



RSGC  
Royal St. George's College

# The Young Researcher

2023 Volume 7 | Issue 1

## Empowering Champions: An Explanatory Mixed Methods Study on Ontario Adolescent Female Field Hockey Players' Adherence to Gender Norms in Athletics

Darcie Brohman

### Recommended Citation

Brohman, D. (2023). Empowering champions: An explanatory mixed methods study on Ontario adolescent female field hockey players' adherence to gender norms in athletics. *The Young Researcher*, 7(1), 194-207. <http://www.theyoungresearcher.com/papers/brohman.pdf>

ISSN: 2560-9815 (Print) 2560-9823 (Online) Journal homepage: <http://www.theyoungresearcher.com>

All articles appearing in *The Young Researcher* are licensed under CC BY-NC-ND 2.5 Canada License.

# Empowering Champions: An Explanatory Mixed Methods Study on Ontario Adolescent Female Field Hockey Players' Adherence to Gender Norms in Athletics

Darcie Brohman

*Abstract:* Despite recognizing that sports are inherently masculine, divergent findings exist regarding the effect of athletics culture on female athletes' adherence to gender norms. This explanatory sequential mixed-methods study aims to gain a deeper understanding of how field hockey, a feminized sport in Ontario, influences athletes' conformity to gender norms. Data was collected from 42 field hockey players and 55 non-athletes utilizing a survey adaptation of the Bem Sex-Role Inventory and semi-structured interviews. The study found a minimal discrepancy between athletes' and non-athletes' conformity to gender norms, which is attributed to the contemporary implementation of femininity in athletics and the feminization of field hockey. As a result, athletes experienced empowerment yet reported judgment from stakeholders and body image issues. Therefore, mitigating solutions are proposed, including altering the perception of field hockey to be androgynous to increase the perceived athletic validity of the sport, appointing female coaches, and training male coaches.

*Keywords:* field hockey, adherence to traditional gender norms, female empowerment, body image issues, athletics culture

## Introduction

Since the origin of competitive sport, athletics culture has promoted adherence to traditionally masculine traits, attitudes, and behaviours, having significant repercussions on female athletes who simultaneously are pressured by society to adhere to contrasting traditionally feminine gender norms (Koca et al., 2005; Stick, 2021). However, as female empowerment initiatives gain additional traction in the 21st century, the adverse implications of gender norms in all realms of life, including athletics, receive significant attention

(Stick, 2021). In an effort to gain a deeper understanding of how specifically these consequences influence female athletes and how they may be mitigated, numerous studies have explored the effect that sporting culture has had on competitive female athletes' adherence to gender norms (Koca et al., 2005; Bastug & Kuru, 2011; Steinfeldt et al., 2011). However, results have remained contradictory, arguably due to a lack of specifying the sports athletes participate in, as various sports have been identified as having divergent gender norms influenced by cultural and historical factors (Plaza et al., 2016). As a result, it is integral to investigate competitive female adolescent athletes'

adherence to gender norms in a team sport with specific gender association, such as field hockey in Ontario, which has culturally been feminized (Plaza et al., 2016).

It is hypothesized that despite field hockey in Ontario being culturally feminine, female athletes will reject these restrictive feminine roles, as they may not be reflective of their identity. Instead, it is anticipated that the athletes will conform to masculine gender norms, which are praised in competitive sports (Stick, 2021). As a result, it is anticipated that though rejecting orthodox femininity will provide athletes with a sense of empowerment, consequences from these competing pressures will have adverse implications for participants (Chalabaev et al., 2013; Eime et al., 2016).

Notably, for the purpose of this study, females will refer solely to cis-gendered women, as non-cis-gendered females may experience additional pressures as members of the LGBTQ2S+ community that cannot be rightfully addressed in the time constraints of this study.

## Literature Review

This literature review will explore gender as a construct in athletics in contemporary Western society, female athletes' various degrees of adherence to gender stereotypes promoted in athletics, and adverse indications and implications of traditional gender roles in athletics to contextualize this study with documented research.

### The Promotion of Gender Norms in Athletics

Arguably, gender norms evident in athletics are derived from detrimental ideologies, such as biological determinism, originating as early as 384 BCE and modernly defined as the philosophy that boys are physically and physiologically superior to girls (UNESCO, 2012). Moreover, philosophies such as biological determinism have significantly influenced the traits traditionally assigned to gender, particularly with the majority of qualities perceived as impactful being associated with masculinity, such as leadership abilities (UNESCO, 2012). Furthermore, these ideolo-

gies are only exacerbated by guardians and peers, negatively impacting impressionable adolescents, as judgments from peers are recognized as one of the most significant barriers undermining female participation in athletics (Brown & Stone, 2016; Lunde & Gattario, 2017). Notably, female athletes may react adversely to these judgments as they inherently go against orthodox feminine traits or are misleading. These judgments are manifested from stereotypes and cultural norms designed to restrict female athletes. For instance, female athletes are often perceived as sexually undesirable or queer, and hassled for their muscular physicality (Slater & Tiggemann, 2010; Yungblut et al., 2012). Similar limitations may be reflected in society as women adhere to socially acceptable gender norms, believing they will gain a sense of belonging (Yungblut et al., 2012; Brown & Stone, 2016). Contrarily, Schmalz and Kerstetter found that not all female athletes feel pressure to conform to these binaries when engaged in sports that are perceived as androgynous (typically requiring less aggression) (Schmalz & Kerstetter, 2006). In contrast, Plaza emphasized in her 2016 study that the criteria assigning a sport to a specific gender are not the gender-identified qualities of the sport, but rather its culture and history (Plaza et al., 2016). Evidently, athletics are continuously associated with gender, a perspective which ignites a harmful assessment of the participants.

### Adherence to Gender Norms Promoted in Athletics

Female athletes continue to grapple with either maintaining femininity to adhere to societal expectations or adopting traditionally masculine traits to be perceived as successful in athletics (Koca et al., 2005; Yungblut et al., 2012; Stick, 2021). This dilemma is only amplified as Western society falsely reiterates that masculinity and femininity are opposing binaries that cannot exist cohesively through modern practices of heteronormativity in everyday language, gendered products, and the segregation of men and women on sports teams. The implications of these ideologies and practices in Western society are evident in Whitehead and Biddle's 2008 study, which found that the majority of non-athlete female adolescents in the United Kingdom believed that a girl could not be both sporty and feminine (Whitehead & Biddle, 2008). To further

explore female athletes' adherence to gender roles in athletics, Koca's 2005 study quantitatively measured adolescents' femininity, masculinity, and androgyny levels utilizing the accredited Bem Sex-Role Inventory (BSRI). This study utilized an adolescent participant pool of 463 men and women from Turkey - a geographical region Koca claims has similar Western gender norms to North America - including elite individual and team-sport athletes and non-athletes as a control. The results found that female athletes self-reported higher scores of masculinity and lower scores of femininity (22%) than their non-athlete counterparts (40%), revealing that female university athletes do not adhere to traditionally female gender roles to the same extent as non-athletes (Koca et al., 2005). However, recognizably, Whitehead & Biddle and Koca's studies are slightly dated and as a result, more contemporary findings may fluctuate as social norms have progressed. Nonetheless, Koca's findings align with the theory that sports may be a powerful tool to empower young women to reject traditional gender roles while challenging issues of gender inequality (Bailey et al., 2005). Oppositely, Steinfeldt's 2011 study found that female athletes and non-athletes reported the same level of conformity to feminine roles, with female athletes only reporting higher levels of conformity to traditional masculine norms (Steinfeldt et al., 2011). Steinfeldt examined the difference in conformity to feminine and masculine norms commonly endorsed in Western culture among 143 female athletes (team sport and individual sport) and non-athletes in the Midwestern United States by utilizing CFNI-45, a self-reporting test with 45 gendered terms. Despite contradicting the hypothesis, Steinfeldt stated that similar levels of conformity to gender roles between both female athletes and non-athletes might be derived from an emerging value of traditional female traits in team athletic culture, such as supportiveness and collaboration, potentially having a positive effect as female athletes' experience a new-found value of femininity in sport (Steinfeldt et al., 2011). However, female athletes in Steinfeldt's study, consistent with Koca's study, still presented higher conformity towards male gender roles. These results may be attributed to traditionally masculine traits being embedded as values in sports culture, making an increased adherence to masculinity a commonality of the studies.

### **The Internalization and Indications of Gender Norms in Athletics**

Athletes' adherence to gender norms may be subconscious and, in some cases, anticipated and recognizable through implications such as body image issues and lack of participation. This claim is supported by stereotype threat theory (1995), defined as the potential effect a stereotype can have on someone subconsciously, even if the individual consciously rejects the stereotype (Chalabaev et al., 2013). This theory is supported by Bastug and Kuru, who advocated that analyzing females' body image is integral in determining athletes' adherence to gender roles in athletics, as negative perceptions of the body are often derived from gendered ideologies found in athletics (Bastug & Kuru, 2011). Arguably, this is particularly applicable to adolescent females who, on average, are judged on their appearance more than their male counterparts and who, in turn, may fear developing traditionally masculine physical traits from sports, such as muscularity (Lunde & Gattario, 2017). In contrast, in Bastug and Kuru's 2011 study, it was found that, despite female athletes having more traditionally masculine features than non-athletes, they had more self-confidence in their physical appearance (Bastug & Kuru, 2011). Bastug and Kuru suggest this may be attributed to an empowerment to diverge from traditional gender norms sourced from athletics (Bastug & Kuru, 2011). Moreover, withdrawal from athletics is also identified as an indication of the internalization of stereotypes for young female athletes, as attrition rates for female athletes in North America dramatically increase as girls become older (Chalabaev et al., 2013; Eime et al., 2016). Bailey provides a reason for these rising rates, finding that attrition in female sports peaks around age 12, in alignment with the period when gendered ideology interacts with socialization influences (Bailey et al., 2005). However, the long-term implications of withdrawal versus continued participation are not nearly as evident until approximately two years later, during adolescence (Bailey et al., 2005). In support of this correlation, it is noted that female athletes' exposure to gender stereotypes was found to relatively accurately predict their succeeding attrition rates (Boiché et al., 2014). Indications such as declining participation in athletics and body image issues support the notion that gender roles are fostered in sport-

ing culture. These implications potentially perpetuate severe societal consequences such as acts of sexism formed from harmful ideologies, eating disorders developed from body image issues, and health concerns derived from low participation rates (Chalabaev et al., 2013; Eime et al., 2016).

### Gap Analysis

There has been extensive research on adolescent female athletes' level of adherence to gender norms present in athletics in the United States and Europe throughout the early 2000s. However, there are minimal studies examining other regions conducted in the last five years, failing to explore differing cultural perceptions of gender in a modern context in which societal values have progressed. Notably, the majority of documented research claims that athletics promote some degree of gender norms. However, there have been contrasting outcomes (Koca et al., 2005; Bastug & Kuru, 2011; Steinfeldt et al., 2011). Additionally, studies acknowledge sports as being socially assigned a gender based on cultural components and qualities; however, these studies neglect to examine gender adherence in specific sports or explicitly distinguish cohorts of team sports from individual sports (Schmalz & Kerstetter, 2006; Plaza et al., 2016). Therefore, it is plausible that the qualities of a sport may be a factor altering these outcomes. Thus, by focusing on one specific team sport and the identified gender, it may develop a more solidified comprehension of factors contributing to female athletes' response, or level of conformity, to gender norms in athletics. This research paper intends to explore this gap by analyzing adolescent female athletes' adherence to gender roles, specifically in field hockey in contemporary Ontario, Canada.

## Methodology

### Overview of Chosen Design

This study utilized an explanatory sequential mixed-methods design defined as a two-phase data collection of both quantitative (close-ended data) and subsequent qualitative data (open-ended data) (Creswell & Creswell, 2018). Edmonds and Kennedy em-

phasize the significance of the sequential aspect of the approach as the aim of the design is for the qualitative data collection to provide a subsequent interpretation and clarification of the precedent quantitative results (Edmonds & Kennedy, 2017). Therefore, it is integral to form a connection between the two consecutive phases by developing the questions for the qualitative phase based on unanswered questions or emerging themes evident in an analysis of initial quantitative data. This distinct mixed-method design indicates the procedure to be utilized in the study. However, this design remains under the larger umbrella of mixed-methods designs, originating in the early 1900s to late 1980s (Creswell & Creswell, 2018).

### Justification of Design

Mixed methods are frequently chosen due to the design's ability to capitalize on the strengths and minimize the limitations of each approach, contributing to a greater understanding (Creswell & Creswell, 2018). The limitations of only utilizing quantitative designs are demonstrated in Koca's 2005 study and Steinfeldt's 2011 work. Arguably, these studies are the closest to this research as the authors specifically measure competitive female athletes' adherence to gender norms (Koca et al., 2005; Steinfeldt et al., 2011). As a result of the researchers neglecting qualitative methods, the justification for contradicting results, as seen in Koca's work, or unexpected results demonstrated in Steinfeldt's study, must be inferred by researchers to draw a reasonable conclusion. However, this inference presents bias as the authors' preconceived notions may influence these presumed justifications, which have minimal collected data to support these claims. Consequently, an explanatory sequential mixed method design is utilized in this research to explain precedent quantitative data. This is due to the design's primary intent to establish a connection between the quantitative and qualitative data sets by having aspects of the qualitative collection adapted based on emerging themes from initial quantitative results (Edmonds & Kennedy, 2017). Recognizably, this design is effective for fields relatively new to qualitative approaches, which is applicable to this research given the lack of qualitative data collection in precedent studies (Creswell & Creswell, 2018).

## Data Collection

In accordance with the explanatory sequential mixed methods design, quantitative data collection began in early December 2022 with an online survey. Succeeding this initial data collection, qualitative interviews commenced in late December 2022. There were two cohorts of participants; each was projected to have 65 to 100 members. All participants were cis-gendered female-identifying adolescents residing in Ontario between the ages of 14 to 18. Participants in cohort A either currently play field hockey for a competitive outside-of-school club, Field Hockey Ontario or Canada and identified field hockey as their primary sport (the sport they invest the most amount of time in). In contrast, members of cohort B had not participated in competitive sports outside of school within the last two years and had never played field hockey. Participants in cohort A were recruited through emails from the organization Field Hockey Ontario. Oppositely, participants in cohort B were a convenience sample recruited through emails sent within an independent secondary school in the greater Toronto area. In addition to an invitation for participation, recruitment messages included access to the online survey and a participant-informed consent form. Participants in both cohorts completed the six-to-eight-minute online survey, which was an adaptation of the Bem Sex-Role Inventory (BSRI), originally developed in 1975 to measure participants' adherence to 40 traditional gendered traits on a seven-point scale (Bem, 1974). Notably, despite the Bem Sex-Role Inventory being slightly outdated, adaptations are consistently utilized in accredited contemporary research, further establishing its relevance. Following the survey, data was analyzed to discover emerging themes that were then utilized to develop relevant interview questions for qualitative data collection. Interviews were 30 minutes long or less and were completed by four participants from cohort A who expressed interest. Participants were asked about their experience with gender roles in field hockey and the implications they believe their experiences have had on their adherence to gendered stereotypes. Participants from cohort B were not interviewed due to time constraints of the study and prioritization for members of cohort A to be interviewed. The answers provided by participants in

interviews were analyzed and interpreted to further understand the effects of athletics culture in influencing competitive female field hockey players' adherence to gender norms.

## Ethical Note

Potential foreseeable risks included participants reporting inappropriate or discriminatory behaviour from stakeholders as they were asked to expand upon their experience with stereotypes in athletics culture. If participants were to have shared incidents of misconduct, they would have been encouraged to report these to Safe Sports Canada, which would have provided them with mental health support and resources to file a formal complaint.

Additionally, participants were asked to share their experiences and adherence to gender norms. It is recognized that these could have been uncomfortable conversations, especially for those who identify as members of the LGBTQ2S+ community. Therefore, participants were reminded that if at any time they felt uncomfortable, they had the right to withdraw from the study without penalty of loss of benefits in which they are otherwise entitled. Moreover, participants were made aware through the consent form and verbally that all provided information would remain confidential. Notably, this research was approved by my institution's Internal Ethics Review Board.

## Findings

### Introduction

This study was conducted to gain a deeper understanding of how field hockey, a feminized sport in Ontario, influences athletes' conformity to conventional gender norms. The following data was gathered from 42 adolescent female field hockey players (Cohort A, referred to as athletes) and 55 female non-athletes (Cohort B) between the ages of 14 to 18 years old residing in Ontario. The quantitative data was collected via an online survey adaptation of the BSRI, a self-reported test which measures participants' conformity to 40 traditionally feminine and masculine gender traits on a seven-point scale. Following the quantita-

# FEMALE FIELD HOCKEY PLAYERS' ADHERENCE TO GENDER NORMS IN ATHLETICS

tive survey, four athletes participated in interviews for the qualitative data collection. The four participants interviewed were either 17 or 18 years old, had been playing field hockey for an average of seven years, and currently playing field hockey competitively at either the U18 national or collegiate level. Interviews were approximately 30 minutes and posed questions about participants' experience with gender norms in field hockey, what they perceived to be contributing factors to gender norms, and their experience with subconscious indications of gender norms, such as body image issues.

## Quantitative Data

Succeeding the survey, a numerical scheme was devised, assigning each level of the scale on the BSRI to an appropriate value between zero and six for

analytical purposes. Finally, a mean calculation was performed for each trait to compare the two broader cohorts of non-athletes and athletes. (Figure 1)

When the overall mean was converted into a percentage, the adherence to traditionally feminine traits was 68% for non-athletes and approximately 63% for athletes, and adherence for masculine traits was 60% for non-athletes and 67% for athletes. Recognizably, a minority of traits in the masculine cohort had more prominent differences, including "athletic" (-45.68) and competitive (-22.45). Despite these small margins, it is recognized that overall, athletes self-reported adhering to masculine traits more than non-athletes did 80% of the time, and non-athletes self-reported adhering to feminine traits more than athletes did 80% of the time. (Figure 2)

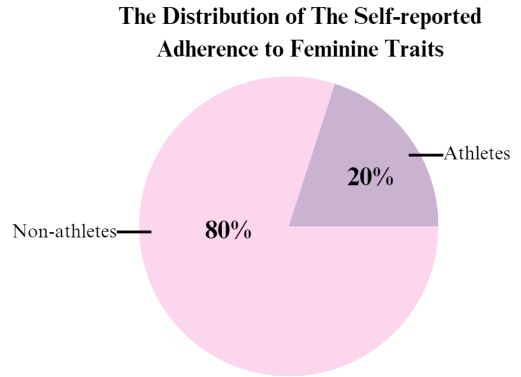
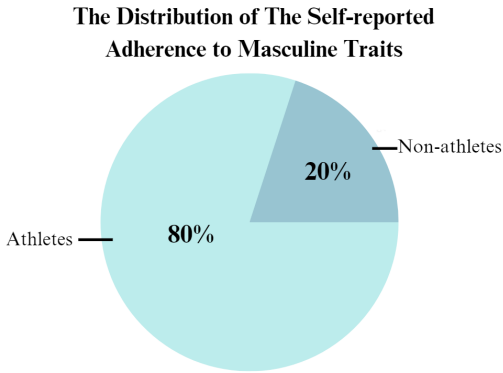
Figure 1

## Athletes and Non-Athletes

### Mean Adherence to Traditional Gender Traits

| Traits Identified as Traditionally Feminine |            |                             |            |              | Traits Identified as Traditionally Masculine |            |                         |            |               |
|---|------------|-----------------------------|------------|--------------|--|------------|-------------------------|------------|---------------|
| Non-Athletes                                | Mean score | Athletes                    | Mean score | % Difference | Non-Athletes                                 | Mean score | Athletes                | Mean score | % Difference  |
| Childlike                                   | 3.31       | Childlike                   | 2.60       | <b>11.90</b> | Athletic                                     | 2.85       | Athletic                | 5.60       | <b>-45.68</b> |
| Tender                                      | 3.85       | Tender                      | 3.14       | <b>11.86</b> | Competitive                                  | 3.89       | Competitive             | 5.24       | <b>-22.45</b> |
| Soft Spoken                                 | 3.38       | Soft Spoken                 | 2.69       | <b>11.52</b> | Aggressive                                   | 2.31       | Aggressive              | 2.88       | <b>-9.53</b>  |
| Does Not Use Harsh Language                 | 3.02       | Does Not Use Harsh Language | 2.36       | <b>11.02</b> | Assertive                                    | 3.38       | Assertive               | 3.90       | <b>-8.72</b>  |
| Gentle                                      | 4.27       | Gentle                      | 3.64       | <b>10.50</b> | Forceful                                     | 2.29       | Forceful                | 2.79       | <b>-8.25</b>  |
| Affectionate                                | 4.55       | Affectionate                | 3.93       | <b>10.28</b> | Strong Personality                           | 3.75       | Strong Personality      | 4.21       | <b>-7.81</b>  |
| Sensitive                                   | 4.31       | Sensitive                   | 3.93       | <b>6.34</b>  | Analytical                                   | 3.73       | Analytical              | 4.17       | <b>-7.32</b>  |
| Flatterable                                 | 3.84       | Flatterable                 | 3.50       | <b>5.61</b>  | Dominant                                     | 3.05       | Dominant                | 3.48       | <b>-7.03</b>  |
| Shy   | 2.87       | Shy                         | 2.62       | <b>4.23</b>  | Leadership Ability                           | 4.27       | Leadership Ability      | 4.67       | <b>-6.57</b>  |
| Gullible                                    | 3.31       | Gullible                    | 3.10       | <b>3.56</b>  | Independent                                  | 4.62       | Independent             | 5.00       | <b>-6.36</b>  |
| Empathetic                                  | 4.98       | Empathetic                  | 4.81       | <b>2.87</b>  | Acts As A Leader                             | 4.00       | Acts As A Leader        | 4.36       | <b>-5.95</b>  |
| Warm  | 4.15       | Warm                        | 4.05       | <b>1.63</b>  | Ambitious                                    | 4.67       | Ambitious               | 5.02       | <b>-5.85</b>  |
| Compassionate                               | 4.98       | Compassionate               | 4.90       | <b>1.28</b>  | Willing To Take Risks                        | 3.85       | Willing To Take Risks   | 4.12       | <b>-4.41</b>  |
| Understanding                               | 4.93       | Understanding               | 4.86       | <b>1.17</b>  | Defends Own Opinion                          | 4.24       | Defends Own Opinion     | 4.40       | <b>-2.81</b>  |
| Sympathetic                                 | 4.96       | Sympathetic                 | 4.90       | <b>0.98</b>  | Self-sufficient                              | 4.29       | Self-sufficient         | 4.45       | <b>-2.69</b>  |
| Loves Children                              | 4.33       | Loves Children              | 4.31       | <b>0.30</b>  | Self-reliant                                 | 4.44       | Self-reliant            | 4.57       | <b>-2.25</b>  |
| Feminine                                    | 4.42       | Feminine                    | 4.43       | <b>-0.17</b> | Willing To Take A Stand                      | 4.15       | Willing To Take A Stand | 4.07       | <b>1.23</b>   |
| Submissive                                  | 2.95       | Submissive                  | 2.98       | <b>-0.51</b> | Individualistic                              | 3.91       | Individualistic         | 3.62       | <b>4.83</b>   |
| Loyal                                       | 5.27       | Loyal                       | 5.38       | <b>-1.80</b> | Decisive                                     | 2.95       | Decisive                | 2.60       | <b>5.84</b>   |
| Cheerful                                    | 4.31       | Cheerful                    | 4.50       | <b>-3.18</b> | Masculine                                    | 2.24       | Masculine               | 1.86       | <b>6.32</b>   |

Figure 2



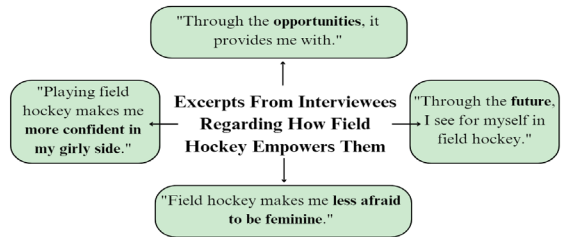
**Qualitative Data**

The interviews provide insight into shared experiences amongst athletes regarding female empowerment, the role of various stakeholders in contributing to a team's culture, and body image issues as an implication of gender norms.

**Female Empowerment**

100% of athletes stated that playing field hockey empowers them (provides them with a new-found sense of power), whether that be through opportunities for success or encouragement to embrace their femininity. (Figure 3)

Figure 3

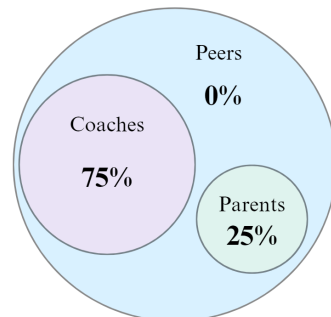


**Stakeholders**

Participants identified stakeholders that they believe significantly contribute to gender norms in athletics. Reported stakeholders included peers (100%), coaches (75%), and parents (25%). Notably, 100% of athletes reported receiving negative comments from peers specifically that undermined the athletic validity of field hockey within the past year. (Figure 4)

Figure 4

**Participant Identified Stakeholders that Contribute to the Promotion of Gender Norms**



**Body Image Issues**

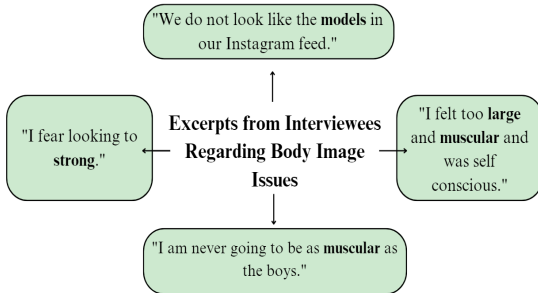
100% of athletes affirmed the relevance of body image issues in sport by sharing their adverse firsthand





experiences or the experiences of their teammates. Recognizably, athletes described both experiences regarding pressures to conform to traditionally masculine traits promoted in sport (muscularity, strength, etc.), as well as contrasting pressures to diverge from masculinity and present as more physically feminine due to societal pressures, providing further insight into the competing pressures many female athletes face. (Figure 5)

Figure 5



## Limitations

Limitations to these findings include receiving a lower-than-anticipated quantitative sample size. Initially, there was a projected total of 65 to 100 participants for both cohorts. However, eligibility criteria excluded a portion of respondents. For instance, in Cohort B, four out of 44 respondents did not identify as cis-gendered females and, as a result, were not eligible. Similarly, in Cohort A, 20 out of 140 respondents did not identify as cis-gendered females, and another 55 had played a competitive sport outside of school within the last two years, making these responses in-

eligible. Notably, a more substantial sample size may have more accurately reflected the general population.

## Discussion

### Adherence to Traditional Gender Norms

The quantitative data suggests only a slight discrepancy between non-athletes and athletes' adherence to both masculine and feminine gender norms, with non-athletes having a higher adherence to feminine gender norms (difference of 5%) and athletes conforming more to orthodox masculine traits promoted in athletics (difference of 7%), with the most prominent difference lying in traits commonly associated with athletes in general, such as "competitive" (-22.45) and "athletic" (-45.68). Despite these findings countering the hypothesis, which projected a significant difference in adherence to masculinity and femininity between athletes and non-athletes, ideologies from Plaza's 2016 study provide rationale. Plaza emphasizes that there is a possibility that the gender association of the sport, in this case, femininity for field hockey, may result in those respective gender roles being more prevalent and athletes having a higher adherence to these gender traits (Plaza et al., 2016). Correspondingly, Steinfeldt's 2011 study, similarly found a smaller margin between athletes' and non-athletes' conformation towards feminine gender traits, which Steinfeldt attributed to an increase in valued traditional feminine traits in athletics (Steinfeldt et al., 2011). Oppositely, Koca's 2005 study reported a more substantial difference of 17% (Koca et al., 2005). However, notably, Koca's study is more dated and therefore, contemporary results may differ as societal norms have progressed. Nonetheless, it is vital to recognize that athletes did self-report adhering to masculine traits more than non-athletes did 80% of the time, which aligns with both Koca and Steinfeldt's results that athletes have a higher adherence to traditional male traits than their non-athlete counterparts (Koca et al., 2005; Steinfeldt et al., 2011). Additionally, these findings support the greater ideology that the culture of competitive sports promotes traditionally masculine traits, potentially having an adverse effect on female athletes (Koca et al., 2005; Stick, 2021).

### Female Empowerment

Prior to the study, it was hypothesized that female athletes would reject traditional feminine roles, providing them with a sense of empowerment. In contrast, 75% of athletes felt that playing field hockey, which they perceived to be more feminine, was empowering as it encouraged them to embrace their femininity as athletes who often felt restricted to masculinity. For instance, participant three claims, "Field hockey makes me less afraid to be feminine as an athlete," inferring that input from previous stakeholders may have initially deterred her from femininity. Similarly, participant one shares how field hockey assisted her in accepting her femininity, a part of herself which she previously suppressed as an athlete in self-identified masculine sports. Recognizably, this phenomenon provides potential justification for the minimal difference between athletes' and non-athletes' femininity scores. Furthermore, these findings align with Steinfeldt's theory that embedding traditionally feminine traits in sport results in female athletes engaged in the sport experiencing a new-found sense of appreciation for their femininity (Steinfeldt et al., 2011). This is alluded to by participant four, who shares, "Playing a more feminine sport has helped me not to feel pressure to be masculine and instead be myself." Following suit with a gained sense of empowerment, participant two claims that field hockey empowers her through the opportunities it provides her with, including a fully funded post-secondary education. As female athletes reflect on their gained sense of empowerment, they simultaneously bring awareness to the lack of opportunities for male field hockey players in Ontario. Participants continue theorizing that, ironically, a lack of male representation may be an underlying issue that has resulted in the sport being perceived as solely feminine in Ontario and, consequently, gaining an invalid conflation, as precedent studies have argued that society's ideology of sport is inherently masculine (Koca et al., 2005; Stick, 2021). Participant two argues, "Field hockey is only ever seen being played by amateur girls in high school, so people don't take it seriously." Recognizably, peers' perspectives are vital, as precedent studies have agreed that peers' judgments are one of the most significant barriers undermining female participation in athletics (Brown & Stone, 2016; Lunde & Gattario, 2017). Therefore, by providing more op-

portunities for men, shifting the perception of field hockey to be more androgynous, adverse comments made by external stakeholders may diminish. This proposal is supported by Schmalz and Kerstetter, who found that female athletes do not feel the same extent to conform to gender stereotypes when engaged in sports that their peers view as androgynous compared with binary (Schmalz & Kerstetter, 2006). To build a perception of androgyny, participant three suggests developing a policy in Canada similar to Title 9 in the U.S., which "ensures equal funding and opportunities for all genders."

### Coaches as Stakeholders

Similarly to peers being recognized as having a significant influence as stakeholders, 75% of the interviewed athletes identified coaches as contributing stakeholders in creating an athletics culture in field hockey which promotes gender roles, with 75% of interviewees identifying the gender of the coach as a contributing factor. Likewise, every interviewee shared that they believed the overwhelming majority of Ontario coaches to be both older and male and of South Asian heritage (a region where men dominate field hockey). The effect of this demographic is alluded to by participant two, who argues, "The older male coaches tend to be more set in their ways when it comes to what it means to be a girl versus a guy." Correspondingly, participant one claimed that her previous male coach frequently spoke about how female field hockey players were biologically inferior to male players, unintentionally decreasing her self-confidence and affirming the relevance of biological determinism (UNESCO, 2012). In contrast, participant three, who recently transitioned to an all-female coaching staff, claimed that female coaching had a mitigating effect on the promotion of gender norms in her team's culture, concluding, "I have noticed a big difference in myself after being coached by women compared to men. My female coaches have gone through the same experiences as me first-hand, which creates this irreplicable connection." As a result of this experience, participant three argues that it would be beneficial to increase the number of female coaches in Ontario or provide male coaches with training to further their understanding of the female athlete experience.

### Body Image Issues

In Chalabaev's 2013 study, she advocates that it is integral to examine the potential for stereotype threat theory through subconscious implications of adherence to gender roles in athletics, such as body image issues, particularly when participants do not self-identify as conforming to these roles (Chalabaev et al., 2013). Due to the quantitative results from the self-reporting survey not indicating high levels of conformity, interviewees were asked about potential indications of conformity, particularly body image issues. The interviews revealed that 75% of athletes have experienced body image issues, with the other 25% stating that they have witnessed their teammates struggle with body image issues. These results support precedent studies which caution the development of eating disorders and body image issues as a result of promoted gender stereotypes in female athletics (Chalabaev et al., 2013; Eime et al., 2016). When asked to expand on these body image issues, every interviewee claimed the causation to be a result of co-existing pressures from society and sports, coinciding with the ideology that athletes are coerced into conforming to society's standard of femininity and sports' desired masculinity (Koca et al., 2005; Stick, 2021). Participant one supported this ideology, sharing, "Sports make you have the desire to want to get stronger, but on the other hand, you are told you are going to be too manly, so it never really works."

### Future Research

Further research is encouraged to explore proposed mitigating solutions, such as the influence of altering peers' perception of field hockey to be more androgynous, as well as the effect female coaches have on athletes' adherence to gender norms.

### Conclusion

This study aimed to develop a more comprehensive understanding of the implications of gender norms on competitive female athletes. Despite participants playing field hockey, a highly feminized sport in Canada, it was anticipated they would reject traditionally feminine roles as they would not align with their true identities. Instead, it was predicted that athletes would

adhere to orthodox masculine traits heavily ingrained in athletics culture. Contrary to the proposition, the quantitative portion of this study revealed that adolescent female field hockey players in Ontario had only a slightly lower adherence to traditionally feminine traits compared with their non-athlete counterparts (5% lower for athletes) and slightly higher conformity to orthodox masculine traits (7%). These mere differences are attributed to a new incorporation of traditionally feminine traits in athletics and the cultural implementation of femininity in Ontario field hockey. As a result, athletes reported feeling empowered as they embraced their femininity as female athletes. However, adverse implications co-existed, including developed body image issues derived from conflicting pressures in sport to be masculine and society to be feminine, negative judgments made by peers undermining the athletic quality of field hockey, and reported incidents of male coaches perpetuating gender norms in athletics culture. A proposed mitigating solution is implementing specified training for male coaches regarding the female athletes experience and giving priority to appointing female coaches. Additionally, it is suggested that mechanisms are implemented, such as equal funding legislation, to provide more opportunities for male field hockey players to increase the sport's perceived androgyny and, therefore, athletic validity of the sport, decreasing the presence of traditional binary gender norms and their adverse implications, allowing athletes to flourish.

## References

- Bailey, R., Wellard, I., & Dismore, H. (2005). Girls' participation in physical activities and sports: Benefits, patterns, influences and ways forward. *World Health Organization*. <https://www.icsspe.org/sites/default/files/Girls.pdf>
- Bastug, G., & Kuru, E. (2011). The study of athletes' body perception and gender role. *Collegium Antropologicum*, 35(4), 1037–1043.
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42(2), 155.
- Boiché, J., Chalabaev, A., & Sarrazin, P. (2014). Development of sex stereotypes relative to sport competence and value during adolescence. *Psychology of Sport and Exercise*, 15(2), 212–215. <https://doi.org/10.1016/j.psychsport.2013.11.003>
- Brown, C. S., & Stone, E. A. (2016). Gender Stereotypes and Discrimination: How Sexism Impacts Development. *Advances in Child Development and Behavior*, 50, 105–133. <https://doi.org/10.1016/bs.acdb.2015.11.001>
- Chalabaev, A., Sarrazin, P., Fontayne, P., Boiché, J., & Clément-Guillotin, C. (2013). The influence of sex stereotypes and gender roles on participation and performance in sport and exercise: Review and future directions. *Psychology of Sport and Exercise*, 14(2), 136–144. <https://doi.org/10.1016/j.psychsport.2012.10.005>
- Creswell, J. W., & Creswell, D. J. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (fifth). SAGE Publications.
- Edmonds, W. A., & Kennedy, T. D. (2017). *An Applied Guide to Research Designs: Quantitative, Qualitative, and Mixed Methods: Explanatory Sequential Approach*. SAGE Publications. <https://dx.doi.org/10.4135/9781071802779.n17>
- Eime, R. M., Harvey, J. T., Sawyer, N. A., Craike, M. J., Symons, C. M., & Payne, W. R. (2016). Changes in sport and physical activity participation for adolescent females: A longitudinal study. *BMC Public Health*, 16(1), 533. <https://doi.org/10.1186/s12889-016-3203-x>
- Koca, C., Aşçı, F., & Kirazci, S. (2005). Gender role orientation of athletes and nonathletes in a patriarchal society: A study in Turkey. *Sex Roles*, 52, 217–225. <https://doi.org/10.1007/s11199-005-1296-2>
- Lunde, C., & Gattario, K. H. (2017). Performance or appearance? Young female sport participants' body negotiations. *Body Image*, 21, 81–89. <https://doi.org/10.1016/j.bodyim.2017.03.001>
- Plaza, M., Boiché, J., Brunel, L., & Ruchaud, F. (2017). Sport= male... But not all sports: Investigating the gender stereotypes of sport activities at the explicit and implicit levels. *Sex Roles*, 76, 202–217. <https://doi.org/10.1007/s11199-016-0650-x>
- Schmalz, D. L., & Kerstetter, D. L. (2006). Girlie girls and manly men: Children's stigma consciousness of gender in sports and physical activities. *Journal of Leisure Research*, 38(4), 536–557. <https://doi.org/10.1080/00222216.2006.11950091>
- Slater, A., & Tiggemann, M. (2010). “Uncool to do sport”: A focus group study of adolescent girls' reasons for withdrawing from physical activity. *Psychology of Sport and Exercise*, 11, 619–626. <https://doi.org/10.1016/j.psychsport.2010.07.006>
- Steinfeldt, J., Zakrajsek, R., Carter, H., & Steinfeldt, M. (2011). Conformity to gender norms among female student-athletes: Implications for body image. *Psychology of Men & Masculinity*, 12, 401–416. <https://doi.org/10.1037/a0023634>
- Stick, M. (2021). Conflicts in Sporting Masculinity: The beliefs and behaviors of Canadian male athletes. *The Journal of Men's Studies*, 29(3), 315–334. <https://doi.org/10.1177/10608265211004579>
- UNESCO. (2012). *Empowering Girls and Women through Physical Education and Sport*. [https://www.un.org/sport/sites/www.un.org.sport/files/ckfiles/files/UNESCO\\_Advocacy\\_Brief\\_Empowering-Girls\\_2012\\_EN.pdf](https://www.un.org/sport/sites/www.un.org.sport/files/ckfiles/files/UNESCO_Advocacy_Brief_Empowering-Girls_2012_EN.pdf)
- Whitehead, S., & Biddle, S. (2008). Adolescent girls' perceptions of physical activity: A focus group study. *European Physical Education Review*, 14(2), 243–262. <https://doi.org/10.1177/1356336X08090708>
- Yungblut, H. E., Schinke, R. J., & McGannon, K. R. (2012). Views of adolescent female youth on physical activity during early adolescence. *Journal of Sports Science & Medicine*, 11(1), 39–50.

## Appendix A: Consent Form

Investigation of the Influence of Athletics Culture on Adherence to Gender Norms in Competitive Female Adolescent Field hockey players in Ontario

Researcher: ----- Date:  
November 19th, 2022

### Introduction:

I am inviting you to participate in my research study. I am an AP Capstone Research student from ----- . My research uses an explanatory sequential mixed method design to explore the influence athletics culture has on competitive female adolescent field hockey players' adherence to gender norms in Ontario. The data collection is projected to begin on December 1st, and participation should be completed by January 12th.

The study will investigate adherence to gender stereotypes in competitive female adolescent field hockey players in Ontario. There will be two cohorts of participants, one being competitive adolescent female field hockey players (cohort A) and the other being female adolescent non-athlete as a control (cohort B). Participants in group A will be cis-gendered female identifying adolescents residing in Ontario between the ages of 14 to 18 years old who currently play field hockey either for a competitive outside-of-school club and identify field hockey as their primary sport (the sport they invest the most amount of time), or for Field hockey Ontario, NextGen, or Canada. There will be approximately 65-100 participants in each cohort. Participants in cohort B must be cis-gendered female-identifying adolescents between the ages of 13 to 18 who have not participated in competitive sports outside of school within the last two years and have not played on a field hockey team within school.

### Your Participation:

Participants from both cohorts will complete an approximately six-to-eight-minute online survey that is an adaptation of the Bem Sex-Role Inventory (BSRI) developed by Sandra Bem. The BSRI will ask participants to rate themselves in accordance with 40 traditionally gendered traits on a seven-point scale. The survey will measure participants' adherence to traditionally feminine, masculine, and androgynous traits. Following the survey, approximately five participants from cohort A who express interest will be asked to complete an interview estimated to be 30 minutes or

less in duration about their experience with gender roles and stereotypes in field hockey and the implications they believe their experiences have had on their adherence to gendered stereotypes. The answers provided by participants in this interview will be utilized to further understand the effects of athletics culture in influencing competitive female field hockey players' adherence to gender norms and stereotypes.

Your participation is completely anonymous and voluntary. Additionally, you have the right to not answer any questions should you not feel comfortable. With your permission, audio recordings will be taken of the interviews to be used solely as a memory aid. You have the right to withdraw from the study, at any time, without penalty of loss of benefits in which you are otherwise entitled.

### Confidentiality, Publication of Results, and Access to Research Information:

Any information provided by participants will remain anonymous. If participants are to be referenced their confidentiality will be protected under an alias. Personal information, including identity and collected data will only be disclosed to ----- (research supervisor) and ----- (researcher). However, in the unlikely event of legal reporting requirements, personal information and collected data will be released to legal authorities. Otherwise, all personal information and collected data, including survey responses and audio recordings, will be kept in a password-protected file, and will be deleted three months after participation. This research is intended to be published in scholarly publications and shared through a public presentation. If this research is published, the entire paper will be sent to participants to access. If new information becomes available, that may affect the participant's willingness to continue participation in the study, the participant or the participant's legal representative will be informed in a timely manner.

### Risks and Benefits

There are no direct benefits from participating in this study, other than sharing knowledge and learning more about the influence sporting culture may have on adherence to gender stereotypes and roles for competitive female adolescent field hockey players in Ontario. There are no payments, costs, or reimbursements for participating in this study.

Potential foreseeable risks for this study include interviewed participants reporting inappropriate, harm-

ful, and/or discriminatory behaviour from coaching staff or teammates as they are being asked to expand upon their experiences in athletics culture, specifically the pressures they face regarding gender stereotypes. In the event that a participant shares these incidents of misconduct they will be encouraged to report these to Safe Sports Canada which will provide them with mental health supports and resources to file a formal complaint.

Additionally, participants will be asked to reflect upon which gender traits they adhere to and share their experiences regarding gender stereotypes and norms in field hockey. It is recognized that these may be uncomfortable conversations for participants, especially participants who identify as members of the LGBTQ2S+ community. Therefore, participants are reminded that if at any time they feel uncomfortable they have the right to withdraw from the study without penalty of loss of benefits to which you are otherwise entitled. Moreover, participants are made aware that all information provided by participants will remain anonymous, only being shared with the researcher and research supervisor who will keep this information confidential.

**Contact Information**

If you have any questions about this study, any time before, during, or after the study, please contact:

-----

**Participant Informed Consent Form**

I \_\_\_\_\_ (Please print first and last name) have read and understood all of the information regarding my voluntary participation in ----- research project and choose to consent.

First name: \_\_\_\_\_

Last name: \_\_\_\_\_

Participant's Signature: \_\_\_\_\_

Parent/Guardian's Signature (if the participant is under 18 years old): \_\_\_\_\_

**Appendix B: Recruitment Email**

Good afternoon, Field Hockey Ontario,

I am -----, a Team Ontario athlete and AP Capstone Research student from -----. I am researching competitive adolescent female field hockey players' adherence to gender norms evident in athletics culture and was wondering if you would be willing to help me advertise my survey to eligible FHO athletes by sending information regarding my survey to athletes. I am sure that the findings of my survey would be useful to you as an organization in developing your understanding of how you can further empower female field hockey players in Ontario.

Ideally, I am looking for approximately 65-100 participants to complete a short six-to-eight-minute anonymous online survey being sent out by the end of November by a deadline of December 16th, 2022. Additionally, I am looking for roughly five eligible athletes who are interested in completing a 30-minute or less virtual interview in early to mid-January of 2023. To be eligible to participate in the survey and interviews participants must be cis-gendered female-identifying athletes residing in Ontario, who are adolescents between the ages of 14 to 18 years old who currently play field hockey either for a competitive outside-of-school club and identify field hockey as their primary sport (the sport they invest the most amount of time in) or for field hockey Ontario, field hockey NextGen, and/or field hockey Canada.

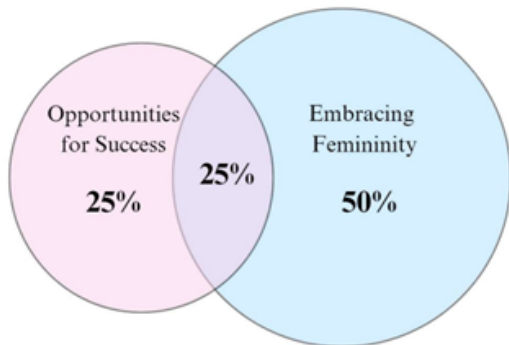
Notably, I have attached my participant informed consent form to provide more information regarding ethics, the role of the participant, and how this collected data will be both protected and utilized in the study.

Please let me know if you are willing or not willing to send an email to athletes regarding participating in this study by November 17th. If you are willing to help me recruit participants via email, I can send you the specific information I am hoping for you to send out, including the link to the survey.

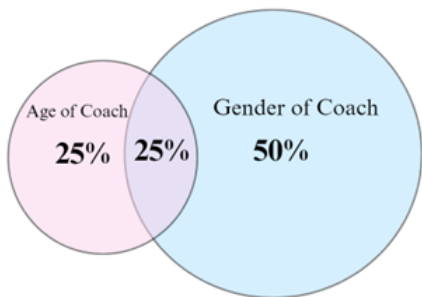
Thank you for your time and please contact me at ----- if you have any additional questions.

## Appendix C: Additional Data

### How Field Hockey Empowers Athletes



### Participant Identified Factors that Contribute to the Promotion of Gender Norms



### How Participants Have Experienced Body Image Issues

