Analysis of Homologous Reproduction in Community College Athletics

Abstract The purpose of this study was to examine the presence of homologous reproduction in the community college context. The authors analyzed the gender of the athletic director, women's basketball head coach, softball head coach, and volleyball head coach at 611 community colleges. Results indicate that most athletic directors (82.7%) were men. Chi-square analysis indicated that the gender of the athletic director was statistically associated with the gender of the head coach for both women's basketball and softball, as well as the likelihood of homogeneous staffs (i.e., the three head coaches all being either female or male). Results are discussed in terms of implications for practice.

Women have made significant strides over the past two decades by advancing in upper echelons of workplace administration, but despite these gains, they are still underrepresented in key leadership in sport organizations (Acosta & Carpenter, 2010; Cunningham & Sagas, 2008; Shaw & Frisby, 2006). Women's underrepresentation is especially highlighted when examining leadership positions at National Collegiate Athletic Association (NCAA) membership institutions. For example, Acosta and Carpenter (2010) reported that women constitute only 42.6% of head coaches of women's teams and less than 3% of men's teams. Only 19.1% of all athletic directors are women. A similar trend of truncated opportunities is observed at the interscholastic level, where men hold 82% of athletic director positions (Whisenant, 2008). These numbers demonstrate that women are underrepresented as leaders in athletics within the educational setting and that the pattern is widespread, suggesting it is institutionalized in nature (see also Cunningham, 2008).

Hegemonic masculinity, defined by Connell and Messerschmidt (2005) as a pattern of continued dominance over women by men, has been offered as one approach to explaining unequal power. Under a hegemonic masculine structure, women are refused access to particular societal institutions, including sport (Pedersen, Whisenant & Schneider, 2003). In sport, as in the larger society, a system exists which supports a dominant group ideology that places men in control of key areas such as economics, politics, and culture (Schell & Rodriguez, 2002). Sage (1998) contends hegemonic masculinity is played out in sports more so than any other social institution: when the
organizational structure is accepted, men continue to hold important leadership positions, and thus continue to be sheltered by the “ideology” that this is the natural way things are done. Although laws and policies allow women equal opportunity in sport participation (e.g., Title IX), none give women equal access to lead such programs. This may be the case because of the promulgation of masculinity as the defining characteristic within society that places women in a lower social standing (Whisenant, Pedersen, & Obenour, 2002). Because women are extremely underrepresented as athletic leaders, the imbalance may very well be consent of the status quo and the taken-for-granted nature of sport as a male domain.

Whereas hegemonic masculinity serves as one explanation why men hold an inordinate number of leadership roles, there are additional, oftentimes complementary, paths to investigating and understanding the preservation of this inequality. One direction has been the exploration of homologous reproduction (Kanter, 1977). According to Kanter, those with hiring power will reproduce themselves by promoting (or hiring) individuals similar to themselves physically and/or socially (i.e., homologous reproduction). The fact that males dominate athletic leadership positions in intercollegiate and interscholastic athletics, and athletic leaders are largely responsible for hiring subordinate leaders (e.g., sports information director, head coach, assistant coach), could explain, at least partially, why women are underrepresented in such jobs. Indeed, researchers have observed this pattern in both intercollegiate (Sagas, Cunningham, & Teed, 2006; Stahura & Greenwood, 2001; Whisenant & Mullaney, 2007) and interscholastic (Lovett & Lowry, 1994; Stangl & Kane, 1991) athletic departments. Curiously, similar examination of two-year colleges has not been endeavored. As such, the purpose of this study is to examine homologous reproduction at the community college level (two-year institutions) by exploring if athletic director gender is related to head coach gender in the three most popular women’s team sports: softball, basketball, and volleyball.

Theoretical Framework

Kanter (1977) characterized homologous reproduction as the process whereby those with hiring power tend to reproduce themselves by hiring individuals who are similar to themselves physically and/or socially. In arguing for the primacy of structural determinants (i.e., the structure of the workplace) in shaping employee behavior, Kanter suggested that opportunity, power, and proportion all exert considerable influence in the workplace. Specifically, homologous reproduction theorizes that women and men experience the interaction of the three structural determinants differently, and may explain the differences in behavior between the genders. Consider, for instance, that in most organizational settings, including sport, women face limited opportunity, men remain in power, and they continually reproduce themselves. Because men dominate leadership positions in athletics more than any other business setting, this reality may very well be maintained through the practice of homologous reproduction. While the underlying dynamics differ, these outcomes (i.e., the reproduction of similar others) is consistent with other frameworks as well (Byrne, 1971; Tajfel & Turner, 1979).

Knoppers (1987) was the first to apply Kanter’s (1977) concept of homologous reproduction to sport, exploring the effects the three structural components had on women in coaching. In her attempt to better explain the skewed gender ratio in the coaching profession, Knoppers explored the research of women in the athletic administration setting. She concluded that opportunity, power, and proportion served as barriers to women in the coaching profession from the beginning of the hiring process and continue throughout employment. Knoppers contends that the issues women face range from sex discrimination, sexual harassment, time constraints due to multiple responsibilities (e.g., coaching and family-related duties), and the lack of feedback from higher management. All of these factors lead to limited opportunity, and with limited opportunity comes limited power. Restricted power is particularly problematic for women because it impedes their effectiveness in supporting and advancing themselves, their employees, their athletes, and the organization. For example, access to mentors is limited, decisions need final approval, negotiating subordinate salaries is not possible, and influencing organizational policy is off limits (Knoppers). Continuing to limit women’s opportunity, and thus power, suppresses their organizational proportions. As long as men remain in a dominant proportionate role, they will continue to reproduce themselves and thus remain in power. It is a self-reinforcing cycle. Women’s representation in coaching can be increased as they gain institutional power, consequently enhancing their decision-making roles.

Following Knoppers’ (1987) initial investigation of the literature on women in athletic administration, others have followed with the analysis of homologous reproduction in the formal athletic setting. Within interscholastic athletics, for example, Stangl and Kane (1991) sought to determine if there was a relationship between the athletic director’s gender and the proportion of male-to-female head coaches, and if this association was influenced by the passage and implementation of Title IX. While the passage of Title IX showed a dramatic increase in the number of girls’ sports offered, the number of women coaching those sports decreased remarkably. Despite the decrease in women coaches, male and female athletic directors were shown to reproduce themselves by hiring more male and female head coaches, respectively. Lovett and Lowry (1994) expanded on the research of Stangl and Kane by including the gender of the principal in the investigation.
the authors found that men continue to dominate principal, athletic director, and head coaching positions, findings also confirmed a significant athletic director-head coach gender relationship. Subsequent research has generally supported this trend (Whisenant, 2008; but see also Mullane & Whisenant, 2007; Whisenant, Vincent, Pedersen, & Zapalac, 2007).

Gendered hiring practices research was not limited to interscholastic athletics. For example, Stahura and Greenwood (2001), while examining intercollegiate athletics in Division I and II universities, discovered the practice of homologous reproduction was evident. Not only was there an illustration of a significant gender relationship established between the athletic director and head coaches in women's athletics, but the division in which the institutions competed was also influential. Whisenant and Mullane (2007) expanded on the intercollegiate athletic research by examining the athletic director-sport information director gender relationship. Their research centered on NCAA membership institutions. Although women represented only 20% of athletic director and 12% of sport information director positions, results showed the gender of the athletic director did influence the gender of the sport information director. Sagas et al. (2006) also found that the gender of the head coach influenced the gender of the assistant coach in NCAA soccer and softball teams.

While the aforementioned studies have documented the occurrence of homologous reproduction in interscholastic and major college sport settings, research examining this trend among community colleges is lacking. Because community colleges serve as a link to four-year collegiate institutions for many high school student-athletes, understanding patterns at this level gives a wider, more complete perspective of hiring practices. Furthermore, because this arena has been ignored, it cannot be determined if community colleges replicate or are more progressive than both interscholastic and intercollegiate athletic settings. For instance, if discriminatory hiring practices are found to be present in community colleges and men dominate athletic leadership positions, then this knowledge sheds light on a larger problem needing much attention. However, it is possible that homologous reproduction is not observed in this context, and therefore, community colleges may very well serve as a model for both high school and four-year college athletic departments to follow.

In the current study, we examined the three most popular sports—softball, basketball, and volleyball—and whether the athletic director's gender influenced the head coach's gender on those teams. Based on Kanter's (1977) theorizing and the empirical research previously outlined, we expected that the gender of the athletic director will be predictive of the head coach's gender on women's basketball (Hypothesis 1), softball (Hypothesis 2), and volleyball (Hypothesis 3) teams, such that male athletic directors will employ a higher proportion of male head coaches and female athletic directors will employ a higher proportion of female head coaches.

### Table 1. Frequency Distributions

<table>
<thead>
<tr>
<th>Position</th>
<th>Women</th>
<th>Men</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Athletic director</td>
<td>74</td>
<td>17.3</td>
<td>353</td>
</tr>
<tr>
<td>Women's basketball</td>
<td>232</td>
<td>61.9</td>
<td>143</td>
</tr>
<tr>
<td>Softball</td>
<td>136</td>
<td>42.5</td>
<td>184</td>
</tr>
<tr>
<td>Volleyball</td>
<td>167</td>
<td>56.8</td>
<td>127</td>
</tr>
</tbody>
</table>

### Method

#### Data Source

The primary variables for the present study were the gender of the athletic director and the gender of the women's basketball, softball, and volleyball head coaches from two-year community colleges across the United States. Similar to Sagas et al. (2006), the data were collected from the United States Department of Education (USDOE) website. The USDOE website was utilized to gather the total number and names of the community colleges across the United States that have athletic programs. This source was also utilized to obtain the gender of the athletic directors and head coaches under the various women's sports in the present study at each college. The USDOE website proves useful because of its break-down of each sport's coaching staff genders within each college's athletic program. Using this website increases the reliability of the data, as researchers do not have to sift through each school's website to determine gender by picture or first name, and it also increases reliability if there were no picture present. However, as demographic information about the athletic director's gender is not available, we had to make an estimation based on the person's first name. If this information proved ambiguous, we consulted the school's website to view a picture of the individual. If there were no picture present, or the athletic director's gender still could not be determined, the school was eliminated from the study. Moreover, any school not having at least one of the three sports represented in the current study was also removed. The final sample selected for examination was 427, or 69.8% of all community colleges (n = 611).

### Results

Descriptive statistics are presented in Table 1. Results indicate that men hold a strong majority (82.7%) of the athletic director positions. On the other hand, representation of women and men as coaches was scattered, as men represent the majority of the softball coaches (57.5%) while women represent a majority of the women's basketball (61.9%) and volleyball (56.8%) coaches.
Table 2. Gender Differences in Coaching Representation based on Athletic Director Gender

<table>
<thead>
<tr>
<th>Sport</th>
<th>Female AD</th>
<th>Male AD</th>
<th>Female AD</th>
<th>Male AD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Coach N</td>
<td>%</td>
<td>Coach N</td>
<td>%</td>
</tr>
<tr>
<td>Women's basketball</td>
<td>34</td>
<td>51.5</td>
<td>32</td>
<td>48.5</td>
</tr>
<tr>
<td>Softball</td>
<td>34</td>
<td>61.8</td>
<td>21</td>
<td>38.2</td>
</tr>
<tr>
<td>Volleyball</td>
<td>23</td>
<td>46.9</td>
<td>26</td>
<td>53.1</td>
</tr>
</tbody>
</table>

We used chi square analysis to examine hypotheses, and frequency distributions are presented in Table 2. Hypothesis 1 predicted that the gender of the athletic director would be predictive of the women's basketball head coach's gender. Results of the chi square support this prediction: $\chi^2 (n = 375, df = 1) = 6.08, p = .01$. When the athletic director was a woman, there were an approximately equal proportion of female and male head coaches (51.5% and 48.5%, respectively); however, when the athletic director was a man, men were more likely to hold the women's basketball head coaching position (64.7%) than were women (35.3%).

Hypothesis 2 predicted that the gender of the athletic director would be predictive of the softball head coach’s gender. The chi square analysis supported this prediction: $\chi^2 (n = 320, df = 1) = 10.14, p = .001$. Male athletic directors were more likely to have a male head softball coach (61.5%) than they were to have a female (38.5%), just as female athletic directors were more likely to have a female head coach (61.8%) than they were to have a male (38.2%).

With our final hypothesis, we predicted that the gender of the athletic director would be predictive of the volleyball head coach’s gender. This hypothesis was not supported: $\chi^2 (n = 294, df = 1) = 2.33, p = .13$. Female and male athletic directors were equally likely to employ female (46.9% and 58.8%, respectively) and male (53.1% and 41.2%, respectively) head volleyball coaches.

Supplementary analysis

In addition to testing the hypotheses, we also conducted a supplementary analysis. The data indicated that, in a substantial proportion of athletic departments ($n = 64$), the head coaches for the sports analyzed were either all-female (39.1%) or all-male (60.9%). We computed an additional chi-square analysis to determine if these proportions differed based on the gender of the athletic director. Results indicated that such was the case: $\chi^2 (n = 64, df = 1) = 4.73, p = .03$. As seen in Table 3, female athletic directors were more likely to have all women coaching those sports (66.7%), just as male athletic directors were more likely to have all men coaching the sports (67.3%).

Table 3. Proportion of All-Female or All-Male Head Coaches in Women’s Basketball, Softball, and Volleyball

<table>
<thead>
<tr>
<th>Staff Characteristics</th>
<th>Female Athletic Director</th>
<th>Male Athletic Director</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>All-female coaching staff</td>
<td>8</td>
<td>66.7</td>
<td>17</td>
</tr>
<tr>
<td>All-male coaching staff</td>
<td>4</td>
<td>33.3</td>
<td>35</td>
</tr>
</tbody>
</table>

Discussion

The purpose of this study was to examine homologous reproduction at the community college level (two-year institutions) by exploring if athletic director gender is related to head coach gender in the three most popular women’s team sports: softball, basketball, and volleyball. Our findings suggest that, while not necessarily consistent across all contexts, homologous reproduction was largely observed at the community college level. Specifically, athletic directors were likely to have a head coach who matched their gender in both women’s basketball (hypothesis 1) and softball (hypothesis 2). Furthermore, examination of the homologous staffs (i.e., where the head coaches of the three sports were all-female or all-male) revealed that female athletic directors were more likely to have all-female staffs while males were more likely to have all-male staffs.

These findings are consistent with Kanter’s (1977) theory, such that persons with hiring power reproduce themselves by hiring individuals who are similar to themselves physically or socially. Our results also mirror what other researchers have observed in their examinations of both interscholastic athletics (Lovett & Lowry, 1994; Stangl & Kane, 1991) and four-year colleges and universities (Sagast et al., 2006; Strahura & Greenwood, 2001; Whisenant & Mullaney, 2007). Interestingly, the majority of these data suggest that both women and men are likely to hire head coaches who are similar to them demographically. Thus, it is not simply those who have traditionally held power (i.e., men) who reproduce themselves, but all persons who engage in these practices. Indeed, others (e.g., Cunningham & Sagas, 2005) have observed this with different demographic characteristics, such as race.

While the preponderance of evidence points to homologous reproduction, there are some exceptions (e.g., Whisenant et al., 2007). In this study, for instance, we did not observe the expected findings in women’s volleyball (hypothesis 3), as the sex of the head coach did not vary based on the sex of the athletic director. Future research is needed to better understand why gender-similarity effects were not observed in this context.

Our findings also have the potential to influence policy. If people are likely
to hire those similar to the self, then one way to elevate the proportion of women coaching women’s teams is to increase the proportion of women serving as athletic director. That is, women represent just 17.3% of athletic directors in our sample, but as their proportion increases, so too should the proportion of female coaches. We recognize, however, the possible limitations with the hope for structural changes (see Shaw & Frisby, 2006), and as such, as another alternative, we advocate for alerting people of and training them to alleviate these biases in the selection process. Recognition of personal biases, whether they are explicit or implicit, can help people to take corrective actions and reduce the incidence of their discriminatory behaviors (for an overview, see Kulik & Roberson, 2008; Wentling & Palma-Rivas, 1999).

We also find it to be potentially beneficial for search committees to add individuals who are not athletic administrators or coaches as members so there will be some objectivity when selecting candidates. Additionally, there should be training for the search committee prior to the review of applications. Furthermore, because final hiring decisions are made by the athletic director, perhaps there should be some discussion with the Affirmative Action Officer prior to the final decision being made. Because athletic departments seem to be “exempt” from Affirmative Action regulations, inquisitive hiring practices have been covertly carried out for years. Perhaps there should be more participation with the two entities on community college campuses (i.e., connection between Affirmative Action and the Athletic Department). A relationship such as can serve as a driving force in equality of representation.

The creation of a committee that is diverse and provides support and consultation to the athletic director and coaches could also serve as a fundamental step in the right direction. The president of the university should also be involved in the discussion. For instance, because most institutions have a mission statement that discusses the importance of inclusivity, if this is not evident in the athletic department, it is imperative to have the mission visualized in that area coming directly from the president.

Given the suggestions stated above, it is clear there is much room for attending to the underrepresentation of women coaches in community college athletics. This is only the first step in the change process. Once diversification has taken hold, according to Fink and Pastore (1999), it will take both committed and persistent leaders in order to manage diverse organizations.

**Limitations and Future Directions**

Consideration of limitations is important for any research project. The current study is no different. One potential limitation was the acquisition of archival data. This approach makes it impossible to know for certain if the athletic director actually hired the head coaches of the three women’s sports (i.e., basketball, volleyball, softball) represented in the current study. For instance, it was not possible to determine if the head coaches were inherited from a previous athletic director, whether there were influential mechanisms at work that lead to the hiring of head coaches of a certain gender, or whether the head coaches were interim or transitional. It can be argued, while these circumstances may have been present in the current data, they would have been randomly distributed throughout; thus, the impact of this potential limitation would have been alleviated. We also note that this was a similar limitation shared by all previous homologous reproduction research.

Another limitation was the decision of using the three most popular women’s team sports (i.e., softball, basketball, volleyball). As others (i.e., Sagas et al., 2006) have suggested, in order to confirm or refute the practice of homologous reproduction within these athletic departments, investigation of individual women’s sports should serve as a future research direction. Findings may illuminate a different picture of hiring practices in these particular contexts, thus warranting examination.

An additional avenue for future research is replication of this study in various intercollegiate environments. The current study can be repeated in Historically Black Colleges and Universities (HBCUs), within and between conferences (e.g., SEC, Big 10, PAC 10), governing bodies (e.g., NCAA, NAIA), and similar to Stahura and Greenwood (2001), comparisons between and among divisions within governing bodies.

In summary, the purpose of this study was to examine homologous reproduction at the community college level (two-year institutions) by exploring if athletic director gender is related to head coach gender in the three most popular women’s team sports: softball, basketball, and volleyball. Our findings suggest that, while not necessarily consistent across all contexts, homologous reproduction was largely observed at the community college level. These findings are consistent with Kantor’s (1977) theory, such that persons with hiring power reproduce themselves by hiring individuals who are similar to themselves physically or socially. Because these hiring practices have and continue to adversely affect women more so than men, we contend the implementation of policies and practices that bring about diversity within community college athletic departments is imperative. This is only a first step in the change process, though. Devotion and diligence by leaders will be needed to manage these changes in order for them to thrive.

**References**

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