



Executive Summary

THE 2018 TUCKER CENTER RESEARCH REPORT

Developing Physically Active Girls

An Evidence-based Multidisciplinary Approach



COLLEGE OF EDUCATION
+ HUMAN DEVELOPMENT
UNIVERSITY OF MINNESOTA

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**THE 2018 TUCKER CENTER RESEARCH REPORT,
DEVELOPING PHYSICALLY ACTIVE GIRLS:
AN EVIDENCE-BASED MULTIDISCIPLINARY APPROACH**

Executive Summary

ABOUT THE REPORT

2018 marks the 25th anniversary of the Tucker Center for Research on Girls & Women in Sport. A central part of our mission was—and remains—to engage in groundbreaking research on the impact of sport and physical activity (PA) in the lives of girls and women. From our inception we have been committed to making sure that those research efforts have a direct application not only to girls and women, but to our various stakeholders. This is because the information we produce will inform stakeholders, from policy makers to educators to parents, about the best ways to ensure that females' sport experiences are beneficial for their health and well-being.

Another part of our mission is to engage in community outreach and public service. Toward that end, in 1997, we developed a unique partnership with the President's Council on Physical Fitness and Sports that produced the first *Tucker Center Research Report: Physical Activity & Sport in the Lives of Girls: Physical & Mental Health Dimensions from an Interdisciplinary Approach*. In 2007, we released our second *Tucker Center Research Report: Developing Physically Active Girls: An Evidence-based Multidisciplinary Approach* which updated and extended the original report. Given the global reach and impact of our first two reports, along with another generation of adolescent girls having access to the sports world, we recognized the need to produce and disseminate a third installment which built upon the previous two.

Our current project—*The 2018 Tucker Center Research Report, Developing Physically Active Girls: An Evidence-based Multidisciplinary Approach*—connects research-based knowledge to strategies and practices which ensure that every girl has ample opportunity to fully engage in sport and physical activity. The overarching focus of the current report examined two essential questions: 1) What does the research tell us about *critical factors* (e.g., societal, environmental, interpersonal, intrapersonal) that influence adolescent girls’ physical activity in the United States; and, 2) What are the *outcomes* (e.g., psychological, physical, social, emotional, moral) that participation in sports and physical activity have on adolescent girls?

The scope of content areas in our 2018 Report include chapters based on scientific evidence available on the psychological, sociological, and physiological dimensions of girls’ physical activity participation, as well as new chapters on sports medicine and the influence of mass media on girls health and well-being. Given “girls” are not a singular monolithic group, this report reflects aspects of girls’ intersectional identities including invisible, erased, and underserved girls such as immigrant girls, girls of color, girls who identify as lesbian, transgender or queer/questioning, and girls with cognitive and physical impairments. Also new in this third report is the *Ecological-Intersectional Systems Model of Physical Activity for Girls* (LaVoi, 2018) which helps to guide thought and organize the vast literature about girls’ physical activity (PA) participation. The report ends with a Best Practices chapter and model to guide interventions and research.

SUMMARY OF TUCKER CENTER RESEARCH REPORT KEY FINDINGS

Key findings of each chapter are summarized in this Executive Summary. For a full account of the literature, best practice recommendations, gaps in the research, related resources by topic and citations, please see the full report.

INTRODUCTION

Girls are one of our nation's greatest assets. Over forty years ago, The United Nations Educational, Scientific and Cultural Organization (UNESCO) proclaimed that access to, and regular participation in, physical activity is a *fundamental human right* because it is an essential component of a healthy lifestyle. That proclamation remains true today. As outlined in this report, many girls fail to achieve their full potential due to a multitude of barriers that impede or prevent their fundamental right to participation in physical activity.

Trend in wrong direction: Data clearly indicates that girls' physical activity levels decline sharply as they enter their teenage years; declines are more dramatic for girls—and specifically underserved girls—than boys. Based on the current data and despite the efforts of many, little progress over the last 10 years to sustain or increase the physical activity of girls is evident. In some areas declines are apparent. (Introduction)

GIRLS ASSETS, IDENTITIES, AND DISPARITIES

The Ecological-Intersectional Systems Model of Physical Activity for Girls is presented in Chapter 1. This model is particularly useful because it provides a unique lens that forwards understanding about the complex system, multilevel (individual, interpersonal, environmental, societal) and dynamic factors—including girls' intersectional identities—which shape girls' sport and physical activity experiences. Finally, the model enables stakeholders to strengthen supports for girls, locate gaps in the knowledge, develop strategies and policies, and target interventions to address disparities and overcome barriers which prevent girls from fully engaging in physical activity. (Ch. 1, Figure 1.1). For in depth explanation of Figure 1.1, please see full report.

Assets can accrue: Health, psychosocial, developmental, academic and career assets can accrue for girls if they are provided the opportunity to be physically active. However, asset accrual is not automatic and is highly dependent on a variety of factors which are explained in detail throughout the report. Summary of assets can be found in Chapter 1, Table 1 and Chapter 11, Figure 11.1.

Identities: Girls are not a monolithic group. Girls can be defined and delineated by age, but similarities stop there. Girls can have very different experiences in and through physical activity that are shaped by their multiple and intersecting identities—such as race, ethnicity, sexual identity, religion, social class—and the social, environmental, and socio-cultural factors around them. (Ch. 1)

Disparities: Physical activity participation, and as a result health, disparities exist for youth based on gender, race, social class, and sexual identity. (Ch. 1)

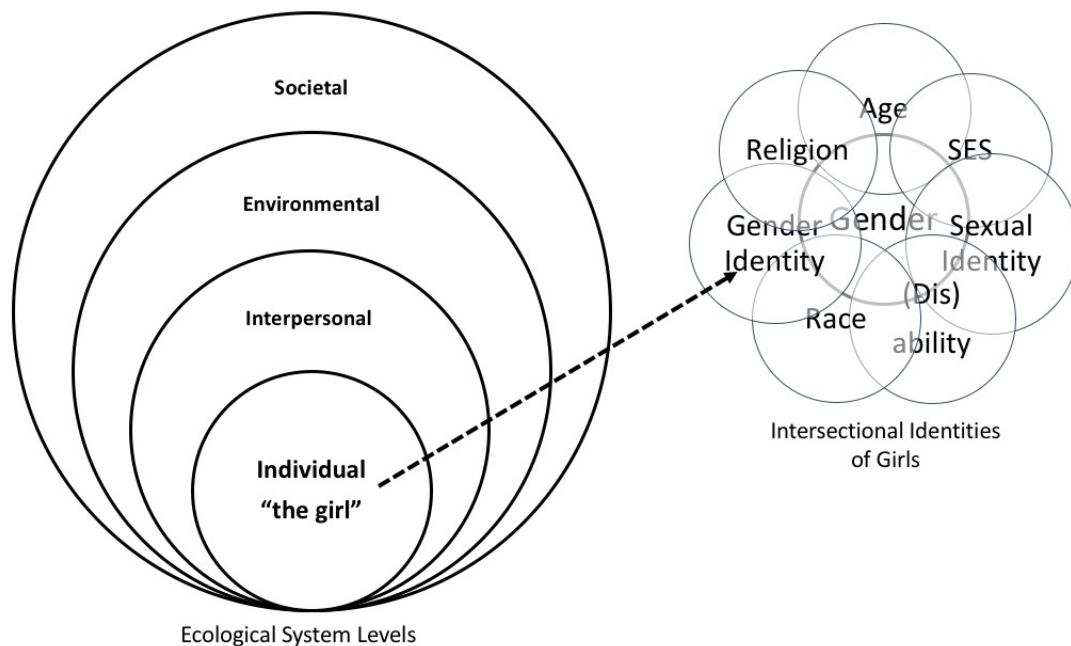


Figure 1.1 Ecological-Intersectional Systems Model of Physical Activity for Girls © 2018 Nicole M. LaVoi

THE PSYCHOLOGICAL DIMENSION

The social climate of physical activity for girls is reciprocally-shaped by parents, peers, coaches, and siblings, which in turn influence girls' thoughts, experiences, feelings, and behaviors within physical activity.

Relationships matter. Quality of interactions and relationships—through effective feedback, communication styles, social support, modeling by parents and coaches, and through acceptance by teammates, friendship quality, and effective leadership behaviors—are key to whether positive youth development occurs. (Ch. 2)

Adults matter. Girls like the camaraderie and fun inherent in sport, but rely on adult physical activity leaders, whom they often view as role models, to create positive experiences. One of the strongest predictors of increased physical activity is support and care from parents, teachers, and other physical activity leaders. (Ch. 2)

Motivational climate. When coaches, teachers, and physical activity leaders create a *mastery motivational climate* by providing instructional feedback; positively reinforce improvement, skill mastery and effort; encourage sportsmanship, peer support, and positive relationships with others; allow opportunity for choice and leadership; and foster belief in the value and unique role of all girls, it is more likely to lead to enjoyment, well-being, optimal development and performance, and sustained participation. (Ch. 2)

Train coaches. Train coaches on how to provide developmentally-appropriate feedback and instruction, create a mastery motivational climate, and engage in autonomy-supportive behaviors. (Ch. 2)

THE SOCIOLOGICAL DIMENSION

In the original 1997 report, we argued that outmoded, stereotypical standards of femininity and masculinity had to be abandoned in order to facilitate optimal physical activity, health, and well-being for girls. Twenty years later many gendered stereotypes persist and, perhaps more than any other factor, the social construction of gender influences the experience of, and extent to which girls participate in, or shun physical activity.

The lens matters. A sociological framework and lens allows insight into the social and cultural processes that help explain the unevenness in the landscape of girls' sport participation, such as the dramatic increase in girls' participation alongside their attrition rate and within-group inequities. (Ch. 3)

The law matters. Title IX's unequivocal, significant and direct impact on girls' opportunity to participate in sport is unprecedented. (Ch. 3)

Opportunities matter. Girls' physical activity and sport participation are shaped by the availability of opportunities in their communities. (Ch. 1 & 3)

Programs fall short. Few sports programs are gender sensitive or take into account how systemic sexism, poverty, racism, homonegativism, and experiences of abuse shape girls' lives. Youth sport programs would benefit from including a critical understanding of these toxins and systemic oppressions. Such a social justice model teaches girls to analyze power within social relationships, emphasizes identity, promotes systemic change, and encourages and empowers collective action. (Ch. 3)

SPORT INJURIES AMONG FEMALE CHILDREN AND YOUTH

Sport injuries encompass injuries occurring during all forms of physical activity, including organized and competitive sport, exercise and fitness, physical education, dance, and outdoor recreation. Understanding sport injuries is important because preventing sport injuries and their negative consequences is central to health, well-being, and lifetime physical activity participation among female children and youth.

Require an exam: Pre-participation physicals, including functional movement screenings, are an important first step to identifying potential injury-related risk factors and providing education to girls and their parents regarding common injury-related signs and symptoms. (Ch. 4)

Educate everyone: Educating athletes, coaches and parents on how to create a safe environment and what sport-specific *safe-play* principles entail, can decrease aggressive behavior and subsequently decrease risks for injuries, specifically concussion. (Ch. 4)

Diversify training: Cross training and diverse physical training practices focused on maximizing neuromuscular strength and balance and incorporating various sport- and non-sport-related techniques in childhood and early adolescence can decrease the risk for overuse and chronic injuries in adolescence and later in adulthood. (Ch. 4)

THE PHYSIOLOGICAL DIMENSION

It is clear that physical activity is a critical aspect of growth, development, and physiological health in youth. Unfortunately, activity levels drop dramatically as girls transition from childhood to adulthood, and a majority of youth in the U.S. fail to meet PA guidelines necessary for health.

Follow PA guidelines: Children and adolescents should engage in at least 60 minutes or more of physical activity daily. Most of the 60 minutes a day or more should be either moderate- or vigorous-intensity aerobic physical activity. Additionally, youth should engage in muscle and bone strengthening physical activity on at least three days of the week. Regular PA helps maintain cardiovascular health and healthy body weight and BMI. (Ch. 5)

Balance nutrition: Girls should eat a balanced diet including 1300mg of calcium, and 8mg of iron daily for girls 9-13 years, and 15mg for girls 14-18 years old. (Ch. 5)

Balance energy: Maintain balance between energy intake and energy expenditure for optimal menstrual function. (Ch. 5)

IMMIGRANT GIRLS

Currently, immigrants account for 13.4% of the total U.S. population. Children of immigrants are the fastest-growing segment of the U.S. child population, yet the health and health behaviors of this large and growing population remain understudied.

Listen: Ask immigrant girls themselves about their physical activity and sport interests, barriers, facilitators, and needs, as well as their ideas regarding strategies for increasing participation. (Ch. 6)

Tailor messaging: Recognize the cultural variation in beliefs and practices between and within ethnic immigrant subgroups and frame messages using cultural sensitivity. (Ch. 6)

Train leaders: Train coaches, sport leaders, and physical activity programmers in cultural competency, particularly regarding the facilitators of and barriers to participation, as well as the unique needs of immigrant girls; specifically, train coaches how to create supportive and inclusive team climates, including recognizing discrimination and how to stop it. (Ch. 6)

AFRICAN AMERICAN GIRLS

Rates of obesity in the United States continue to climb. The largest increases are among African-American females. All evidence points to a pressing need to address excessive weight in African-American females, starting in childhood and adolescence.

Engage family: Understanding family involvement and cultural adaptation to behavioral change strategies are key to making long-lasting impact. Keep in mind family composition varies and can easily include extended family members, more than two “parent” figures, and blended families. Family members must be encouraged to focus on changing their own behavior along with the adolescent girl. (Ch. 7)

Sustain changes: Sustained changes in behavior tend to take place when institutional shifts in policy are implemented. When working with African-American girls and their families it is important that policies are developed and in place to ensure equality in access and availability of resources. (Ch. 7)

Address system: Incorporate both individual-level and structural-level cultural adaptations in intervention programming, including a focus on inequality gaps. (Ch. 7)

LESBIAN, BISEXUAL, TRANSGENDER AND QUESTIONING YOUTH

Sport is not always welcoming and supportive of diverse sexuality and gender. This is particularly true in youth sport settings, where adults are responsible for setting the tone and creating inclusive environments. Little research conducted with lesbian, bisexual, and questioning youth athletes exists. Understanding the issues facing lesbian, bisexual, transgender and questioning girls in youth sport settings is essential as we develop strategies for creating welcoming and inclusive climates in youth sport.

Respect: A significant predictor of an inclusive school or youth sport program is the existence and maintenance of a charter with teaching, reinforcing and enforcing *respect* at its core. (Ch. 8)

Train leaders: Provide, support or mandate educational initiatives for coaches, staff, administrators and parents on how to create inclusive and welcoming environments, as well as anti-bullying and bystander training for children and youth. While one may feel unprepared to have discussions about LGBTQ issues with young athletes, remember that it is not about having the right answers; it is about being supportive and creating a sense of safety. (Ch. 8)

Language matters: One of the most direct ways of creating a positive culture is through language. Language has a significant impact because it is an everyday tool. Ensuring that teachers, coaches, staff, and administrators use inclusive language in their writing and spoken word is essential. In written materials, sport administrators can create forms which recognize different types of families (e.g., refer to parents rather than a mother and father) and gender identities. This sends a strong message about acceptance. (Ch. 8)

GIRLS WITH COGNITIVE AND PHYSICAL DISABILITIES

A significant amount of research on girls and their participation in physical activity and sport has accumulated in the past 45 years, yet very little research on girls with disabilities exists within the United States. Data indicates girls with cognitive and physical disabilities are even less likely to be active than their peers without disabilities; therefore asset accrual is less likely.

Intersectionality important: Girls with disabilities are often marginalized not only by their gender and disability, but often additionally by other social identity markers such as race/ethnicity, and socio-economic class. (Ch. 9)

Research needed: More research on girls with disabilities and their intersectional identities can provide insight into their needs, interests and motivations to participate in sport and physical activity—and help practitioners design programs which serve them better. (Ch. 9)

Enforce compliance: Compliance by school districts to the guidelines in Section 504 must be taken more seriously, with penalties being enforced for non-compliance. This would send a long-overdue, no-excuses message that access to physical activity and sport programs is not a privilege, but a right for *every student*—including girls with disabilities. (Ch. 9)

EFFECTS OF SPORT MEDIA & SEXUALIZATION ON GIRLS

Female athletes are more likely to be sexualized than male athletes. Therefore younger girls are most likely to be negatively impacted by sexualized media images of athletes because girls do not yet have the abstract thinking skills necessary to critique such images.

Leverage social media: Social media affords individuals the opportunity to amplify their voice and speak up, including advocating for respectful coverage, protesting the erasure and trivialization of female athletes in sport media and marketing, or demanding more coverage of physically strong women. Use the #HERESPROOF hashtag to dispel the myth that no one is interested in women's sports by posting a picture of girls' and women's sporting events. (Ch. 10)

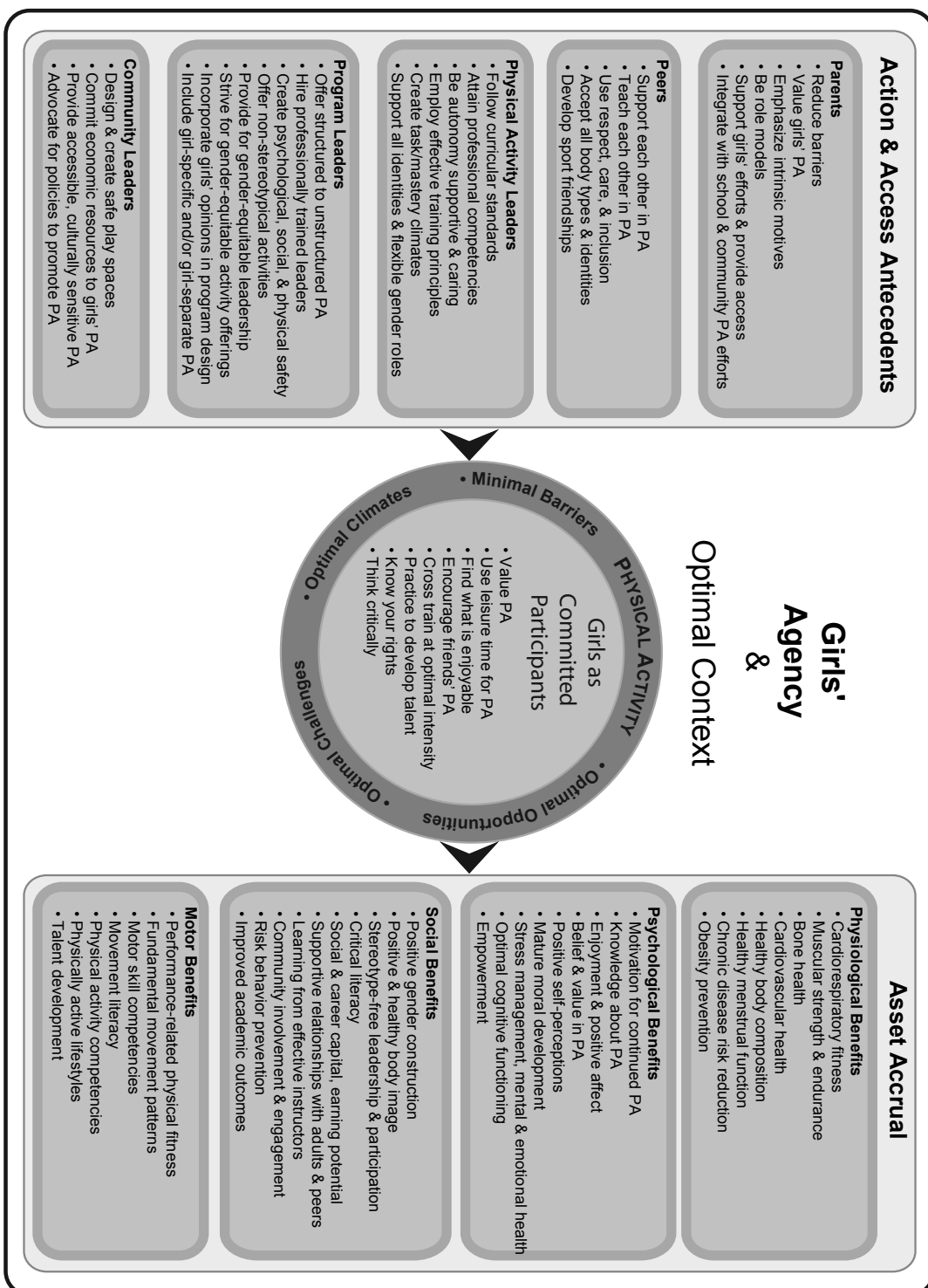
Teach girls: Youth sport leaders should teach girls critical media literacy skills so they can create strong identities, learn to resist, recognize and analyze sexualized images, know how such images impact their health and well-being, and develop skills to buffer the effects of sexualized images. (Ch. 10)

Resist: Based on the data, and counter to what most of the public and athletes themselves believe, sexualized images of female athletes do not appear to generate interest in women's sports. Sexualized images may in fact, do the opposite by angering and offending existing and potential consumers. (Ch. 10)

BEST PRACTICES SUMMARY & MODEL

The *Evidence-Based Multidisciplinary Model for Developing Physically Active Girls, 2018* presented in Chapter 11 reflects integrated, research-based recommendations from recognized experts, institutes, national entities, and governing bodies (See Figure 11.1). From right to left, the model starts by summarizing the role of five **antecedent social groups** (detailed in Chapter 2) that positively influence girls' physical activity participation by providing access and using evidence-based action strategies. Girls, located at the center of the model have **agency**, play an autonomous role and must be committed participants in and through their own psychological, social, and physical engagement. The left side of the model reflects how girls' experiences in optimal physical activity contexts can result in interrelated clusters of developmental and health outcomes and **assets that can accrue**.

FIGURE 11.1 AN EVIDENCE-BASED MULTIDISCIPLINARY MODEL FOR DEVELOPING PHYSICALLY ACTIVE GIRLS, 2018



Girls matter: Empower girls by teaching girls their worth and human rights. (Ch. 11)

Girls-only matters: Research clearly indicates girls tend to prefer single-sex PA for *many* reasons including freedom from constant comparison to boys, freedom from boys' scrutiny and critical comments, dominance of space by boys, increased opportunity to develop skills and relationships, increased enjoyment, increased attention from instructors, and less embarrassment and worry about body image. (Ch. 11)

Dance: One of the most popular, meaningful, and culturally-relevant physical activities in the lives of many girls is dance. More dance programming is needed in schools and communities. (Ch. 11)

Collective Responsibility: Instead of blaming girls for their lack of physical activity, emphasize collective responsibility. It is *everyone's* responsibility to support and help *all* girls be physically active, as well as to help reduce participation barriers and health disparities among underserved girls. (Ch. 11)

Sports-based youth development: SBYD programs have great potential to help meet the needs of girls, particularly underserved girls, through caring relationships and by providing an opportunity for vigorous physical activity in a safe, fun, supportive environment where sports skills are learned and mastered along with life and leadership skills in a challenging environment. However, SBYD programs for girls *must* include aspects of critical thinking, community engagement and collective empowerment. (Ch. 11)

CONCLUDING THOUGHTS

Girls are one of our nation's greatest assets, but many girls fail to achieve their full potential due to a multitude of barriers that make it nearly impossible to participate in physical activity to their full extent or to the extent they desire and deserve. Based on the data over the last ten years, trend lines indicate the physical activity of girls is stagnant at best and likely decreasing slightly. Gendered participation disparities exist, and participation disparities disproportionately impact underserved girls. Based on the chapters in this report we offer three 'big picture' conclusions:

1. Caring, positive **social relationships that foster inclusivity are important** for the holistic development of all girls. Often relationships in physical activity contexts are not inclusive, caring or positive, which can lead to inactivity and a host of negative psychosocial and physical outcomes for girls.
2. Gendered expectations and **sociocultural forces continue to shape** the opinions, values and behaviors of adult stakeholders in girls' sports, and well as the experiences of girls.
3. **Girls are not a monolithic group** and attention to the intersectional identities of girls matters, and the social, environmental and sociocultural system within which girls live, warrants more consideration so that *all* girls have the opportunity to reap health and developmental outcomes in and through physical activity participation.

In this third version of the *Tucker Center Research Report, Developing Physically Active Girls An: Evidence-based Multidisciplinary Approach* we aimed to be more inclusive, broad-based and comprehensive in our approach to thinking and writing about girls' physical activity. Our goal is that this report is utilized so every girl, regardless of identity or context, is provided the fundamental human right and opportunity to participate in physical activity.

We hope you enjoy and apply the knowledge herein and in the full report. We always welcome and appreciate your feedback. If you have comments or questions, please direct them to: info@tuckercenter.org



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