

Executive Summary



The 2007 TUCKER CENTER RESEARCH REPORT

Developing Physically Active Girls

An Evidence-based Multidisciplinary Approach



**Tucker Center for Research on
Girls & Women in Sport**

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Executive Summary

The year 2007 marked the 35th year since the passage of Title IX, and the 10th year since the release of the groundbreaking report *Physical Activity and Sport in the Lives of Girls: Physical and Mental Health Dimensions from an Interdisciplinary Approach*. While Title IX federal legislation has changed the landscape of physical activity opportunities for girls, the original report highlighted the physical, psychological, social, and cultural benefits girls derive from physical activity, the barriers that prevent girls from reaching their full potential, as well as the kinds of environments in which girls can thrive. Within the last decade, a wealth of research from multiple disciplines has illuminated trends in girls' physical activity that are both troubling and encouraging.

Girls participate across wide continuums of physical activity opportunities [See Figure 1]. Currently three important trends in girls' participation patterns within physical activity are evident. First, girls are participating in sports in record numbers at all levels, from organized youth sports, to interscholastic sports and extreme sports like skateboarding, up through Olympic competition. Second, girls' participation in moderate-to-vigorous physical activity *outside of* organized sports is declining, especially as they move from childhood into adolescence. Finally, girls' participation rates in all types of physical activities consistently lag behind those of boys—and girls' sport dropout rates are higher. So while some girls are physically active, many girls fail to meet minimal standards of physical activity needed to accrue developmental and health benefits, or worse, they are completely sedentary.

The health and well-being of our girls and the gendered gap of physical activity is of concern to a variety of agencies, professional organizations, researchers, policy makers, and practitioners, and that concern is shared by a growing number of families and communities. In *The 2007 Tucker Center Research Report*, leading scholars in their respective academic fields summarize the research that has shaped these gendered trends and review some of the best practices, approaches and programs that are at present helping to address the physical activity needs of the current generation of girls and young women.

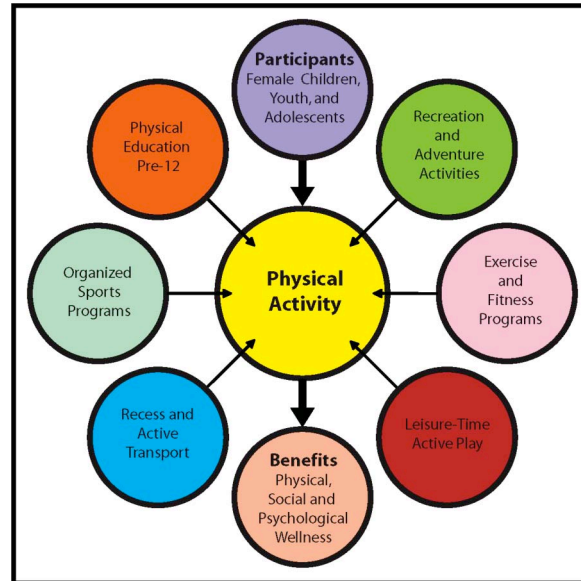


Figure 1. *In-school and out-of-school time physical activity opportunities and benefits for girls (Ch. 5)*

THE PSYCHOLOGICAL DIMENSION

The social climate of physical activity for girls is reciprocally shaped by parents, peers, coaches, siblings, and spectators, which in turn influence girls' thoughts, experiences, feelings, and behaviors within physical activity. Over the past decade, research in sport psychology has found that:

- **Adults matter.** Girls like the camaraderie and fun inherent in sport, but rely on adult physical activity leaders 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)
- **The climate is important.** When coaches, teachers, and physical activity leaders create *task-involving climates* (which reinforce improvement, focus on skill mastery, effort, peer support, and foster belief in the value and unique role of all athletes) girls report more enjoyment, satisfaction, and positive relationships with others. On the other hand, coaches and physical activity leaders who create *ego-oriented climates* (which punish for mistakes and poor performance, focus on outperforming others, exhibit favoritism toward high-ability team members, and encourage competition among team members) produce anxiety, less enjoyment, and more negative relationships with others. In general, girls tend to be more task-involved than boys. (Ch. 2)

- **Parents are key.** The daughters of parents who believe in and promote the physical competence of their girls, have positive expectations, and are themselves role models of physical activity, are more likely to value physical activity participation. (Ch. 2)
- **Girls perceive physical activity as less important than do boys.** Certain aspects of sport participation such as social, fitness, and group dynamics are particularly valued by girls, but the opportunities to demonstrate these values are limited by the lack of available programs. Once girls are in junior high school, they report less physical activity, less exposure to physically active role models, and perceptions that the benefits of physical activity do not outweigh the barriers. (Ch. 2)
- **Motivation lags.** Girls are disproportionately represented in the motivational clusters of “poorly motivated” and “amotivated” (completely lacking motivation). Low levels of participation, self-worth, perceived competence, and ego orientation, characterize both clusters. (Ch. 2)
- **Girls feel less competent.** Girls perceive themselves to be less competent in sports than do boys. This gender gap remains relatively constant from childhood to adolescence. (Ch. 2, 3)
- **Body image is linked to self-esteem.** Adolescent females on sports teams have higher self-esteem than non-participating females. Unlike boys, girls typically associate body image with self-esteem. High social physique anxiety—feeling anxious about how others view one’s body—tends to be higher in adolescent girls than in boys and relates to lower self-perception, disordered eating, and exercise that is motivated by a desire to look better to others, rather than for its intrinsic value. Social physique anxiety is in part related to media standards for the ideal female physique. (Ch. 2, 3)
- **The point is enjoyment.** Fun is the most prevalent reason girls give for participating in sport. Enjoyment is the strongest predictor of commitment to and continued involvement in organized sport. A task-orientation—as opposed to an ego-orientation—is more explicitly linked to greater enjoyment and engagement. (Ch. 2)

Research in sport psychology helps us to attract girls to physical activity, facilitate their activity, and forwards understanding of how to keep them motivated and interested throughout their formative years—all of which increases the likelihood of sustained physical activity later in life. This body of research also specifies how to develop and improve the motivational climate and participation incentives and reduce the barriers for those girls who are inactive.

THE SOCIOLOGICAL DIMENSION

The original report 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. Unfortunately, ten years later many gendered stereotypes persist and, perhaps more than any other factor, gender norms influence the extent to which girls participate in or shun physical activity. Research about the intersection of gender and physical activity in the past decade has found that:

- **Gendering practices ensure that girls and boys experience their bodies differently.** The very definition of a girl requires that she be inactive and unskilled at physical activity and sports. (Ch. 3)
- **Popularity has different standards.** Although adolescent boys' popularity depends directly on their physical ability, adolescent girls' popularity depends on a complex mix of attributes such as physical appearance, material possessions, and boyfriends. (Ch. 3)
- **Femininity and sports don't mix.** Sports and sexuality are linked through socially enforced gender-appropriate behaviors that decree femininity and physical competence are oppositional. (Ch. 3)
- **Physical activity curricula limit girls.** A major barrier which problematizes and disadvantages girls while privileging boys, and prevents girls from fully and meaningfully taking part in physical activity, is the "hidden curriculum" (i.e., traditional subject matter that highlights competition, outperforming others, aggression, and ability). (Ch. 3)
- **Media continues to sexualize female athletes.** Females are much more likely to be portrayed in ways that highlight their physical appearance instead of their athletic competence. Objectification of girls and young women, as well as widespread eroticization of female athletes through the media, influences girls' self-esteem, body image, and valuation of physical activity. (Ch. 3)

- **Overweight and obese girls face discrimination.** The number of overweight and obese girls is on the rise—recent statistics show nearly half of girls ages 12- to 19-years old fall into this classification (Ch. 3, 4). The social discrimination (i.e., taunting, ridicule, isolation) which follows as a result of overweight and/or obesity and the psychological, social and physical health costs are too high for anyone, much less a child or adolescent, to have to pay. (Ch. 3)

Scholars in pedagogy, sociology, and gender studies over the last decade have suggested some ways to make physical activity more relevant to girls. Although it is unlikely that rigidly held societal gender beliefs will be eliminated, the current climate of physical activity for girls can be modified to help girls have agency over their own bodies and physical activity experiences.

THE PHYSIOLOGICAL AND METABOLIC DIMENSION

In the past ten years, evidence has accumulated and has confirmed the many positive physiological and metabolic effects that can result from regular moderate-to-vigorous and vigorous physical activity, as well as the potential deleterious effects which can result from girls' physical inactivity.

- **Cardiorespiratory fitness.** Aerobic power is higher in boys than in girls, and decreases linearly for older and overweight girls; nearly one-third of girls are ranked “low” in cardiorespiratory fitness. (Ch. 4)
- **Strength and power.** Strength and power increase linearly in girls from pre- to post-puberty, but slow or decline in sedentary girls throughout their teen years. Strength and power may continue to increase throughout adolescence in girls who participate in activities that incorporate some form of resistance/power exercise (e.g., jumping or sprinting). (Ch. 4)
- **Bone health.** A variety of factors intertwine to influence girls' bone health including impact exercise, calcium and Vitamin D intake, insufficient energy availability relative to energy expenditure, and menstrual functioning. Many girls fail to achieve nutritional and activity standards that facilitate bone health and protect them from the risk of osteoporosis as adults. (Ch. 4)
- **Cardiovascular health.** Cardiovascular risk factors include high cholesterol, high blood pressure, smoking, and physical inactivity. Higher levels of cardiorespiratory fitness achieved through physical activity can moderate the deleterious effects of family history of coronary

heart disease (CHD), high blood glucose, overweight and obesity. The critical point is that a majority of girls fail to meet minimal physical activity standards which increases girls' risk of chronic disease and disability—especially for girls of color who tend to have higher rates of inactivity. (Ch. 4)

- **Body weight.** Adolescent girls with low aerobic fitness levels are twice as likely to be overweight and/or obese and have higher serum cholesterol than higher-fit girls. (Ch. 4)
- **The female athlete triad** of disordered eating, amenorrhea, and osteoporosis continues to be of concern. Among female college and elite athletes, for example, estimates of disordered eating range from 15 to 62 percent, compared to 13 to 20 percent in the general female population. (Ch. 4)

Regular participation in vigorous physical activity can improve heart function, aerobic power, cardiovascular endurance, and hence, sports performance. Physical activity in combination with healthy dietary behaviors can help control body weight and reduce the development of chronic disease risk factors.

RECOMMENDATIONS FOR BEST PRACTICES, PROGRAMS, AND APPROACHES

For girls, physical activity is not an “add-on”—it is essential. Not only does physical activity promote health, but it also facilitates accrual of developmental assets such as: social, emotional, cognitive, behavioral, physical, and moral competencies; resilience, self-efficacy, and identity; and develops connection and civic engagement in ways that extend far beyond physical activity contexts. However, the positive youth development that can occur in and through sports is largely dependent on the quality and expertise of the adults who manage and deliver programs. Figure 2 illustrates an evidence-based, multidisciplinary model for developing physically active girls, starting with five antecedent social groups who can help create optimal physical activity contexts into which the girls themselves enter and engage. Experiences in these optimal physical activity contexts result in interrelated clusters of health outcomes.

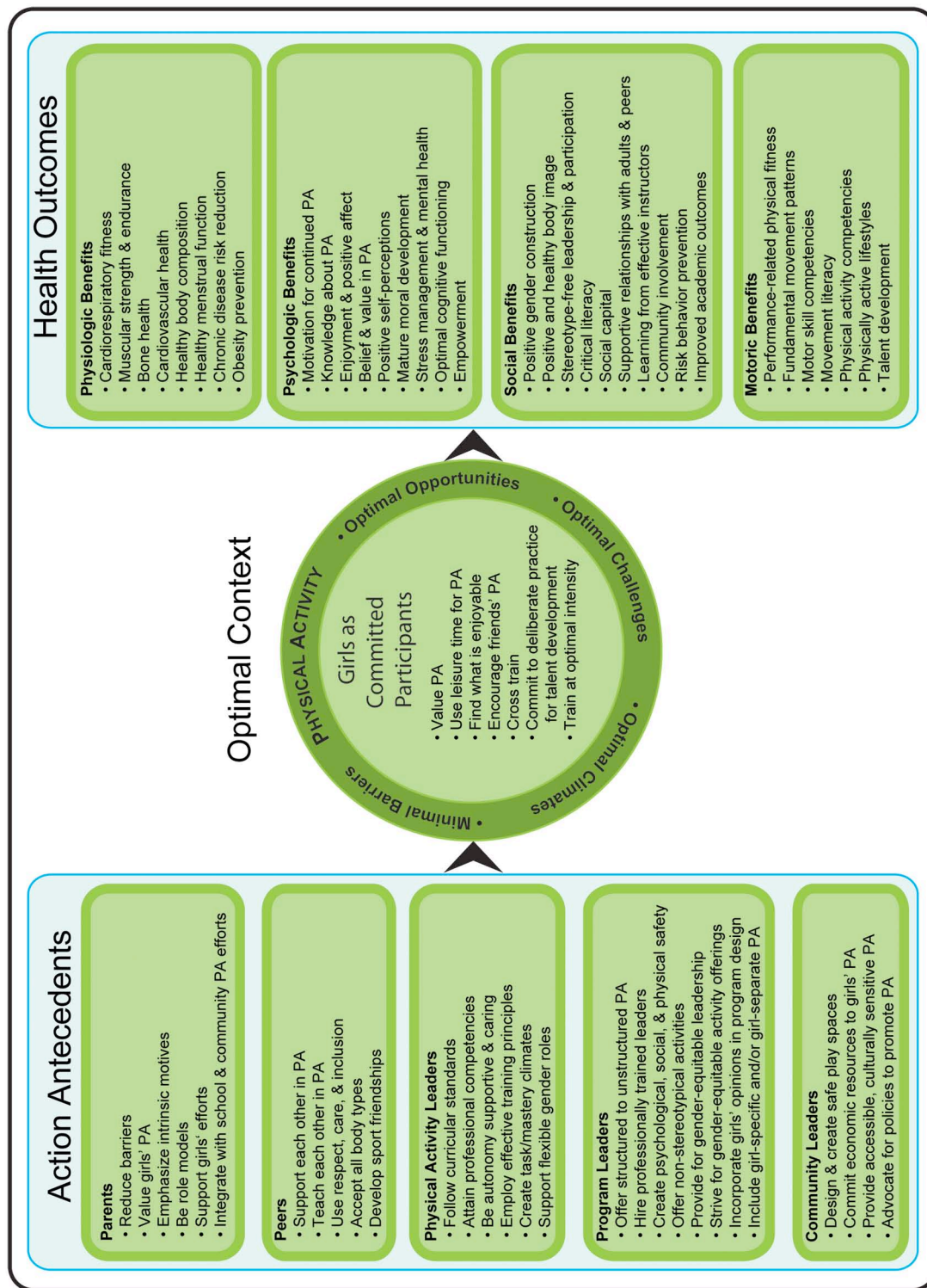


Figure 2. An evidence-based multidisciplinary model for developing physically active girls (Ch. 5)

Suggestions for best practices, approaches and programs are intended to provide evidence of “success stories” and a road map for practitioners, families, and communities—from the coach of an AAU girls’ basketball team, to a community parks and recreation director, to a youth sport parent—to sustain and promote physical activity for girls. A sampling of exemplar programs and approaches contained in the full report include:

Component programs: Some programs focus on certain developmental health assets. Among some of the best component programs:

- **The VERB™ *It’s what you do* campaign** [www.cdc.gov/youthcampaign]
- **SPARK** [www.sparkpe.org]
- **Action Schools! BC** [www.actionschoolsbc.ca]
- **Promoting Lifetime Activity for Youth (PLAY)**, [www.azdhs.gov/phs/physicalactivity/play.htm]

Girl-Focused Programs and Approaches: Some programs have a sole focus or are specifically designed for girls.

- **GoGirlGo!** [www.gogirlworld.org]
- **Girls Inc. Sporting Chance®** [www.girlsinc.org]
- **GirlSports** [www.girlscouts.org/program/program_opportunities/health_wellness/]
- **Girl Power!** [www.girlpower.gov]
- **Girls health Enrichment Multi-site Studies (GEMS)** [www.ishib.org/sup_13_1_1_toc.asp]

Comprehensive Programs and Approaches: Comprehensive programs use sports as a vehicle for positive development—teaching life and sport skills intentionally and concurrently. One evidence-based success is *The First Tee* program [www.thefirsttee.org], which teaches youth interpersonal communication, self-management, and goal-setting skills in the context of golf. Results from *The First Tee* program demonstrate transfer of participant life skills to contexts outside of golf, and evidence lower rates of drop out.

Policy recommendations

A synthesis of the report's conclusions and recommendations suggest new and integrative approaches to meet the specific needs of girls in physical activity contexts. Among the key recommendations are:

- Health and physical education classes should be designed to better address some of the health concerns and barriers particularly relevant to adolescent girls, such as body image, proper nutrition, and physical activity. (Ch. 2, 3, 4, 5)
- Parents, teachers, and school administrators should advocate for the inclusion of critical media literacy for *girls and boys* in order to help them understand and resist the powerful commercial interests that underlie gendered images of femininity and masculinity. (Ch. 3, 4, 5)
- Parents, teachers, and school administrators should collaborate to supplement or replace the typical team sport model used in physical education, with a model that also emphasizes lifetime sports and non-traditional movement forms. (Ch. 3, 4, 5)
- Daily, quality K-12 physical education should be included in school curricula, and taught by caring and certified/licensed physical education teachers. (Ch. 2, 3, 5)
- All coaches and youth-sports leaders should complete standards-based educational requirements. (Ch. 2, 5)

DIRECTIONS FOR FUTURE RESEARCH

A sample of suggestions for future research included in the full report focus on following areas:

- ***Psychological:*** Longitudinal assessments of the influence of creating task-oriented, supportive climates in sport contexts and physical education classes on girls' interest and belief in the importance of physical activity and health improvement, girls' self-perceptions and competence, and social physique anxiety.



- ***Sociological:*** The influence of critical media literacy training on girls’ self-perceptions, physical activity, and body ideals.
- ***Physiological and metabolic:*** Longitudinal assessments of physical activity on cardiorespiratory fitness, injury prevention, bone health, and reduction of overweight/obesity and chronic disease risk factors in girls.

Our hope is that through synthesizing information, best practices, and recommendations from leading scholars in multiple disciplines, as well as leading agencies and organizations, that those most able to effect change will use the information in *The 2007 Tucker Center Research Report* to pursue research, develop policies, and implement programs that will help make a difference in developing and sustaining physically active girls.

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