Non-binary youth experiences in organized team sports in Canada

by

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Abstract

Research concerning sexual and gender minority inclusion in sport has primarily focused on cisgender heterosexual, gay, lesbian, and bisexual participants. Participation in organized team sport among non-binary youth, particularly in Canada, is understudied. The Understanding Affirming Communities, Relationships and Networks Study surveyed 6495 15-29-year-olds in Canada, including 2513 non-binary (encompassing genderqueer, agender, third gender and trans non-binary) and 1929 cisgender respondents. A smaller proportion of non-binary youth (11%) participate in team sport compared to cisgender youth (18%) (P<0.05). More non-binary youth (62%) have played a sport and then stopped compared to cisgender youth (57%) (P<0.05). The most common reason non-binary youth felt unsafe in sport was discriminatory comments, with >50% witnessing homophobic, transphobic, and/or sexist comments. To ensure the inclusion of non-binary youth in organized team sports, structural and policy changes must be made by organizers, administrators, and coaches.

Keywords: non-binary gender; team sports; inclusion; sexual and gender minorities

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Chapter 1. Introduction

1.1. Objective and outline

The objective of this quantitative thesis study is to investigate the experiences of non-binary youth, ages 15-29 years, in organized team sports in Canada. In this first chapter, I will introduce the topics of gender, research conducted on gender inclusion and sports, the potential harms of exclusionary team sports with regard to gender generally, and nonbinary youth specifically. In Chapter 2, I share my positionality and paradigm statements. In Chapter 3, I present the main results of my thesis research as a stand-alone manuscript to be published in a peer-reviewed journal. Finally, in Chapter 4, I reflect on what these findings mean more broadly for non-binary equity in sport and society.

1.2. Gender- and sex-related definitions

Before outlining the scientific literatures that form the basis of this thesis, I will define gender- and sex-related terminology relevant throughout this thesis. Gender is a social construct used to represent our self-conceptualization of femininity, masculinity, both, or neither. It is used organize people in a way that contributes to a hierarchy of privilege and importance (Braumüller et al., 2020). The gender binary refers to the categories of man and woman (Matsuno et al., 2021). The gender binary, as a means of maintaining systems of power and privilege, has been used to exclude, mistreat, and erase those who live outside of the binary (Hunt & Holmes, 2015). In sport, non-binary individuals are often forced to compete in gendered categories that align with their sex assigned at birth, no matter their comfort level with this gendered categorization (Braumüller et al., 2020). In Canada, Eurocentric ideas of gender have been forced upon Indigenous populations since colonization as a way to strip Indigenous people of their culture and practices and impose what European settlers deemed as a superior way of being (Hunt & Holmes, 2015).

Sex assigned at birth refers to the categorization of female or male (and sometimes intersex, where permitted) at birth (Enke, 2012). This classification is made

by physicians based on their interpretation of a baby's genitals. Often, gender and sex are conflated, but these two are not interchangeable.

An individual's gender identity is personal and relates to their sense of self and is therefore defined by the individual themself. Western and contemporary gender identities include man, woman, non-binary, third gender, agender, genderqueer and gender fluid. Knowing one's gender identity can be a deeply personal journey; for some, it can take time to discover their gender identity, while others may know their gender identity from a young age; others still may never question their gender identity (Rafferty, 2022). Gender expression can be thought of as how one performs their gender (Enke, 2012). It can include how someone dresses, acts, speaks, and moves.

Cisgender— "cis" coming from the Latin prefix meaning on the same side—is the term used for someone whose sex assigned at birth aligns with their current gender identity (Enke, 2012). Cisgender is commonly referred to by its shorthand, cis. Transgender (trans) is a term that describes someone whose gender identity differs from their sex assigned at birth (Enke, 2012). Non-binary can be used as both an umbrella and more specific identity term. Non-binary as an umbrella term encompasses anyone whose gender identity does not fall into the binary categories of man and woman (Matsuno et al., 2021). In most instances throughout this thesis, I use non-binary with its encompassing umbrella-term meaning. A person can notably identify as both trans and non-binary or can identify with one (or neither) exclusively.

Many cultures have more than two genders, including Indigenous communities with Two-Spirit roles (Pruden, 2021). Two-Spirit is an organizing tool rather than a monolithic identity for those Indigenous to Turtle Island (colonially known as North America) (Pruden, 2021). Data and work involving Two-Spirit people is to be led by Two-Spirit people. Since I am a white settler, Two-Spirit identities are currently outside the realm of my expertise and will not be a major focus of this paper. This is also why "2S" is not included in my use of the LGBTQ+ (lesbian, gay, bisexual, transgender, queer) acronym. However, those who are Two-Spirit and also identify as non-binary, binary trans, or cisgender have been included in my analysis.

Endosexnormativity stems from the idea that one's sex cannot change and can be easily classified as male or female. This idea assumes that body parts are related to

one's sex and deems bodies that differ from this binary sex categorization as inferior (Lowik et al., 2021). Cisnormativity builds on endosexnormativity and assumes that all bodies can, and should, be classified as either male or female (Lowik et al., 2021). Further, it asserts that there is a natural alignment between sex and gender. Gender binarism—as with cisnormativity—implies that one's gender identity must align with their sex assigned at birth (i.e., female equals woman and male equals man) and further deems nonconforming gender identities as deviant and unnatural, (Krieger, 2019). The gender binary is ever present in sport, as teams are divided into men's/boy's and women's/girl's categories. The very existence of someone who does not fit into these categories neatly and without disruption challenges the gendered division of sport at its core. This paper aims to challenge these normative assumptions and enactments in organized team sport.

1.3. Benefits of participation in organized team sports

Physical activity in general—i.e., inclusive of team sports[1], other forms of sports, and non-sport exercise—has been found to positively impact mental health, as well as perseverance and engagement in life (Halliday et al. 2019). Perseverance and engagement with activities and other people can be very beneficial, especially if someone is experiencing isolation in other areas of their life. In team sport, these benefits are thought to occur because participants have greater confidence making new friends and improved social skills and self-esteem (Eime et al., 2013).

The mental health benefits from playing on a sports team span many age groups (Andersen et al., 2019; Guddal et al., 2019; Tyson et al., 2010). In fact, participating in organized team sport[2] adds a layer of socialization to one's life. In comparison to individual sport[3], team sport has a greater potential to improve psychological health due to the creation of friendships, support networks, and having fun with others (Andersen et

[1] A team sport is defined in this paper as a sport where participants compete/play in groups of two or more.

[2] Organized team sport, in this context, refers to teams that have been organized by a sport body or organization (e.g. provincial and national sport associations, university and college sports associations, and recreational group organizations).

[3] Individual sport is defined in this paper as a sport where a participant competes individually as opposed to as a part of a team.

al., 2019). A study of youth under the age of 18 found that team sports participants are more likely to play for fun rather than those in individual sports who participate for reasons such as weight control, pleasing others, and winning competitions (Pluhar et al., 2019).

Team sport, of course, simultaneously presents specific social difficulties and barriers that individual sport does not. For example, as social spaces, sports teams may reproduce larger societal systems of unearned advantage (or “privilege”) and power, thereby pushing out certain subgroups of participants. This exclusion may in turn contribute to a general pattern of social isolation. These barriers are particularly important to investigate when thinking about non-binary participants.

1.4. Cisnormativity in gendered team sports

There is ongoing and highly politicized debate about whether allowing trans women to compete in women’s sport categories is fair. The debate surrounds specifically whether they have an unfair advantage due to having been assigned male at birth and the assumed physiological differences (Buckwald, 2021). A recent study found that sports fans are divided when it comes to their opinion regarding the fairness of trans women in sport (Cleland et al., 2022). Given that some opinion is based on misinformation, the Canadian Centre for Ethics in Sport commissioned a report to evaluate scientific literature on trans participation in sport. This report found that, based on a review of academic and grey literature, trans women who have undergone testosterone suppression do not hold a biological advantage over cisgender women (E-Alliance, 2022). Bans on trans women in sport are, therefore, cisnormative and unjust.

However, not all sporting organizations follow the suggestions from the Canadian Centre for Ethics in Sport to include trans women, and many have created rules that impose strict guidelines for athletes in women’s categories. World Athletics and FINA (International Swimming Federation) have recently banned all trans women who have gone through male puberty from competing in international events (World Athletics, 2023). Some sports organizations have created inclusivity statements and polices that protect trans women in response to these bans (E-Alliance, 2022). Non-binary athletes do not always have the same protections in Canada and are often included or excluded on a case-by-case basis (Spencer, 2020). Non-binary participants in team sport—while

facing similar obstacles to binary trans participants—have unique needs that must be understood, addressed and protected.

1.5. Cultures of abuse and aggressive masculinity in team sport

Despite the many benefits of participation, the social nature of team sport may also present specific social difficulties and barriers that individual sport does not. These barriers are particularly important to investigate when thinking about non-binary participants because they have needs that are unique to cisgender sexual minorities and binary transgender participants. From hazing and sexual abuse to toxic masculinity, organized team sport can often constitute a violent and traumatic environment (Hartill, 2013). Hazing, a “rite of passage” activity for those who have recently joined a team, is often done with the goal of humiliating and intimidating the new member (Jeckell et al., 2018). In recent years, alarms have continued to sound within many sporting organizations as athletes report instances of hazing by teammates and cases of sexual abuse from coaches and staff (Jeckell et al., 2018; Kirby et al., 2008).

The cultural backdrop to these cases of abuse includes a pervasive and aggressive form of masculine privilege. We currently live in a world where the predominantly accepted form of colonial masculinity is one of aggression and “toughness,” where signs of “softness” are viewed as feminine and, therefore, weak (Travers, 2022). This Eurocentric form of masculinity, normalization of hazing, and other abusive bonding behaviours between men, are the root cause of many negative experiences in sport (Razack, 2000). This idea of masculinity often leads gay men and other sexual and gender minorities (SGM) to avoid joining team sports as they view this environment to be unsafe (Robertson, 2003). A mixed methods online survey of SGM ages 14 to 23 shows that sport is one of the environments where SGM feel least safe (Symons et al., 2014).

The effects of aggressive masculinity in team sport are compounded by a culture of secrecy. When athletes experience abuse, they often do not know whom to trust when disclosing this information. They may also fear they will not be believed, be excluded from the team, and lose opportunities within sport (Kirby et al., 2008). It may be hypothesized that if someone is being isolated within sport, they will not only be

excluded from these many benefits, but their mental health may suffer further. In some cases, reports of hazing and sexual abuse are known to those running the organization, and efforts are made to cover up these instances. For example, even though USA swimming has banned nearly 50 coaches for abusive offences (predominantly sexual), the organization still faces lawsuits for covering up abuse cases (Hartill, 2013). It has been found that Hockey Canada has paid $8.9 million to settle sexual assault claims since 1989. Some of this money came from minor hockey league registrations fees, unbeknownst by those paying such fees (Burke, 2022). These patterns demonstrate that although being physically active and having the opportunity to make friends in sport are likely boons to mental health, other interpersonal dynamics within team sport may counteract such protective factors and be more detrimental than beneficial to mental health.

1.6. Barriers to accessing sport

In the context of cultures of aggressive masculinity and unchecked abuse, it is perhaps not surprising that trans, non-binary, queer, and woman athletes face numerous barriers to participation in sport. One example of these barriers is hormone testing. Hormone testing and the theory that testosterone is the most influential factor causing competitive advantages for those who were assigned male at birth (Buckwald, 2021) must be critiqued as most theories are not based in science. Hormone testing implies that sex is binary and can be easily measured (Travers, 2022) and fails to acknowledge many external factors that lead to athletic success. The following social and structural factors are differentially provided to boys (vs. girls) and therefore suggest that testosterone is not a credible sole explanation for potential advantages that those assigned male at birth (including trans women) are purported to have:

1. Access to high-level training, coaching and facilities from a young age (often unavailable to girls and women) (Sabiston, 2020).
2. Parents being more likely to enroll their boys in sport (Zarrett et al., 2019).
3. Parents' false presumption that boys would be more proficient than girls in sport.
4. Girls training differently than boys to appear muscular, but not too muscular and therefore "manly" or "butch" (Roberts et al., 2022; Slater & Tiggemann, 2010;

Zarrett et al., 2019), ideals stemming from normative beauty standards for women.

When a young boy has access to all these advantages, it is considered fair. However, if this boy identifies as non-binary later in life, they have had better training outlined above at low levels of sport and may potentially perform better than girls. Only then are the advantages this athlete possesses considered unfair.

In the United States, the future of trans and non-binary youth in sport is threatened. New bills creating further barriers for gender minority participation in sport are brought to state legislatures each month (Movement Advancement Project, 2023). As of March 2023, bills banning trans women from participating on women's teams have been passed and signed in 18 states, with similar bills proposed in numerous other states.

These bills create a dangerous precedent; governing sport bodies at any level, in any country, may use these bills as models for excluding or misgendering non-binary and trans athletes. In many cases, these bills force athletes to identify with their sex/gender assigned at birth, thereby removing non-binary and trans athletes' agency in choosing the gendered team they would like to join. Bans on trans women competing at international levels impacts Canadian non-binary athletes as well, as World Rugby, FINA and World Athletics have all banned trans women from competing in women's events with their own regulations and stipulations (FINA, 2022; World Athletics, 2023; World Rugby, 2021). These bans are applicable to Canadian non-binary people who were assigned male at birth, have gone through male puberty and are on hormone replacement therapy. These bans can be discouraging for younger athletes who dream of competing on the international stage, or who may fear that teams at lower competitive levels share the same exclusive policies and therefore wish to no longer participate in that sport.

The study presented in this thesis investigates the barriers non-binary youth in Canada are facing when joining and participating in organized team sports. My goal is to present findings of these barriers to policy makers, officials, coaches and athletes so that they can make changes within teams and organizations to better include and protect non-binary participants. Since Canada does not currently have as many bans against

gender minorities in team sports, this is an opportune time to put proactive, inclusive policies into place.

1.7. References

Andersen, M. H., Ottesen, L., & Thing, L. F. (2019). The social and psychological health outcomes of team sport participation in adults: An integrative review of research. Scandinavian Journal of Public Health, 47(8), 832–850. https://doi.org/10.1177/1403494818791405

Braumüller, B., Menzel, T., & Hartmann-Tews, I. (2020). Gender Identities in Organized Sports—Athletes' Experiences and Organizational Strategies of Inclusion. Frontiers in Sociology, 5(October), 1–17. https://doi.org/10.3389/fsoc.2020.578213

Buckwald, J. (2021). Outrunning Bias: Unmasking the Justifications for Excluding Non-Binary Athletes in Elite Sport. Harvard Journal of Law & Gender, 44(1), 1–56. https://doi.org/10.2139/ssrn.3737150

Burke, A. (2022, July 29). Crisis on ice: What you need to know about the Hockey Canada scandal | CBC News. CBC. https://www.cbc.ca/news/politics/hockey-canada-sexual-assault-crisis-parliamentary-committee-1.6535248

Cleland, J., Cashmore, E., & Dixon, K. (2022). Why do sports fans support or oppose the inclusion of trans women in women's sports? An empirical study of fairness and gender identity. Sport in Society, 25(12), 2381–2396. https://doi.org/10.1080/17430437.2021.1942456

E-Alliance. (2022). *Transgender Women Athletes and Elite Sport: A Scientific Review*. https://www.cces.ca/sites/default/files/content/docs/pdf/transgenderwomenathletesandelitesport-ascientificreview-e-final.pdf

Eime, R. M., Young, J. A., Harvey, J. T., Charity, M. J., & Payne, W. R. (2013). A systematic review of the psychological and social benefits of participation in sport for adults: Informing development of a conceptual model of health through sport. International Journal of Behavioral Nutrition and Physical Activity, 10(98), 1–21. https://doi.org/10.1186/1479-5868-10-135

Enke, F. (2012). Note on Terms and Concepts. In Transfeminist Perspectives in and beyond Transgender and Gender Studies (pp. 16–20). Temple University Press,.

FINA. (2022). Policy on Eligibility for the Men's and Women's Competition Categories. https://resources.fina.org/fina/document/2022/06/19/525de003-51f4-47d3-8d5a-716dac5f77c7/FINA-INCLUSION-POLICY-AND-APPENDICES-FINAL-.pdf

Guddal, M. H., Stensland, S. Ø., Småstuen, M. C., Johnsen, M. B., Zwart, J. A., & Storheim, K. (2019). Physical activity and sport participation among adolescents: Associations with mental health in different age groups. Results from the Young-HUNT study: A cross-sectional survey. BMJ Open, 9(9), 1–10. https://doi.org/10.1136/bmjopen-2018-028555

Halliday, A. J., Kern, M. L., & Turnbull, D. A. (2019). Can physical activity help explain the gender gap in adolescent mental health? A cross-sectional exploration. Mental Health and Physical Activity, 16(March), 8–18. https://doi.org/10.1016/j.mhpa.2019.02.003

Hartill, M. (2013). Concealment of Child Sexual Abuse in Sports. Quest, 65(2), 241–254. https://doi.org/10.1080/00336297.2013.773532

Hunt, S., & Holmes, C. (2015). Everyday Decolonization: Living a Decolonizing Queer Politics. Journal of Lesbian Studies, 19(2), 154–172. https://doi.org/10.1080/10894160.2015.970975

Jeckell, A. S., Copenhaver, E. A., & Diamond, A. B. (2018). The Spectrum of Hazing and Peer Sexual Abuse in Sports: A Current Perspective. Sports Health, 10(6), 558–564. https://doi.org/10.1177/1941738118797322

Kirby, S. L., Demers, G., & Parent, S. (2008). Vulnerability/prevention: Considering the needs of disabled and gay athletes in the context of sexual harassment and abuse. International Journal of Sport and Exercise Psychology, 6(4), 407–426. https://doi.org/10.1080/1612197X.2008.9671882

Krieger, N. (2019). Measures of racism, sexism, heterosexism, and gender binarism for health equity research: From structural injustice to embodied harm-an ecosocial analysis. Annual Review of Public Health, 41, 37–62. https://doi.org/10.1146/annurev-publhealth-040119-094017

Lowik, A., Cameron, J. J., Dame, J., Ford, J., Pulice-Farrow, L., Salway, T., van Anders, S., & Shannon, K. (2021, July 7). Terms. Centre for Gender & Sexual Health Equity. https://www.cgshe.ca/practice/research-toolkits/gender-and-sex-toolkit/terms/

Matsuno, E., Webb, A., Hashtpari, H., Budge, S., Krishnan, M., & Basam, K. (2021). Nonbinary Fact Sheet (pp. 1–2). The Society For The Psychology Of Sexual Orientation And Gender Diversity. https://www.apadivisions.org/division-44/resources/nonbinary-fact-sheet.pdf?_ga=2.65047086.1447468792.1680144648-1927044546.1626475639

Movement Advancement Project. (2023, February 23). Equality Maps: Bans on Transgender Youth Participation in Sports. Movement Advancement Project. https://www.lgbtmap.org/equality-maps/sports_participation_bans

Pluhar, E., McCracken, C., Griffith, K. L., Christino, M. A., Sugimoto, D., & Meehan, W. P. (2019). Team sport athletes may be less likely to suffer anxiety or depression than individual sport athletes. Journal of Sports Science and Medicine, 18(3), 490–496.

Pruden, H. (2021, June 16). Strengthening the Circle—Day 2 Keynote: Decolonizing Research. Keynote Session: Decolonizing Research: Collecting and Handling of Two-Spirit Data in Culturally Affirming Way(s). https://www.youtube.com/watch?v=-hkuQ53qEPo

Rafferty, J. (2022, November 5). Gender Identity Development in Children. HealthyChildren.Org. https://www.healthychildren.org/English/ages-stages/gradeschool/Pages/Gender-Identity-and-Gender-Confusion-In-Children.aspx

Razack, S. H. (2000). Gendered Racial Violence and Spatialized Justice: The Murder of Pamela George. Canadian Journal of Law and Society, 15(2), 91–130.

Roberts, S. R., Maheux, A. J., Hunt, R. A., Ladd, B. A., & Choukas-Bradley, S. (2022). Incorporating social media and muscular ideal internalization into the tripartite influence model of body image: Towards a modern understanding of adolescent girls' body dissatisfaction. Body Image, 41, 239–247. https://doi.org/10.1016/j.bodyim.2022.03.002

Robertson, S. (2003). "If I let a goal in, I'll get beat up": Contradictions in masculinity, sport and health. Health Education Research, 18(6), 706–716. https://doi.org/10.1093/her/cyf054

Sabiston, C. (2020). The Rally Report (pp. 1–30). Canadian Women & Sport.

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(6), 619–626. https://doi.org/10.1016/j.psychsport.2010.07.006

Spencer, D. (2020, June 2). Non-binary athletes navigating Canadian sport with little policy help. CBC. https://www.cbc.ca/sports/canada-non-binary-athletes-1.5585435

Symons, C., O'Sullivan, G., Andersen, M. B., & Polman, R. C. J. (2014). The Impact of Homophobic Bullying during Sport and Physical Education Participation on Same-Sex-Attracted and Gender- Diverse Young Australians' Depression and Anxiety Levels. In Victoria University (pp. 1–44).

Travers. (2022). Sport, Transgender, and Non-Binary Experience.

Tyson, P., Wilson, K., Crone, D., Brailsford, R., & Laws, K. (2010). Physical activity and mental health in a student population. Journal of Mental Health, 19(6), 492–499. https://doi.org/10.3109/09638230902968308

World Athletics. (2023, March 23). World Athletics Council decides on Russia, Belarus and female eligibility. World Athletics. https://worldathletics.org/news/press-releases/council-meeting-march-2023-russia-belarus-female-eligibility

World Rugby. (2021, May 11). Transgender Guidelines. https://www.world.rugby/the-game/player-welfare/guidelines/transgender

Zarrett, N., Cooky, C., & Veliz, P. (2019). Coaching through a gender lens: Maximizing girls' play and potential (pp. 1–91).

Chapter 2. Positionality and paradigm statement

2.1. Positionality statement

Positionality statements outline who a researcher is, their socioeconomic privileges, and how their values, privileges and biases came to be (Smith, 2011). I will follow Smith's (2011) model by including personal, interpersonal, contextual, and critical sections of my positionality statement, using a writing style inspired by Kari Grain (Grain, 2022).

2.1.1. Personal positionality

I am a white, able-bodied, Jewish, queer (a term to describe a sexuality that is not straight and does not imply the gender of anyone), non-binary person—each aspect of my identity shapes and influences my work and interests. I experience regular misgendering as I have a body that is typically read as a woman. As a grandchild of a German Jew who left Germany in the build-up to World War II, I am incredibly grateful to work on the unceded, traditional lands of the xʷməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and Səl̓ílwətaɬ (Tsleil-Waututh) Nations, and live on the unceded, traditional lands of the Stó:lō Coast Salish peoples.

2.1.2. Interpersonal positionality

I grew up in Chilliwack, British Columbia, a predominantly White, Christian, conservative city where Jews make up less than one percent of the population (Statistics Canada, 2013). Because of the small Jewish population, I have always felt more fearful of telling someone I am Jewish than of telling them I am queer. Growing up in a progressive family, I thankfully had no familial issues when I came out as queer in 2019 and friends and family have been exclusively supportive. The same support and affirmation has not been available to me when participating in sport. Working in athletics for over five years has shown me how gender minority people are excluded and shamed in sports. I, too, have had these experiences in sports. For example, I have had a coach make it clear to me that they were not interested in having non-cisgender athletes on

their team. This experience was proof of barriers to the participation of non-binary athletes in sport and serves as a key motivator for my research.

Despite having experienced these barriers, I also enjoy several advantages given my other social positions. As an able-bodied person, I can join any sport and not worry about an whether an organization will have adapted equipment for me to be able to participate. Some of my family members are highly educated and set the expectation for higher education. Because of this expectation, my family always prepared me to attend post-secondary education, and I have always had both emotional and financial support. With this financial support, I have been able to, by choice, live away from my parent's home since I was 18. I had the privilege of discovering my identity on my own time, surrounded by supportive people I chose to have in my life. Their presence in my life gives me the strength and support to break barriers in academia. Having a network of colleagues who are also sexual minorities or allies, provides me support and a sounding board when I have issues due to power structures in academia.

2.2. Research paradigm

Bright and bold feminist writing inspires me (Doyle, 2020; Gibson, 2019; Given, 2020; Habib, 2019), as does the work of many other sexual minority leaders and advocates. I am progressive in my political views and constantly try to challenge the taken for granted assumptions and beliefs I consciously or unconsciously internalized while growing up.

The paradigm I follow in my research is community-engaged research (CER), also known as community-based participatory research. CER focuses on creating meaningful connections and relationships with a particular community of focus and aims to do research with—not on—a community (Leung et al., 2004). My community of focus is non-binary youth who have participated in organized team sports in Canada. This paradigm allows for the sharing of the power in data and research, helps ensure that research will create action and change, and results in higher engagement rates and fewer losses to follow-up (Cashman et al., 2008; Leung et al., 2004; Reason & Bradbury, 2008). Research can fall on any point of the CER spectrum (Figure 2.1 and 2.2). My thesis research is best classified as being community informed (left side of the CER spectrum), as I have personal insight into this population’s experiences in sports and still

qualify in in our study's definition of "youth". It does not fit further to the right, e.g., community-based participatory, given the time, funding, and personnel constraints of a master's degree.

I seek to further improve community engagement through the knowledge mobilization phase of my thesis work by listening to any feedback I receive from community partners and youth I speak to when sharing results.

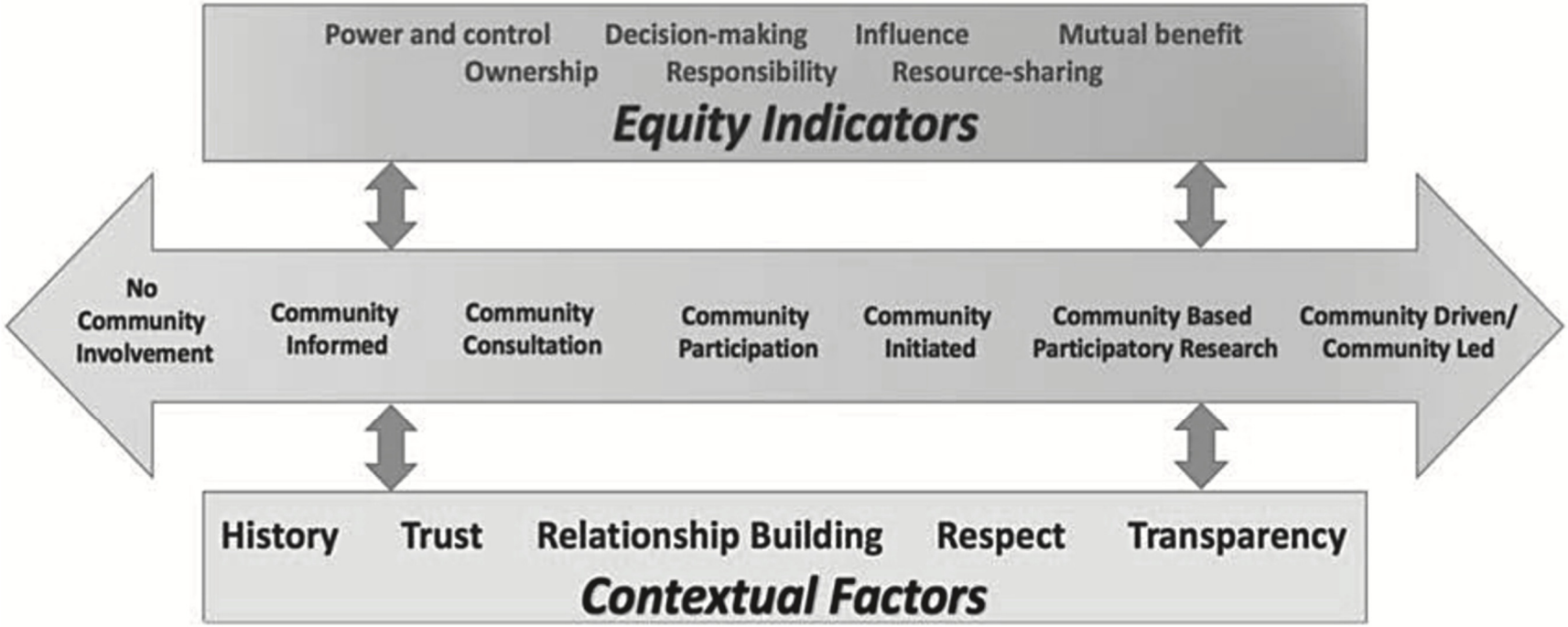

Figure 2.1 Continuum of community engagement in research courtesy of Key et al. (2019)

Community Involvement/Activity						
Community is not included in any aspects of the research	Community Informs the research and may or may not be informed or included (or know they're informing)	Community provides input and feedback to researchers to inform the research	Community has some active role in the research	Community initiates the research agenda/priorities	Community shares equally in decision-making and ownership	Community leads and owns the research
No Community Involvement	**Community Informed**	**Community Consultation**	**Community Participation**	**Community Initiated**	**Community Based Participatory Research**	**Community Driven/Lead**
Researcher works independent of community	Information is gleaned from the community which informs the research 'ear hustling'	Researcher consults with community and includes community in the research (front end or back end)	Researcher includes community in the research in a defined role	Researcher responds to specific needs or asks from community	Researcher shares equally in decision-making and ownership with community	Researcher supports community identified research efforts or serves no role
Researcher Involvement/Activity						

Figure 2.2 The continuum of community engagement in research: Involvement and activity courtesy of Key et al. (2019)

2.3. References

Cashman, S. B., Adeky, S., Allen, A. J., Corburn, J., Israel, B. A., Montaño, J., Rafelito, A., Rhodes, S. D., Swanston, S., Wallerstein, N., & Eng, E. (2008). The Power and the Promise: Working With Communities to Analyze Data, Interpret Findings, and Get to Outcomes. American Journal of Public Health, 98(8), 1407–1417. https://doi.org/10.2105/AJPH.2007.113571

Doyle, G. (2020). Untamed. The Dial Press.

Gibson, E. (2019). Feminasty: The Complicated Woman's Guide To Surviving The Patriarchy Without Drinking Herself To Death. Grand Central Publishing.

Grain, K. (2022). Critical Hope. North Atlantic Books.

Habib, S. (2019). We Have Always Been Here: A Queer Muslim Memoir. Penguin Random House Canada Limited.

Key, K. D., Furr-Holden, D., Yvonne Lewis, E., Cunningham, R., Zimmerman, M. A., Johnson-Lawrence, V., & Selig, S. (2019). The continuum of community engagement in research: A roadmap for understanding and assessing progress. Progress in Community Health Partnerships: Research, Education, and Action, 13(4), 427–434. https://doi.org/10.1353/cpr.2019.0064

Leung, M. W., Yen, I. H., & Minkler, M. (2004). Community-based participatory research: A promising approach for increasing epidemiology's relevance in the 21st century. International Journal of Epidemiology, 33(3), 499–506. https://doi.org/10.1093/ije/dyh010

Reason, P., & Bradbury, H. (2008). Issues and choice points for improving the quality of action research. In M. Minkler, N. Wallers, & B. Hall (Eds.), Community-Based Participatory Research for Health (pp. 227–242). John Wiley.

Smith, E. (2011). Teaching critical reflection. Teaching in Higher Education, 16(2), 211–223. https://doi-org.proxy.lib.sfu.ca/10.1080/13562517.2010.515022

Statistics Canada. (2013). Chilliwack, CA, British Columbia. National Household Survey (NHS) Profile. https://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CMA&Code1=930&Data=Count&SearchText=Chilliwack&SearchType=Begins&SearchPR=01&A1=All&B1=All&GeoLevel=PR&GeoCode=930&TABID=1

Chapter 3. Non-binary youth experiences in organized team sports in Canada

3.1. Introduction

Participating in team sport has demonstrated positive impacts such as improved mental and physical health, social connection and capacity for perseverance and engagement in life (Andersen et al., 2019; Guddal et al., 2019; Halliday et al., 2019; Tyson et al., 2010). For this reason, youth should be supported in joining team sport at a young age, if they desire, both to promote physical wellness and as a possible means to support mental health issues later in life (Sabiston et al., 2016). Whether and how these positive effects of team sport extend to sexual and gender minority (SGM) youth remains uncertain. If sport is unsafe for SGM youth, it can become a site of minority stress, potentially negatively impacting their mental health and experiences. Minority stress is stress resulting from someone who is an SGM being subjected to hostile and inhospitable environments (Brooks, 1981). The recent anti-transgender bills passed in the U.S., which force trans and non-binary people to play on teams according to their sex assigned at birth, are creating hostile and inhospitable sport environments for gender minority participants (Movement Advancement Project, 2023).

Transgender[4] people are those whose sex and gender assigned at birth differ from their current gender identity (Wilson & Meyer, 2021). Non-binary people identify with a gender that does not align with the binary categories of woman/girl or man/boy (Wilson & Meyer, 2021). In this paper, non-binary will be used as both an umbrella term (encompassing those who identify as genderqueer, agender, third gender, and trans non-binary) and a term for one's identity.

The growing trend of creating bans to exclude trans women from sport makes it challenging for SGM to join a team. Non-binary people assigned male at birth face similar issues as trans women. Some research focusing on non-binary people in sport

[4] For the purposes of this research, the term transgender will primarily refer to those who identify as trans and a binary gender, reserving the term non-binary to specifically refer to those with non-binary identities. Transgender and trans will be used interchangeably. Those who are transgender and non-binary will be referred to as non-binary. This is not to erase the transness of non-binary transgender people, but rather for the simplicity in comparison throughout the text.

has found that barriers such as gendered change rooms, dress codes, and binary gendered teams are deterrents for participating in sport (Buckwald, 2021; Erikainen et al., 2020). More research is needed, particularly in Canada, to understand the experiences of this population in organized team sport.

3.1.1. What barriers do trans and non-binary youth face to participation in organized team sport[5]?

Barriers to non-binary youth participation in sport are numerous and multifaceted. Gender minority students have reported no longer wanting to participate in physical education because of having to use gendered changerooms and bathrooms that do not reflect their identity, and the policing of gender that results (Davies et al., 2019; Egale, 2020; Symons et al., 2014).

Some cisgender athletes and non-athletes feel that trans girls/women and non-binary people assigned female at birth threaten the fairness of sport due to the erroneous, and scientifically disputed, assumption that testosterone provides an unfair performance advantage (Erikainen et al., 2020). Testosterone has been deemed by some cisnormative commentators to be the hormone of men and manhood. In combination with the idea that men are superior to women in sport, these commentators argue that anyone who has possessed high levels at testosterone at some point of their life must therefore have an advantage over those who have not had such levels. The testing of testosterone levels is commonly referred to as “sex testing” and polices the women’s category and deems who has transitioned “fully” to being a woman and who is still too “manly.”

Some trans and non-binary people will either not join a sports team because they are unsure if they are allowed to participate, or, once in sport, will worry about “passing” (appearing cisgender) and fear for their safety (Barras et al., 2021). The questioning of fairness may discourage non-binary youth from staying involved in sport at lower-performance levels, as it becomes an inhospitable environment for nonbinary youth.

[5] Organized team sport, in this context, refers to teams that have been organized by a sport body or organization (e.g. provincial and national sport associations, university and college sports associations, and recreational group organizations).

Hormone testing and harmful anti-trans rhetoric set a standard of policing who does and does not “belong.” On a similar note, further issues are caused by structural forms of sexism that affect girls/women and non-binary people alike. Those who were assigned male at birth, or once identified as a boy, may have grown up with very different views of and opportunities in sport than young girls. An example of opportunities geared towards boys is access to high-level training, coaching and facilities from a young age that are often unavailable to girls and women (Sabiston, 2020).

Previous studies have demonstrated that nonbinary youth experience numerous barriers to participation in team sport (Barras et al., 2021; Erikainen et al., 2020; Symons et al., 2014). It is currently unknown how many non-binary youth participate in organized team sport in Canada, the forms of abuse they face or witness, barriers they face to entering sport, and if/how they change their gender expression in sport. These data are necessary to help inform gender inclusive and affirming policies.

3.2. Aims and Research Questions (RQs)

This quantitative study aims to investigate the experiences of non-binary youth, ages 15-29 years, in organized team sport in Canada. Using data from a binational (Canada and the US) survey – The UnACoRN Study (Understanding Affirming Communities, Relationships and Networks) - the following research questions are addressed:

1. What is the prevalence of participation in organized team sports among non-binary youth in Canada?
    a. How does this current prevalence of participation estimate for non-binary youth compare to cisgender respondents?
    b. How does this current prevalence estimate vary by geography, race, age, gender expression, household income and education?
2. How common are hypothesized structural and interpersonal barriers to participation in organized team sports for non-binary youth?

3.3. Methods

3.3.1. Sample

The UnACoRN Study surveyed youth ages 15-29 years. The goal of UnACoRN was to understand a range of settings in which young people find their gender identities and sexual orientation identities affirmed and denied. The survey included 14 modules. Participants had to be living in Canada or the U.S. and complete a survey in English or French. The online survey took approximately 25-30 minutes to complete.

Recruitment occurred through a wide range of online and offline channels as there is no defined sampling frame for SGM populations (Binson et al., 2007; Delgado-Ron et al., 2022). In this context, the predominant method for reaching SGM populations is through non-probability sampling—an approach that can be strengthened in terms of representativeness by combining samples from multiple venues (Salway et al., 2019). Survey recruitment began on March 16, 2022 and continued until August 15, 2022. Recruitment included outreach to community groups, paid advertising on Facebook and Instagram, bus ads in two Canadian cities, and outreach to SGM community organizations and related social media channels.

In total, for those who lived in Canada and answered the organized team sports participation question, my sample is comprised of 1929 non-binary, 552 binary trans, and 2513 cisgender youth. Data from binary trans participants is represented in tables below, but I will focus on addressing the gap in the literature regarding non-binary participation in organized team sports in this paper. Every question in the survey was optional other than a participant's age, postal code, race, gender, trans experience, sex assigned at birth, and sexuality. Therefore, denominators for individual variables included in this paper vary. Those who selected "prefer not to answer" or skipped the question were removed from the denominators.

3.3.2. Measures – Gender Identity

I used a two-step version of gender modality (trans/cis) classification as suggested by Bauer and colleagues (2017) and further described by Kronk et al. (2022). The survey first asked "What sex/gender were you assigned at birth (i.e., the sex on your

original birth certificate)?" with the options of male and female. It then asked "Are you a person of trans experience, meaning your gender identity is different from the sex/gender you were assigned at birth?" with the options of yes, no, and unsure. Participants were also asked "How would you describe your current gender identity? Check all that apply" with the options: man, woman, non-binary, genderfluid, genderqueer, third gender, agender, detrans/detransitioner, unsure/questioning/undecided, and none of the above, I prefer to self-describe my gender identity as: [open text].

Those who are categorized as non-binary includes those who identify as non-binary, genderqueer, third gender, genderfluid, agender, or selected "yes" to trans experience and do not identify with a binary gender. Some non-binary participants selected "non-binary" and a binary gender such as "man" or "woman", and they have been included in the non-binary category. Those who are categorized as binary trans are defined as those with trans experience, were assigned male or female at birth and now identify as the "opposite" gender, exclusively. Cisgender participants are those whose current gender identity remains aligned with gender/sex assigned at birth.

3.3.3. Measures – Participation in organized team sport

In the survey I asked specifically about organized team sports, and we indicated that this did not include artistic physical activities (e.g. figure skating, dance, etc.). However, I let participants decide for themselves if what they participate in is a team sport. We defined organized team sports for participants as follows: "Now, we'd like to shift gears and ask you about some groups, events, and social environments where people may have reacted to your gender identity, gender expression, or sexuality. Let's start with organized sports. We are especially interested in team sports for this study, so we will not be including dance, gymnastics, figure skating or other artistic physical activities in this set of questions, though we love that you're doing those!" The primary outcome (corresponding to research questions 1a and 1b) was defined based on respondents' answer to the following: "have you ever participated in organized sport?" with answer options of "yes, currently," "yes, in the past," "no" and "prefer not to answer." Those who selected "prefer not to answer" were excluded from analysis. When categorizing participants who have participated in sport, those who selected both "in the past" and "currently" were collapsed to be only in the "current" participation group. Those

who only selected “in the past” are the “past” group. Those who selected “no” are the “never” group.

For added context of which organized team sports participants are playing or have played, I used data from the question “Which sport(s) are you participating in currently, or did you participate in in the past? Check all that apply” with the options: baseball, basketball, field hockey, football, hockey, lacrosse, rugby, swimming, soccer, softball, volleyball, wrestling, and other: [open text]. During analysis, I further divided the “other” category based on large numbers of similar written-in answers. These new categories included martial arts, track and field/cross country, tennis, and badminton.

3.3.4. Measures – Structural and interpersonal barriers for youth entering and remaining in organized team sport

There were multiple questions that asked about barriers to youth entering and remaining in team sport. The analysis focused on survey respondents’ answers to:

- “Would any of the following cause you to feel unsafe or not accepted? (choose all that apply)” with answer options of: having to choose a gender when becoming a member of a sports organization, participating on a binary team (a men's or women's team), not being able to switch or go between men’s and women’s teams, change rooms and locker room layouts, dress codes (e.g. swimsuits, uniforms), homophobic comments, sexist comments, transphobic comments, teammates, coaches, other: [open text], and nothing would cause me to feel unsafe/not accepted.
- “If you were registering for a sport and the only options on the intake form were “man” or “woman" or “male” or “female” would you still participate?” which had “yes,” “sometimes/it depends,” and “no” as answer options.

Barriers can present themselves through social means, so another hypothesized barrier was abuse. To address this, I used the question “Have you ever witnessed any of the following in sport? Choose all that apply” with the options of: homophobic comments, sexist comments, transphobic comments, physical harassment (pushing, punching, kicking, etc.) because of someone’s sexuality, physical harassment (pushing, punching, kicking, etc.) because of someone’s gender, I haven’t witnessed any of the above. A similar question about being a target of these forms of abuse was also asked and used in this analysis.

Another question used to answer research question 2 was “Have you ever left sport because of how people reacted to: your gender expression? Your gender identity?” These questions had the answer options of “yes,” “no, but I might,” and “no.” On a similar note, I used the question “Have you felt the need to change your gender expression to fit in with sports teams?” (yes/no). I used the follow up question “How did you change your gender expression to fit in?” which had the answer options “acted differently,” “spoke differently,” “dressed differently,” and “used a change room I did not prefer.” Worrying about how others perceive oneself can also serve as a barrier for entering and remaining on a team, so I have included data from the question, “Have you ever avoided joining an organized sport because you worried how people would react to your gender or sexuality (e.g., that you are not straight)? Check all that apply.” The answer options were: Yes, because of my gender identity; Yes, because of my sexuality; and no. For context, I have included the sports that participants have avoided. This list of options was the same list given when asking which sports survey participants play(ed).

All of these instances of exclusion mentioned in this section can reduce a person’s perception of safety and acceptance in organized team sport, creating further barriers to entering and remaining on a team. Therefore, I used:

- “Considering your gender identity, do you feel that you are/were/would be accepted in sport? *By “in sport” we mean during games, practices, competitions, and any other times you were around your teams.”
- “Considering your gender identity, do you feel that you are/were/would be safe in sport?

Both questions had the answer options “unsure,” “not at all,” “very little,” “somewhat,” “very much.”

3.3.5. Measures – Other sociodemographic characteristics

Sexual minority is defined here as anyone who selected a sexuality other than heterosexual. For household income, we chose to use perceived family financial security as we hypothesized that many youth would not know the monetary income of their household (Hammond et al., 2021). We additionally looked at variations of participation in organized team sport by the following variables: sexual orientation identity,

provinces/territories, urbanicity, racial identity, age, gender expression, and education. Urbanicity was defined according to the Statistics Canada's methods, where rural postal codes contain a zero, and urban postal codes do not (Statistics Canada, 2007). For statistical power, I have combined those who selected Asian, Black, Hispanic, or Pacific Islander as a racial identity and made a new group called person of colour.

3.3.6. Analyses

Analyses were primarily descriptive. For primary outcomes (research questions 1a/b), I present and interpret results for all three gender identity categories. First, I estimated the prevalence of youth who currently, previously, or never participated in organized team sports. Second, I reported the types of organized team sports youth had participated in. Third, I estimated the prevalence of current participation across sociodemographic variables.

For secondary outcomes, I narrow my focus to exclusively present and interpret findings from non-binary participants. First, I estimated why non-binary youth have avoided organized team sport and which sports they avoided. Next, I estimated how many non-binary youth have left organized team sport because of reactions to their gender expression, gender identity and sexuality. I then estimated how many non-binary youth feel accepted or safe regarding their gender identity and sexuality. After this analysis, I estimated the current and potential threats to the safety of non-binary youth who have avoided organized team sports. I then estimated the proportions of non-binary youth who have witnessed and been the target of abuse in organized team sports. Afterwards, I estimated how many non-binary youth have felt the need to change their gender expression in organized team sports, followed by how they did so, and at which level of sport they changed their gender expression.

3.3.7. Statistical methods

R Studio was used to calculate all descriptive statistics (percentages) and 95% confidence intervals (CIs). CIs were calculated using the appropriate methods for each research question. Chi-square tests were used to compare binary outcomes across categories ($p<0.05$ considered statistically significant).

3.4. Results

3.4.1. Demographic characteristics of participants

Among survey respondents who live in Canada and answered the survey questions regarding organized team sport participation (n= 4994), 38% (n=1929) were cisgender, 50% (n= 2513) were non-binary, and 11% (n=552) were binary trans. Our sample was representative of youth in Canada with respect to geography (province/territory) (Table 3.1) (Delgado-Ron et al., 2022).

Table 3.1 Demographics of youth (ages 15-29) survey participants in Canada who answered survey questions regarding team sport participation.

		Cisgender	*%*	*Non-binary*	*%*	*Binary trans*	*%*
*Gender identity**	Total complete responses	1929	38.6	2513	50.3	552	11.1
	Man	362	18.8	325	12.9	463	83.9
	Woman	1567	81.2	343	13.6	89	16.1
	Agender			273	10.9		
	Genderfluid			437	17.4		
	Genderqueer			464	18.5		
	Nonbinary			664	26.4		
	Third gender			29	1.2		
Age, years	15-19	1007	55.7	1444	62.1	370	71.3
	20-24	415	23.0	545	23.4	99	19.1
	25-29	385	21.3	338	14.5	50	9.6
	Total complete responses	1807		2327		519	
Urbanicity	Urban	1560	89.7	1987	89.1	425	85.5
	Rural	180	10.3	243	10.9	72	14.5
	Total complete responses	1740		2230		497	
Provinces and territories	British Columbia	260	13.9	289	13.8	65	13.1
	Alberta	268	14.3	137	6.5	61	12.3

		Cisgender	*%*	*Non-binary*	*%*	*Binary trans*	*%*
	Saskatchewan	61	3.3	103	4.9	29	5.8
	Manitoba	89	4.8	126	6.0	18	3.6
	Ontario	539	28.9	800	38.2	187	37.6
	Quebec	510	27.3	453	21.6	85	17.1
	New Brunswick	47	2.5	56	2.7	18	3.6
	Nova Scotia	48	2.6	73	3.5	20	4.0
	P.E.I.	7	0.4	7	0.3	2	0.4
	Newfoundland and Labrador	34	1.8	47	2.2	10	2.0
	Yukon, Northwest Territories and Nunavut	8	0.4	8	0.4	2	0.4
	Total complete responses	1871		2099		497	
Sexual orientation identity	Asexual	97	5.2	235	10.1	23	4.3
	Bisexual	687	37.0	681	29.2	164	30.8
	Fluid	5	0.3	22	0.9	5	0.9
	Gay	191	10.3	298	12.8	158	29.6
	Heterosexual	418	22.5	15	0.6	13	2.4
	Indigiqueer	1	0.1	0	0.0	1	0.2
	Lesbian	224	12.1	411	17.6	39	7.3
	Pansexual	127	6.8	423	18.1	78	14.6
	Queer	35	1.9	211	9.0	34	6.4
	Unsure/ Questioning	70	3.8	36	1.5	18	3.4

		Cisgender	*%*	*Non-binary*	*%*	*Binary trans*	*%*
	Sexual Minority	1437	77.5	2317	99.4	520	97.6
	Total complete responses	1855		2332		533	
*Highest level of education***	Did not finish high school	20	1.4	80	4.5	20	4.9
	Currently attend high school	572	41.1	842	47.6	224	54.8
	High school, or equivalent	359	25.8	464	26.2	104	25.4
	Post-secondary school (e.g. certificate, diploma)	152	10.9	181	10.2	34	8.3
	Bachelor's degree	215	15.4	160	9.0	20	4.9
	Above a bachelor's degree (e.g., master's, doctorate)	74	5.3	43	2.4	7	1.7
	Total complete responses	1392		1770		409	
*Racial identity**	Asian	217	12.1	200	8.6	42	8.1
	Black	70	3.9	68	2.9	16	3.1
	Hispanic	59	3.3	66	2.8	10	1.9
	Indigenous	93	5.2	208	8.9	52	10.0
	Pacific Islander	7	0.4	8	0.3	1	0.2
	White	1549	86.1	2108	90.2	470	90.6
	Total complete responses	1799		2337		552	
Household Income	Not enough to live/for necessities	51	3.8	85	4.9	13	3.3
	Just enough to live/for necessities	227	16.9	368	21.4	98	24.6

		Cisgender	*%*	*Non-binary*	*%*	*Binary trans*	*%*
	Enough	430	32.0	568	33.0	155	38.8
	Only have to worry about money for fun or extras	412	30.6	525	30.5	109	27.3
	Never have to worry about money	225	16.7	175	10.2	24	6.0
	Total complete responses	1345		1721		399	
Disability (self-identified)	Yes	220	16.2	670	40.3	116	30.0
	No	1140	83.8	992	59.7	271	70.0
	Total complete responses	1360		1662		387	

* Answers are not mutually exclusive
** For those not currently in high school at time of survey completion

The mean age of the sample was 19 years. This study's sample was predominately non-heterosexual, with 78% (n= 1511) of cis and 99% (n= 2498) of non-binary respondents identified as a sexual minority. 47% (n= 842) of non-binary and 41% (n= 572) of cisgender participants were in high school at the time of survey completion. The majority of respondents identified as white. The average percent of the entire sample identifying as an SGM is 92%, with 99% of the non-binary respondents identifying as an SGM.

3.4.2. Participation in organized team sport

More non-binary youth — 62% (n= 1563, 95% CI 60%- 64%)— have played an organized team sport and then stopped, as compared to cisgender youth—57% (n= 1103, 95% CI 55%-59%) (*P*<0.001) (Figure 3.1). Similar proportions of non-binary – 27% (n= 672, 95% CI 25%-29%) and cisgender youth, 25% (n= 486, 95% CI 23%-27%) (*P*=0.26*)* have never played an organized team sport. Fewer non-binary (11%, n= 278, 95% CI 10%-12%) than cisgender youth (18%, n= 340, 95% CI 16%-19%) (*P*<0.001) are currently a part of an organized sports team. Soccer, swimming, and volleyball were the most commonly played sports (Table 3.2).

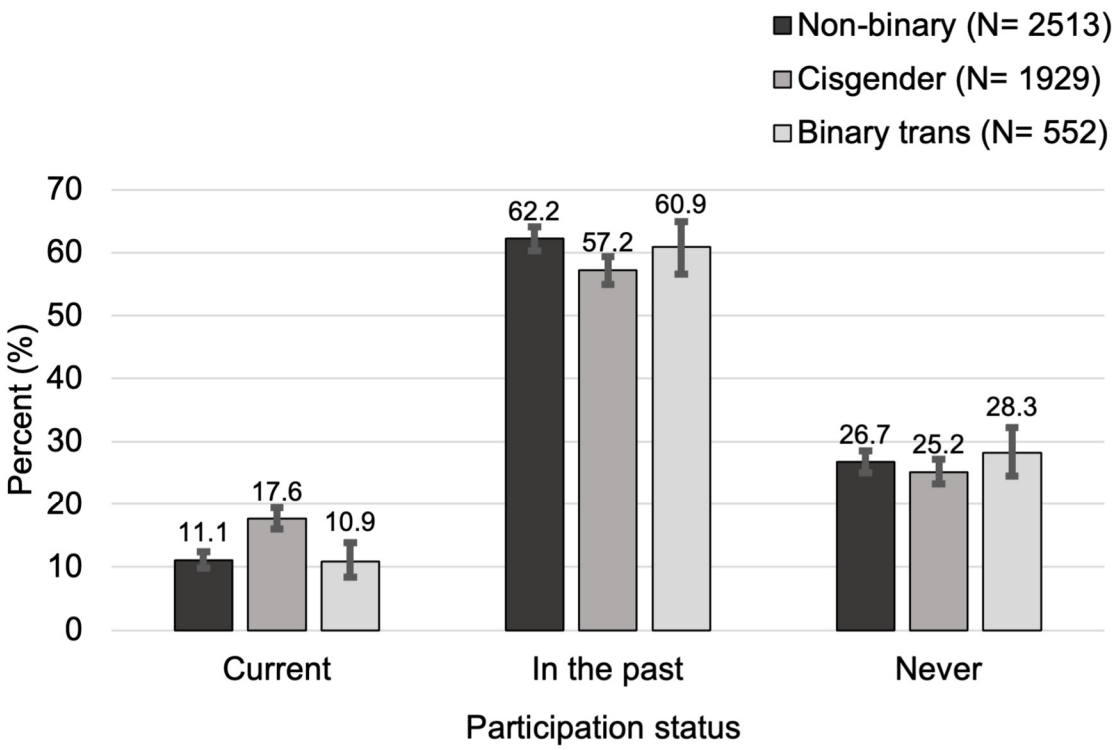

Figure 3.1 **Non-binary, cisgender and binary transgender youths' participation in organized team sports based on data from a Canadian survey.**
Note: Answers are mutually exclusive.

Table 3.2 Which organized team sports youth (ages 15-29) have or are playing in Canada based on data from the UnACoRN survey. Answers are not mutually exclusive.

		Cisgender	*%*	*Non-binary*	*%*	*Binary trans*	*%*
Sports	Badminton	53	3.7	82	4.5	14	3.5
	Baseball	162	11.3	209	11.4	45	11.4
	Basketball	378	26.3	449	24.5	89	22.5
	Field Hockey	67	4.7	49	2.7	11	2.8
	Football	77	5.4	67	3.7	25	6.3
	Hockey	160	11.1	147	8.0	47	11.9
	Lacrosse	29	2.0	32	1.7	7	1.8
	Martial Arts	48	3.3	99	5.4	21	5.3
	Rugby	84	5.8	109	6.0	20	5.1
	Soccer	649	45.2	853	46.6	187	47.3
	Softball	132	9.2	200	10.9	34	8.6
	Swimming	495	34.5	647	35.4	125	31.6
	Tennis	18	1.3	20	1.1	4	1.0
	Track and Field/Cross Country	62	4.3	73	4.0	23	5.8
	Volleyball	415	28.9	519	28.4	105	26.6
	Wrestling	52	3.6	80	4.4	18	4.6
	Other	273	19.0	384	21.0	86	21.8
	Total complete responses	1436		1830		395	

Across all sociodemographic strata, fewer non-binary youth participate in organized team sport as compared with cis youth (Table 3.3). Within each gender identity group, there were no statistically significant differences across race and gender expression. Among cisgender respondents, statistically significant differences were found by province, such that lower proportions of cis youth in Atlantic provinces, Quebec, and Ontario were currently participating in organized team sport, as compared

with youth in BC. Among cis and non-binary respondents, a statistically significant difference was found by age, such that higher proportions of those 15-19 years of age currently participate in organized team sport, as compared to those 20-29 years of age. Among cis and non-binary respondents, statistically significant differences were found by income, such that higher proportions of those with higher levels of relative income participate in organized team sport as compared to those with lower levels of income. Statistically significant differences were found regarding non-binary youth with a disability, as fewer disabled non-binary youth are participating in organized team sport than those without a disability. No statistically significant differences were found across sub-groups of binary trans youth.

Table 3.3 Prevalence of current organized team sport participation among non-binary, cisgender and transgender youth (ages 15-29) stratified by province, race, age, gender expression, household income, education and disability based on data from the UnACoRN survey.

%(row): current/Current, past, and never participated
p-value compares the prevalence estimate for each demographic subgroup to a reference level within each gender strata.

		Cisgender				*Non-binary*				*Binary trans*			
		Current	***Current, past and never participated***	***% of group currently participating in sport***	***p-value***	***Current***	***Current, past and never participated***	***% of group currently participating in sport***	***p-value***	***Current***	***Current, past and never participated***	***% of group currently participating in sport***	***p-value***
Province[6]	British Columbia	64	260	24.6	-	29	289	10.0	-	10	65	15.4	-
	Prairies	53	287	18.5	0.100	73	497	14.7	0.078	13	103	12.6	0.782
	Ontario	73	539	13.5	<0.001	66	800	8.3	0.424	22	187	11.8	0.590
	Quebec	89	510	17.5	0.024	48	453	10.6	0.904	9	85	10.6	0.530
	Atlantic Provinces	19	136	14.0	0.019	21	183	11.5	0.732	3	50	6.0	0.201
Race	Indigenous	14	93	15.1	0.559	24	208	11.5	0.956	6	69	8.7	0.680
	Person of colour	73	353	20.7	0.276	34	340	10.0	0.593	7	52	13.5	0.640
	White	279	1549	18.0	-	235	2108	11.1	-	51	470	10.9	-
Age	15-19	243	1007	24.1	-	201	1444	13.9	-	48	370	13.0	-
	20-24	36	415	8.7	<0.001	34	545	6.2	<0.001	7	99	7.1	0.148
	25-29	39	385	10.1	<0.001	20	338	5.9	<0.001	2	50	4.0	0.108
Gender Expression	Feminine	265	1567	16.9	-	205	1831	11.2	-	20	199	10.1	-
	Masculine	170	906	18.8	0.267	222	1979	11.2	1	52	478	10.9	0.856
	Fluid	104	565	18.4	0.459	210	1870	11.2	1	21	205	10.2	1
	Androgynous	132	838	15.8	0.502	246	2206	11.2	1	37	378	9.8	1
Household Income	Not enough/just enough to live	24	278	8.6	0.012	24	453	5.3	0.043	10	111	9.0	0.586
	Enough	66	430	15.3	-	50	568	8.8	-	10	155	6.5	-
	Only worry about money for fun/extras	82	412	19.9	0.100	65	525	12.4	0.068	13	109	11.9	0.183
	Never have to worry about money	53	225	23.6	0.013	26	175	14.9	0.030	4	24	16.7	0.099
Education	Currently in high school	149	572	26.0	-	121	842	14.4	-	24	224	10.7	-
	Did not finish high school	1	20	5.0	0.062	1	80	1.3	0.002	0	20	0.0	0.234

[6] The territories were excluded from this analysis due to small cell count.

		Cisgender				Non-binary				Binary trans			
		Current	*Current, past and never participated*	*% of group currently participating in sport*	*p-value*	*Current*	*Current, past and never participated*	*% of group currently participating in sport*	*p-value*	*Current*	*Current, past and never participated*	*% of group currently participating in sport*	*p-value*
Disability	Completed high school	37	429	8.6	<0.001	20	464	4.3	<0.001	11	104	10.6	1
	Post-secondary school	44	441	10.0	<0.001	31	384	8.1	0.003	2	61	3.3	0.124
	Yes	28	220	12.7	0.106	48	670	7.2	0.004	11	116	9.5	0.9034
	No	199	1141	17.4	-	115	992	11.6	-	23	271	8.5	-

When asked if they have ever avoided an organized sports team due to worries of reactions to their gender or sexuality, 29.6% (n= 742) of non-binary respondents indicated they had because of their gender identity. The most commonly avoided sports were swimming (38.2%, n= 308) and volleyball (32.1%, n= 259) (Table 3.4).

Table 3.4 Reasons and organized sports teams avoided by non-binary youth (ages 15-29) in Canada due to worries of reactions to their gender or sexuality based on data from the UnACoRN survey.

		Non-binary	*%*
Avoided sport	Yes, because of my gender identity	742	29.6
	Yes, because of my sexuality	358	14.3
	No	1587	63.2
Sports avoided (807 responses)	Baseball	151	18.7
	Basketball	231	28.6
	Field hockey	116	14.4
	Football	174	21.6
	Hockey	186	23.0
	Lacrosse	109	13.5
	Rugby	169	20.9
	Soccer	211	26.1
	Softball	124	15.4
	Swimming	308	38.2
	Volleyball	259	32.1
	Wrestling	203	25.2
	Other	123	15.2

When asked if they would participate if a registration form only said “man” and “woman,” 28% (n= 689) of non-binary respondents selected they would not participate, and 46% (n= 1094) selected “sometimes/it depends.” When asked about leaving

organized team sport because of reactions to their gender expression, identity, or sexuality, more non-binary youth have left sport because of reactions to their gender expression and gender identity than sexuality (Table 3.5). Large proportions of non-binary youth do not feel safe nor accepted regarding their gender identity in organized team sport (Table 3.6).

Table 3.5 Reasons for leaving organized team sport among non-binary youth (ages 15-29) due to reactions to their gender identity, expression, or sexuality based on data from the UnACoRN survey.

Left sport because of reactions to:		***Responses***	***%***
Gender expression (1668 responses)	Yes	192	11.5
	No, but I might	420	25.2
	No	1056	63.3
Gender identity (1657 responses)	Yes	207	12.5
	No, but I might	461	27.8
	No	989	59.7
Sexuality (1635 responses)	Yes	115	7.0
	No, but I might	525	32.1
	No	995	60.9

Table 3.6 Perceived safety and acceptance in organized team sport among non-binary youth's (ages 15-29) in Canada when considering their gender identity and sexuality based on data from from the UnACoRN survey.

		Responses	*%*
Feeling accepted considering their gender identity (692 responses)	Unsure	103	14.9
	Not at all	133	19.2
	Very little	230	33.2
	Somewhat	201	29.0
	Very much	25	3.6
Feeling safe considering their gender identity (693 responses)	Unsure	104	15.0
	Not at all	120	17.3
	Very little	173	25.0
	Somewhat	238	34.3
	Very much	58	8.4
Feeling accepted considering their sexuality (330 responses)	Unsure	40	12.1
	Not at all	58	17.6
	Very little	78	23.6
	Somewhat	126	38.2
	Very much	28	8.5
Feeling safe considering their sexuality (328 responses)	Unsure	40	12.2
	Not at all	52	15.9
	Very little	68	20.7
	Somewhat	139	42.4
	Very much	29	8.8

Hypothesized current and potential threats to safety of those who have avoided joining a team were highly prevalent. The top three reasons chosen by non-binary youth were transphobic (90.7%, n= 701), homophobic (87.6%, n= 677) and sexist (84.1%, n= 650) comments (Table 3.7).

Table 3.7 Potential and current threats to the safety of non-binary youth (ages 15-29) who have avoided organized team sport in Canada based on data from the UnACoRN survey. *Answers are not mutually exclusive

	Responses	***%***
Transphobic comments	701	90.7
Homophobic comments	677	87.6
Sexist comments	650	84.1
Changerooms and locker room layouts	632	81.8
Dress codes	619	80.1
Choosing a gender when joining an organization	558	72.2
Participating on a binary gendered team	512	66.2
Coaches	419	54.2
Teammates	414	53.6
Not being able to go between gendered teams	216	27.9
Other	28	3.6
Total responses	773	

For those participating in organized team sport, many have experienced and witnessed abuse, with sexist and homophobic comments being the most frequently witnessed (Figure 3.2) and experienced categories (Figure 3.3).

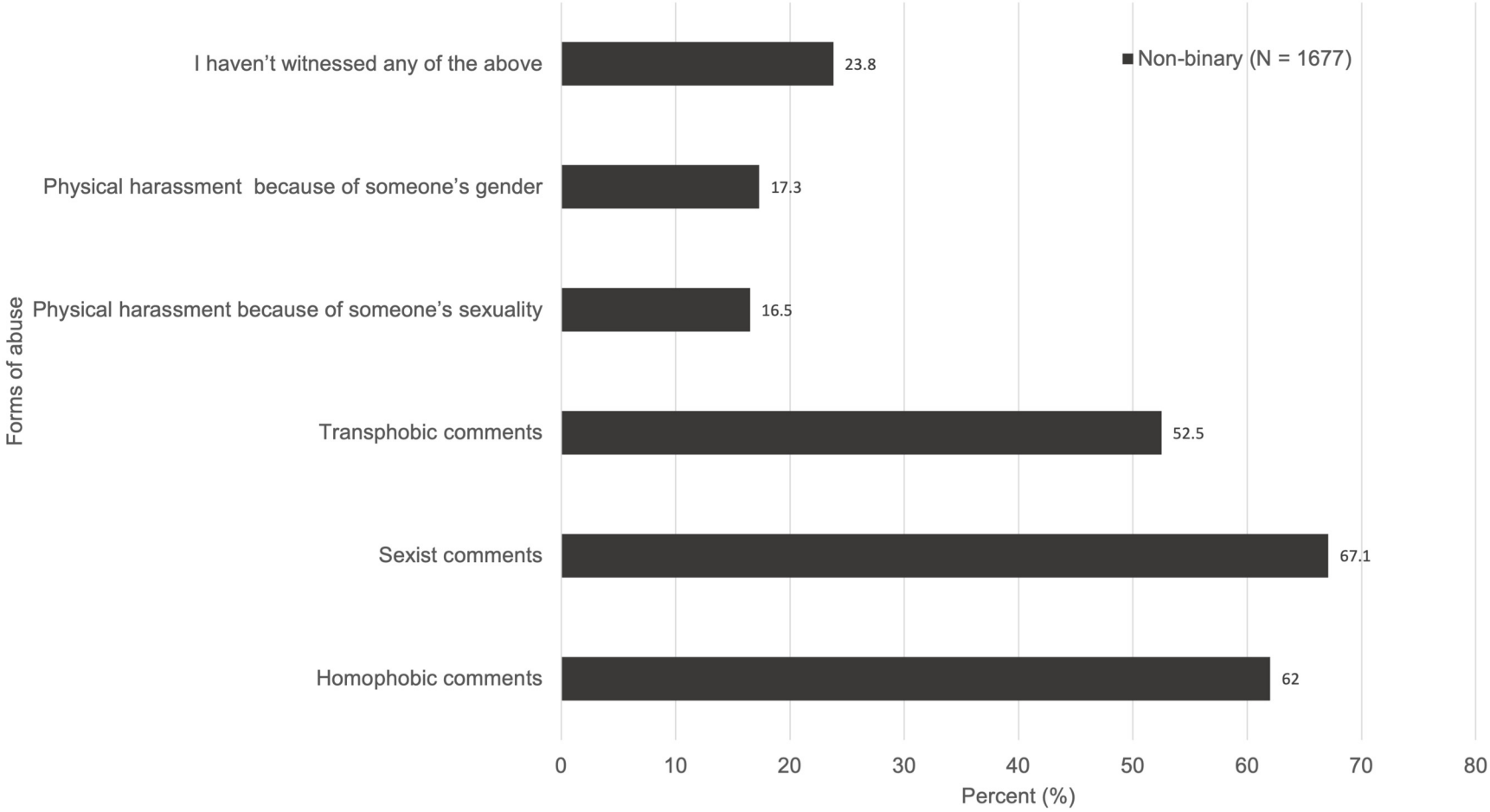

Figure 3.2 Non-binary youth (ages 15-29) who have witnessed abuse in organized team sport based on data from a based on data from the UnACoRN survey.
*Answers are not mutually exclusive.

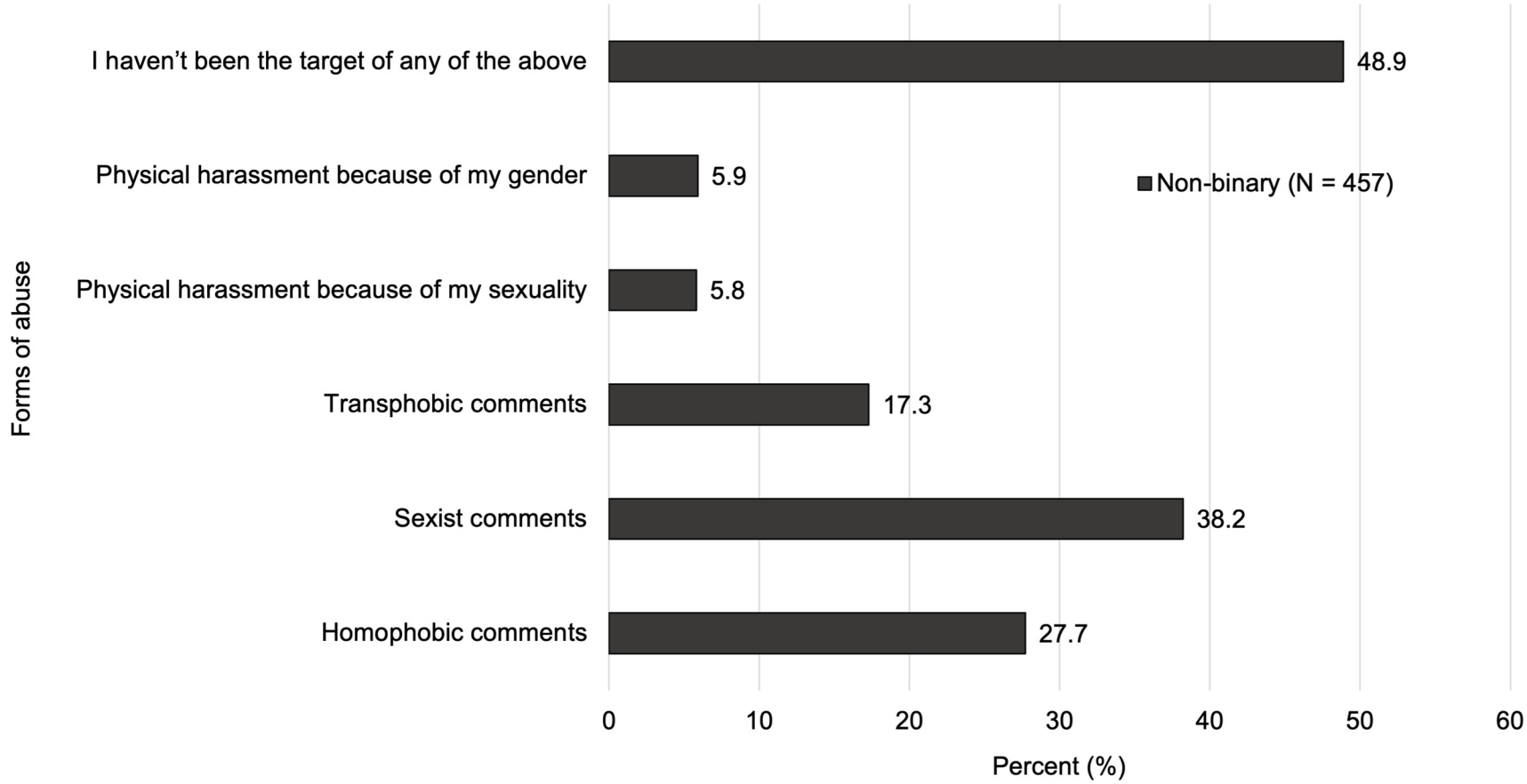

Figure 3.3 Non-binary youth (ages 15-29) who have been the target of abuse in organized team sport based on data from a based on data from the UnACoRN survey.
*Answers are not mutually exclusive.

Nearly half (45.0%, n= 720) of non-binary youth who have participated or currently participate in organized team sport have changed their gender expression to fit in. They have most frequently done so by dressing or acting differently, particularly in elementary to high school and recreational teams (Table 3.8).

Table 3.8 Forms of pressure to change gender expression to fit in experienced by non-binary youth (ages 15-29) who have ever or currently participate in organized team sport based on data from the UnACoRN survey. *Answers are not mutually exclusive

		Responses	*%*
Felt need to change their gender expression (1601 responses)	Yes	720	45.0
	No	881	55.0
How they changed their gender expression (718 responses)	Dressed differently	557	77.6
	Acted differently	525	73.1
	Spoke differently	341	47.5
	Other	40	5.6
At what level of sport they changed their gender expression (715 responses)	Elementary school	314	43.9
	High school	401	56.1
	Junior/Amateur leagues	99	13.8
	Middle school	285	39.9
	National	15	2.1
	Professional	8	1.1
	Provincial	38	5.3
	Recreational	339	47.4
	University or college intramurals	26	3.6
	University or college varsity teams	24	3.4
	2S/LGBTQ+ teams	4	0.6
	Other	13	1.8

3.5. Discussion

This study aimed to help understand the experiences of non-binary youth in organized team sports in Canada. Consistent with previous studies about barriers faced in sport by non-binary and trans people (Barras et al., 2021; Erikainen et al., 2020; Symons et al., 2014), our survey demonstrates low participation prevalence, likely attributable to named barriers to entering and remaining in organized team sport. Given that our sample was 92% SGM, our findings regarding participation in organized team sport are much lower than previous, non-SGM focused Canadian studies have found. For example, a 2016 literature review, found that 70% of teens ages 13-19 were participating in sport (E-Alliance, 2022). This is substantially higher than the 18% we found for the cisgender subsample in the UnACoRN study, however, the majority of our cis participants were sexual minorities. These groups also face barriers to participation in team sport (relative to cisgender heterosexual peers) (Doull et al., 2018); for example the Trevor Project found that nearly 70% of queer American youth ages 13-24 had never participated in sport (The Trevor Project, 2021). Collectively, these findings show the need for more studies of SGM youth in organized team sport.

When looking at participation across sociodemographic subgroups (Table 3.3), our findings are largely consistent with previous research. For example, previous research has shown that participation in sport decreases with age and increases with higher family incomes (Canadian Fitness and Lifestyle Research Institute, 2022; E-Alliance, 2022). E-Alliance (2022) found that those who identify as a visible minority participated in sport slightly less than the national average (25.2% vs 26.7%). I did not find any statistically significant differences in team sport participation across racial identity groups, though we may have lacked statistical power (Table 3.3). I hypothesized that those with a feminine gender expression would participate in organized team sport less compared to other gender expressions. Our findings do not support this hypothesis and, rather, suggest that participation is more greatly influenced by gender identity.

Our findings regarding abuse, such as witnessing and being the target of homophobic, transphobic, and sexist comments, as well as physical abuse for one's gender, align with previous statistics on abuse in sport, particularly involving SGM people (Denison & Kitchen, 2015; Hargreaves & Anderson, 2014; Úbeda-Colomer et al., 2020). Denison and Kitchen (2015) found that eight to 15% of sexual minorities in sport,

internationally, have witnessed physical harassment-based homophobia. This is similar to my findings of gender-based violence, as over one in six (17%) non-binary youth in sport have witnessed someone being physically harassed because of their gender. It is common for participants to face abuse from teammates and coaches (Denison & Kitchen, 2015). I found that, on average, one in two non-binary youth who have avoided joining an organized team sport have done so because of teammates and coaches. I hypothesize that non-binary youth are witnessing higher proportions of abuse because they can recognize what is abusive due to their lived experiences. Cisgender, heterosexual athletes may deem offensive comments, for example, as “part of the game.”

I found that more than one in five youth “might” leave sport due to reactions to their gender expression and sexuality. I also found that four in five non-binary youth who have avoided joining an organized team sport, have done so due to changeroom/locker room layouts and dress codes. These finding shows the potential that protective and inclusive policies hold. Facilities should create gender neutral spaces for people to change. If this is not possible, there should be clear signage stating that anyone who enters the changeroom deserves safety and respect, and harassment of any kind will not be tolerated. Participants on teams should be allowed to wear the gendered uniform of their choice. Organizations can also strive to de-gender their uniforms. With 72% of this cohort avoiding sport because of having to choose a gender when joining a team, forms should include “non-binary” and allow these participants to play on the gendered team of their choice. If policies ensure the safety of gender minorities, organized team sports may retain or be able to welcome new non-binary participants.

3.6. Limitations

This data sample consists of those living in Canada at the time of the survey, but we do not know if all of their sporting experiences occurred in Canada or the province in which they live. Qualitative research is also needed in this area to provide context in many instances where a multiple-choice answer is not sufficient. For example, I do not know if participants had told their team(s) that they were non-binary. If they were out to their team, I do not know the extent to which their team(s) knew (e.g., perhaps only a few teammates knew). I also do not know if any evolution of acceptance has occurred on someone’s team. For example, a respondent may have reported that they had negative

experiences on a team, but that is not to say that the team has made no progress towards accepting gender minorities and that all experiences by this participant have been negative.

Given that our survey was online, we may have missed youth who did not have access to a form of technology to safely take our survey. Our advertising was predominately through Meta (i.e., Facebook, Instagram) so we may have also missed youth who do not use social media. Even though we ran advertising specifically for heterosexual youth, our sample is heavily comprised of SGM. Comparisons between non-binary and cis youth therefore may not reflect as large differences in organized team sport participation as if more of the cis youth were heterosexual and boys/men, as the majority were girls/women. We also may have lacked statistical power to detect some real and important differences, for example, across socio-demographic sub-groups of trans binary youth. Finally, we conducted primarily descriptive analyses given the lack of data to inform and describe non-binary youths' experiences in organized team sport; however, some of the comparisons we made (especially between gender identity categories) may be explained by other variables that should be explored in future multivariable analyses.

3.7. Conclusion

This study's results show low current participation in organized team sports for both cis (predominantly sexual minority) and non-binary youth, with even higher proportions having never participated. Non-binary youth are facing many barriers when entering and participating in organized team sport, resulting in many avoiding joining a team. Many do not feel safe nor accepted in organized team sport and are witnessing and experiencing abuse at higher proportions than cis youth. Gender inclusive and affirming policies are needed in order to ensure the safety of non-binary youth in organized team sports in Canada.

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3.9. Declaration of interest statement

All the authors have no conflict of interest to disclose.

3.10. References

Andersen, M. H., Ottesen, L., & Thing, L. F. (2019). The social and psychological health outcomes of team sport participation in adults: An integrative review of research. Scandinavian Journal of Public Health, 47(8), 832–850. https://doi.org/10.1177/1403494818791405

Barras, A., Frith, H., Jarvis, N., & Lucena, R. (2021). Timelines and Transitions. In B. C. Clift, J. Gore, S. Gustafsson, S. Bekker, I. C. Batlle, & J. Hatchard (Eds.), Temporality in Qualitative Inquiry: Theories, Methods and Practices. Routledge.

Bauer, G. R., Braimoh, J., Scheim, A. I., & Dharma, C. (2017). Transgender-inclusive measures of sex/gender for population surveys: Mixedmethods evaluation and recommendations. PLoS ONE, 12(5), 1–28. https://doi.org/10.1371/journal.pone.0178043

Binson, D., Blair, J., Huebner, D. M., & Woods, W. J. (2007). Sampling in Surveys of Lesbian, Gay, and Bisexual People. In I. H. Meyer & M. E. Northridge (Eds.), The Health of Sexual Minorities (pp. 375–418). Springer Science+Business Media, LLC. https://doi.org/10.1007/978-0-387-31334-4_15

Brooks, V. (1981). Minority stress and lesbian women / Virginia R. Brooks. Lexington Books.

Buckwald, J. (2021). Outrunning Bias: Unmasking the Justifications for Excluding Non-Binary Athletes in Elite Sport. Harvard Journal of Law & Gender, 44(1), 1–56. https://doi.org/10.2139/ssrn.3737150

Canadian Fitness and Lifestyle Research Institute. (2022). Monitoring & Tracking the Field: Participation in Sport.

Davies, A. W. J., Vipond, E., & King, A. (2019). Gender binary washrooms as a means of gender policing in schools: A Canadian perspective. Gender and Education, 31(7), 866–885. https://doi.org/10.1080/09540253.2017.1354124

Delgado-Ron, J. A., Jeyabalan, T., Watt, S., Black, S., Gumprich, M., & Salway, T. (2022). Sampling Sexual and Gender Minority Youth With UnACoRN (Understanding Affirming Communities, Relationships, and Networks): Lessons From a Web-Based Survey. Journal of Medical Internet Research. https://doi.org/10.2196/44175

Denison, E., & Kitchen, A. (2015). Out on the Fields: The first international study on homophobia in sport. Nielsen, Bingham Cup Sydney 2014, Australian Sports Commission, Federation of Gay Games.

Doull, M., Watson, R. J., Smith, A., Homma, Y., & Saewyc, E. (2018). Are we leveling the playing field? Trends and disparities in sports participation among sexual minority youth in Canada. Journal of Sport and Health Science, 7(2), 218–226. https://doi.org/10.1016/j.jshs.2016.10.006

E-Alliance. (2022). Power of Sport: The True Sport Report 2022. https://truesportpur.ca/sites/default/files/content/docs/pdf/truesportreport-2022-e.pdf

Egale. (2020). *Sports Inclusion in Canada: Literature Review* (Issue September, pp. 1–27). https://egale.ca/awareness/sports-inclusion/

Erikainen, S., Vincent, B., & Hopkins, A. (2020). Specific Detriment: Barriers and Opportunities for Non-Binary Inclusive Sports in Scotland. Journal of Sport and Social Issues, 1–28. https://doi.org/10.1177/0193723520962937

Guddal, M. H., Stensland, S. Ø., Småstuen, M. C., Johnsen, M. B., Zwart, J. A., & Storheim, K. (2019). Physical activity and sport participation among adolescents: Associations with mental health in different age groups. Results from the Young-HUNT study: A cross-sectional survey. BMJ Open, 9(9), 1–10. https://doi.org/10.1136/bmjopen-2018-028555

Halliday, A. J., Kern, M. L., & Turnbull, D. A. (2019). Can physical activity help explain the gender gap in adolescent mental health? A cross-sectional exploration. Mental Health and Physical Activity, 16(March), 8–18. https://doi.org/10.1016/j.mhpa.2019.02.003

Hammond, M. A., Khurana, A., & Stormshak, E. A. (2021). Adolescent measures of family socioeconomic status: Reliability, validity, and effects on substance use behaviors in adolescence and young adulthood. Preventive Medicine Reports, 21, 101317. https://doi.org/10.1016/j.pmedr.2021.101317

Hargreaves, J., & Anderson, E. (2014). Sport, gender and sexuality: Surveying the field. In Routledge Handbook of Sport, Gender and Sexuality (1st Edition, pp. 3–18). Routledge. https://doi.org/10.4324/9780203121375

Kronk, C. A., Everhart, A. R., Ashley, F., Thompson, H. M., Schall, T. E., Goetz, T. G., Hiatt, L., Derrick, Z., Queen, R., Ram, A., Guthman, E. M., Danforth, O. M., Lett, E., Potter, E., Sun, S. E. D., Marshall, Z., & Karnoski, R. (2022). Transgender data collection in the electronic health record: Current concepts and issues. Journal of the American Medical Informatics Association : JAMIA, 29(2), 271–284. https://doi.org/10.1093/jamia/ocab136

Movement Advancement Project. (2023, February 23). Equality Maps: Bans on Transgender Youth Participation in Sports. Movement Advancement Project. https://www.lgbtmap.org/equality-maps/sports_participation_bans

Sabiston, C. (2020). The Rally Report (pp. 1–30). Canadian Women & Sport.

Sabiston, C. M., Jewett, R., Ashdown-Franks, G., Belanger, M., Brunet, J., O'Loughlin, E., & O'Loughlin, J. (2016). Number of years of team and individual sport participation during adolescence and depressive symptoms in early adulthood. Journal of Sport and Exercise Psychology, 38(1), 105–110. https://doi.org/10.1123/jsep.2015-0175

Salway, T. J., Morgan, J., Ferlatte, O., Hawkins, B., Lachowsky, N. J., & Gilbert, M. (2019). A Systematic Review of Characteristics of Nonprobability Community Venue Samples of Sexual Minority Individuals and Associated Methods for Assessing Selection Bias. LGBT Health, 6(5), 205–215. https://doi.org/10.1089/lgbt.2018.0241

Spencer, D. (2020, June 2). Non-binary athletes navigating Canadian sport with little policy help. CBC. https://www.cbc.ca/sports/canada-non-binary-athletes-1.5585435

Statistics Canada. (2007, February 12). Glossary. Statistics Canada. https://www150.statcan.gc.ca/n1/pub/92f0138m/2007001/4054931-eng.htm#:~:text=an%20urban%20postal%20code%3A%20numerals,drivers%20and%2For%20postal%20outlets.

Symons, C., O'Sullivan, G., Andersen, M. B., & Polman, R. C. J. (2014). The Impact of Homophobic Bullying during Sport and Physical Education Participation on Same-Sex-Attracted and Gender- Diverse Young Australians' Depression and Anxiety Levels. In Victoria University (pp. 1–44).

The Trevor Project. (2021). The Trevor Project Research Brief: LGBTQ Youth Sports Participation.

Tyson, P., Wilson, K., Crone, D., Brailsford, R., & Laws, K. (2010). Physical activity and mental health in a student population. Journal of Mental Health, 19(6), 492–499. https://doi.org/10.3109/09638230902968308

Úbeda-Colomer, J., Gil-Quintana, J., Pereira-García, S., López-Cañada, E., Pérez-Samaniego, V., & Devís-Devís, J. (2020). Development and validation of the Barriers to Physical Activity and Sport Questionnaire for lesbian, gay, bisexual, transgender and queer/questioning persons. Public Health, 185, 202–208. https://doi.org/10.1016/j.puhe.2020.05.020

Wilson, B. D. M., & Meyer, I. H. (2021). Nonbinary LGBTQ Adults in the United States (pp. 1–15). UCLA. https://williamsinstitute.law.ucla.edu/publications/nonbinary-lgbtq-adults-us/

Chapter 4. Conclusion

4.1. A non-binary gender-affirming future for organized team sports

In this concluding chapter I will offer suggestions for organized team sport policy change to affirm and thereby increase inclusion of youth with non-binary gender identities. After making these recommendations I will expand the scope to consider related cisheterosexist attitudes occurring in team sport to understand how the barriers and issues uncovered in my thesis relate to a larger culture of gender-based violence in team sport in Canada and the US. I reflect on how my study parallels larger contemporary patterns of discrimination against LGBTQ+ youth in society. I will conclude with suggestions for future research and a knowledge translation plan.

Results from my thesis (e.g., Table 3.7) point to barriers for non-binary youth participation in organized team sports at interpersonal (e.g., transphobic, homophobic, sexist comments from other athletes) and structural (e.g., gendered teams, locker rooms, dress codes) levels. Policy reform is needed across both levels. Policies need to ensure that sports teams provide access to gender neutral changerooms. Ideally, all changerooms could be gender neutral and provide access to single stall changing spaces. When this is not possible due to financial or spatial constraints, organizations need to explain to all users that people can choose the changeroom that best suits their needs and that harassment of any kind will not be tolerated. Schools, recreation centres and other sports spaces should create single stall changing spaces in gendered changerooms. Policies need to state unequivocally—not merely suggest—that all participants can wear the gendered uniform of their choice.

Registration forms should reflect diverse gendered options, including “non-binary.” With the creation of a variety of gendered options on forms, teams must be prepared and willing to include and value all genders on their team. Inclusion does not end once someone has an appropriate option on a form. Non-binary athletes should also be allowed to participate on the gendered team of their choice. At young ages, particularly in elementary school, teams should be co-ed, meaning all genders can be included in one team. If there are too many kids for only one team, teams can be divided by level of desired competitive-ness. This form of division can help ensure that those

who want to participate in sport for fun, can indeed have fun, and those who are competitive can compete with others with the same desires.

Addressing interpersonal barriers is also urgently needed, as evidenced by the fact that >80% of non-binary youth athletes cite transphobic, sexist, and/or homophobic comments as a deterrent to joining sports teams. “Zero tolerance” policies surrounding discriminatory and abusive language and actions need to be adopted by all teams. There needs to be punishments for those who make hurtful comments during games or practices, such as a game suspension. Education programs may also be needed to address why discriminatory comments are hurtful or are indeed discriminatory. Ideally, the team, coaches and staff would receive training and education on how to include all identities and learn about language that is exclusive. Egale and the Canadian Centre for Ethics in Sport have made suggestions for policy changes within organizations, however, these are only suggestions and organizations can choose not to implement any policy change (Birch-Jones & Cumming, 2016; Egale, 2020). Action needs to be taken to ensure that all organizations adopt the inclusive policies suggested from this study along with Egale and the Canadian Centre for Ethics in Sport.

Instead of unjustly creating bans for non-binary and trans women athletes, sporting bodies and organizations should implement these multi-level holistic approaches (e.g., policies, education) to create more opportunities and inclusive practices in sport for women, non-binary, and transgender athletes at a young age. Education for coaches and staff on ways to create inclusive and safe spaces for all genders will help non-binary youth enter and remain in organized team sport, should they so choose. Ultimately, there is no one solution that can fully include and affirm non-binary youth athletes; the results of this thesis indicate that a comprehensive approach is needed.

4.2. A larger pattern of gender-based violence in Canadian and American organized team sports

In interpreting the particular barriers faced by non-binary youth athletes in this thesis study, I found it important to reflect on broader contemporary trends in Canadian and American team sport, to understand how gendered and, in some cases, misogynist cultures that affect non-binary athletes are hurting many others. Canadian sports

organizations are in a period of reckoning, with recent discoveries of long-buried and disturbing truths. The abuse in Canadian sport has been described as “worse than it seems,” which is difficult to imagine after reading articles and studies already published (Aziz, 2022; Hall, 2023). One particularly significant revelation is the large number of sexual assault allegations against coaches and staff coming to light across all levels of sport. Hockey Canada has not been the only organization in the hot seat (Burke, 2022). Gymnastics Canada has been criticized for not addressing the “toxic culture and rampant child abuse entrenched in Canadian gymnastics” (Strashin & Lori, 2023). Canada Soccer has been accused of not treating the women’s national team equally and is facing allegations of sexual abuse in its soccer programs (The Canadian Press, 2023). Schneider and Misener (2023) point out that the root cause of all of this abuse and how long it has taken some of the abusers to face consequences is due to the unquestioned power and control that those in charge of major sports organizations posses.

As of April 2023, there has been pushback regarding participation in Pride Nights in the NHL (National Hockey League), with many citing religious beliefs as their reason. Gary Bettman, the commissioner of the NHL, has called the negative attention the league has received a “distraction.” He has downplayed the number of players who have chosen not to participate by referring to them as a “handful of players,” when it has ranged from single players to entire teams that have refused to wear a pride jersey (Dubow, 2023; Nivison, 2023; Woods, 2023). He has hinted that the league may no longer hold Pride Nights because of this purported distraction. Homophobia is not a new phenomenon in sport. Pushback against a night of inclusivity and pride is not a reason to cancel such an initiative, but rather, all the more reason to continue.

No sport is unique in the maltreatment of athletes, and our study’s results regarding gender-based violence show that this is particularly true regarding those identifying as SGM. Growing rhetoric against trans and non-binary sport participation in Canada (Pells, 2023) highlights the importance of the data collected for this study—a previously under-researched area.

Athletes on Canadian national teams petitioned for Sport Canada to pull its funding for a survey they commissioned that was biased against trans athletes, referring to trans women as “biological males,” thus denying their womanhood. Ironically, this survey’s advertised purpose was to evaluate inclusion in sport (The Canadian Press,

2022). The very creation of a survey with transphobic language and notions has serious and dangerous repercussions for those not only in the sporting community. Disinformation websites then take hold of these examples of transphobic attitudes and language and use them to continue to push their own transphobic ideas (Blade, 2023; Bonokoski, 2023; Canadian Gender Report, 2020). These instances show the need for approaches such as the one I have taken in my thesis research.

4.3. Conversion therapy parallels in sport

Recent homophobic and transphobic instances in sport have been linked to negative religious beliefs about SGM. For instance, James Reimer cited religious reasons as to why he would not wear a pride jersey during the San Jose Shark's Pride Night (Dubow, 2023). LGBTQ+ athletes at Brigham Young University Utah, a school sponsored by the Church of Jesus Christ of Latter-day Saints, have been targets of insults and homophobic slurs because any same-sex relations are against the school's honour code (Peter, 2023).

Organized team sport is only one of many environments within which SGM receive negative messaging and abuse. Another place where SGM people receive this anti-SGM information is in instances of so-called "conversion therapy practices" or sexual orientation and gender expression and identity change efforts. Conversion therapy practices refers to sustained and organized methods of suppressing 2S/LGBTQ+ identities (Salway et al., 2021). Conversion therapy practices are often, but not always, religiously motivated (Salway et al., 2021). Sexual orientation and gender expression and identity change efforts are at the root of conversion therapy practices and constitute a strong pressure for young people to endorse cisgender and heterosexual identities and expressions, according to societal expectations. It is subtler, though occurs more frequently than conversion therapy practices (Salway et al., 2021; The Trans PULSE Canada Team, 2019). Many instances of sexual orientation and gender expression and identity change efforts and conversion therapy practices are present in sport.

One instance of sexual orientation and gender expression and identity change efforts that occurs during conversion therapy practices is forcing non-binary people to identify with their sex assigned at birth (Salway et al., 2021). In sport, participants are

forced to choose to play on a binary gendered team—most often in alignment with their sex assigned at birth—and face harassment if they do not conform to this heteronormative practice. Forcing a participant to play on a team based on a sex assigned at birth removes all agency from the person and denies their known sense of self and gender. Once on a team, there is no guarantee that coaches and teammates will respect non-binary athletes' gender, nor agree that they should be on the team of their choice, especially if this team does not align with their sex assigned at birth. As we see in our results, teammates and coaches can become source of abuse.

During conversion therapy practices, clients are frequently coerced to dress in a way that aligns with an expected gender expression based on their sex assigned at birth (Salway et al., 2021). In sport, regulations force participants to wear gendered uniforms according to the team they play for, regardless of their comfort level in the attire. The Canadian Centre for Ethics in Sport recommends that teams allow staff and athletes to wear a uniform that aligns with their gender expression, but this is not mandatory (Birch-Jones & Cumming, 2016). Participants must also commonly use a binary gendered changeroom. These areas are becoming increasingly hostile and dangerous for gender minorities because due to the gender policing that takes place in these rooms.

Conversion therapy practices are banned in Canada through Bill C-4 (Aiello, 2022). The Liberal government has called this bill "among the most comprehensive" bills in the world addressing conversion therapy practices (Aiello, 2022) and while this bill bans the formal practice, it does not stop efforts to suppress one's gender identity in informal settings that are not fully recognized as conversion therapy practices. These instances are still occurring in healthcare, therapy and counselling, sex education, and sports by encouraging people to suppress their true identities and conform to heteronormative practices. I argue that the wide variety of ways in which sports currently discriminate against 2S/LGBTQ+ team members have strong parallels to conversion therapy practices, in terms of how they reflect societal cisheteronormative assumptions and their effect on 2S/LGBTQ+ people who are seeking a place to belong, as their whole selves.

4.4. Valuing research participants and future research

While research has blossomed around homophobia in sport, research around transphobia targeting non-binary participants is still catching up. Sometimes, research involving discrimination in sport explicitly leaves out trans and non-binary participants (Doull et al., 2018). To most effectively address the needs of non-binary youth in sport, we must create research questions and data analysis plans with intention. While binary trans and non-binary individuals face some of the same barriers, those who are non-binary have unique experiences that must be specifically addressed and valued. Our research participants are taking time out of their day to complete our studies. We cannot forget who is behind these data and compensate and appreciate our participants accordingly. It is not always pleasant for participants to relive their experiences when answering these surveys, and the data must be valued and returned to the community through knowledge translation efforts.

Future research should be qualitative and aim to address many of the limitations outlined in the previous chapter. As many of my participants are younger than 20 years of age, it would be useful to hear the experiences of those who are older. Future research should take a strengths-based approach, aiming to find ways that non-binary youth are thriving in sport and identify ways that teams and organizations are successfully including gender minorities in sport. These methods of inclusion can then be modelled by other teams. An aspect of sport that my research did not cover was the experiences of gender minority coaches and staff. This research also did not investigate the experiences of cisgender coaches and staff who are expected to be inclusive of all genders. It would be useful to explore ways that coaches and staff feel under educated in regard to creating safe and inclusive environments. Future research with gender minorities should continue to be led by gender minority researchers and community members to create trust with participants and opportunities for gender minorities in academia/research.

4.5. Knowledge translation

Taking into consideration the number of anti-trans bills being passed in the US, time is of the essence in creating protective policies in Canada. I have partnered with Trans Connect, a health and community program supporting transgender, Two-Spirit,

intersex, and gender diverse people in the East and West Kootenay regions of British Columbia. Together we will hold two youth group sessions to share my findings and hear what young people want to see changed in sport. We suspect that the needs of non-binary youth in rural areas will be similar to those in larger cities. With the feedback from these sessions, we will create a report of best practices for policy makers, coaches, and teachers to implement in their sporting environments. We will pair this report with a social media campaign to be shared across Canada.

4.6. Conclusion and policy implications

This study found that non-binary youth participate in organized team sport at lower proportions than cisgender youth. They experience many barriers to entering organized team sport such as discriminatory comments, gendered uniforms and gendered changerooms. Many non-binary youth have felt the need to change their gender expression while participating in sports, or have avoided joining a team due to worrying about reactions to their gender identity or expression.

The results show policy makers and the public the changes in attitudes and policies that are needed in order to ensure the safety of SGM in sport. While I have considered distinct structural and interpersonal barriers to entering and remaining in organized team sport, these multiple forms of barriers do not function in silos. I therefore recommend five urgent policy reforms and education for all levels of sport:

1. Athletes are to be allowed to wear the gendered uniform of their choice. I found that of non-binary youth who have avoided joining an organized team sport, 80% have done so because of dress codes. Ideally, organizations will consult with athletes and uniform designers to create gender neutral uniforms for all to wear.

2. Coaches, teachers, and athletes must set the inclusive tone and make it known that rules for inclusion will be followed, and those who break these rules will face consequences. I found that of non-binary youth who have avoided joining an organized team sport, >80% have done so because of discriminatory comments. Over 50% of non-binary youth in sport have witnessed discriminatory comments, and around 25% have been the target of such comments. If someone hears such a comment, they need to say something. Organizations cannot allow athletes to

pick on someone who is choosing to live as their authentic self. If coaches and teachers help foster a welcoming and safe environment, participants will most likely follow their lead. Education is key for coaches and teachers to create safe and affirming environments for all genders, and this education is possible in two forms. One requires teachers receiving better education about sexual and gender minorities for when they want to teach about these topics. This could occur through professional development days. Coaches need to take courses to maintain their coaching certification, so gender and sexual identity training needs to become a module that coaches must complete. Another educational option is schools having outside consultants or educators coming into schools to teach about sex and gender, ensuring students receive a proper education.

3. Organizations and recreation centres need to create gender neutral spaces for people to change. Eighty-two percent of non-binary youth who have avoided joining an organized team sport, have done so because of gendered changerooms. If creating a gender neutral space is not possible, facilities can put up a sign that recognizes that while the space may be labelled for a specific gender, this space does not tolerate harassment and those who enter it deserve safety and respect.

4. Organizations need to ensure that their forms are gender inclusive. Seventy-two percent of non-binary youth who have avoided joining an organized team sport, have done so because they would need to choose a gender when joining an organization. If participants need to select their gender on a form, make sure they have appropriate options. Organizations should enquire about gender, not sex, and have girl, boy, and non-binary on the form.

5. Sports organizations need to make sure teams are inclusive for all. It is likely that there will not be enough non-binary people to make a team, let alone an entire league, so teams need to signal to prospective participants that their teams are inclusive. For example, if there is a program specifically for girls, it should be said that transgender girls and non-binary people are welcome as well.

Inclusive policies will help set the tone for how members of the sports community are to act, and those who value the needs of gender minorities in sport will follow these policies and ensure other do as well.

In its current form, organized team sports serve, at times, as analogous to a violent form of conversion therapy practices for non-binary participants. Without policies in place to protect non-binary youth, allowing them to participate on the team of their choice, wear the uniform of their choice, and have access to gender neutral or inclusive changerooms, sport will continue to exclude many non-binary youth, ultimately unjustly denying them the opportunity to achieve social, mental, and physical well-being currently afforded to cisgender youth.

4.7. References

Aiello, R. (2022, January 7). *Conversion therapy is now illegal in Canada*. CTVNews. https://www.ctvnews.ca/canada/conversion-therapy-is-now-illegal-in-canada-1.5731911

Aziz, S. (2022, July 22). *Trudeau calls for more transparency in sport as feds freeze Gymnastics Canada funds—National | Globalnews.ca*. Global News. https://globalnews.ca/news/9008487/gymnastics-canada-funding-suspended/

Birch-Jones, J., & Cumming, M. (2016). *Creating Inclusive Environments for Trans Participants in Canadian Sport*. Canadian Centre for Ethics in Sport. https://cces.ca/sites/default/files/content/docs/pdf/creating_inclusive_environments_for_trans_participants_in_canadian_sport_practice_and_policy_template_final_e.pdf

Blade, L. (2023, February 21). *Breaking the silence: Female athletes speak about safe and fair sport in Canada | Macdonald-Laurier Institute*. Macdonald-Laurier Institute. https://macdonaldlaurier.ca/breaking-the-silence-female-athletes-speak-about-safe-and-fair-sport-in-canada/

Bonokoski, M. (2023, February 28). *BONOKOSKI: An eye-opening new report on women's views of trans athletes*. True North. https://tnc.news/2023/02/28/bonokoski-trans-athletes/

Burke, A. (2022, July 29). *Crisis on ice: What you need to know about the Hockey Canada scandal | CBC News*. CBC. https://www.cbc.ca/news/politics/hockey-canada-sexual-assault-crisis-parliamentary-committee-1.6535248

Canadian Gender Report. (2020, January 7). *Gender and Sport Policy in Canada: Protection of Fair Play for Female Athletes*. Canadian Gender Report. https://genderreport.ca/gender-and-sport-policy/

Doull, M., Watson, R. J., Smith, A., Homma, Y., & Saewyc, E. (2018). Are we leveling the playing field? Trends and disparities in sports participation among sexual minority youth in Canada. Journal *of Sport and Health Science*, *7*(2), 218–226. https://doi.org/10.1016/j.jshs.2016.10.006

Dubow, J. (2023, March 18). *Sharks' James Reimer declines to wear Pride-themed jersey* [News]. CBC. https://www.cbc.ca/sports/hockey/nhl/san-jose-sharks-james-reimer-pride-night-nhl-1.6783722

Egale. (2020). *Sports* Inclusion *in Canada: Literature Review* (Issue September, pp. 1–27). https://egale.ca/awareness/sports-inclusion/

Hall, M. (2023, January 27). ‘Tip of the iceberg’: Why abuse in Canadian sport is worse than it seems. *The Guardian*. https://www.theguardian.com/sport/2023/jan/27/abuse-canada-sport-inquiry-hockey-gymnastics-soccer

Nivison, A. (2023, January 28). *Rangers release statement after not wearing advertised Pride Night uniforms*. CBS Sports. https://www.cbssports.com/nhl/news/rangers-release-statement-after-not-wearing-advertised-pride-night-uniforms/

Pells, E. (2023, March 23). *World Athletics bans transgender women athletes from female competitions*. CTVNews. https://www.ctvnews.ca/sports/world-athletics-bans-transgender-women-athletes-from-female-competitions-1.6326028

Peter, J. (2023, January 20). *Athletics, honor code and ... slurs: Queer athletes tell their story of competing for BYU*. USA TODAY. https://www.usatoday.com/story/sports/college/2023/01/19/byu-queer-athletes-share-what-life-really-like-campus/10897226002/

Ronald, I. (2022, November 9). *How Nikki Hiltz is making running more inclusive for LGBTQ people*. CNN. https://www.cnn.com/2022/11/09/sport/nikki-hiltz-pride-5k-running-spt-intl-scli/index.html

Salway, T., Juwono, S., Klassen, B., Ferlatte, O., Ablona, A., Pruden, H., Morgan, J., Kwag, M., Card, K., Knight, R., & Lachowsky, N. J. (2021). Experiences with sexual orientation and gender identity conversion therapy practices among sexual minority men in Canada, 2019–2020. *PLoS ONE*, 1–17. https://doi.org/10.1371/journal.pone.0252539

Schneider, A., & Misener, L. (2023, February 14). *Abuse in Canadian sports highlights gender and racial inequities*. The Conversation. http://theconversation.com/abuse-in-canadian-sports-highlights-gender-and-racial-inequities-198869

Strashin, J., & Lori, W. (2023, January 31). *Canada spends millions on safe sport. It’s not going where it’s needed*. CBC. https://www.cbc.ca/sports/shattered-trust-canada-safe-sport-funding-crisis-1.6716783

The Canadian Press. (2022, May 9). *Sport Canada discontinuing survey on inclusion after complaints of discrimination toward transgender athletes*. CBC. https://www.cbc.ca/sports/sport-canada-survey-discontinued-discrimination-transgender-athletes-1.6447415

The Canadian Press. (2023, February 16). *Canada Soccer leaders called to testify to MPs on women’s team labour dispute*. Global News. https://globalnews.ca/news/9493696/canada-soccer-committee-request/

The Trans PULSE Canada Team. (2019, December 20). QuickStat #1 – Conversion Therapy. *Trans PULSE Canada*. https://transpulsecanada.ca/results/quickstat-1-conversion-therapy/

Woods, M. (2023, March 27). *Bettman: NHL to evaluate Pride nights in offseason after some players refuse to wear jerseys*. Ottawa. https://ottawa.ctvnews.ca/bettman-nhl-to-evaluate-pride-nights-in-offseason-after-some-players-refuse-to-wear-jerseys-1.6331097

Appendix A.

Chapter 2 Supplementary tables

Table A.1 Gender and sexuality - Questions from UnACoRN survey

Question	Answer Options
1. What sex/gender were you assigned at birth (i.e., the sex on your original birth certificate)?	a) Male b) Female
2. Are you a person of trans experience, meaning your gender identity is different from the sex/gender you were assigned at birth?	a) Yes b) No c) Not sure
3. How would you describe your current gender identity? Check all that apply	a) Man b) Woman c) Non-binary d) Genderfluid e) Genderqueer f) Third Gender g) Agender h) Detrans/Detransitioner i) Unsure/questioning/undecided h) None of the above. I prefer to self-describe my gender identity as:
4. How would you describe your gender expression or presentation? By "gender expression" we mean how you dress, act and speak. [Unsure, not at all, very little, somewhat, very much; prefer not to answer] [Scale response]	a) Feminine b) Masculine c) Androgynous (e.g., presenting/dressing both femininely and masculinely at the same time.) d) Fluidity between expressions
5. How would you describe your sexuality? Check all that apply	a) Gay b) Lesbian c) Bisexual d) Pansexual e) Asexual f) Queer g) Indigiqueer h) Heterosexual/straight i) Fluid j) Unsure/questioning/undecided k) None of the above. I would prefer to self-describe my sexuality as:

Table A.2 Demographics – Questions from UnACoRN survey

Question	Answer Options
1. How old are you?	Open ended
2. What country do you live in?	a) Canada b) United States of America
If 2a: **3. What are the first three (3) characters of your postal code?**	Open ended
3) What race(s) would you identify yourself as? Check all that apply.	a) Indigenous b) Asian c) Black d) White e) Hispanic e) Pacific Islander f) Don't know g) I prefer to describe my race as_____ h) Prefer not to answer
4. Do you identify as?	a) First Nations b) Métis c) Inuk d) Indigenous to areas outside of Turtle Island (for example: e) Aboriginal, Torres Strait, etc.) f) None g) Prefer not to answer
5. How much money does your household have?	a) Not enough to to live/for necessities b) Just enough to live/for necessities c) Enough d) We only have to worry about money for fun or extras e) We never have to worry about money f) Prefer not to answer
6. What is the highest level of education you have completed?	a) Currently attending high school (in-progress) b) Did not finish high school c) High school, or equivalent d) Post-secondary school (e.g. certificate, diploma) e) Bachelor's degree f) Above a bachelor's degree (e.g., masters, doctorate) g) Something else: _____ h) Prefer not to answer

Table A.3 Sports - Questions from UnACoRN survey

Description from survey: We are especially interested in team sports for this study, so we will not be including dance, gymnastics, figure skating or other artistic physical activities in this set of questions, though we love that you're doing those!

Questions	Answer Options
***All* - 1. Have you ever participated in organized sport?**	a) Yes, currently b) Yes, in the past c) No d) Prefer not to answer
If 1 a or b: **2. Which sport(s) are you participating in currently, or did you participate in in the past? Check all that apply.**	a) Baseball b) Basketball c) Field hockey d) Football e) Hockey f) Lacrosse g) Rugby h) Swimming i) Soccer j) Softball k) Volleyball l) Wrestling m) Other: n) Prefer not to answer
ALL **3. Have you ever avoided joining an organized sport because you worried how people would react to your gender or sexuality (e.g., that you are not straight)? Check all that apply.**	a) Yes, because of my gender identity b) Yes, because of my sexuality c) No d) Prefer not to answer
if 3 a or b: **4. Which sport(s) did you avoid? (Check all that apply)**	Same list as Q2
For non-binary or other gender diverse people: **5. If you were registering for a sport and the only options on the intake form were "man" or "woman" or "male" or "female" would you still participate?**	a) Yes b) Sometimes/it depends c) No d) Prefer not to answer
If 3 a **6. Considering your gender identity, do you feel that you are/were/would be accepted in sport? *By "in sport" we mean during games, practices, competitions, and any other times you were around your teams.**	a) Unsure b) Not at all c) Very Little d) Somewhat e) Very much f) Prefer not to answer

7. Considering your gender identity, do you feel that you are/were/would be safe in sport? *By "in sport" we mean during games, practices, competitions, and any other times you were around your teams.	a) Unsure b) Not at all c) Very Little d) Somewhat e) Very much f) Prefer not to answer
If "not at all" or "very little" to 6 or 7, OR if 3a or b, OR If 1a or b: **8. Would any of the following cause you to feel unsafe or not accepted? (choose all that apply)**	a) Having to choose a gender when becoming a member of a sports organization b) Participating on a binary team (a men's or women's team) c) Not being able to switch or go between men's and women's teams. d) Change rooms and locker room layouts e) Dress codes (eg. swimsuits, uniforms) f) Homophobic comments g) Sexist comments h) Transphobic comments i) Teammates j) Coaches k) Other: l) Nothing would cause me to feel unsafe/not accepted. m) Prefer not to answer
If 1 = a or b: **9. Have you ever left sport because of how people reacted to: Your gender <u>expression</u>?**	a) Yes b) No, but I might c) No d) Prefer not to answer
your gender <u>identity</u>?	a) Yes b) No, but I might c) No d) Prefer not to answer
10. Have you felt the need to change your gender expression to fit in with sports teams?	a) Yes b) No c) Prefer not to answer
If yes to 10, answer 11-13: **11. How did you change your gender expression to fit in?**	a) Acted differently b) Spoke differently c) Dressed differently d) Used a change room I did not prefer e) Other: f) Prefer not to answer

12. At what level/in what organization did this occur? Select all that apply. *Recall that this survey is anonymous and the organization will in no way know your selections.*	a) Elementary school teams b) High school teams c) Junior/amateur leagues (e.g. Junior hockey, League1 Ontario) d) Middle school/Junior high teams e) National (e.g., Team Canada) f) Professional g) Provincial/state teams (e.g. Team BC, Team Ontario) h) Recreational teams, organizations and clubs i) University or college varsity teams j) University or college intramurals k) 2S/LGBTQIA+ sport club or organization l) Other, please specify: m) Prefer not to answer
13. In what sport did this occur? (choose all that apply)	Same list as Q2
For SGM who chose 1 = a or b: **14. Have you ever left sport because of people's reactions to, or comments about, your sexuality?**	a) Yes b) No, but I might c) No d) Prefer not to answer
For all who chose 1 a or b: **15. Have you ever witnessed any of the following in sport? *Choose all that apply***	a) Homophobic comments b) Sexist comments c) Transphobic comments d) Physical harassment (pushing, punching, kicking, etc) because of someone's sexuality e) Physical harassment (pushing, punching, kicking, etc) because of someone's gender f) I haven't witnessed any of the above g) Prefer not to answer
16. Have you ever been the target of any of the following? *Choose all that apply*	a) Homophobic comments b) Sexist comments c) Transphobic comments d) Physical harassment (pushing, punching, kicking, etc) because of my sexuality e) Physical harassment (pushing, punching, kicking, etc) because of my gender f) I haven't been the target of any of these g) Prefer not to answer

Appendix B.

Chapter 2 Supplementary data table

Table B.1 **Youth (ages 15-29) who have experienced or witnessed abuse in organized team sport in Canada based on data from a Canadian survey. *Answers are not mutually exclusive**

		Cisgender	*%*	*Non-binary*	*%*	*Binary trans*	*%*
Witnessed…	Sexist comments	810	60.7	1126	67.1	231	63.1
	Homophobic comments	719	53.9	1039	62.0	238	65.0
	Transphobic comments	431	32.3	880	52.5	209	57.1
	Physical harassment (pushing, punching, kicking, etc.) because of someone's sexuality	115	8.6	277	16.5	67	18.3
	Physical harassment because of someone's gender	102	7.6	290	17.3	67	18.3
	I haven't witnessed any of the above	406	30.4	399	23.8	82	22.4
	Total respondents	1335		1677		366	
Was the target of…	Sexist comments	366	28.0	630	38.2	102	28.3
	Homophobic comments	181	13.8	457	27.7	96	26.7
	Transphobic comments	6	0.5	285	17.3	128	35.6
	Physical harassment because of my sexuality	30	2.3	95	5.8	27	7.5
	Physical harassment because of my gender	34	2.6	97	5.9	32	8.9
	I haven't been the target of any of the above	819	62.6	807	48.9	174	48.3
	Total respondents	1309		1651		360	