

Does Diversity Matter?

The Impact of Coaching Staff and Team Diversity on a Team's Win Percentage

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Abstract

The purpose of this study was to examine the impact of diversity on all-female collegiate soccer teams participating in NCAA Division III 2017 soccer season. The null hypothesis of this study was that diversity among both the coaching staff and the team would not have a significant impact upon the team's win percentage. The data analyzed was the racial breakdown of both the coaching staff and players from each program, with the qualification that each team played 18 games during the 2017 soccer season. Data was collected from various athletic team websites and logged on a record sheet as data was collected. The data found that the null hypothesis was confirmed. Research regarding the relationship between diversity and athletic teams should continue to be analyzed and improved upon in future studies to then be applied to intercollegiate teams across the country.

CHAPTER I

INTRODUCTION

The United States of America has recently reopened wounds around racism within our country. Issues of police brutality, racial inequality, and divisive politics have led to strong and emotional conversations about race relations in America. However, interestingly enough, conversations around racism are kept out of the world of athletics. Professional athletes, such as Colin Kaepernick in 2016, have attempted to begin discussions around racial inequalities, but have had little success. And what is even more interesting is that diversity within some athletic teams, such as basketball and football, have remained steady.

Overview

Based on the current status of racial tensions within America, this study will determine whether or not diverse athletic teams and diverse coaching staffs have better win percentages than non-diverse teams. For this study, the null hypothesis is that there is no statistically significant relationship between a team's diversity and a coaching staff's diversity and the program's win percentage. The implications of this research will not only help coaches at the intercollegiate level, but also coaches across all levels of coaching. This will be especially beneficial for those sports which typically are not diverse, such as women's soccer. It will not only theoretically help athletic programs realize important aspects of successful programs, but it could also help create more opportunities for minority athletes across the country.

As a bi-racial athlete who was typically one of a few people of color on a soccer team, this issue is of particular interest to this researcher. Having been a part of winning teams and losing teams, comparing diversity and win percentages is also of importance.

Statement of Problem

The purpose of this study is to determine if there is an impact on the win percentage between diverse athletic teams and diverse coaching staffs and an all-female soccer teams.

Hypothesis

The null hypothesis for this study is that there is no statistically significant relationship between a diverse athletic team and a diverse coaching staff and the team's win percentage.

Operational Definitions

For the purpose of this study, the following operational definitions are defined as such:

Win percentage is defined as a winning percentage over .500 for the season (with a limit of 18 games).

Coaching Staff is defined as a staff comprised of at least a head coach, and, if applicable, assistant coaches.

Athletic Team is defined as a group of female athletes who play intercollegiate soccer for an institution within the National Collegiate Athletic Association (NCAA) at the Division III level.

Diversity is defined as a team's and coaching staff's racial breakdown in terms of percentage.

CHAPTER II

REVIEW OF THE LITERATURE

Race and racism have once again begun to impact America's political, social, and cultural landscapes. Since 2014, how the media has portrayed race in this country has heightened tensions for almost every ethnic and racial group. Yet, one area where the media does not spotlight race is through sports; sports are like an "out of bounds" line for the media. As long as teams are winning games, it does not matter what race the players or coaches are. Therefore, it is interesting to examine whether or not there is a correlation between race and an athletic team's performance.

This literature review looks at the role diversity and race play on an intercollegiate athletic team's success (i.e., win percentage). The literature will be examined around these themes. First, the role of diversity in an intercollegiate setting will be examined. Second, the factors that contribute to athletic success within the intercollegiate setting are investigated. Third, the relationship between diversity and athletic success will be reviewed. Finally, the ways in which to promote diversity within an intercollegiate athletic setting will be examined.

The Role of Diversity in an Intercollegiate Setting

America is becoming an increasingly more diverse country. Particularly within the collegiate setting, legislation, such as affirmative action, has worked to promote racial diversity on college campuses across the nation. However, do students who attend racially diverse colleges receive any type of benefit from doing so? Researcher Peter Hinrichs, in his article *The Effects of Attending a Diverse College*, found that students may receive a few, varied benefits from attending a racially diverse university. He states, for example, that one of the benefits of attending this type of university is correlated with students earning a higher salary upon

graduation than those who do not (2011). In addition to this finding, Hinrichs also found that there is a positive relationship between student population diversity and overall contentment with the racial climate at the college. These findings demonstrate that there are both tangible (e.g. salary) and social benefits for students who attended racially diverse universities.

In addition to the work conducted by Hinrichs, authors Doherty, Fink, Inglis, and Pastore discussed how diversity is impacted by those who have power within organizations in their article *Understanding a Culture of Diversity Through Frameworks of Powers and Change* (2010). While the majority of organizations across the developed world are facing pressures to diversify, so too are sports organizations and institutions. “There is consistent evidence that diversity can positively influence important individual, group, and organizational outcomes” (p. 368). Based on this, one might assume that diversity efforts within sports organizations would increase. While it was found that certain members within sports organizations would like increased diversity within their department because of the perceived benefits of diversity, there are still “restraining forces” that prevent athletic departments from fully realizing a culture of diversity (p. 377).

Not only can gender and racial diversity have positive benefits for sports organizations, but so can diversity from employees’ sexual orientations. In his article, *The LGBT Advantage: Examining the Relationship Among Sexual Orientation Diversity, Diversity Strategy, and Performance*, George B. Cunningham (2011) found that “difference among employees can result in greater decision making and problem-solving capabilities, ultimately leading to performance gains” (p. 458). He found that athletic departments that not only have high levels of sexual orientation diversity, but that also have a positive diversity strategy in place, outperformed other athletics departments. Cunningham concluded that it is important for athletic departments, and

their universities, to effectively recruit and retain a diverse pool of employees in order to achieve peak levels of performance.

While these articles provide more contextual support of the role and benefits of diversity in the intercollegiate setting, they provide insight into how diversity can positively impact a population. It is particularly interesting to see how different types of diversity, such as sexual orientation diversity, affect sports organizations.

Factors that Contribute to Athletic Success within the Intercollegiate Setting

Before analyzing the connection between athletic department diversity and athletic success, it is important to evaluate what other factors may potentially contribute to a team's success, or win percentage. One factor that has been found to contribute to athletic success is personality. Sports psychology researchers Steca, Baretta, Greco, D'Addario, and Monzani investigated what type of personality traits successful athlete possess versus less successful athletes and non-athletes (2017). This is a particularly interesting study in the sense that it attempts to create a stronger association between one's personality traits and their performance in organized sports. Through utilization of the Big Five personality theory, these researchers tested hypotheses related to what specific traits high performance athletes would possess versus low performing athletes and non-athletes. Steca et al. found that "more successful athletes are significantly more agreeable, more conscientious, and more emotionally stable than less successful athletes" (p. 180). Further stated, successful athletes are viewed to have more competition experience, more perseverance in dealing with injuries or any number of obstacles an athlete may face and can manage stress levels more efficiently. Particularly from the perspective of conscientiousness, athletes who display more of this personality trait are believed to have more success outside of athletics as well. While this study does not use one's racial

identity as a qualifying factor for athletic success, it is pertinent in the sense that it describes certain characteristics that do contribute.

In another study performed by Durand-Bush and Salmela (2002) to determine what factors contribute to athletic success, it was found that various factors contributed to one's ability to be successful at the Olympic level. Specifically, from the athlete's perspective, it takes years to master your craft and perform at an elite Olympic level. They found that there are generally four different stages that elite athletes progress through during their careers. The sampling years, the specializing years, investment years, and maintenance years. The sampling years can be best equated to when an athlete is young and is experimental in their sport selection; the young athlete typically participates in various different sports as they work through physical and psychological developmental phases. During the specialization years, which can best be represented when a young athlete reaches adolescence, the athlete begins to invest more time into one sport. Skill development becomes more important at this stage. Following the specialization stage, athletes then progress into the investment stage, during which an athlete has made performance in their sport one of their top priorities in life; they may have even gone as far as to sacrifice other parts of their lifestyle to focus more energy on improving their athletic abilities. Finally, during the maintenance years, athletes have reached the zenith of their careers and work to maintain that level of competition.

The researchers were particularly interested in development that occurs during the investment years, as well as the maintenance years. They found that, during the investment years, athletes are heavily influenced by not only their parents, but also their coaches and potential assistant coaches they may work with. They also performed well in school, displaying characteristics of motivation, confidence, and competitiveness, which then led to success during

both physical and mental trainings that the athletes participated in. During the maintenance years, athletes exhibit many of the same characteristics evident in the investment years, but they also tend to add more. As the researchers state, “Additional strengths included being independent and always striving to learn and improve” which helped them to maintain their high athletic ability (p. 162).

Most importantly, athletes who were successful during the investment years and maintenance years had similar personal characteristics, but also had very good coaches. Within this context, coaches appear to determine the level of success a team will achieve. As Durand-Bush and Salmela (2002) state:

members of successful teams had coaches who instilled confidence and trust, and coped well with crisis situations. On the other hand, members of less successful teams had coaches who failed to develop trust and effective communication, and were not consistent in their behaviors, particularly in pressure situations. (p. 165)

This is particularly important within the context of the present study because it identifies coaches as individuals who can almost single-handedly determine the level of success a team may or may not achieve.

Relationship between Diversity and Athletic Success

In addition to analyzing the effects of diversity and the characteristics of successful athletes and athletic teams, it is important to analyze past literature regarding the relationship between diversity and athletic success. Cunningham (2009) worked to analyze that relationship in his article, *The Moderating Effect of Diversity Strategy on the Relationship Between Racial Diversity and Organizational Performance*. Within this work, the author analyzed 75 different NCAA athletic departments and found that racial diversity had a positive impact upon the

department's overall performance. He stated that the "increases in a coaching staff's racial and tenure diversity resulted in greater performance for that team" (p. 1445). It is important to note that increased diversity within an athletic department can have positive effects, so long as there are effective diversity-management strategies in place.

With the prerequisite of an effective diversity-management strategy in place, Cunningham (2009) found that organizations that hire diverse employees are able to reap the benefits that diversity brings, such as creative problem-solving. The biggest takeaway from this work is that an organization can reach high levels of performance when diversity is ingrained into the mission of the organization, when diverse individuals hold positions of power, and when diversity is something that is welcomed and celebrated at all levels of the department or institution.

Cunningham's study relates to a specific course of research which supports the notion that increased racial diversity will improve athletic success. However, the qualification he presents creates barriers for how useful diversity can be to an athletic department; if an athletic department is not committed to promoting diversity and does not have the proper systems in place, then increased diversity may have negative effects on the department's ability to perform. This is important criteria to consider when evaluating the relationship between race and a team's success.

Moving forward from the institutional level of analysis Cunningham (2009) presented, a micro-level analysis is also important when evaluating the relationship between diversity and athletic success. In another work, entitled *Examining the Relationships Among Coping with Change, Demographic Dissimilarity and Championing Behaviour*, by Cunningham (2006), which focused on a micro-level analysis to assess the relationship between "demographic

dissimilarity” (i.e. racial minorities) and “championing behavior” (p. 253), the study held significant value for the present study because it shed insight into how those in a racial minority group may respond to difficult situations. As stated in Cunningham’s work, “the effects of being demographically dissimilar from others in a social unit are considerable, as research has shown that such differences are related to lower perceptions of organizational justice, less job satisfaction, lower commitment, and greater turnover” (p. 256). This is due to the fact that these individuals may face more stress from their social situation.

In the context of championing behavior, Cunningham states that it “is the highest form of discretionary behavior and is also considered the most effective change-related behavior” (p. 255); individuals who exhibit this behavior are able to cope with changes more effectively and are more inclined to help the organization bring about change as well.

Cunningham (2006) found that individuals who were demographically dissimilar from the majority, but were able to effectively cope with organizational change “were more likely to champion the change than their counterparts within the department” (p. 264). Therefore, this work further explains a team’s success, or lack thereof, if there is a micro-level analysis of how individuals perceive themselves within the organizational structure and how they cope with change the organization attempts to implement. If individuals who are classified as the racial minority within an athletic department are unable to efficiently cope with this type of situation, then they will have a difficult time becoming an integral part of the organization, and might not be successful.

Ways to Promote Diversity within an Intercollegiate Athletic Setting

In a recent evaluation of the NCAA and its member institutions, there are promising signs of progress towards more inclusive athletic departments. *The 2016 Racial and Gender Report*

Card: College Sport by Lapchick, Marfatia, Bloom, and Sylverain provides insight into the racial and gender breakdowns of each division of the NCAA through various categories. In examining the categories relevant to this research, Lapchick et al. (2016) stated that across all divisions of the NCAA, some of the male athlete breakdown was sixty-five percent white, seventeen percent African-American, and ten percent two or more races. Some of the female student-athlete breakdown across all divisions was seventy-three percent white, nine percent African-American, and 10 percent two or more races.

In terms of coaching diversity, Caucasians hold a large majority of head coaching positions across all divisions for both men's and women's teams. African-Americans hold the next largest percentage of head coaching positions, at less than 8% at each division.

Based on this evidence, it is evident that NCAA member institutions have much work to do to increase athletic department diversity. In the article *Understanding the Under-Representation of African American Coaches: A Multilevel Perspective*, Cunningham (2010) worked to explain some of the reasons why there is a significant under-representation of African American coaches within the NCAA. From a broad level of analysis, he found that the institutional and political climates, as well as stakeholder expectations, all play a role in whether or not an African American coach is hired. He states that these factors are influenced by social factors and by the institution's commitment to attaining athletic success.

At the institutional level of Cunningham's analysis, he stated that racial discrimination and prejudice are the most common reasons why African American coaches are under-represented in the NCAA (2010). Prejudice in this context is what Cunningham refers to as "aversive racists" (p. 399). These kinds of racists are those who are not overtly discriminatory to racial minorities, but they seek to avoid interactions with them. Therefore, they will most likely

discriminate against racial minorities when “the normative structure is weak, when there are vague guidelines for the appropriate course of action, and when a negative response can be attributed to a factor other than race” (p. 399). This is then promoted through organizational culture. An organization’s culture will determine how the institution regards diversity initiatives and inclusion of other races. Therefore, if an organization does not openly promote diversity initiatives, it is less likely that racial minorities will be hired for head coaching positions.

Finally, at this micro-level of analysis, Cunningham (2010) suggests that because individuals have certain perceptions of themselves based on their social interactions, they may be dissuaded from pursuing certain career paths. All of these levels of analysis constantly influence one another and, ultimately, present barriers to African Americans who seek careers within intercollegiate athletics.

How to Increase Diversity

Moving forward to discuss ways to increase diversity within athletic departments, in the article, *Creating and Sustaining Gender Diversity in Sport Organizations*, Cunningham (2008) suggests that there are four main components necessary to increase diversity within sports organizations. Cunningham states the implementation of change teams, education for employees, support from top members of management, and systemic integration are all necessary steps to achieve and sustain organizational diversity. Change teams can assist the organization with the transition towards a more diverse workforce by not only setting an example for the department, but also through educational efforts. These teams can also work to mobilize support for the effort within the department and throughout the institution.

Within these change teams, educational efforts can help ease concerns about increasing diversity within a department. Cunningham (2008) states that “it is imperative for managers to

inform people *what* the change means for them and *why* it is taking place” (p. 141). In doing so, managers and leaders can help others buy into the idea of increased diversity and demonstrate how that will benefit everyone in the long run.

Support from top leaders within the institution is also important as those who observe will help guide other’s thoughts and behaviors toward the change. If the leader is displaying positive thoughts towards the change, then those who wish to align with that leader will also begin to think the same way (Cunningham, 2008).

Finally, systemic integration refers to the idea that diversity efforts need to be integrated into the broader institutional mission. If the change is only made in one department, then it will be difficult to sustain the culture of the rest of the organization (Cunningham, 2008). Change in one part of the organization necessitates change in all parts of the organization.

Additionally, work done by authors Borland and Bruening provides insight into how individuals can break down potential barriers to improve the chances of African American females earning head coaching positions, particularly within the field of women’s basketball (2010). Through their research, they found that several steps can be taken to help prospective female basketball coaches at the individual level earn head coaching positions. Aside from the implementation of institutional diversity strategies, Borland and Bruening advocate for the use of developmental programs. These developmental programs, specifically the Women’s Basketball Coaches Association (WBCA) and the Black Coaches and Administrators (BCA) “both offer workshops to assist black females to either get into coaching or develop their coaching skill” (p. 415). These types of non-institutionalized programs can assist African American females not only in an environment that is free of discrimination, but can also be a resource for them to network and meet others in the field. This is important, as the research pointed out, because

networking, both within and outside of one's institution, can help break down certain barriers that may prevent them from advancing in their careers.

Summary

Diversity is a controversial topic within American culture, and intercollegiate athletics are a popular staple within our culture as well. The examination of the impact of diversity upon intercollegiate athletics allows for new insight into how teams can better perform. Even though diversity is not the only contributing factor to a team's success, it arguably has a positive effect on a team. By implementing strategies to actively promote diversity within intercollegiate athletic environments, teams and athletic departments are perhaps more successful than their counterparts who do not utilize such measures.

CHAPTER III

METHODS

This study examined and compared the relationship between the diversity of a NCAA all-female soccer coaching staff, the diversity of an NCAA Women's soccer team, and the win percentage of that specific program. The information gathered for this study was collected through records and rosters listed on each program's respective athletic website. Additionally, this study utilized information from the Fall 2017 playing season.

Design

This study utilized a causal-comparative design. The independent variables of the study were the diversity breakdown of both the coaching staff, as well as the diversity breakdown of the players on the soccer team. The dependent variable was the win percentage of the program during the Fall 2017 season.

Participants

Participants for this study were selected based on the following criteria: participation in a NCAA Division III women's soccer program, dedicated playing time of 18 games during the 2017 season, and whether the collection of data was accessible from the team's athletics website. All players were female and ages ranged from 17-22. The coaching staffs were comprised of both men and women, ages 23 and above. A majority of the teams selected for analysis are located on the east coast of the United States, with some southern and western representation as well.

Instrument

This study required a data recording record sheet as data were gathered from the various athletic websites for each program. Information gathered from each site was the diversity

classification of each coach and player, as well as information about the team's win-loss percentage.

Procedure

The following procedure was followed to properly collect data for this study. First, the researcher identified NCAA Division III women's soccer programs across the country. Second, each program's athletic website was assessed to determine the soccer team's eligibility for the study based on the amount of games played during the 2017 season. 25 randomly selected, eligible teams were selected for this study to ensure that various demographics and geographical areas were represented. Third, if a program was eligible for participation in the study, data regarding the coaching staff diversity breakdown, player diversity breakdown, and the team's win percentage was collected. Once all data was collected, the diversity breakdowns were compared against the team's win percentage.

NCAA Division III institutions were chosen because of their higher number of institutions compared to NCAA Division I and NCAA Division II institutions. Therefore, the prevalence of NCAA Division III institutions across the United States provided a high number of potential participants for this study.

CHAPTER IV

RESULTS

This study examines the impact of the diversity of an all-female soccer team’s coaching staff and the diversity of the players’ on the win/loss percentage of the team. The data gathered included: the coaching staff diversity, the diversity of players on the team, and each respective team’s win percentage.

Data for diversity and for wins were changed to percentages to make the statistical analysis possible. A linear multiple regression analysis was run to determine if either or both diversity in coaching or in team impacted the win/loss percentage. There was no statistically significant finding for either variable. Descriptive statistics for the variables are displayed in Table 1. Table 2 displays the results of the Analysis of Variance results for the regression analysis. Those results were not significant and therefore the multiple regression yielded no significant findings on either diversity variable impacting the win/loss percentage or a combination of the diversity variables impacting the win/loss percentage.

Table 1:

NCAA Division III Women’s Soccer Data.

Team	Coaching Staff Racial Diversity	Team Racial Diversity	Win Percentage	Total Games
Goucher College	4/4 = 100% white	17/25 = 68% white 8/25 = 32% nonwhite	7-9-2 = 44%	18
Williams College	3/3 white = 100%	15/28 white = 53% 13/28 nonwhite = 47%	16-1-1 = 88%	18
UT Dallas	6/6 white = 100%	32/35 white = 91% 3/35 nonwhite = 9%	15-3 = 83%	18
University of Chicago	2/2 white = 100%	21/28 white = 75% 7/28 nonwhite = 25%	17-1 = 94%	18
Claremont McKenna	2/2 white = 100%	24/28 white = 86% 4/28 nonwhite =	6-7-5 = 47%	18

		14%		
Whittier College	3/4 white = 75% 1/4 nonwhite = 25%	14/25 white = 56% 11/25 nonwhite = 44%	10-8 = 55%	18
Drew University	2/3 white = 67% 1/3 nonwhite = 33%	28/30 white = 93% 2/30 nonwhite = 7%	7-10-1 = 42%	18
Wellesley College	3/3 white = 100%	12/19 white = 63% 7/19 nonwhite = 37%	6-8-4 = 44%	18
Albright College	2/5 white = 40% 3/5 nonwhite = 60%	17/21 white = 81% 4/21 nonwhite = 19%	10-7-1 = 55%	18
Thiel College	1/1 white = 100%	17/21 white = 81% 4/21 nonwhite = 19%	3-15 = 17%	18
Washington & Jefferson College	2/2 white = 100%	23/25 white = 92% 2/25 nonwhite = 8%	12-5-1 = 67%	18
Eastern University	3/3 white = 100%	26/27 white = 96% 1/27 nonwhite = 4%	7-7-4 = 39%	18
Rhode Island College	1/2 white = 50% 1/2 nonwhite = 50%	21/23 white = 91% 2/23 nonwhite = 9%	5-12-1 = 28%	18
Greensboro College	1/3 white = 33% 2/3 nonwhite = 67%	29/30 white = 97% 1/30 nonwhite = 3%	16-2 = 89%	18
Case Western Reserve University	4/4 white = 100%	23/27 white = 85% 4/27 nonwhite = 15%	7-11 = 39%	18
Lynchburg College	5/5 white = 100%	30/32 white = 94% 2/32 nonwhite = 6%	15-3 = 83%	18
Kean University	4/5 white = 80% 1/5 nonwhite = 20%	23/27 white = 85% 4/27 nonwhite = 15%	11-6-1 = 61%	18
William Paterson University	4/4 white = 100%	17/22 white = 77% 5/22 nonwhite = 23%	9-8-1 = 50%	18
Alfred University	4/4 white = 100%	18/18 white = 100%	7-8-3 = 39%	18
New York University	2/3 white = 67% 1/3 nonwhite = 33%	22/28 white = 79% 6/28 nonwhite = 21%	10-5-3 = 56%	18
Keene State College	3/3 white = 100%	29/31 white = 94% 2/31 nonwhite =	10-7-1 = 55%	18

		6%		
Emory University	3/3 white = 100%	23/29 white = 79% 6/29 nonwhite = 21%	10-7-1 = 55%	18
Simpson College	5/5 white = 100%	25/27 white = 93% 2/27 nonwhite = 7%	4-14 = 22%	18
Carthage College	2/2 white = 100%	25/28 white = 89% 3/28 nonwhite = 11%	10-7-1 = 55%	18
Wisconsin Lutheran College	3/3 white = 100%	19/20 white = 95% 1/20 nonwhite = 5%	4-14 = 22%	18

Table 2:

Descriptive Statistics

	Mean	Std. Deviation	N
Win % age for SPSS	53.16%	21.46%	25
Coaching Staff % age Diversity for SPSS	11.52%	20.89%	25
Team %age Diversity for SPSS	16.28%	12.72%	25

Table 3:

Analysis of Variance Results for the Multiple Regression Analysis

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	590.291	2	295.146	.621	.547 ^b
	Residual	10459.069	22	475.412		
	Total	11049.360	24			

a. Dependent Variable: Win % age for SPSS

b. Predictors: (Constant), Team %age Diversity for SPSS, Coaching Staff %age Diversity for SPSS and $p > .05$ and thus not significant.

These results were found to be insignificant ($p > .05$). There is no significant impact between a team's racial diversity, the coaching staff's racial diversity, and a team's win percentage. However, it is worth noting that the team with the most diversity, Williams College, had the third highest win percentage of teams analyzed and this program won the NCAA Division III Women's Soccer National Championship. Therefore, even though there is no significant direct impact of diversity upon a team's win percentage, this researcher believes it to be an important piece of the complex puzzle that coaches and administrators should look to balance when recruiting players for their programs.

CHAPTER V

DISCUSSION

For this study, the null hypothesis, that there is no statistically significant impact between a women's soccer coaching staff's diversity, the team's diversity, and a team's win percentage, was supported.

Implications of Results

This study examines the impact of the diversity of a women's soccer team's coaching staff, and the diversity of the players' impact on the win/loss percentage of the team. Data analysis conducted in Chapter IV indicated that there were no statistically significant impacts of either coaching or team diversity in the win/loss percentages. Implications of these results demonstrate that while there was no direct impact found between diversity and an all-female soccer team's win percentage, diversity is still an important component of successful teams. Coaches and administrators should, therefore, evaluate how diversity efforts can be implemented within their respective programs to enhance the success of their programs.

Threats to Validity

All studies suffer from threats to validity; in particular, there are threats to external and internal validity. External validity can include concepts of content-related evidence of validity, which focuses on the sampling strategy, the adequacy of the sampling, and how that strategy impacts the generalizability of the study. Whereas, internal validity deals with the type of research design and the threats to that design.

In terms of threats to external validity of this study, there were a few threats based on the sampling strategy and adequacy of the sample size. First, the data analyzed only came from the Fall 2017 soccer season and only came from all-female teams. Second, the sample size of 25

randomly selected teams limited the amount of data available for analysis. By only selecting 25 out of hundreds of NCAA Division III Women's soccer programs, the applicability of the study to soccer programs is limited. Third, the geographical locations of most of the programs analyzed may have impacted the diversity of each team because of issues such as racial diversity within the surrounding communities. This issue can be rectified in the future by using a more proportional sample size to the amount of NCAA Division III women's soccer teams.

Due to the research design and scope of the data collected, there were a few internal threats to validity within this research. Threats to internal validity include the selection method used, as well as the correctness of the design itself. First, only using pictures of players and coaches to determine their races, rather than a demographics survey, is a threat to validity as pictures are not always accurate when trying to determine one's race. While it made information more accessible, utilizing pictures to determine the race of each player and coach created a larger chance of error when collecting the data. Additionally, limiting participants to teams who have played 18 games limited the scope of analysis, especially since team rosters and dynamics are changing from year to year. Therefore, this study was extremely general in its data collection and analysis. If this study were to be conducted again in the future, it would be more beneficial to analyze more teams across multiple seasons, as well as utilize a demographics survey to ensure higher reliability when collecting data.

Relationship of This Study to Previous Research

Prior to this study, other researchers have conducted work to evaluate the effects of diversity within collegiate and sports organizations. While research conducted by Hinrichs (2011) and Cunningham (2009) demonstrated that diversity within organizations and communities increases the benefits for members within that community or team, there is still little effort to

diversify, as noted by authors Doherty, Fink, Inglis, and Pastore (2010). For example, Cunningham stated that “increases in a coaching staff’s racial and tenure diversity resulted in greater performance for that team” (p. 1445). However, due to a lack of systematic policies in place to help promote diversity, most NCAA athletic departments are not reaching their potential in this area. This finding is strengthened by the results found in this research, as there is no statistically significant relationship between a program’s diversity and their win percentage.

Implications for Future Research

Due to the importance of the work, future research should consider gathering a larger amount of teams from a longer period of time. This will allow for a greater analysis and could show trends that align with political and social issues within America could be present. An ideal sample size for this type of research would be fifty to one hundred participants. This would make it easier to determine whether or not there is a statistical significance.

Moving forward, it may also be beneficial to collect data from NCAA Division I and Division II women’s soccer programs as well. Due to the difference in competitiveness across the divisions, it could be interesting to see if diversity plays a larger role in more competitive divisions.

Conclusion

Although many factors contribute to a soccer team’s success, the results of this study supported the null hypothesis and the findings were statistically insignificant, meaning diversity within programs is not a major factor. While there is theoretical support for promoting diversity within collegiate athletic environments, this study suffered from both internal and external threats to validity. Future research should focus on creating a larger sample size across multiple seasons and even across different levels of play to incorporate more competitive teams.

Hopefully, more in-depth research can begin to demonstrate support for the theoretical findings discussed in Chapter II and help elevate diversity across all intercollegiate sports.

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