

# Promoting Coaches on Instagram: A Content Analysis of Posts Featuring NCAA Division I Coaches of Women's Sports 

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#### Abstract

Despite Title IX regulations, gender discriminatory practices in college sports continue to affect athletes, coaches, and administrative personnel at various levels. One manifestation of gender discrimination could affect the differential promotion of coaches via social media channels. This study investigates how NCAA Division I coaches across nine intercollegiate women's sports are promoted on Instagram. We collected and analyzed a total of 649 Instagram posts from 98 official accounts of athletic departments across all 10 NCAA Division I-FBS conferences. Our findings indicate equitable promotion of female and male coaches for the same sports on social media. This suggests that social media could be disrupting the gender stereotypes that are deeply ingrained within the coaching profession and hinder women's progress in sports. Future research steps and Title IX implications are discussed.


Over the last 51 years, Title IX has had a tremendous influence on college sports by bolstering investments in women's sports programs and expanding scholarship opportunities for female athletes (Acosta \& Carpenter, 2014; Coakley, 2014; Hardin et al., 2007). But even though Title IX has been instrumental in increasing women's participation in intercollegiate sports (Acosta \& Carpenter, 2014), gender discriminatory practices continue to persist, as evidenced by the USA Today 2022 Title IX series (Armour et al., 2022) and Sedona Prince's viral video exposing the unequal treatment of women's and men's basketball teams competing in the NCAA tournaments in 2021 (McDonald, 2021).

Past scholarship investigating gender discrimination in sports has overwhelmingly focused on college athletes, ranging from topics such as scholarship allocations to preferential treatment of men's sports, and even to differential media coverage received by women's sports teams compared to men's sports teams (Carson et al., 2018; Kokkonen, 2019; Sabo et al., 2016; Sheffer, 2020). This body of research has
invariably revealed that female athletes do not necessarily enjoy the same benefits as their male counterparts (Huffman et al., 2004) and that women's sports tend to receive less coverage than men's sports (Billings \& Angelini, 2019; Clavio \& Eagleman, 2011; Musto et al., 2017), thus perpetuating the idea that men's sports are more exciting and interesting than women's sports (Cooky et al., 2013). Other studies have highlighted the use of sexist and biased language when covering female athletes (Cooper \& Cooper, 2009; Godoy-Pressland \& Griggs, 2014; Musto et al., 2017), even though encouraging signs toward more equitable media coverage have started to emerge in more recent investigations (Degener, 2018; Johnson et al., 2021; Petty \& Pope, 2019; Scheadler \& Wagstaff, 2018; Wolter, 2021).

To a lesser extent, scholars have examined Title IX's inadequacy in ensuring equitable representation of women in leadership positions within athletic departments, particularly at the coaching level (Cunningham, 2019). Men continue to maintain a stranglehold on leadership roles in both men's and women's athletics, leaving women facing a multilayered set of obstacles to enter and succeed in these roles (Boucher \& LaVoi, 2023; Eagly \& Sczesny, 2009; Kamphoff, 2010; LaVoi \& Dutove, 2012). We maintain that this culture of exclusion and marginalization of women within intercollegiate athletics may extend to the ways these women are promoted by athletic departments, especially when this promotion pertains to social media platforms with the potential to reach a wide audience in a short time (Billings, 2014; Gurrieri, 2021; LaVoi \& Calhoun, 2016).

The present study seeks to analyze how college athletic departments communicate their gender dynamics through their social media. As athletic departments strive to enhance diversity, equity, and inclusivity (Bernhard, 2016), it becomes imperative to investigate the possible application of such efforts in the promotion of female coaches in comparison to their male colleagues coaching the same sports. To this end, we gathered and analyzed a dataset comprising 649 Instagram posts featuring female and male coaches of women's sports teams from 98 institutions across all 10 National Collegiate Athletic Association (NCAA) Division I-Football Bowl Subdivision (FBS) conferences (i.e., the Power Five conferences and the Group of Five conferences). We specifically focused on assessing the representation of coaches of Division I-FBS women's sports teams and aimed to discern whether athletic departments perpetuate the gender stereotypes that have historically hindered the progress of women in intercollegiate sports, particularly within coaching roles (Adams \& Tuggle, 2004). Contrary to our expectations, our analyses reveal that female coaches were promoted similarly to male coaches for the same women's sports. This suggests that social media platforms may have the potential to disrupt the pervasive gender-based stereotypes that have traditionally plagued intercollegiate sports and hindered women's progress in coaching and leadership roles. Future research steps as well as implications for Title IX are discussed in the concluding section.

## Female Coaches in Intercollegiate Sports

Although the implementation of Title IX has led to enormous progress for women, intercollegiate sports remain a masculine domain where women continue to face
discrimination, pervasive double standards, and substantial barriers to job access. Record numbers of women currently participate in women's sports, but men continue to dominate leadership roles in men's athletics as well as in women's athletics, leaving women facing a multilayered set of obstacles to enter and succeed in these roles (Boucher \& LaVoi, 2023; Eagly \& Sczesny, 2009; Kamphoff, 2010; LaVoi \& Dutove, 2012). To illustrate, since 1972, the percentage of female head coaches has plummeted from over 90 percent to a near all-time low, hovering just below 40 percent (Acosta \& Carpenter, 2014; Longman, 2017). Furthermore, a larger number of men have transitioned to coaching women's sports teams (Bradford \& Keshoch, 2009), while the percentage of women coaching men's sports has remained relatively minimal, around 2-3 percent (Acosta \& Carpenter, 2014; Longman, 2017).

While there is no empirical data showing that men are inherently better coaches than women (Walker \& Bopp, 2011), men are often preferred for coaching positions over their female counterparts. Men frequently coach sports which they have not played competitively, such as softball, whereas women are rarely afforded similar opportunities. Interestingly, among women coaching men's sports, only 5 percent exclusively coach men's teams, with most coaching a combination of both women's and men's teams in sports like cross-country, golf, and swimming (Yiamouyiannis \& Osborne, 2012). Among the few women coaching men's sports, many are relegated to individual sports (e.g., tennis and swimming) which are often seen as less prestigious, less visible, and less masculine compared to football, basketball, and baseball (Kane \& Stangl, 1991; Walker \& Bopp, 2011). In-depth interviews conducted with male coaches of NCAA Division I men's basketball by Walker and Sartore-Baldwin (2013) revealed the lack of female representation in these coaching roles. The authors found that men's sports are resistant to changing the institutionalized norms favoring the hiring of men over women for coaching positions. The men interviewed in this study acknowledged knowing many qualified women capable of coaching in men's intercollegiate basketball but admitted these women would probably never could pursue such career pathways if desired (Walker \& Sartore-Baldwin, 2013).

This contextual evidence highlights the persisting deficiency in gender equity within intercollegiate athletics (Longman, 2017; Yiamouyiannis \& Osborne, 2012). Past literature suggests that gender inequity in sports may stem from the stereotypical perception that men possess the qualities needed to thrive in masculine domains like sports (e.g., agency, power, and strength) whereas women tend to lack these same desired qualities (Bernstein \& Kian, 2013; Eagly \& Karau, 2002; Eagly \& Sczesny, 2009; Organista \& Mazur, 2020). In other words, the communal qualities often attributed to women (e.g., kindness, softness, and empathy) inherently clash with the agentic qualities demanded to succeed and excel in sports, particularly within leadership positions (Cooky et al., 2021; Cooky et al., 2013). This ultimately presents significant barriers to women's career prospects, preventing them from flourishing in the male-dominated sporting world (Gurrieri, 2021; Karlik \& Wolden, 2023).

A large body of literature has documented the discriminatory practices that female coaches face in sports, ranging from overt sexism and sexual harassment to salary discrimination (Carson et al., 2018; Kokkonen, 2019; Musto et al., 2017; Sabo et al., 2016; Walker \& Sartore-Baldwin, 2013). Discrimination often manifests in the
ways women are evaluated for coaching roles as well as in how they are treated compared to their male colleagues (Walker \& Bopp, 2011). Qualitative interviews with female coaches have revealed higher levels of stress, exhaustion, and feelings of burnout that result from gendered pressures to succeed, with consequential impacts on their professional careers and personal lives (Carson et al., 2018; Lundkvist et al., 2012). Owing to these pressures and the differential treatments by athletic directors and other administrative staff (LaVoi \& Silva-Breen, 2019), women may avoid considering the coaching profession as a viable career option or may end up quitting at higher rates than their male colleagues (Kamphoff, 2010; Longman, 2017).

We suspect that the gender biases and discrimination female coaches experience may extend to the ways these women are portrayed and promoted on social media platforms compared to their male counterparts coaching the same teams (Carson et al., 2018; Kokkonen, 2019; Sabo et al., 2016; Sheffer, 2020). Since online representations of female coaches hold the potential to shape public perceptions of women in typically masculine domains (Scheadler \& Wagstaff, 2018), we contend that it is imperative to explore this aspect through a systematic investigation.

## Framing Women in Sports on Instagram

We employ framing theory as the theoretical framework to investigate the promotion of female coaches on social media. First introduced by Erving Goffman in his seminal 1974 Frame analysis essay, framing theory has been widely adopted to explain how information is interpreted, shared, and understood among audiences (Entman, 1993). Rooted in sociological and psychological foundations of interpretation, framing theory delineates the process of selecting "some aspects of a perceived reality and make them more salient in a communicating text, in such a way to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described" (Entman, 1993, pp. 52).

When applied to the context of sports, scholars have employed framing theory to investigate the meaning conveyed through sports-related media content and its effects on audiences (e.g., Frederick et al., 2017; Frederick \& Pegoraro, 2018; Lewis \& Weaver, 2015). Specifically, past studies have documented how frames used to depict women tend to reinforce the hegemonic masculinity that pervades sports (Walker \& Sartore-Baldwin, 2013). Defined as the acceptance of the notion that men have the attributes deemed desirable for positions of authority, such as individualism, physical superiority, assertiveness, and power (Bernstein \& Kian, 2013; Eagly \& Karau, 2002; Eagly \& Sczesny, 2009; Organista \& Mazur, 2020), hegemonic masculinity operates to preserve the idea that certain institutions, such as sports, are best suited for men. This can have potential discriminatory repercussions for women by reinforcing the "old boys' club" perspective (Adams \& Tuggle, 2004; Scheadler \& Wagstaff, 2018; Walker \& Bopp, 2011).

Men dominate sports not only as athletes and coaches, but also as reporters (Organista et al., 2021). Female sports reporters are often criticized and trivialized compared to their male colleagues and are often perceived as more credible and
competent when covering male athletes as opposed to female athletes (Organista \& Mazur, 2020; Organista et al., 2021). This differential treatment, in turn, can lead to the devaluation of female athletes' performances and diminish the legitimacy of women's sports (Organista \& Mazur, 2020). A study by Greer and Jones (2012) found that female sports commentators were perceived as most competent when covering a sport typically associated with women (e.g., volleyball) compared to a sport perceived as traditionally male-dominated (e.g., football). In a similar way, Luisi and colleagues (2021) examined the perceived credibility of a female versus a male play-by-play commentator in an experimental setting. Their findings showed that the male commentator was consistently perceived as more credible and engaging than the female commentator, and this was true regardless of the gender of individuals in the audience. This is in line with a study by Cummins and colleagues (2019), which revealed that TV female sports commentators are perceived as less credible than their male colleagues by both male and female audiences.

We build on this body of work by looking at how female coaches in intercollegiate sports are depicted on social media. Since the process of framing is increasingly occurring in online spaces ( $\mathrm{Oh} \& \mathrm{Ki}$, 2019), we specifically look at how female coaches are framed on Instagram. In intercollegiate sports, Instagram has emerged as a powerful tool for sharing content in the form of photos, videos, and reels with accompanying captions-often in the form of short text. Through Instagram, online users can connect with athletic departments by liking and commenting on posts of interest featuring their favorite sports teams, athletes, and coaches. The affordances of Instagram, including its immediacy and extensive reach, allow fans, sports enthusiasts, and other users to engage and feel connected to their teams (Meng et al., 2015; Watkins \& Lee, 2016).

To date, existing literature has largely focused on the use of social media platforms as brand management tools and as marketing platforms for athletic departments and professional team sports organizations alike (e.g., Anagnostopoulos et al., 2018; Bunch \& Cianfrone, 2022; Johnson \& Romney, 2018; Johnson et al., 2021; Romney \& Johnson, 2020; Smith \& Sanderson, 2015). The bulk of this work has examined how social media can help build and sustain relationships with sports fans and enthusiasts. For instance, Anagnostopoulos and colleagues (2018) examined how two renowned British football teams use Instagram to manage their brand image and interact with their audiences, indicating that social media empower consumers to actively participate in generating brand-related content, highlighting the importance of branding for professional sport teams' marketing and commercial activities. Other studies have focused on how social media provide opportunities for athletes to promote their personal brands and attract followers (Doyle et al., 2022; Geurin-Eagleman \& Burch, 2016). Previous work has also investigated the motivations driving sports fans' engagement with social media (Abeza et al., 2021; Lewis et al., 2020; Li et al., 2019; Spinda \& Puckette, 2018), with a specific focus on the advocacy efforts in relation to social injustices (Bunch \& Cianfrone, 2022; Harrison et al., 2023; Intosh et al., 2020).

To a lesser extent, scholars have examined how coaches are framed on Insta-
gram and whether the pervasive hegemonic masculinity of sports is mirrored on this particular platform. Through our study, we seek to clarify whether and how this popular social media platform might challenge the entrenched stereotypical assumptions about women occupying coaching positions, especially in women's sports-which typically receive less attention and less promotion compared to men's sports. It is here that we situate our work. Because social media is a public representation of institutional sports programs and conveys messages to fans about what is valued and relevant, we argue that it is imperative to investigate the practices employed by sports communication administrators in promoting coaches.

Given that many athletic departments have increasingly invested resources into establishing and maintaining an online presence (Hipke \& Hachtmann, 2014; Watkins \& Lee, 2016), this rapid shift makes it critical for scholars to investigate the strategic communication choices athletic departments make to promote their sports programs to the public (Black et al., 2016; Cooper \& Cooper, 2009; Hutchins \& Rowe, 2009; LaVoi \& Calhoun, 2014). Through social media platforms, athletic departments can showcase their teams' accomplishments, attract potential recruits, enhance spectatorship, and foster meaningful connections with a digitally engaged fan base, transcending geographical and temporal barriers (Black et al., 2016; Clavio \& Walsh, 2014; Hipke \& Hachtmann, 2014; Whiteside et al., 2012). More crucially, as college athletic departments continue to work toward more diverse, equitable, and inclusive cultures (Bernhard, 2016), their communication practices could affect perceptions of women in intercollegiate sports, an institution where men continue to dominate (Hutchings \& Rowe, 2009).

Since Title IX regulations encompass various aspects of intercollegiate sports, failure to provide equitable publicity and promotion of female and male coaches for the same women's sports could result in important legal consequences for institutions that operate under the NCAA (Cunningham, 2019). College athletic departments have large followings, and promotion of coaches on Instagram represents an opportunity to reshape public perceptions of various internal and external stakeholders, including fans, alumni, sponsors, general body students, and prospective recruits.

## Hypotheses

Research documenting media portrayals of coaches remains limited, even though coaches are arguably the most visible figures in sports (LaVoi \& Calhoun, 2016). However, because sports is a male-dominated and highly contested terrain where women are underrepresented and marginalized, we hypothesize that athletic departments affiliated with the NCAA may perpetuate the hegemonic masculinity within sports and the gendered stereotypical lenses through which women are seen in predominantly masculine domains. In this sense, female coaches may not be given equal opportunities compared to their male counterparts for the same women's sports teams. We maintain that this exclusion, in turn, may perpetuate the idea that sports serve as an exclusive domain reserved for men. Accordingly, we predict the following:

H1: Female coaches are underrepresented in athletic departments' Instagram posts compared to male coaches for the same women's sports teams.

In addition to the overall underrepresentation of women in sports coverage (Musto et al., 2017), it is also important to identify the frames used to depict female coaches. Because female coaches are in leadership positions, we turn to past work in political science investigating visual portrayals of women in politics (e.g., Bauer \& Carpinella, 2018, Dittmar, 2015; Grabe \& Bucy, 2009). This body of work indicates that visuals presented through campaign websites, fliers, or television ads frame political candidates according to either feminine or masculine stereotypes, which, in turn, have the potential to influence voters' evaluations of these candidates for elected office (Carpinella \& Johnson, 2016; Dittmar, 2015; Grabe \& Bucy, 2009). Visual information that aligns with feminine stereotypes may create an incongruent expectation of where the public expects women to be and where women are found to be.

We contend that the same logic may also apply to female coaches, who have long been portrayed as lacking the experience required for coaching (Hasbrook et al., 1990). Framing female coaches through the lens of feminine stereotypes may perpetuate the idea that women do not belong to contested territories traditionally reserved to men, such as stadiums, sports fields, and gymnasiums. One way to convey this idea is by portraying women in a setting unrelated to the playfield, that is, "off action." Stemming from social role theory asserting that women are mainly confined to the household and men to the public sphere (Eagly \& Karau, 2002; Koenig \& Eagly, 2014), off action portrayals of female coaches may maintain the stereotypical idea that women lack the qualities needed to succeed in masculine domains typically reserved to men. Drawing on this background, we posit that female coaches may be presented off action at higher rates than their male colleagues. Male coaches, on the other hand, may likely be portrayed "in action" to reinforce their perceived suitability for leadership roles (Eagly \& Karau, 2002; Koenig \& Eagly, 2014). Thus, we posit:

H2: Female coaches are represented off action at higher rates than male coaches.

## Content Analysis

To test our hypotheses, we conducted a content analysis on a two-year sample of all available Instagram posts published by the athletic departments of all NCAA Division I Football Bowl Subdivision (FBS) colleges and universities, including the Power Five conferences (i.e., the Big Ten Conference, the Atlantic Coast Conference, the Big 12 Conference, the Pac-12 Conference, and the Southeastern Conference) and the Group of Five conferences (i.e., the Mid-American Conference, the American Athletic Conference, the Conference USA, the Mountain West Conference, and the Sun Belt Conference).

We included all institutions with an official Instagram account for their athletic departments. This decision was deliberately made due to the reliance of athletic departments on institutional funding to support and sustain their operations (Knight Commission on Intercollegiate Athletics, 2020). Title IX underscores the importance for these departments to implement fair and equitable practices in how they promote coaches online.

We focused on Division I-FBS sports due to the heightened visibility of their women's athletic programs, their large crowds and revenues, and their substantial resources to athletics, including the marketing and communication departments that are in charge of promoting teams on social media. Moreover, Division I institutions raise and spend their money primarily to improve the prestige and excellence of their sports programs (Blue, n.d.; McEvoy et al., 2013; Suggs, 2009). Athletics departments perceive greater prestige from men's sports (particularly football and men's basketball), and this results in disproportionate spending on these sports compared to women's' sports. Revenue allocation theory helps us to understand the spending patterns of college athletics programs, in which the money generated and raised from football and men's basketball is primarily spent back into those sports to raise prestige (Suggs, 2009). After funding football and men's basketball, remaining generated revenues are spent in other sports to provide a broad-based program of educational opportunity, including women's sports. Conversations about this revenue are important when considering the resources devoted to marketing and communication departments deciding to photograph and promote coaches during athletics contests and after contests.

Division I institutions, however, differ significantly in revenue generated from athletics (Cheslock \& Knight, 2015), and this typically divides them into "haves" and "haves not." The majority of "haves" are members of the Power Five conferences (powered by football through ticket sales, conference media packages, and the College Football Championship), receiving automatic bids to the College Football Playoff (i.e., Southeastern, Big Ten, Atlantic Coast, Pac-12, and Big-12), generating more than $\$ 400$ million in revenue per year. Conference media contracts for the Power Five institutions raised more than $\$ 3.3$ billion in 2022, with a significant majority of all conference media revenue attributable to football (Straka, 2022). On the other hand, Group of Five members (primarily powered by institutional support and student fees) have not had access to significant conference media agreements, nor access to significant College Football Playoff revenues. The revenue generated from football enables Power Five institutions to allocate substantial resources to support other sports, notably women's athletics. According to the Knight-Newhouse College Athletics Database (2023), the median revenues of 56 public Power Five programs was $\$ 143$ million, with $\$ 5$ million ( $3.5 \%$ ) contributed through institutional support and student fees. By comparison, the median revenues of 54 public Group of Five programs was $\$ 39$ million, with $\$ 24$ million ( $62 \%$ ) contributed through institutional support and student fees.

A study by Welch and Sigelman (2007) underscores a significant disparity in the prevalence of women coaches between Power Five conferences ( $83 \%$ ) and Group of Five conferences (58\%)—suggesting a correlation between the resources allocated
to women's sports and the likelihood of women coaching these sports. The same study also revealed that women coaches in the Power Five conferences were most prevalent in basketball, softball, volleyball, and soccer. Among these institutions, women were also less likely to serve as coaches in less high-profile sports, such as field hockey, lacrosse, swimming, and track and field.

Our final dataset included 649 unique Instagram posts published by 98 institutions over two academic years (i.e., 2018-2019 and 2019-2020) -please refer to Table 1 for more information. Notably, we only recorded general Instagram posts found on each athletic department's official handle, thus excluding content posted on Instagram stories. This decision was mainly due to the timeframe we decided to focus on. Indeed, given that we focused on the 2018-2019 and 2019-2020 academic years, it would have been impossible for us to collect Instagram stories. Photos and videos shared on Instagram stories are only available for 24 hours post-publication and then automatically disappear-unless they are added as a profile highlight-, posing logistical constraints for inclusion in our data collection efforts.

Table 1
Number of Teams and Number of Posts Analyzed by NCAA Division I Conference

| Conference | Coach | Number of teams | Number of posts |
| :---: | :---: | :---: | :---: |
| Atlantic Coast Conference | Female | 19 | 45 |
|  | Male | 22 | 46 |
| Conference USA | Female | 26 | 49 |
|  | Male | 21 | 50 |
| Pac 12 Conference | Female | 28 | 82 |
|  | Male | 16 | 35 |
| Big 12 Conference | Female | 6 | 10 |
|  | Male | 14 | 23 |
| Southeastern Conference | Female | 18 | 33 |
|  | Male | 19 | 42 |
| American Athletic Conference | Female | 9 | 17 |
|  | Male | 8 | 17 |
| Sun Belt Conference | Female | 6 | 14 |
|  | Male | 12 | 17 |
| Mountain West Conference | Female | 15 | 28 |
|  | Male | 10 | 18 |
| Big 10 Conference | Female | 22 | 68 |
|  | Male | 10 | 18 |
| Mid-American Conference | Female | 13 | 22 |
|  | Male | 9 | 15 |

Three undergraduate research assistants were instructed to locate the official Instagram accounts of NCAA Division I-FBS athletic departments and collect relevant information regarding the posts. Here it is important to note that we intentionally focused our analyses on the athletic departments' general Instagram accounts rather than sports-specific accounts (e.g., women's soccer team or women's volleyball team) to examine whether there exist gender disparities in how athletic departments promote coaches of women's sports in online spaces. To be included in our dataset, Instagram posts had to be published during two academic years: 2018-2019 (from July 1, 2018, to June 30, 2019) and 2019-2020 (starting on July 1, 2019, and ending on June 30, 2020). The research assistants diligently collected every Instagram post shared by athletic departments during this timeframe.

We selected this specific two-year frame because we wanted to ensure we included a sufficient number of posts to infer meanings and draw inferences about how coaches are promoted online. Also, a two-year timeframe allows us to account for the overrepresentation of sports that may be in season during specific times of the year (e.g., volleyball and soccer typically occurring in the Fall semester). More importantly, this timeframe is unique because the 2018-2019 academic year represented a year of stability within the FBS system while the 2019-2020 academic year brought some of the uncertainties and disruptions of the COVID-19 pandemic. Not only has the COVID-19 pandemic resulted in the cancellation of spring sports during the 2019-2020 academic year, but it also led to significant shifts in financial allocations from parent institutions to athletic departments. For instance, the athletic department at Arizona State University received an additional $\$ 50$ million from the university as part of their "proactive plan to address the shortfall" exacerbated by the pandemic (Berkowitz, 2022). The Southeastern Conference allocated a $\$ 23$ million one-time advance to its conference members, a sum to be deducted from future conference distributions (Berkowitz, 2022). More relevant to the purposes of this study, the COVID-19 pandemic has negatively impacted women in sports, including organizational and economic implications, uncertainty of investments, and the wellbeing of athletes and staff personnel (Clarkson et al., 2022; Souter et al., 2022).

We looked at total athletics expenditures before and after COVID-19 to illustrate that by removing football (that is, the primary expense item in college athletics) other sports were negatively affected. We specifically used the Knight-Newhouse College Athletics Database (2023) to investigate spending in Division I-FBS, from 2018-2019 to 2019-2020. We found that the median total athletics expenses were reduced by $6.25 \%$ from $\$ 70.8$ million to $\$ 66.4$ million; in the same period, total football expenses increased by $5.1 \%$ from $\$ 19.8$ million to $\$ 20.8$ million. By removing the sport of football, we calculated that expenses on all other sports (including women's sports) were down by $10.5 \%$ after the pandemic.

To ensure a fair comparison, we focused exclusively on posts featuring female and male coaches for women's sports teams and excluded Instagram posts featuring coaches of men's sports teams. This means we excluded football from the equation, given that football exerts a huge influence in college sports. The nine women's sports we consider are: basketball, gymnastics, golf, soccer, softball, swimming and div-
ing, tennis, track and field, and volleyball. We purposely selected these nine sports because they typically involve a substantial number of female athletes competing at the intercollegiate level (NCAA, 2021). We decided to exclusively focus on women's sports because these sports are less likely to be the subject of media coverage compared to men's sports (Boczek et al., 2023; Gurrieri, 2021). Moreover, female coaches overwhelmingly coach women's sports teams (Acosta \& Carpenter, 2014), even though limited scholarly attention has been devoted to investigations of media portrayals of these coaches.

## Procedures

The unit of analysis for this study is each Instagram post shared by athletic departments in the selected timeframe. We compiled a comprehensive list of all institutions within all ten Division I-FBS conferences - the Power Five conferences and the Group of Five conferences - and instructed three research assistants to locate and record the official Instagram account of each institution. The research assistants collected information about posts that featured female and male coaches for the women's sports teams mentioned above. This information consisted of the publication date of each post, the respective sport, whether the post included a static image (marked as 1 ) or a video/reel (marked as 0 ), the gender of the coach featured in the post (coded as 1 for women and 0 for men), number of likes, number of comments, and whether the coach was featured in action (e.g., on the court, in the field, etc.) or off action in non-sports settings (e.g., fundraising events, charity events, etc.). To be clear, press conference settings were operationalized as in action settings, given that during press conferences coaches engage in discussions about the game with both the media and the general public. On the other hand, we operationalized off action shots as scenarios that portray female coaches outside immediate sports-related settings, such as courts, fields, stadiums, or gymnasiums. These depictions showcase women in contexts detached from the competitive settings typically associated with their coaching roles, potentially contributing to the perception that women are not suited for these roles. Off action shots could feature female coaches in a variety of settings, including charity events and office spaces. The researchers also recorded the accompanying caption for each post and the link to access each post.

To ensure the quality and consistency of data collection procedures, all three researchers received extensive training supervised by the first author of the study. The data was gathered between November 2022 and February 2023. Once the data collection was completed, $10 \%$ of the overall sample was tested for intercoder reliability using Cohen's kappa. Reliability rates for gender of the coach $(\alpha=1.00)$ and whether the coach was featured "in action" or "off action" $(\alpha=0.91)$ were acceptable.

## Results

Our final dataset included 649 unique Instagram posts, featuring 307 different coaches, 164 of whom were women. Institutions in the NCAA Division I-FBS Pow-
er Five conferences published the majority of Instagram posts ( $n=402 ; 61.9 \%$ of the sample) compared to institutions in the Group of Five conferences ( $n=247 ; 38.1 \%$ of the sample) - see Table 1 for a complete list of these institutions. As noted in the sections above, these numbers may reflect greater administrative resources devoted to social media as well as larger fan bases that the more affluent institutions tend to enjoy.

The highest number of Instagram posts originated from institutions within the Pac 12 Conference ( $n=117$; 18\% of the sample), followed closely by the Conference USA ( $n=99 ; 15.3 \%$ of the sample). On the other hand, the smallest number of posts came from the Sun Belt Conference ( $n=31 ; 4.8 \%$ of the sample) immediately preceded by the Big 12 Conference ( $n=33 ; 5.1 \%$ of the sample). At the institutional level, the University of Arizona stood out with the highest number of posts during the timeframe we analyzed $(n=26)$, followed by the University of Iowa $(n=21)$. Here it is worth noting that a substantial number of institutions (about $9 \%$ of the total sample) only published a single Instagram post featuring coaches of women's sports during the two-year timeframe we examined. These institutions encompassed the University of North Texas, West Virginia University, University of Mississippi, University of Missouri, Arkansas State University, Georgia State University, University of Houston, University of Nebraska, and Western Michigan University. Upon scrutinizing these institutions closely, no discernible similarity patterns emerged. They each participate in distinct conferences, spanning both the Power Five and the Group of Five, and are situated across various geographical regions within the United States. This is, in itself, an important finding about the extent to which institutions promote coaches of women's sports that often do not generate the same revenue as men's sports.

Looking more closely at the types of sports featured on Instagram, basketball coaches took center stage ( $n=270$ ), mirroring an evident fan interest in basketball among fans compared to other women's sports (see Figure 1 for more details). Additionally, a total of 543 Instagram posts ( $83.7 \%$ of the total sample) contained images, while 106 posts ( $16.3 \%$ of the total sample) comprised videos or reels. 517 posts ( $79.8 \%$ of the total sample) were coded as "in action" while 131 posts $(20.2 \%)$ were coded as "off action," meaning the coaches were portrayed off the field/court of play, at a social event, fundraising event, and/or other types of non-sports contexts.

Our first hypothesis (H1) posited that female coaches are underrepresented in athletic departments' Instagram posts compared to male coaches for the same women's sports teams. We conducted a chi-square test comparing the frequency of occurrence of each Instagram post featuring female coaches and male coaches, and this difference was statistically significant, $\chi^{2}=17.09, \mathrm{df}=1, p<.001$, thus rejecting the hypothesis. Descriptive statistics reveal that $58.1 \%$ of all Instagram posts $(n=375)$ featured a female coach whereas a total of 274 posts ( $41.9 \%$ of the sample) featured a male coach for the same women's sports teams. When comparing posts featuring coaches from the Power Five and the Group of Five institutions, we did not find significant differences, $\chi^{2}=1.93, \mathrm{df}=1, p>.05$, acknowledging potential underrepresentation of female coaches, irrespective of athletic department finances. Within

Figure 1
Frequency of Instagram Posts by Sport

the Power Five institutions, $60.3 \%$ of Instagram posts $(n=241)$ featured female coaches while $39.8 \%(n=159)$ featured male coaches. Looking at the Group of Five institutions, $54.7 \%$ of posts featured female coaches $(n=134)$ and $45.3 \%$ of posts featured male coaches $(n=111)$.

Our second hypothesis (H2) predicted that female coaches are represented off action at higher rates than male coaches. To test H2, we conducted another chisquare analysis and found a non-significant interaction, $\chi^{2}=.824, \mathrm{df}=1, p>.05$. Contrary to our expectation, we found that comparable percentages of Instagram posts depicted female coaches ( $10.9 \%$ ) and male coaches ( $9.0 \%$ ) in off action settings. An example of an off action shot from our dataset captures Amy Pauly, the head coach of University of Alabama - Birmingham's women's volleyball team at her house during the quarantine period in an Instagram post dated April 29, 2020. Another example captures Cori Close, the women's head basketball coach at the University of California Los Angeles (UCLA) posing for pictures with her players inside a broadcast newsroom on October 7, 2019.

## Discussion \& Conclusion

This study investigated the representation of female and male coaches within the same NCAA Division I-FBS women's sports teams on Instagram. We collected
a total of 649 Instagram posts from athletic departments' official accounts during the 2018-2019 and 2019-2020 academic years. Given that past literature has extensively documented the underrepresentation and marginalization of women in sports (Carson et al., 2018; Kokkonen, 2019; Sabo et al., 2016; Sheffer, 2020), we expected to find spillover effects of this dynamic in the ways female coaches were featured on Instagram compared to their male colleagues. Contrary to our first expectation (H1), we found a generally balanced representation of both female and male coaches for the same women's sports teams across athletic departments' Instagram posts. This seems to suggest that when athletic departments decide to promote coaches on Instagram, they do so in an equitable manner. Furthermore, we also anticipated that female coaches would be represented off action at higher rates than their male counterparts (H2), but we found no support for this hypothesis.

Taken together, our findings could be attributed to a renewed interest in women's sports and the broader discourse surrounding gender equity, particularly just after the turn of Title IX's $50^{\text {th }}$ anniversary (Elfman, 2022). It is possible that individuals and organizations on social media have contributed to shaping a transformative narrative around women in sports, potentially aiding in disrupting the hegemonic masculinity of sports and in dismantling some of the entrenched gender stereotypes that hinder women's success in traditionally masculine domains (LaVoi \& Calhoun, 2014). It is also possible that athletic departments and their staff may take the gender of the coach into consideration when trying to promote women's sports on social media, but we are unable to verify this claim with the data we collected-especially since we did not collect the number of posts featuring coaches of men's sports. Future studies, however, should consider integrating this information to make even more informative comparisons and determine which institutions employ equitable practices in their promotional efforts.

Future research should also delve deeper into audience demographics to gain valuable insights into how different individuals may react to promotional content featuring female versus male coaches. One way to accomplish this would be to integrate the results of this study with surveys of online users who follow Division I-FBS athletic departments. This approach will help shed light on user motivations and their expectations when following their teams on social media. Alternatively, qualitative interviews or focus groups with Instagram users would allow to dig deeper into what followers seek and require from athletics' departments when it comes to women's sports.

This study has some limitations. Our sample of posts is limited to a single social media platform, Instagram, and does not account for coach promotion on other online platforms (e.g., Facebook, etc.) and other types of media, including traditional media. Also, we only included posts from official Instagram accounts rather than specific accounts of women's sports. For these reasons, we cannot confidently assert whether the gender balance we detected on Instagram posts could translate into other spaces outside of our scope of investigation (Whiteside et al., 2012). Instagram serves as just one type of online media, and its use and affordances differ substantially from other platforms, such as Twitter (now X) and Facebook. A content analysis
combining information from multiple social media sources, or even different avenues within Instagram (i.e., stories), could likely help elucidate whether promotion of coaches is truly balanced on all platforms or whether this is a reality that only pertains to Instagram. Although we contend that future iterations of this study could involve empirical investigations of Instagram stories, these studies should draw from interpretivist research designs, qualitative content analyses, deductive and inductive reasoning to conceptualize and analyze a selected corpus of multimodal social media content (for specific methodological guidelines, see Serafini \& Reid, 2019). Multimodal content analyses could be helpful to compare the content featured on Instagram stories and Instagram posts.

Relatedly, we acknowledge that the inferences we make from our findings are relative to the posts that we included in our data collection. Our sample only included information about Instagram posts that featured coaches for some women's teams across NCAA Division I-FBS 's conferences. We only focused on Division I sports only because even if they differ significantly in revenue generated from athletics, they tend to allocate substantial resources to their marketing and communication departments that oversee the social media promotion of women's sports teams and their coaches (Cheslock \& Knight, 2015). We also acknowledge that the scope of this study did not allow for additional investigation into Division II and Division III, but future research could build upon this study with similar investigations in other divisions.

Given these limitations, we are unable to infer whether representation of women's sports teams on Instagram compares to representation of men's teams for similar sports or even whether our findings are relative only to NCAA Division I. Investigating this could prove useful to content creators working in athletic departments. To go one step further, future surveys of content creators affiliated with the universities and colleges that we included in our sample may offer a clearer picture of the motivations behind the type of content that is published on social media platforms. Athletic departments should operate under Title IX's regulations, which extend to the treatment of women's and men's sports, including their efforts to promote these teams in online spaces.

Importantly, our analyses do not consider other factors that may affect how female coaches are promoted on Instagram, such as their race/ethnicity, sexuality, age, and popularity. Although we recognize that this limitation may hinder our ability to garner whether discrimination may occur at different levels (e.g., interpersonal and organizational), our focus on the gender of the coach was deliberate in order to discern potential disparities in the promotion of female and male coaches for the same women's sports. Future research could investigate these intersectional dynamics further to provide a more comprehensive understanding of the many factors that may influence the promotion of coaches whose positionalities do not conform to prevailing ideals of white masculinity in sports leadership.

While promotion of coaches on Instagram appears to be balanced based on gender, reaching true equity in intercollegiate sports requires a more determined approach encompassing various levels and job dimensions, from recruitment to salary
to promotion of coaches. Completely balanced and equitable promotion of coaches may be difficult to achieve, especially when factoring the influence of college football into this equation. Nevertheless, athletic departments should strive for their best efforts when promoting coaches on social media, recognizing the potential of these platforms to shape perceptions of who is valued in traditionally masculine terrains like sports.

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