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Attitudes of Intercollegiate Athletes toward Transgender Individuals and Transgender Athletic Participation

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Debate around the participation of transgender athletes in competitive sport has been increasing recently. These debates, and the discourse surrounding transgender athletes, have had wide ranging consequences, including changes to gender participation policies by sport governing bodies. While policy changes are being made, little data exists around the attitudes of athletes on the participation of transgender persons. This study explores the attitudes of intercollegiate student-athletes on transgender individuals and transgender collegiate athletic participation, using a sample of three collegiate athletic programs. Findings suggest that attitudes towards transgender persons and political ideology are significant factors in the acceptance of transgender athletic participation, particularly for trans women, while religiosity contributes to overall attitudes of transgender persons outside of sport, but not to trans athletic participation specifically.

Keywords: Transgender; trans; attitudes; sport; intercollegiate; religiosity; politics

In 2022, University of Pennsylvania swimmer Lia Thomas became the first openly transgender national champion in NCAA Division I history. This historic victory would subsequently re-ignite heated debates on transgender athletes in diverse arenas, including politics, the media, among athletes, and within sport governing bodies. Indeed, discourse surrounding Lia's win often emphasized her trans-identity as offering an athletic advantage, instead of celebrations of her athletic accomplishments. To be clear, Lia's accomplishments did not initiate the national conversation on transgender sport participation, however, her victory did add an expediency and vitriol to the debate, with public opinions being offered by high-profile politicians, athletes, and sporting professionals. Indeed, while not discussing Lia by name, both FINA (swimming's governing body) and the NCAA re-examined their gender participation policies in 2022, implementing policies that, especially in the case of FINA, severely limit the ability of transgender athletes to compete, particularly transgender women (FINA, 2022; NCAA, 2022).

The response by some sport governing bodies were swift and developed based on vague criteria. For example, the NCAA, once a leader in policy creation related to trans-inclusion, has punted the question of transgender participation to other national governing bodies – essentially opening the door to anti-trans participation policies (NCAA, 2022). FINA released their new policy after convening 'experts' in science and medicine, human rights, and athletes, stating, "We have to protect the rights of our athletes to compete, but we also have to protect competitive fairness at our events, especially the women's category at FINA competitions" (FINA, 2022, para. 5). The outcome of this new policy, the expertise it draws on, and its focus on 'competitive fairness' leads the public to believe that participation of transgender athletes – namely transgender women – poses a threat to competitive parity, or in the alternative, to women's sport altogether. Specifically, the assumption is that those assigned male at birth and those who have gone through puberty as male have an athletic advantage over those assigned female at birth. Thus, policies often limit the participation of transgender women more than they do transgender men. However, the notion of an athletic advantage is debatable within empirical research. While some studies have linked gendered sport performance to specific attributes that offer the potential of a male athletic advantage (Hilton & Lundberg, 2021), others have argued that empirical evidence does not directly and clearly link athletic advantage to transgender women at any stage of their gender transition (Jones et al., 2017). This suggests that current policies governing transgender participation are not themselves evidence-based (Cunningham, et al., 2021; Jones et al., 2017). As stated in a report from E-Alliance, a Canadian research hub on gender equity in sport, "It is within this absence of biological evidence and within these systems that current arbitrary boundaries, policies, limits and levels are formed" (E-Alliance, 2022, p. 41).

Lacking clear empirical evidence on the athletic advantage, it also seems as though public opinion, namely (anti)trans attitudes and the stigma of transgender athletes, are influencing public policy. However, while opinions on transgender participation are being offered in public forums and discourse on this topic largely driven by the assumption that women's sport needs protecting, little is known about the attitudes of current athletes towards the inclusion of transgender sport participation. As such, this study explores the attitudes of collegiate athletes in the United States towards the transgender population, with specific attention to attitudes on the participation of transgender athletes within intercollegiate athletics. We believe this study is essential given the timeliness of this debate. As mentioned, policies by sporting governing bodies

continue to shift with limited empirical support. This, coupled with the slew of anti-trans legislation being passed by legislatures across the United States, requires timely examination of attitudes towards transgender individuals. Indeed, attitudes are an essential micro-level indicator of transgender in/exclusion in sport that can have implications for public policy and sport governance (Cunningham et al., 2021).

Theoretical Framework

Competitive sport is structured under a system of sex segregation. Specifically binary and essentialist gender ideals govern sport policies, participation, and beliefs. That is, the perception of gender as having natural, innate and unchanging characteristics serves as the foundation of high-level sport policy and participation. This division of sport into male and female categories is driven by heteronormativity (Kauer & Krane, 2013) through which gendered social control is enacted (Lenskyj, 2013). In a heteronormative system, heterosexuality is defined as the taken-for-granted natural position based on the existence of a binary gender system that emphasizes cisnormativity, or the assumption that all people's gender identity matches that which they were assigned at birth. As a result, masculinity and femininity are viewed as natural opposites that are derived from biological sex (Schilt & Westbrook, 2009). Masculinity is elevated and privileged under a heteronormative system (Brackenridge et al., 2008) and any disruption to the established gender order leads to hostile reactions or corrective actions from those in power (Lenskyj, 2013). In other words, transgender athletes, among other identities that disrupt heterosexist gender identities, threaten the established cismasculine sporting culture (Griffin, 1998) and as such face difficulties in living their true gender identity while participating in sport (Hargie, et al., 2017; Sykes, 2011). This leads to the invisibility or devaluation of trans lives.

The prevailing belief that the muscular, masculine body is best suited for sporting endeavors acts to both reinforce heteronormative notions of gender in organized sport and guide the development of sport policies (Krane & Barber, 2018). Indeed, policies governing transgender participation and the fear of the masculine 'athletic advantage' lead to heavy policing of transgender women's participation in sport, while transgender men have rarely been considered in such policies (Jones, et al., 2017). Women's sport, under this belief, requires 'protection' from the presumed threat of masculinity. However, because femininity is inferior to masculinity in a heteronormative system, men's sport does not require such protection from presumed femininity. In other words, essentialist notions in sport create a discourse that, "girls and women are second best, less than, and 'the other'" (Cunningham & Melton, 2021, p.2).

Such beliefs are reinforced not only through policy, but also common representations of sporting masculinities, femininities, and transgender athletes (Lenskyj, 2013). For example, Fallon Fox, who was outed against her will thus making her the first openly transgender woman to compete in professional Mixed Martial Arts, was often painted using the transphobic notion that she transitioned to enact violence against women (McClearen, 2015). Interestingly, even supporting narratives crafted a discourse in which Fox's transition had made her 'appropriately feminine', which equates to less powerful (McClearen, 2015). Both narratives reify heteronormative assumptions about gender and sex differences and their role in sporting environments.

In addition to these heteronormative assumptions about gender and sex within sporting contexts, a strong sense of cultural cisgenderism also pervades these environments and is worthy of consideration within the current study. According to Ansara and Hegarty (2011), cultural cisgenderism is used to describe a prejudicial ideology that is reflected within systemic and multi-level cultural discourses. Application of cultural cisgenderism can be understood to

(re)inforce essentialist understandings of male and female identities, while “othering” trans identities that don’t align with these understandings (Afroozeh et al., 2023). The lens of cultural cisgenderism is useful in evaluating institutional action toward disrupting gendered structures that are oppressive to identities outside of the gender binary (or that don’t align with essentialist notions of what is male and/or female) and recognizes that individual action may have limited impact in creating inclusive environments.

Cultural cisgenderism, in conjunction with heteronormativity, are useful frameworks in which to examine sporting spaces, which tend to perpetuate normative gendered ideologies through separation of males and females into “gender-appropriate” sporting endeavors and segregated spaces built around dichotomous sex distinctions (Pieper, 2016). Utilizing the construct of cisgenderism to critically analyze how participants with non-heteronormative gender identities are included (or excluded) from structured sporting spaces serves to bring the equity of these policies into greater focus. Trans-inclusion policies within elite university sport have generally revolved around gender-affirming hormones such as testosterone, thus enforcing structural heteronormativity and essentialist perceptions of male and female sporting endeavors, performance and cultural value.

Attitudes towards Transgender Persons

Heteronormativity and cultural cisgenderism stigmatizes transgender people at both the structural and individual level (Cunningham et al., 2018). Indeed, cisgender persons can internalize the pervasive transphobic discourse coming from media portrayals, legal discourse, and sporting policies (structural stigma) and enact negative attitudes and actions against trans persons (individual stigma). In other words, attitudes towards transgender persons are undoubtedly “primed” by our socialization into a heteronormative structure built around cisnormativity, the gender binary, the ascendancy of masculinity and maleness as the standard of sporting culture, and the perception of threats to the norms established therein (Harrison & Michelson, 2019; 2020). One would assume this is particularly salient within sporting spaces. However, little empirical evidence has studied the attitudes of athletes towards transgender sport participation. According to Teetzel (2017), “cisgender athletes’ reactions to transgender sport policies, and their attitudes towards inclusive sport’ are ‘relatively unknown’” (p. 68). Devine (2022), through a qualitative analysis of 19 female Olympic athletes, found that these athletes were generally in favor of the inclusion of transgender athletes in competitive sport and support the revision of sporting policies to favor such inclusion. The lone quantitative study explicitly reviewing the attitudes of cisgender university athletes towards trans athletes, sampling Japanese university student-athletes, found that trans men are more accepted than trans women (Tanimoto & Miwa, 2021). Furthermore, they found student-athletes to hold more favorable opinions on trans athletes competing after hormone treatment. There is currently no reported sporting attitudinal data from a U.S. context.

Research further suggests lagging support for transgender athletes among the general public. For example, while not studying attitudes per se, Cunningham and Pickett (2018) did find that prejudice against transgender individuals remains quite strong within sporting contexts, even as prejudice against sexual minorities decreases. In terms of attitudes towards transgender athletes, Flores et al. (2020) collected data in 2015 from a representative sample of U.S. adults looking at the attitudes of the general public on the participation of transgender athletes in sport. This study found that, although the general public is fairly ambivalent about the issue, cisgender women hold more positive attitudes compared to cisgender men regarding gender-affirming sport participation by transgender athletes; conversely cisgender men are more likely to oppose

policies supporting transgender athlete participation. Furthermore, this study found that sport fans and those expressing traditional values, regardless of gender, are more likely to hold negative opinions on trans athlete participation while those who have had contact with trans individuals and those expressing egalitarian values held more favorable attitudes. Importantly, given the rise in public conversation, and indeed stigma around this topic, it is likely attitudes are more divisive today than in 2015. These findings mirror attitudes towards transgender persons outside of sporting contexts, where attitudes towards transgender individuals remain largely negative among the general public (Taylor et al., 2018) and are less favorable than attitudes towards sexual minorities (Norton & Herek, 2013). Importantly, however, spaces founded in gender segregation (like competitive sport environments, locker rooms, or bathrooms) are likely considered differently in determining attitudes towards transgender individuals given their foundation in the tenants of biological determinants of sex (Cunningham et al., 2018; Flores, et al., 2020; Westbrook & Schilt, 2014). This, coupled with limited data on attitudes towards transgender athletes, resulted in research question 1.

RQ 1: What are the overall attitudes of intercollegiate student-athletes toward transgender individuals?

Religion, Politics, and Attitudes towards Transgender Athletes

Religion has been identified as a correlate of attitudes towards transgender individuals. Specifically, increased religiosity is associated with more negative attitudes (Nagoshi, et al., 2019; Norton & Herek, 2013). Relatedly, value orientations, such as moral traditionalism and egalitarianism are associated with attitudes towards transgender individuals in both the general public (Flores et al. 2017; Taylor et al. 2018) and in sporting contexts (Flores et al., 2020). Importantly, while religious affiliation has been found to determine attitudes towards transgender individuals (Cragun & Sumerau, 2015), individuals who report higher levels of religiosity, regardless of religious affiliation, are found to hold more negative attitudes towards transgender individuals in general (Nagoshi, et al., 2019), reflecting the importance of studying the association between religiosity and attitudes towards transgender individuals (Campbell et al., 2019).

Like religiosity, political conservatism has been associated with more negative attitudes towards transgender individuals in the general public (Norton & Herek, 2013) and within sporting contexts (Flores, et al., 2020). Specifically, persons holding right-wing, authoritarian beliefs are strongly associated with negative attitudes towards this population (Miller et al., 2017; Nagoshi et al., 2019). Conversely, in summarizing attitudes towards transgender individuals Flores et al., (2020) claimed, “on average, younger, less religious, White, more educated, liberal people with Democratic and LGBT identifications tend to hold relatively pro-transgender opinions”(p. 385). These factors, coupled with the increased politicization of transgender persons – including increasing anti-trans legislation across the U.S. and anti-trans political discourse – necessitates an exploration of the relationship between athlete attitudes and political identity. The research questions driving that exploration were delineated as follows:

RQ 2: To what extent does level of religiosity and political affiliation explain the variance in attitudes towards transgender individuals?

- RQ 3: Does level of religiosity, political affiliation, attitudes towards transgender individuals explain a significant amount of variance in opinions of transgender female athlete participation in college athletics?
- RQ 4: Does level of religiosity, political affiliation, attitudes towards transgender individuals explain a significant amount of variance in opinions of transgender male athlete participation in college athletics?
- RQ 5: Do attitudes towards transgender individuals, perceptions of transgender female college sport participation, and/or opinions regarding transgender male college sport participation differ among groups based on political affiliation?

Methods

Subjects

Inclusion criteria for this study were all active student-athletes at three universities in the United States. Two of the universities were large Division I institutions located in the southern United States and the other institution is a large urban Division II institution in the northeast. Athletic rosters were accessed via the institutions' public websites, and email addresses for student-athletes were obtained from publicly available records via institutional websites. Approval for the study was received by the principal investigator's Institutional Review Board (IRB).

Utilizing a purposeful sampling method, university student-athletes were recruited to participate via email. Upon conclusion, 104 student-athletes started the online survey with 96 usable participants, a 92% completion rate. Participants aged 18-24 were predominantly white (77 respondents), 17 identified as Black or African American, 10 as Hispanic or Latino, four as Asian, three as American Indian or Alaskan, and one as Native Hawaiian or Pacific Islander. Further, the sample was largely heterosexual (79), eight identified as bisexual, six as asexual, one as gay or lesbian, one as questioning, and one indicated unlabeled. The gender identity breakdown of the sample included 58 cisgender female student-athletes and 38 cisgender males, with no transgender respondents. Participants identified religiously (80) with 78 Christians, one Muslim, and one spiritual. Furthermore, all class standings were well represented with 18 freshmen, 15 sophomores, 24 juniors, 23 seniors, and 16 graduate students.

Instrumentation

Billard's (2018) Attitudes Toward Transgender Men and Women (ATTMW) scale measured the participants overall attitudes of transgender individuals. The ATTMW can be used as an overall scale or as individual subscales that measure attitudes towards transgender men (ATTM) or transgender women (ATTW), using 12 items preceded by the definition of transgender man or transgender women depending on the subscale. The full scale includes 24 items measured on a 7-point Likert scale from strongly agree (1) to strongly disagree (7), with higher scores indicating more positive attitudes toward transgender individuals. Development of the scale and subscales showed strong internal consistency reliability, ATTMW ($\alpha = .99$), ATTM ($\alpha = .97$), and ATTW ($\alpha = .98$) (Billard, 2018).

Measures of participant attitudes toward transgender participation within intercollegiate athletics utilized items from previous research completed with Japanese university student-athletes (Tanimoto & Miwa, 2021). Specifically, question items around participation were asked in order to measure student-athlete attitudes toward transgender athletic participation based on current sport participation guidelines, which largely hinge on hormonal treatment to mitigate any perceived (although not conclusive) physical athletic advantages. For example, student-athletes were presented the following statement items and asked to respond on a Likert-type scale from ‘Strongly Disagree to Strongly Agree’:

1. Male to Female [MtF] transgender athletes who have undergone hormone treatment should participate according to their sex assigned at birth (male)
2. Male to Female [MtF] transgender athletes who have undergone hormone treatment should participate according to their current gender identity (female)
3. Male to Female [MtF] transgender athletes who have NOT undergone hormone treatment should participate according to their sex assigned at birth (male)
4. Male to Female [MtF] transgender athletes who have NOT undergone hormone treatment should participate according to their current gender identity (female)

Importantly, the authors acknowledge that the use of FtM/MtF terminology in the wording of survey questions problematically emphasize essentialist notions of sex and gender, particularly in opposition to the commonly accepted use of trans man/trans woman. However, this wording is intentional for two reasons. Firstly, in testing the survey instrument with a subset of student-athletes, it became clear students were confusing the identities of trans men and trans women, often reversing the two. Indeed, student-athletes are not experts in gender identity and gender terminology and thus we found that the terms ultimately utilized allowed for the greatest level of understanding and clarity among survey respondents, circumventing possible confusion over gender terminology. Secondly, while we are critical of biological essentialism in sporting policy and procedures, the contemporary organization of collegiate athletics already places student-athletes into a gendered environment that is largely founded on biological essentialism. Indeed, cultural cisgenderism and heteronormativity remain the structuring force in collegiate athletics. Given the purpose of the study – to gauge attitudes among student-athletes – we believe questions aligning with current elite sport policies and practices was necessary.

Items were coded so that higher scores on the subscales were representative of ‘more accepting’ attitudes toward transgender athletes participating in intercollegiate athletics according to their current gender identities. Analysis of the individual questions within the scale revealed high correlations between items. Additionally, initial principal components analysis revealed singular, unidimensional factor loadings for MtF and FtM participation. As such, analysis utilized an aggregation of the transgender athletic participation questions to form a composite score representative of respondent attitudes toward transgender participation in intercollegiate athletics, resulting in a score for MtF participation and a score for FtM participation. Analysis of the individual questions within the scale revealed strong correlations between items. Additionally, initial principal components analysis revealed a singular component with an Eigenvalue greater than one indicating a one factor solution for both MtF and FtM participation. As such, analysis utilized an aggregation of the transgender athletic participation questions to form a composite score representative of respondent attitudes toward transgender

participation in intercollegiate athletics, resulting in a score for MtF participation and a score for FtM participation. This sample produced convincing internal consistency reliability scores, MtF ($\alpha = .80$) and FtM participation ($\alpha = .85$).

The survey also included items aimed at measuring religiosity of participants and political affiliation. Respondents were asked to rank their religiosity on a scale from 0 to 10 with a score of 0 representing 'not at all committed' to their identified religion's teachings and 10 representing 'totally committed' to their identified religion's teachings. Political affiliation/identity was measured through a question asking respondents to select a choice which most closely aligns to their political identification and ideology. Response choices were presented using a 7-item scale that ranged from 'extremely liberal' to 'extremely conservative'.

Data Analysis

Data were analyzed using SPSS statistical software. The first research question utilized descriptive statistics to depict overall attitudes of intercollegiate student-athletes toward transgender individuals. Regression analysis was used to determine the proportion of variance explained in research questions two, three, and four. The final research question was addressed using a MANOVA to examine group differences based on political affiliation attitudes about transgender individuals and their participation in college sport.

Results

Overall, participants averaged neutral attitudes towards transgender individuals ($M = 4.10$, $SD = 1.63$). While 33 participants averaged scores lower than 3.5 on the ATTMW indicating more prejudice against transgender individuals, 36 participants averaged above 4.5 exhibiting more accepting attitudes towards transgender people. These overall results indicate a wide range in attitudes and suggests a need to examine potential factors influencing student-athlete attitudes regarding transgender men and women.

Regression Analysis

A multiple regression was utilized to determine the explained variance in attitudes towards transgender individuals from level of religiosity and political affiliation. Results indicated that the two predictors explained over a third of the variance ($R^2 = .355$, adjusted $R^2 = .341$) in attitudes towards transgender individuals, $F(2, 93) = 25.61$, $p < .001$. Both religiosity ($\beta = -.35$, $p < .001$) and political affiliation ($\beta = -.39$, $p < .001$) significantly contributed to the model. See Table 1 for regression coefficients and standard errors.

The multiple regression analysis showed that three independent variables, level of religiosity; political affiliation; and attitudes towards transgender individuals, explained about 40% of the variance ($R^2 = .40$, adjusted $R^2 = .39$) in perceptions of transgender female athlete participation in college athletics, $F(3, 92) = 20.82$, $p < .001$. While political affiliation ($\beta = -.27$, $p = .07$) and ATTMW ($\beta = .42$, $p < .001$) significantly contributed to the model, religiosity did not ($\beta = -.07$, $p = .47$). See Table 2 for regression coefficients and standard errors.

The independent variables of level of religiosity, political affiliation, and attitudes towards transgender individuals explained about 25% of the variance ($R^2 = .28$, adjusted $R^2 = .25$) in perceptions of transgender male athlete participation in college athletics, $F(3, 92) = 11.74$, $p < .001$. Similar to transgender women, political affiliation ($\beta = -.30$, $p = .005$) and

ATTMW ($\beta = .26, p = .02$) significantly contributed to the model, while religiosity did not ($\beta = -.08, p = .42$). See Table 3 for regression coefficients and standard errors.

Table 1

Multiple Regression Summary for Attitudes Towards Transgender Individuals

Variable	B	95% CI for B		SE B	β
		LL	UL		
Religiosity	-.169***	-.254	-.085	.043	-.348***
Political Affiliation	-.735***	-.1.06	-.403	.167	-.386***

Note: Model = ‘Enter’ method used in SPSS; B = unstandardized regression coefficient; CI = confidence interval; LL = lower limit; UL = upper limit, SE B = standard error of the coefficient; β = standardized coefficient.

$R^2 = .355$, adjusted $R^2 = .341$ ($N = 96, p < .001$).

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 2

Multiple Regression Summary for Transgender Female Athlete Participation

Variable	B	95% CI for B		SE B	β
		LL	UL		
Religiosity	-.080	-.300	.140	.111	-.066
Political Affiliation	-.682**	-1.17	-.194	.246	-.266**
ATTMW	1.03***	.527	1.54	.255	.416***

Note: Model = ‘Enter’ method used in SPSS; B = unstandardized regression coefficient; CI = confidence interval; LL = lower limit; UL = upper limit, SE B = standard error of the coefficient; β = standardized coefficient.

$R^2 = .40$, adjusted $R^2 = .39$ ($N = 96, p < .001$).

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3

Multiple Regression Summary for Transgender Male Athlete Participation

Variable	B	95% CI for B		SE B	β
		LL	UL		
Religiosity	-.103	-.356	.151	.128	-.081
Political Affiliation	-1.46**	-2.47	-.452	.507	-.296**
ATTMW	.685*	.116	1.25	.286	.264*

Note: Model = ‘Enter’ method used in SPSS; B = unstandardized regression coefficient; CI = confidence interval; LL = lower limit; UL = upper limit, SE B = standard error of the coefficient; β = standardized coefficient.

$R^2 = .30$, adjusted $R^2 = .28$ ($N = 96, p < .001$).

* $p < .05$, ** $p < .01$, *** $p < .001$.

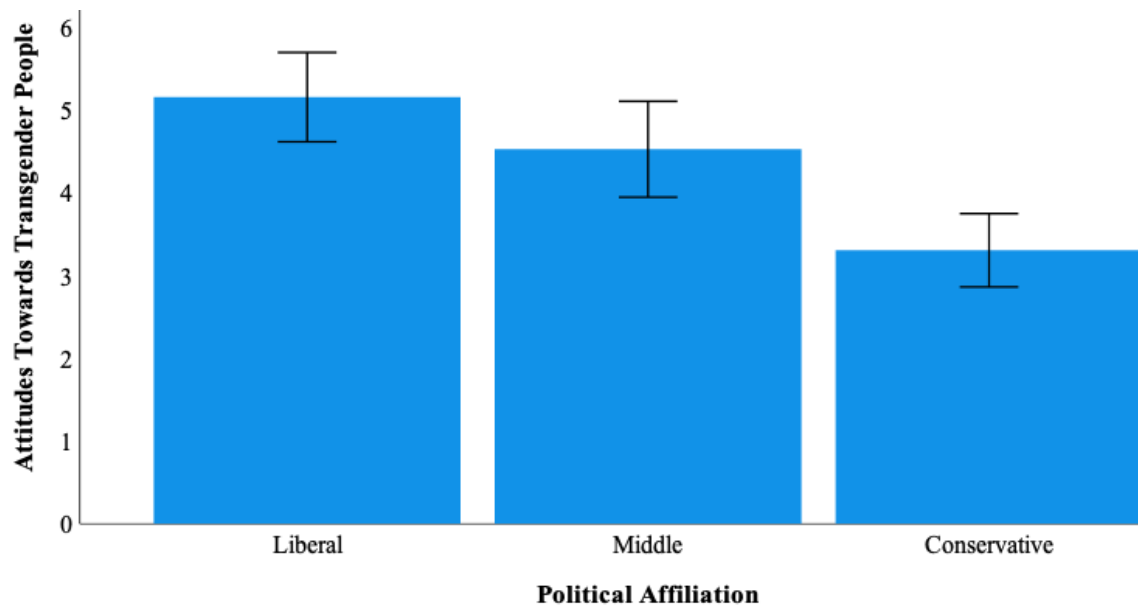
Analysis of Group Differences

A one-way MANOVA was utilized to examine the effect of political affiliation (conservative, middle, liberal) on overall attitudes towards transgender people, transgender male athlete participation, and transgender female athlete participation. The differences between political affiliations on the combined dependent variables was statistically significant, $F(6, 182) = 8.50, p < .001$, Wilks' $\Lambda = .61$; partial $\eta^2 = .22$. Follow-up ANOVAs showed that attitudes regarding transgender people ($F(2, 93) = 15.67, p < .001$; partial $\eta^2 = .25$), transgender male athlete participation ($F(2, 93) = 13.47, p < .001$; partial $\eta^2 = .23$), and transgender female athlete participation ($F(2, 93) = 15.36, p < .001$; partial $\eta^2 = .25$) were statistically significant between the three different political affiliations with a Bonferroni adjusted α of .025.

For overall attitudes towards transgender people, Tukey post-hoc tests that liberal ($p < .001$) and middle ($p = .004$) groups were significantly more open to transgender people than the conservative group. Differences between liberal and middle groups were not found to be significant ($p = .28$).

Figure 1.

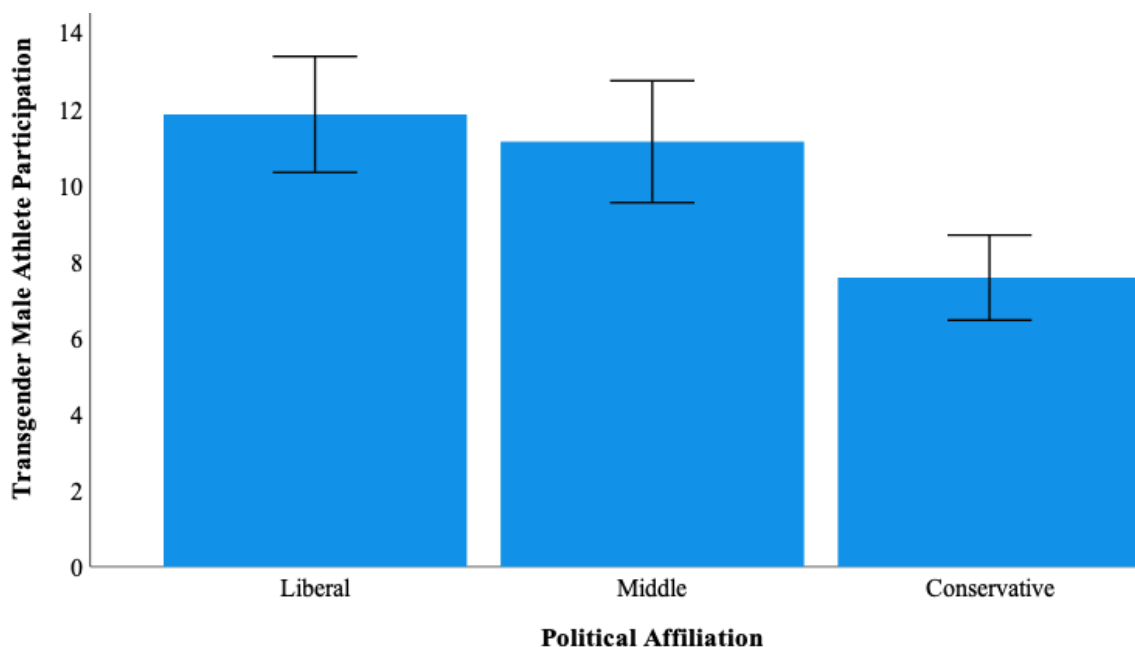
Attitudes Towards Transgender People for Different Political Affiliations



For transgender male athlete participation, Tukey post-hoc tests that liberal ($p < .001$) and middle ($p = .001$) groups were significantly more open to transgender men participating according to their gender identity than the conservative group. No significant differences were found between the liberal and middle groups ($p = .79$).

Figure 2.

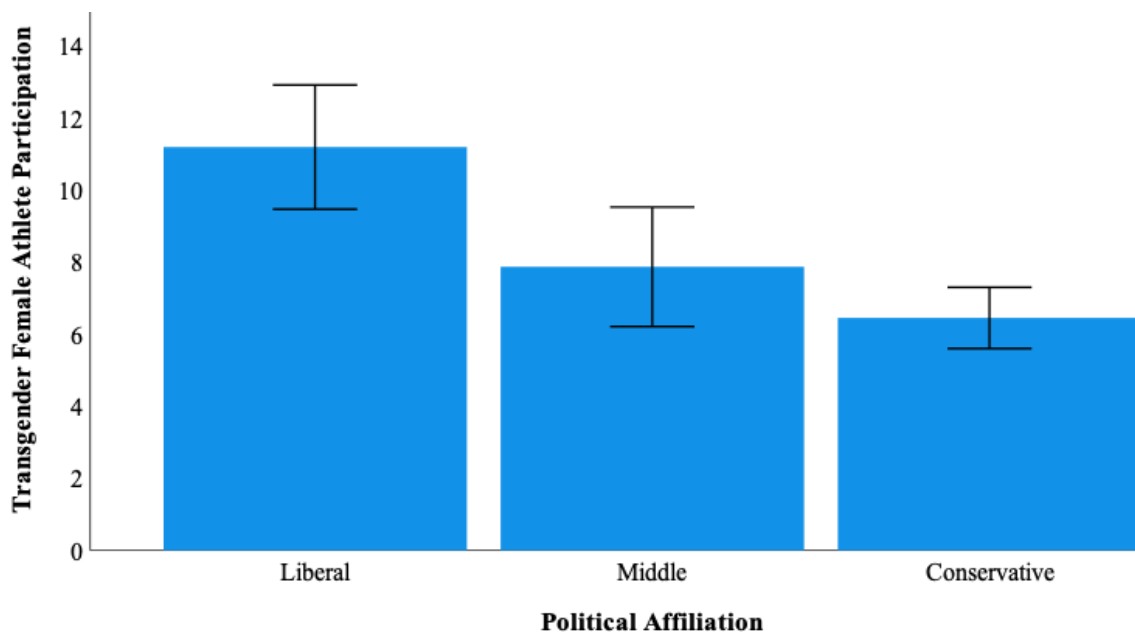
Attitudes for Transgender Male Athlete Participation for Different Political Affiliations



For transgender female athlete participation, Tukey post-hoc tests that the liberal group was significantly more open to transgender women participating according to their gender identity than the conservative ($p < .001$) and middle ($p = .004$) groups. No significant differences were found between the conservative and middle groups ($p = .27$).

Figure 3.

Attitudes for Transgender Female Athlete Participation for Different Political Affiliations



Discussion

As it pertains to general attitudes of intercollegiate athletes toward transgender individuals, the overall mean of the sample was relatively close to the mid-point of the attitudinal scale (4.1 on a 7-point Likert scale). However, the range of the scores provided a basis for further investigation to understand what may drive differences in attitudes toward transgender individuals amongst this population group. As such, political affiliation and religiosity have been identified as potential influences of attitudes toward queer populations (Flores et al., 2017; Norton & Herek, 2013; Taylor et al., 2018), and these markers were thus examined in order to determine the potential impact they have on the attitudes of student-athletes toward transgender individuals.

Table 1 above presents the results of this analysis. As presented, it is clear that the religiosity and political affiliation of student-athletes in the sample significantly contributed to the variance in general attitudes toward transgender individuals. Specifically, increased religiosity led to more negative attitudes toward transgender individuals, and more conservative political ideology led to the same. This is supported by previous literature both inside (Anderson, 2017; Anderson et al., 2019; Norton & Herek, 2013; Taylor et al., 2018) and outside (Flores et al., 2020) of sporting environments.

This finding has important implications for managers and administrators of sporting spaces, particularly intercollegiate athletic spaces at religiously affiliated institutions and/or in geographically conservative areas. This finding indicates that the attitudes of religiously-oriented or conservative participants toward transgender individuals at large are more negative, apart from any perceived notions of athletic ability or (dis)advantages. Athletic administrators within these environments (who themselves may or may not share these attitudes) should work to explicitly address the impact of religiosity and political ideology within their team settings, particularly with reference to the inclusion and acceptance of gender and sexual minority populations.

An analysis of student-athlete attitudes towards the participation of transgender women in intercollegiate athletics specifically shows that both political affiliation and overall (non-sport specific) attitudes towards transgender persons explain differences in levels of accepting attitudes. More directly, conservative political ideology led to more negative attitudes toward transgender female sport participation, while more positive attitudes toward transgender people in general led to more positive attitudes toward transgender female sport participation. These results serve to further underline the impact of individual (and societal) political ideology on acceptance of transgender participation in intercollegiate athletics. Noted above, this is likely to be important within intercollegiate athletic environments in conservative geographic locations and is likely to take on increased importance as the higher education environment becomes more politicized. Sport managers within intercollegiate settings should strive to better understand the impact that political ideology has on the inclusiveness of sporting environments, and should work to, as much as possible, mitigate the impact of such ideology on the acceptance of marginalized participants in sport.

Although transgender male participation in sport is largely seen as less ‘controversial’ for policymakers and legislators (Jones et al., 2017), the results presented do indicate that the same attitudinal pattern emerged when student-athletes were asked about their participation in intercollegiate athletics. Specifically, more conservative political affiliation led to more negative attitudes toward transgender male sport participation, while more positive attitudes toward transgender people in general led to more positive attitudes toward transgender male sport participation.

Although political ideology may be difficult to address or may even be seen as outside the realm of those managing intercollegiate athletic spaces, there is value in acknowledging the impact of political affiliation on anti-LGBTQ+ attitudes generally (Hoyt et al., 2018; Lee & Ostergard, 2017; Stone, 2016). However, education revolving around acceptance of transgender individuals in general is something that sport administrators within higher education should be focused on. Given the results of this study that overall attitudes toward transgender people are, perhaps not surprisingly, positively related to attitudes toward transgender participation in intercollegiate athletics, this focus can potentially have positive impacts in how transgender athlete participation in intercollegiate sport is perceived. There is some evidence that targeted training initiatives aimed at LGBTQ+ inclusion can be successful in sport settings within higher education (Anderson et al., 2021; Knee, et al., 2023) and managers within intercollegiate athletics should carefully consider how they are addressing negative attitudes toward sexual and gender minorities within their participant groups.

The investigation of group differences outlined in the analysis above serve to underscore the political divide when it comes to attitudes toward transgender people in general and transgender participation in sport. Student-athletes with more liberal political ideologies had more positive attitudes toward transgender people in general, and those with both liberal or middle/neutral showed significantly more positive attitudes toward transgender people than student-athletes who identified as conservative.

Interestingly, there were some differentiations when it came to attitudes toward transgender men participating in intercollegiate athletics versus transgender women. Student-athletes that identified as liberal and/or neutral in their political ideologies were more accepting of trans men participating in intercollegiate athletics than student-athletes that identified as conservative. However, when it came to transgender women, only student-athletes that identified as liberal showed significantly more accepting attitudes towards trans women participating in intercollegiate athletics than student-athletes identifying as neutral and/or conservative politically. These findings serve to underscore the differentiation that current student-athletes make between transgender men and transgender women participating in intercollegiate athletics, and support previous research around these attitudes (Jones et al., 2017; Tanimoto & Miwa, 2021).

Competitive sport, and its reliance on a system that enforces a strict gender binary driven by heteronormativity, have long emphasized masculinity above femininity. Historically, this has raised important issues as it relates to gender equity within sport through the lens of fairness—an advocacy for equal opportunity based upon gender in competitive sporting environments. Presently, this same binary system has been questioned by the growing representation of participants that openly identify as transgender and the question of fairness for this population's participation in competitive sport. While policies to govern such participation exist (and continue to be made from legislative and sporting bodies alike), evidence-based policies seem to be increasingly lacking (Jones et al., 2017). While this study doesn't address physiological evidence as it relates to transgender athlete participation within intercollegiate athletics, it does provide important attitudinal based evidence from the athletes themselves, rather than sport administrators and/or political leaders who are often far removed from sport participation and driven by a particular agenda. As such, this study serves to (re)iterate that much of what seems to be driving negative attitudes toward transgender participation in elite sport is tied to participant religious and political ideology, rather than concerns about the fairness of such participation. From this, it seems logical that the reinforcement of heteronormative assumptions about gender and sex differences in sporting environments when it comes to transgender participation are

largely being driven from the same ideological origins, rather than a true concern for ‘fair play’ and gender equity.

Limitations and Future Implications

This study presented the attitudes of current intercollegiate student-athletes toward transgender individuals and transgender participation in intercollegiate athletics, an area of policy that is highly contested in the political arena but is not well researched. Although the study adds to this body of research in important ways, it does have limitations that are necessary to consider when interpreting the results. This study featured a representative, but relatively small sample of current student-athletes. While the sample size was adequate for the analysis and conclusions presented, it should be recognized that much further study is necessary with larger more diverse samples, across all divisions of intercollegiate sport. The study also utilized a relatively limited scope for sport participation built upon the current policy mechanisms surrounding transgender sport participation (i.e., hormone treatment and transgender athlete participation). While this focus is understandable given the time and purpose of the study, future research should expand into other interpretations of transgender sport participation, regardless of the presence of hormonal medical intervention. Indeed, queer scholars have begun to question the very heteronormative assumptions that underlie sporting structures and gendered-sport participation (Knoppers, et al., 2022; Krane & Barber, 2018). While this research, given its focus on athlete attitudes, does not necessarily extend this line of queer sport research it does provide some foundation for where current attitudes sit, a potential precursor to more structural change. Furthermore, the authors sincerely hope that this study can serve as the starting point for more robust examinations of transgender participation in all areas of sport, beyond just the elite levels, and that the further understanding of attitudes of current participants toward transgender people and athletes can aid in a more equitable future of sporting opportunities for all, regardless of gender identity.

An additional consideration to take into account with the current study is the concept of “priming”. Priming can be defined as “an experimental framework in which the processing of an initially encountered stimulus is shown to influence a response to a subsequently encountered stimulus” (Janiszewski & Wyer, 2014, 97). With regards to the current study, it may be of some importance to note that the respondents were asked questions related to transgender participation in intercollegiate athletics prior to being asked questions related to attitudes toward transgender people more generally. This structural order of the instrument could possibly prime respondents to answer questions related to general attitudes toward transgender people with a more “sport focused”, political, or ideological framework. This could lead to respondents providing answers to general attitudinal questions found in the Attitudes Toward Transgender Men and Women (ATTMW) scale (Billard, 2018) while still within the context of sport participation or their role as student-athletes specifically, rather than from a larger holistic viewpoint. While this has the potential to impact attitudinal responses, and thus is important to consider, it is also possible the order of the questions on the survey instrument had little or no effect on participant responses.

This is particularly true for two reasons. Firstly, it is likely that active student-athletes are already thinking through a gendered sporting lens given the primacy of this identity in their lives (and expectations put on student-athletes). Indeed, priming research related to attitudes towards transgender attitudes and rights has shown that the perception of threats to established gender norms (in this case sporting gender norms) can influence the salience of a particular identity and the interests of that identity over others (Harrison & Michelson, 2019; Klar, 2013). In other words, the salience of the student-athlete identity, and the established sporting gendered norms

associated with intercollegiate athletics, may already be priming their attitudes. Additionally, and relatedly, priming certainly occurs outside of the research context. Indeed, student-athletes would be hard pressed to not engage with media coverage and discussions surrounding transgender issues within society broadly and transgender sport participation specifically. As mentioned earlier in this manuscript, as this topic becomes increasingly politicized, it seems equally likely that the student athletes in this study were already “primed” into their opinions on transgender individuals prior to engaging with the survey instrument (Harrison & Michelson, 2020).

Conclusion

The debate around transgender athletic participation continues to sound off in diverse settings, including media commentary, political debates, public discourse, and athletic policy. Coinciding with this debate are increases in anti-transgender laws and policies limiting the participation of transgender individuals in competitive athletics. While policies are diverse and evolving, scholars have expressed concern that they are often reactionary and lack clear scientific evidence (E-Alliance, 2022; Jones et al., 2017). Furthermore, and pertinent to the study undertaken here, there is little scientific inquiry into the attitudes that student-athletes have on this topic. To our knowledge this study is the first to systemically examine the attitudes of current student-athletes towards transgender persons and transgender athletic participation in the United States.

Attitudes, while individual-level constructs, can reflect or diverge from the dominant discourse surrounding a topic. As such, attitudes are an essential indicator of transgender in/exclusion in sport that can have implications for public policy and sport governance. Here, evidence suggests that attitudes towards transgender individuals overall, political affiliation, and religiosity impact attitudes on transgender athletic participation. These results should be contextualized within the current athletic environment in which access for transgender athletes continues to narrow and anti-trans public discourse grows. Indeed, results here suggest that the continued evolution of policies limiting transgender participation are not necessarily reflective of the attitudes from the majority of student-athletes themselves, but rather reflect political and religious leanings, perhaps necessitating less-reactionary shifts from policymakers and more educational opportunities promoting positive attitudes towards transgender lives and gendered sport participation (Knee, et al., 2023).

References

- Afrouzeh, M. S., Phipps, C., Afrouzeh, A., Mehri, A., & Asiri, Z. A. (2023). “The spectators ask, is it a boy or a girl? What is it?”: Cultural cisgenderism and trans men’s sporting experiences in Iran. *International Review for the Sociology of Sport*.
<https://doi.org/10.1177/10126902231162270>
- Anderson, A. R. (2017). Recreational sport participant attitudes toward lesbians and gay men: An exploratory study of participation, religion, socioeconomic status, and sexual identity. *Recreational Sports Journal*, 41(1), 27-41. <https://doi.org/10.1123/rsj.2016-0002>
- Anderson, A. R., Knee, E., & Ramos, W. D. (2021). Impact of an LGBTQ campus recreation student employee training initiative on professional competencies. *Recreational Sports Journal*, 45(2), 139-148. <https://doi.org/10.1177/155886612110101>

- Anderson, A. R., Smith, C. M. L., & Stokowski, S. E. (2019). The impact of religion and ally identity on individual sexual and gender prejudice at an NCAA Division II institution. *Journal of Issues in Intercollegiate Athletics*, 12(1), 154-177.
- Ansara, Y. G., & Hegarty, P. (2011). Cisgenderism in psychology: Pathologising and misgendering children from 1999 to 2008. *Psychology and Sexuality*, 3(2), 77-101. <https://doi.org/10.1080/19419899.2011.576696>
- Billard, T. J. (2018). Attitudes toward transgender men and women: Development and validation of a new measure. *Frontiers in Psychology*, 9(Article 387). <https://doi.org/10.3389/fpsyg.2018.00387>
- Brackenridge, C. H., Bishopp, D., Moussalli, S., & Tapp, J. (2008). The characteristics of sexual abuse in sport: A multidimensional scaling analysis of events described in media reports. *International Journal of Sport and Exercise Psychology*, 6(4), 385-406. <https://doi.org/10.1080/1612197X.2008.9671881>
- Campbell, M., Hinton, J. D., & Anderson, J. R. (2019). A systematic review of the relationship between religion and attitudes toward transgender and gender-variant people. *International Journal of Transgenderism*, 20(1), 21-38. <https://doi.org/10.1080/15532739.2018.1545149>
- Cragun R. T., & Sumerau J. E. (2015). The last bastion of sexual and gender prejudice? Sexualities, race, gender, religiosity, and spirituality in the examination of prejudice toward sexual and gender minorities. *The Journal of Sex Research*, 52(7), 821-834. <https://doi.org/10.1080/00224499.2014.925534>
- Cunningham, G. B., & Pickett, A. C. (2018). Trans prejudice in sport: Differences from LGB prejudice, the influence of gender, and changes over time. *Sex Roles*, 78, 220-227. <https://doi.org/10.1007/s11199-017-0791-6>
- Cunningham, G. B., Buzuvis, E., & Mosier, C. (2018). Inclusive spaces and locker rooms for transgender athletes. *Kinesiology Review*, 7(4), 365-374. <https://doi.org/10.1123/kr.2017-0062>
- Cunningham, G. B., Isard, R., & Melton, E. N. (2021). Transgender inclusion in sport. *Kinesiology Review*, 1, 1-7. <https://doi.org/10.1123/kr.2021-0040>
- Devine, C. (2022). Female Olympians' voices: Female sport categories and International Olympic Committee transgender guidelines. *International Review for the Sociology of Sport*, 57(3), 335-361. <https://journals.sagepub.com/doi/abs/10.1177/10126902211021559>
- E-Alliance. (2022). *Transgender women athletes and elite sport: A scientific review*. Canadian Centre for Ethics in Sport. <https://www.cces.ca/node/66938>
- FINA (2022, June 19). Press release: FINA announces new policy on gender inclusion. Retrieved from: <https://www.fina.org/news/2649715/press-release-fina-announces-new-policy-on-gender-inclusion>
- Flores, A. R., Haider-Markel, D. P., Lewis, D. C., Miller, P. R., Tadlock, B. L., & Taylor, J. K. (2017). Challenged expectations: Mere exposure effects on attitudes about transgender people and rights. *Political Psychology*, 39(1), 197-216. <https://doi.org/10.1111/pops.12402>
- Flores, A. R., Haider-Markel, D. P., Lewis, D. C., Miller, P. R., Tadlock, B. L., & Taylor, J. K. (2020). Public attitudes about transgender participation in sports: The roles of gender, gender identity conformity, and sports fandom. *Sex Roles*, 83(5), 382-398. <https://doi.org/10.1007/s11199-019-01114-z>
- Griffin, P. (1998). *Strong women, deep closets: Lesbians and homophobia in sport*. Human Kinetics

- Hargie, O. D., Mitchell, D. H., & Somerville, I. J. (2017). 'People have a knack of making you feel excluded if they catch on to your difference': Transgender experiences of exclusion in sport. *International Review for the Sociology of Sport*, 52(2), 223-239. <https://doi.org/10.1177/1012690215583283>
- Harrison, B. F., & Michelson, M. R. (2019). Gender, masculinity threat, and support for transgender rights: An experimental study. *Sex Roles*, 80, 63-75. <https://doi.org/10.1007/s11199-018-0916-6>
- Harrison, B. F., & Michelson, M. R. (2020). Using experiments to understand public attitudes towards transgender rights. In N.E. Brown & S.A. Gershon (Eds.), *Body Politics* (pp. 152-160). Routledge.
- Hilton, E. N., & Lundberg, T. R. (2021). Transgender women in the female category of sport: Perspectives on testosterone suppression and performance advantage. *Sports Medicine*, 51(2), 199-214. <https://doi.org/10.1007/s40279-020-01389-3>
- Hoyt, C. L., Morgenroth, T., & Burnette, J. L. (2018). Understanding sexual prejudice: The role of political ideology and strategic essentialism. *Journal of Applied Social Psychology*, 49(1), 3-14. <https://doi.org/10.1111/jasp.12560>
- Janiszewski, C. & Wyer, R. S. (2014). Content and process priming: A review. *Journal of Consumer Psychology*, 24(1), 96-118. <https://doi.org/10.1016/j.jcps.2013.05.006>
- Jones, B. A., Arcelus, J., Bouman, W. P., & Haycraft, E. (2017). Sport and transgender people: A systematic review of the literature relating to sport participation and competitive sport policies. *Sports Medicine*, 47(4), 701-716. <https://doi.org/10.1007/s40279-016-0621-y>
- Kauer, K., & Krane, V. (2013) Sexual identity and sport. In: Roper, E. (ed.) *Gender Relations in Sport* (pp. 53-72). Rotterdam: Sense Publishers.
- Klar, S. (2013). The influence of competing identity primes on political preferences. *Journal of Politics*, 75, 1108-1124. <https://doi.org/10.1017/S0022381613000698>.
- Knee, E., Anderson, A. R., Ramos, W. D., & Miller, A. M. (2023). Attitudes of campus recreational sport employees toward LGBTQ+ participants: Does targeting training make an impact?. *Leisure/Loisir*, 1-24. <https://doi.org/10.1080/14927713.2023.2252836>
- Knoppers, A., McLachlan, F., Spaaij, R., & Smits, F. (2022). Subtexts of research on diversity in sport organizations: Queering intersectional perspectives. *Journal of Sport Management*, 36(6), 613-622. <https://doi.org/10.1123/jsm.2021-0266>
- Krane, V., & Barber, H. (2018). Creating a new sport culture: Reflections on queering sport. In Krane, V. (ed.), *Sex, gender, and sexuality in sport* (pp. 223-237). Routledge.
- Lee, C. & Ostergard, R. (2017). Measuring discrimination against LGBTQ people: Cross-National analysis. *Human Rights Quarterly*, 39(1), 37-72.
- Lenskyj, H. J. (2013). Reflections on communication and sport: On heteronormativity and gender identities. *Communication & Sport*, 1(1-2), 138-150. <https://doi.org/10.1177/2167479512467327>
- McClearen, J. (2015). The paradox of Fallon's fight: Interlocking discourses of sexism and cissexism in mixed martial arts fighting. *New Formations*, 86(86), 74-88. <https://doi.org/10.3898/NEWF.86.04.2015>
- Miller, P., Flores, A., Haider-Markel, D., Lewis, D., Tadlock, B., & Taylor, J. (2017). Transgender politics as body politics: Effects of disgust sensitivity and authoritarianism on transgender rights attitudes. *Politics, Groups, and Identities*, 5(1), 4-24. <https://doi.org/10.1080/21565503.2016.1260482>

- Nagoshi, C. T., Raven Cloud, J., Lindley, L. M., Nagoshi, J. L., & Lothamer, L. J. (2019). A test of the three-component model of gender-based prejudices: Homophobia and transphobia are affected by raters' and targets' assigned sex at birth. *Sex Roles*, 80(3), 137-146. <https://doi.org/10.1007/s11199-018-0919-3>
- NCAA (2022, January 19). Transgender student-athlete participation policy. Retrieved from: <https://www.ncaa.org/sports/2022/1/27/transgender-participation-policy.aspx>
- Norton, A. T., & Herek, G. M. (2013). Heterosexuals' attitudes toward transgender people: Findings from a national probability sample of US adults. *Sex Roles*, 68(11), 738-753. <https://doi.org/10.1007/s11199-011-0110-6>
- Pieper, L. P. (2016). "Preserving la difference": The elusiveness of sex-segregated sport. *Sport in Society*, 19(8-9), 1138-1155. <https://doi.org/10.1080.17430437.2015.1096258>
- Schilt, K., & Westbrook, L. (2009). Doing gender, doing heteronormativity: 'Gender normals,' transgender people, and the social maintenance of heterosexuality. *Gender & Society*, 23(4), 440-464. <https://doi.org/10.1177/0891243209340034>
- Stone, A.L. (2016). The impact of anti-gay politics on the LGBTQ movement. *Sociology Compass*, 10(6), 459-467.
- Sykes, H. (2011). *Queer bodies: Sexualities, genders and fatness in Physical Education*. New York: Peter Lang
- Tanimoto, C., & Miwa, K. (2021). Factors influencing acceptance of transgender athletes. *Sport Management Review*, 24(3), 452-474. <https://doi.org/10.1080/14413523.2021.1880771>
- Taylor, J., Lewis, D., Haider-Markel, D., Flores, A., Miller, P., & Tadlock, B. (2018). The factors underlying public opinion about transgender rights. In J. Taylor, D. Lewis, & D. Haider-Markel (Eds.), *The remarkable rise of transgender rights* (pp. 87–103). Ann Arbor, MI: University of Michigan Press.
- Teetzel, S. (2017). Athletes' perceptions of transgender eligibility policies applied in high performance sport in Canada. In E. Anderson & A. Travers (Eds.), *Transgender athletes in competitive sport* (pp. 68–79). Routledge.
- Westbrook, L., & Schilt, K. (2014). Doing gender, determining gender: Transgender people, gender panics, and the maintenance of the sex/ gender/sexuality system. *Gender & Society*, 28(1), 32–57. <https://doi.org/10.1177/0891243213503203>