencing leadership representation is the perception of race as a barrier. Findings from this study revealed an overwhelming percentage of African American participants viewed race and ethnicity as obstacles to leadership, whereas most White participants did not share this perspective. These differing views may help keep leadership disparities in place, as built-in systemic biases such as informal hiring and selection processes, along with unconscious stereotypes, can affect who gets chosen for leadership roles and who has opportunities to advance.

Researchers have suggested organizations that explicitly communicate openness to diversity can help mitigate these barriers by fostering respect, psychological safety, and trust, which are essential for supporting minority professionals in their leadership aspirations.¹⁵ Leadership self-perceptions and ambitions are crucial precursors to leadership emergence, making it essential that diversity initiatives not only address structural barriers but also support leadership-relevant intrapersonal processes among racial and ethnic minority individuals.¹⁵ Authors of studies have shown that, when minority professionals envision working in organizations that support diversity, promote positive relationships between differing groups, and ensure fair and equitable treatment, they feel more confident in their ability to take on leadership roles. They may also be more likely to aspire to leadership positions and hold more positive expectations regarding leadership success.¹⁵ To make lasting change, leadership development in athletic training should go beyond simply increasing diversity and focus on removing systemic obstacles and psychological barriers that make it harder for minority professionals to step into leadership roles. By fostering inclusive organizational climates that actively acknowledge and support diverse ATs, our professional organizations can create pathways for equitable leadership opportunities and cultivate a profession in which all ATs, regardless of race or ethnicity, can aspire to, achieve, and thrive in leadership roles.

Addressing racial and ethnic disparities in leadership requires intentional strategies that target the roots of bias and exclusion. In the context of leadership, one of the most pervasive stereotypes about African Americans is the assumption they lack competence to be effective leaders.¹⁶ This stereotype is often reinforced in situations in which the requirements for leadership roles are unclear, the evaluation of necessary skills relies on subjective judgment, or

the responsibilities of the role are not standardized.¹⁷ Such contexts can amplify racial stereotypes, as discretionary decision-making in appointments to leadership or promotions tends to increase the likelihood of stereotyping, biased evaluations, and attribution errors.¹⁷ To prevent this and improve the pathways to leadership for ATs from racial and ethnic minority groups, organizations at all levels of athletic training should strive to develop clear, objective, and transparent criteria for leadership roles that outline specific qualifications, skills, and deliverables required for appointment and promotion. By setting clear criteria, organizations can limit ambiguity and reduce the influence of biases and stereotypes.

Implicit biases also shape personal representations of what constitutes effective leadership, often excluding racially and ethnically diverse individuals from being viewed as prototypical leaders.¹⁸ These personal representations determine the extent to which an individual accepts and responds to the ideas of others as leaders.¹⁹ The similarity-attraction theory suggests that the more similar 2 people are, the more prone they are to prefer, trust, and accommodate one another.^{20,21} Current leaders may hold implicit biases that lead them to favor colleagues who share similar racial or ethnic backgrounds. These dynamics collectively reinforce the perception and often the reality that race or ethnicity alone can impede one's advancement to leadership roles, creating significant barriers for ATs from racial and ethnic minority groups. To address these biases, organizations should implement diverse interview and selection committees for leadership appointments. Members from varied backgrounds bring different perspectives, which may counteract tendencies like homologous reproduction. Individuals from diverse backgrounds may challenge traditional, often narrow definitions of leadership that disproportionately favor the majority group. This allows for a broader appreciation of leadership styles and qualifications, making the process more inclusive. Having a diverse panel could also signal the organization's commitment to equity and inclusivity, fostering trust among racially and ethnically underrepresented candidates. This can encourage ATs from racial and ethnic minority groups to apply for leadership roles within their organization as well as at state, district, and national levels with confidence in knowing they are less likely to face barriers related to unfair biases during the selection process.

Racial and ethnic minority ATs in this study, particularly African Americans, also reported feeling that their needs were less often met by current athletic training leadership. Previous researchers have found that individuals are more likely to trust and support leaders who share their race, ethnicity, or cultural background.²⁰ This dynamic may explain why White participants in this study felt more understood by predominantly White leadership, while participants from African American, Hispanic, and other racial and ethnic groups felt less supported. Leadership evaluations are often shaped by in-group prototypicality, in which individuals view leaders from their own group as more effective and aligned with their needs.²² This bias is reinforced by historical contexts in which leadership roles have predominantly been held by White individuals, normalizing White leaders as the standard for effective leadership. Consequently, White leaders are more likely to be perceived positively by other White individuals, while racial and ethnic minority individuals may not associate White leaders with

universal leadership traits and feel their unique needs are less understood and addressed.¹⁸ Addressing these divergent perceptions is essential for fostering equity, improving representation, and ensuring leadership pathways are accessible and inclusive for all individuals, regardless of race or ethnicity.

Lastly, it should be acknowledged that racial and ethnic minority individuals often find themselves concentrated in leadership positions with limited opportunities for advancement or that do not fully leverage their skills and potential.¹⁷ In the case of athletic training leadership, this may present as racial and ethnic minority ATs being limited to or concentrated on committees dedicated to DEIA. This systemic steering highlights the urgent need for allyship from White individuals in leadership or other positions of power.²³

Allyship can be broadly defined as the active and consistent practice of leveraging one's privilege to advocate for and support marginalized groups, particularly those historically excluded from positions of power.^{24,25} Within athletic training leadership, allyship requires intentional efforts by advantaged individuals to challenge systemic barriers, confront bias, and create pathways for racial and ethnic minority ATs to access leadership opportunities. Effective allyship demands more than passive support, as it requires accountability, action, and measurable efforts to ensure equity within leadership pipelines.²⁴ To foster equitable opportunities, allies should actively ensure racial and ethnic minority colleagues are considered for high-visibility and decision-making roles. This can help racial and ethnic minority ATs develop essential leadership skills, expand their professional networks, and demonstrate their potential for higher-level leadership roles. Assigning diverse colleagues to projects that challenge their abilities and align with their career goals, rather than limiting them to diversity-related initiatives, can further enhance their preparedness for leadership positions. Allies can also explicitly support and reinforce the contributions of their diverse colleagues, ensuring their ideas are recognized and valued in professional spaces. Beyond mentorship, allies should engage in sponsorship by actively recommending racial and ethnic minority ATs for promotions, high-profile projects, or leadership positions. An effective strategy used in academic medicine is for allies to condition their participation in high-impact committees or panels on the inclusion of diverse colleagues.²³ This approach can reshape leadership norms, making them more inclusive and representative.

Alternatively, racial and ethnic minority ATs may perceive an absence of allyship from their colleagues when they remain silent bystanders; this could contribute to the isolation and exclusion of racial and ethnic minority ATs in leadership and reinforce systemic inequities.²³ In contrast, upstanders committed to proactively engaging in socially mindful interactions create environments where racial and ethnic minority professionals feel supported and empowered.²³

By actively challenging inequities, White allies and other individuals in privileged positions can increase access to leadership roles while benefiting from the diverse perspectives their colleagues bring to the profession. True allyship in athletic training leadership is not just about opening doors and providing access but about ensuring all professionals, regardless of background, have a rightful seat at the table and the opportunity to effectively lead. Publicly advocating for initiatives that support physical and cognitive diversity fosters a

culture of accountability and encourages other leaders to engage in similar allyship behaviors. By implementing these strategies, White allies can actively dismantle systemic barriers, create pathways to equitable opportunities, and contribute to the advancement of racial and ethnic minority ATs in organizational and professional leadership. Ensuring diverse leadership in athletic training is not only a matter of equity but also a strategy for fostering innovation, improving decision-making, and strengthening the profession's adaptability. When leadership reflects the full diversity of its members, the profession benefits from a broader range of perspectives, leading to more effective solutions and responsiveness to evolving challenges. By committing to allyship and structural change, athletic training organizations can cultivate inclusive leadership that drives progress and ensures the profession remains forward-thinking, representative, and prepared to meet the needs of all its members.

Limitations

While we propose this study as the first to investigate leadership aspirations and perceptions of leadership effectiveness along the lines of race and ethnicity, this project is not without limitations. Although the survey was validated by several experienced ATs, the potential for measurement bias always remains. The reviewers' perspectives may not encompass the full diversity of the target population, potentially limiting the inclusivity and comprehensiveness of the survey items. Specifically, we acknowledge the face and content validation panel, which consisted of only woman-identifying individuals, is a limitation of this study. While the selected panelists were highly qualified and provided critical feedback, the absence of male perspectives may have influenced the validation process. Including a gender-diverse panel in future studies could enhance the inclusivity and comprehensiveness of instrument development.

Furthermore, in this study, we used a random sample of ATs who were members of the NATA and a purposeful sample of racial and ethnic minority ATs from the TTT group. While convenience sampling could have introduced potential selection bias, it was a necessary and deliberate strategy to ensure the inclusion of voices often absent from broader, random sampling efforts. By combining data from TTT with responses from the random sample of NATA members, we aimed to balance inclusivity with a broader representation of ATs across the profession. Likewise, participants self-selected into the study by choosing to respond to the survey. This could lead to self-selection bias, in which those with strong opinions or experiences related to the study's focus are more likely to participate, potentially skewing the results we obtained.

Due to small sample sizes for certain racial and ethnic groups, these groups were collapsed into the other category. This could obscure specific experiences and perceptions of these distinct groups, limiting the quality and detail of the study's findings. Also, regarding sample size, the small sample sizes for some racial and ethnic groups might have reduced the statistical power of the analyses, potentially leading to type-II errors, which failed to detect true differences that might have existed. Moreover, a notable limitation of this study is that we did not explicitly assess participants' aspirations for leadership at higher levels, such as district, national, or international roles. While, in

the study, we captured general leadership desire, pursuit, and attainment across racial and ethnic groups, it remains unclear whether racial and ethnic minority AT participants' aspirations extend specifically to these higher-level leadership positions. This omission limits our ability to fully understand the scope of participants' leadership ambitions and whether systemic barriers are perceived or experienced differently at various levels of leadership.

Lastly, the cross-sectional design of the study means that data were collected at a single point in time and about the current leadership of the athletic training profession. This limits the ability to infer causal relationships and to understand how perceptions and experiences might change over time and with new leaders in place.

Future Research Directions

Future researchers should explore aspirations for leadership at district and national levels within the athletic training profession. Investigating the specific goals and preferences of ATs regarding higher-level leadership roles would provide valuable insights into potential systemic barriers and facilitators. Additionally, examining how aspirations for these roles intersect with other variables such as race, ethnicity, age, and career stage could offer a more comprehensive understanding of the pathways to leadership and inform strategies for creating more equitable opportunities at all levels of the profession. Future researchers should investigate strategies for diversifying athletic training leadership by exploring how ATs view leadership opportunities to affect their career growth and trajectory. Understanding the specific barriers and facilitators that influence the pursuit and attainment of leadership positions among diverse groups is critical. Authors of future studies should focus on the perceptions of racial and ethnic minority ATs regarding access to leadership roles, mentorship availability, and the support mechanisms that exist for career advancement.

Moreover, other researchers should examine the benefits of increasing physical and cognitive diversity in leadership, not only for individual career advancement but also for the overall effectiveness and innovation within the profession. Authors of quantitative and qualitative studies that assess the long-term career outcomes of ATs who have engaged in leadership roles could provide valuable insights into the effect of these experiences. Additionally, authors of longitudinal studies conducted by all parties from the Strategic Alliance should track the progress of diversity initiatives within athletic training organizations to help identify best practices and areas for improvement.

By addressing these areas, future researchers can contribute to developing evidence-based strategies that promote a more inclusive and diverse leadership within the athletic training profession. Such efforts are essential for fostering an equitable environment where all members can achieve their full potential and contribute to the advancement of the profession.

CONCLUSIONS

Regardless of race and ethnicity, most ATs aspire to leadership positions and many achieve these roles. However, ATs predominantly serve at departmental or institutional

levels rather than higher ranks within professional organizations. This may highlight the need for more accessible leadership opportunities within the NATA and the greater Athletic Training Strategic Alliance. African American participants overwhelmingly perceived race and ethnicity as an obstacle to attaining leadership positions in athletic training, a sentiment that was not shared by their White counterparts. Likewise, racial and ethnic minority ATs, particularly African Americans, perceived current athletic training leadership as less effective at addressing their needs as ATs. Addressing systemic biases and in-group favoritism is crucial for rectifying perceptions held by racially and ethnically diverse ATs and for improving diverse representation in athletic training leadership, and fostering a more equitable and inclusive professional environment. Intentional strategies, such as diversifying leadership selection processes and fostering allyship from those in positions of power, are critical to continuing to improve pathways to professional leadership for racial and ethnic minority individuals. By ensuring leadership reflects the diversity of the profession, athletic training can better meet the needs of all its members and foster more inclusive and effective leadership.

REFERENCES

1. Carr WD, Hetzler T, Singe SM, Pitney W. Leadership development in athletic training: a qualitative study. *Internet J Allied Health Sci Pract.* 2023;21(3):Article 8. doi:10.46743/1540-580X/2023.2252
2. About. National Athletic Trainers' Association. Published May 15, 2019. Accessed June 9, 2024. <https://www.nata.org/about>
3. Membership statistics. National Athletic Trainers' Association. Accessed January 22, 2024. <https://members.nata.org/members1/documents/membstats/index.cfm>
4. Board of Directors. National Athletic Trainers' Association. Published February 18, 2016. Accessed June 9, 2024. <https://www.nata.org/about/board-directors>
5. Volunteer. National Athletic Trainers' Association. Published August 27, 2015. Accessed June 9, 2024. <https://www.nata.org/membership/get-involved/volunteer>
6. AT Strategic Alliance. Published 2024. Accessed August 6, 2024. <https://www.atstrategicalliance.org>
7. Gündemir S, Dovidio JF, Homan AC, De Dreu CKW. The impact of organizational diversity policies on minority employees' leadership self-perceptions and goals. *J Leadersh Organ Stud.* 2017;24(2):172–188. doi:10.1177/1548051816662615
8. Bright DS, Cortes AH, Hartmann E, et al. *Principles of Management*. OpenStax, Rice University; 2019. <https://openstax.org/details/books/principles-management>
9. Lorenzo R, Voigt N, Tsusaka M, Krentz M, Abouzahr K. How diverse leadership teams boost innovation. Boston Consulting Group. Published January 23, 2018. Accessed June 12, 2024. <https://www.bcg.com/publications/2018/how-diverse-leadership-teams-boost-innovation>
10. Benitez N, Himmons M, Merriman A, Santiago X, Zavala E. Examining ethnic diversity in AT: a critical look & conversation. Presented at: National Athletic Trainers' Association Clinical Symposium & AT Expo; June 22, 2023; Indianapolis, IL.
11. Frey T. Updated guidance on the reporting of race and ethnicity in medical and science journals. *AMWA Journal.* 2023;38(1):36–39. doi:10.55752/amwa.2023.195
12. Horwitz SK, Horwitz IB. The effects of team diversity on team outcomes: a meta-analytic review of team demography. *J Manag.* 2007;33(6):987–1015. doi:10.1177/0149206307308587
13. Kutz MR, Bates TM. The imperative of cognitive diversity in athletic training education: a leadership literacy. *Athl Train Educ J.* 2024;19(2):124–128. doi:10.4085/1947-380x-23-034

14. Laurent TG, Bradney DA. Leadership behaviors of athletic training leaders compared with leaders in other fields. *J Athl Train*. 2007;42(1):120–125.
15. Gündemir S, Dovidio JF, Homan AC, De Dreu CKW. The impact of organizational diversity policies on minority employees' leadership self-perceptions and goals. *J Leadersh Organ Stud*. 2016;24(2):172–188. doi:10.1177/1548051816662615
16. Carton AM, Rosette AS. Explaining bias against Black leaders: integrating theory on information processing and goal-based stereotyping. *Acad Manag J*. 2011;54(6):1141–1158. doi:10.5465/amj.2009.0745
17. Cook A, Glass C. Glass cliffs and organizational saviors: barriers to minority leadership in work organizations? *Soc Probl*. 2013;60(2):168–187. doi:10.1525/sp.2013.60.2.168
18. Adamovic M, Leibbrandt A. Is there a glass ceiling for ethnic minorities to enter leadership positions? Evidence from a field experiment with over 12,000 job applications. *Leadersh Q*. 2023;34(2):101655. doi:10.1016/j.leaqua.2022.101655
19. Eden D, Leviatan U. Implicit leadership theory as a determinant of the factor structure underlying supervisory behavior scales. *J Appl Psychol*. 1975;60(6):736–741. doi:10.1037/0021-9010.60.6.736
20. Byrne D, Baskett GD, Hodges L. Behavioral indicators of interpersonal attraction. *J Appl Soc Psychol*. 1971;1(2):137–149. doi:10.1111/j.1559-1816.1971.tb00358.x
21. Wyatt M, Silvester J. Reflections on the labyrinth: investigating black and minority ethnic leaders' career experiences. *Hum Relat*. 2015;68(8):1243–1269. doi:10.1177/0018726714550890
22. Gündemir S, Homan AC, de Dreu CKW, van Vugt M. Think leader, think White? Capturing and weakening an implicit pro-White leadership bias. *PLoS One*. 2014;9(1):e83915. doi:10.1371/journal.pone.0083915
23. Fritz CDL, Obuobi S, Peek ME, Vela MB. Cultivating anti-racism allies in academic medicine. *Health Equity*. 2023;7(1):218–222. doi:10.1089/heq.2022.0024
24. Pietri ES, Moser CE, Derricks V, Johnson IR. A framework for understanding effective allyship. *Nat Rev Psychol*. 2024;3(10):686–700. doi:10.1038/s44159-024-00359-0
25. Balakrishnan K, Faucett EA, Villwock J, et al. Allyship to advance diversity, equity, and inclusion in otolaryngology: what we can all do. *Curr Otorhinolaryngol Rep*. 2023;11(3):201–214. doi:10.1007/s40136-023-00467-0

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