Elevate HEALTH

A quarterly research digest
of the President's Council
on Fitness, Sports & Nutrition

Series 15, Number 3
Special Issue 2014

fitness. sports. nutrition.

Accessible, well-managed sports programs can produce psychosocial benefits

President's Council on Fitness, Sports & Nutrition

Opening Commentary

Jason Collins, Member
President's Council on Fitness, Sports & Nutrition

The authors would like to thank Dr. Al Smith for his helpful comments on this manuscript.

For as long as I can remember my twin brother, Jarron, and I played and loved the game of basketball. Growing up, among other activities, it was a family affair. Jarron and I were fortunate that we could count on the unconditional support of our parents. Not only did they transport us to and from games and practices, they also demonstrated through their parenting partnership how sports lessons can be applied to life off the court.

I am also lucky to have been led by coaches who taught essential skills like goal-setting, which helped me succeed in the classroom. Learning how to set goals and stick to them instead of quitting was the bridge between athletics and academics for me at Harvard Westlake High School and later, at Stanford University. Thanks to the coaching I received as a young athlete, I learned that working on a team towards a common goal requires compromise and negotiation. I also realized the importance of effective communication and how essential it is to becoming a leader both on the basketball court and in life. Were it not for the feedback I received from teachers and coaches throughout my childhood, I would not be the man I am today, nor would I be inspired to teach those same lessons to the next generation of leaders and professional ball players.

Early sports participation enabled me to develop positive relationships with my peers and excel in school. We all share the responsibility to ensure that physical activity and sports participation opportunities are accessible for all. It doesn't matter if you're a coach, teammate, family member, or friend—we should all be working together towards equity and creating a brighter tomorrow.

In this edition, Dr. Dan Gould, Ian Cowburn, and Ashley Shields discuss the social and psychological outcomes associated with participation in sports. While most of the research points to positive outcomes for those who participate in youth and high school sports, these positive outcomes are not automatically conferred on those participating. Gould, Cowburn, and Shields provide recommendations for coaches, parents, and participants to insure that there are intentional efforts made to increase/build upon those potential positive outcomes of sports participation.

> "Working on a team towards a common goal requires compromise and negotiation, and effective communication is essential to becoming a leader both on the basketball court and in life."
>
> Jason Collins

"Sports for All"—Summary of the Evidence of Psychological and Social Outcomes of Participation

Affiliation with peers *has been found to be a strong predictor of personal and social skill development in sports.*

"Sports for All" Summary of Psychological and Social Evidence

Sports participation has been shown to lead to a number of health-related benefits for both children (e.g., Strong et al., 2005) and adults (e.g., Warburton, et al., 2006; U.S. Department of Health and Human Services, 1996). Not only is sports involvement thought to have numerous health-related physical benefits, but a variety of social and emotional benefits as well. These include outcomes such as the formation of positive relationships and the acquisition of social interaction and teamwork skills, as well as enhanced confidence, character, prosocial values, and positive affect (Eime et al., 2013). However, while many contend that sports participation is associated with numerous benefits like those listed above, others have questioned the findings (e.g., Coakley, 2011) and/or identified detriments to participation that include increased stress, burnout, and a loss of motivation (e.g., Gustafsson et al., 2011; Raedeke et al., 2014). This article is designed to summarize the research on this topic, to draw conclusions about the social and psychological benefits of participation, and derive recommendations to guide practitioners working in the field.

Defining Sport

Before the literature on the social and psychological benefits of sports participation can be reviewed, the term "sport" needs to be defined and operationalized. Unfortunately, no universally accepted definition of sport exists and the term is complex to define because of its varied uses. For instance, at times it is used to refer to highly specific competitive activities (e.g., varsity college sports), and at other times it refers to sets of skills individuals learn (e.g., physical education students learn volleyball or basketball skills). In some cultures sport is seen as a general category that encompasses physical education, games, and play, while in other cultures sport is viewed as separate and distinct from these other forms of physical activity. After reviewing the literature on the psychological and social benefits of sports participation, Eime et al. (2013) adopted the definition derived by the Australian Sports Commission (2012), which defined sport as "a human activity capable of achieving a result requiring physical exertion and/or physical skill which, by its nature and organisation, is competitive and is generally accepted as being a sport" (p. 1). Coakley (2009) also defined sport when he indicated that it is "well-established, officially governed competitive physical activities in which participants are motivated by internal and external rewards" (p. 6). Competition is a key part of these definitions and involves situations where "an individual's performance

Sports involvement *is thought to have numerous health-related physical benefits, as well as a variety of social and emotional benefits.*

The character-building virtues of sport are the foundation of the modern Olympic Games.

is compared with some standard of excellence, in the presence of at least one other person who is aware of the criterion for comparison." (Martens, 1975, p. 71).

Looking across these definitions, sport involves goal-directed physical activities that people engage in, in which participants are motivated to achieve internal or external rewards, their performance is compared to others in some way, they are governed by some set of rules, and the activities engaged in are generally defined by society as sport. This composite definition allows for a broad view of sport and would include both elite sport, such as that which occurs in the Olympic and Paralympic Games, as well as entry-level sport such as t-ball or Biddy Basketball. Participants may also be motivated by substantial external rewards (e.g., professional athletes) or simple intrinsic pleasures (e.g., self-satisfaction from improving one's running time or race placement in the local 10k run). Informal play activities and games that are not governed by formal rules and fitness activities that do not involve competition or physical education classes, then, are not considered sport for the purpose of this review.

Research Findings

Interest in the social and emotional benefits of sports participation is not a new phenomenon. The ancient Greek philosopher Plato, for example, referred to the social and emotional benefits of sport in his writings (1992 translation), and Barron Pierre de Coubertin focused much of his rationale for the revitalization of the modern Olympic Games on the character-building virtues of sport and even held several Olympic conferences on the topic (Kornspan, 2007). For 40 years, sport and physical activity researchers have been studying how psychosocial development occurs through participation in sport (Weiss, 2011) and more recently, youth development experts have become interested in the topic. Thus, an enormous amount of literature exists on this topic; so much so, that a detailed review of it is beyond the scope of this article. Instead, we will provide example studies from the most common topics studied and summarize the main findings.

What Are the Social and Psychological Benefits of Sports Participation?

Eime and her colleagues (2013) recently conducted a systematic review of the research examining the psychological and social benefits of sports participation for children and youth. Thirty studies met their inclusion criteria (e.g., focused on sports, conducted between 1990 and 2012, published in peer review or government publications). Most studies were quantitative and cross-sectional in nature, although a few longitudinal designs have been conducted. The majority of the studies were conducted in the United States and samples sizes ranged from 22 to more than 50,000 participants. Over 40 different psychological and social outcomes were identified, ranging from specific assessments of assertiveness and teamwork to more global measures of behavioral well-being and perceptions of general mental heath. Based on the evidence, the authors concluded:

> That there is substantive evidence of many different psychological and social health benefits of participation in sport by children and adolescents. Furthermore, there is a general consensus that participation in sport for children and adolescents is associated with improved psychological and social health, above and beyond other forms of leisure-time physical activity (Eime et al., 2013, p. 19).

The authors went on to say that participation in team sports was more often associated with these benefits and they suggested that this resulted from the social context of team sports. It was also their contention that social and psychological benefits result from positive interactions with adults and peers involved in these programs.

While the authors' conclusions are positive, they warn that they are limited because results are primarily based on cross-sectional designs. No randomized control trial studies

have been conducted. It was recommended that studies designed to demonstrate causal relationships be conducted. It should also be noted that the vast majority of the research has been conducted on children and youth, including high school athletes. There is a paucity of research examining the social and psychological benefits of sports participation for youth involved in intramural sports, adults, master athletes, and individuals taking part in disability sports.

Page limitations prevent a detailed review of all this literature in this article. What follows, however, is a summary of findings relative to the most-studied topics.

Academic performance. Given the historical association between sports and education in the United States, it is not surprising that researchers have been interested in the relationship between participation in sports and academic success. Many of these studies are cross-sectional surveys. However, several large longitudinal studies have been conducted (Eccles and Barber, 1999; Marsh, 1993; Marsh and Kleitman, 2003). For example, Marsh and Kleitman used a large representative sample drawn from the National Center for Education Statistics data provided by the U.S. Department of Education. They analyzed longitudinal data spanning six years and controlled for background variables and early academic performance outcomes. Significant and substantial links were found between sports participation and academic performance as measured by variables such as school grades, educational aspirations, number of university applications, and homework. Stronger links were found for participation in extramural versus intramural sports, and to a lesser extent, team sports participation versus individual sports participation. The authors noted that these effects were often linked with specific academic outcomes like grades, time on homework, and educational aspirations.

More recent studies have verified the sports participation and academic performance link (Fox et al, 2010; Knifsend and Graham, 2012). However, not all studies always supported the relationship (Melnick et al., 1992). After reviewing the literature, Trudeau and Shephard (2008) concluded that while a relationship exits between sports participation and academic achievement, it is "more equivocal" than the relationship between levels of physical activity and academic performance. They go on to indicate "that sport is more likely to benefit academic performance if offered in school rather than in other sport contexts" (p. 7). Thus, the sport context might be an important factor influencing the sports participation-academic benefits relationship.

Finally, a number of explanations have been offered to elucidate the relationship between sports participation and academic performance. These include the ideas that sports participation causes students to identify with and commit more to school (Marsh, 1993); better students self-select themselves into sports (Videon, 2002); sports participants associate with peers who have a positive influence on them (Eccles et al., 2003); norms emphasized in sports reinforce school values (Fox et al., 2010); one's sense of belonging in school increases as a result of participation (Knifsend and Graham, 2012); life skills learned in sports, such as goal setting, transfer to school (Videon, 2002); and school sponsorship of sports bridges academics and athletics (Videon, 2002). More research is needed, however, before any conclusions can be reached regarding which of these explanations is most prevalent and powerful.

Confidence and competence. One of the most studied outcomes of sports participation is confidence, self-esteem enhancement, and perceived competence. While distinctions can be made between these terms, for the purpose of this review they will be viewed as synonymous and defined as a general belief in one's capabilities and a positive view of the self. Results reveal that athletes tend to have higher levels of perceived (especially physical) competence than non-athletes (Weiss and Amorose, 2008). However, this relationship is reciprocal, as participants with higher levels of perceived competence are more likely to participate, while participants with low levels of perceived competence are more likely to discontinue involvement (Weiss and Ferrer-Caja, 2002). It should also be noted that females have lower levels of perceived competence than males, although these gender-related differences are eliminated when more elite athletic populations are studied (Fredricks and Eccles, 2002).

Some athletes may experience stress, burnout, and loss of motivation when winning is perceived as highly important.

Initiative. A number of studies (e.g., Gould and Carson, 2011; Larson et al., 2006; Strachan et al, 2009) have administered the Youth Experiences Scale 2.0 (YES 2.0) (Hansen and Larson, 2007), a broad measure of a number of possible developmental outcomes youth might derive from sport and extracurricular activity participation. Examining the absolute levels of the YES 2.0 scale and subscale scores reported in these studies reveals that initiative (effort, identity, and goal setting) is the outcome that is most often reported. Specifically, young athletes report that they learn to set goals, exert effort, problem solve, and gain time management skills from sports participation.

Teamwork and social skills. After initiative on the YES 2.0, studies have shown that teamwork and social skills are the subscales that young athletes most often report experiencing in sports (Gould and Carson, 2011; Gould, Flett, and Lauer, 2012; Larson et al., 2006). Hence, young athletes learn about group processes like: understanding that working together requires compromise, how to give and receive feedback, and about leadership and leadership responsibilities. Research also shows that affiliation with peers was a strong predictor of reported personal and social skill development in sports (MacDonald et al, 2011).

Character and moral development. Character, good sporting behavior, and moral development have been of considerable interest to sports science researchers (Weiss et al., 2008). Results have shown that interventions specifically designed to enhance moral thinking, values, and actions can be effective in enhancing moral behavior (Bredemeier et al, 1986; Gibbins et al., 1995). This research has also shown that mere participation in sports is not associated with the development of prosocial values, moral attitudes, and moral behavior. In fact, at times it has been shown to have a negative relationship (Kavussanu, 2008).

Negative Outcomes of Sport Participation

While the research examining the link between sports participation and psychological and social outcomes is predominately positive, not all results have been favorable. For example, research has shown that certain athletes (e.g., those characterized as having high trait anxiety, low perceived competence), when placed in particular situations (e.g., situations where winning is perceived as highly important, event outcomes are very important), experience heightened levels of stress and may even experience burnout and motivational losses (Larson et al., 2006; Gould et al., 1996).

Some studies have found mixed results, with sports participation being associated with a number of beneficial psychological and social outcomes while also showing some detrimental effects. In a longitudinal investigation, for instance, Eccles and her associates (Eccles and Barber, 1999; Eccles et al., 2003) surveyed approximately 1,200 high school students and discovered that sports participation was associated with important academic outcomes such as liking of school, higher grade point average, and college attendance. However, when compared to youth involved in other extracurricular activities, those participating in sports were also found to engage in drinking alcohol more often. This finding parallels research that shows college athletes consume alcohol more often and engage in unhealthy drinking patterns more often than their non-athletic peers. In fact, recent reviews have clearly shown that there is higher incidence of alcohol consumption and unhealthy behaviors such as episodic and binge drinking, and alcohol related violence, in college athletes than in their non-athletic peers (Martens et al., 2006; Sønderlund, O'Brien, Kremer, Rowland, De Groot, Staiger, Zinkiewicz, and Miller, 2014). The reasons for why this occurs are less well understood.

Hansen and colleagues (2003) also found mixed results, in that when sports participants' scores were examined relative to students involved in other activities, those involved in sports reported higher rates of physical skills development, self-knowledge, and emotional regulation. However, those involved in sports also reported greater rates of negative peer interactions and inappropriate adult behavior, for example, adults (e.g., a coach) encouraging sports participants to do something they believed to be morally wrong.

This general finding of both positive and negative outcomes arising from sports involvement has been further verified in studies of moral development in athletes (e.g., Shields and Bredemeir, 2007). Results show that athletes are often found to have an erosion of moral reasoning and development. That is, their moral values decline the more years they are involved in sport. Athletes have also been found to demonstrate bracketed morality—the phenomenon where they consider what is moral to be different depending on whether they are inside versus outside of sport (Bredemeier and Shields, 1986). For instance, fighting might be seen as acceptable playing ice hockey, but not in general life. At the same time, results show that when good sporting behavior is intentionally taught, moral behavior can be enhanced through participation (Geibink and McKenzie, 1985).

Sports participation, then, has been found to be related to both positive and negative psychosocial outcomes, although studies report more positive versus negative outcomes. It is thought that negative outcomes might occur because of the highly visible nature of sports, America's emphasis on winning, and a lack of training of adults who organize sports. The mixed results have led a number of researchers to begin to examine factors that influence the sports participation-psychological and social outcomes relationship.

Over-emphasizing winning, employing authoritarian and harsh coaching practices, and engaging in constant social comparison have not been shown to be conducive to the development of social and emotional skills.

Factors Influencing the Sport Participation and Social and Psychological Benefits Relationship

While there is considerable evidence that sports participation can lead to a number of positive social and psychological outcomes in participants, not all studies have found sports to be beneficial at all times. Because of this, investigators have examined the context or environment surrounding participation, the quality of organizing or coaching in youth sports programs, program dosage, and a variety of individual difference factors such as gender and socioeconomic status. What has been learned in this regard is summarized below.

Context or environment. Two context factors that have been found to influence the beneficial effects of sports participation on social and psychological outcomes are the motivational (Duda and Balaguer, 2007; Smith et al., 2007) and caring (Fry and Gano-Overway, 2010; Fry et al., 2011) climates created in the programs. Relative to the motivational climate, the more the climate is task- (focuses on self-improvement) versus ego-involving (focuses on comparison with others), provides autonomy of choice, and enhances enjoyment and positive adult-peer relationships, the more likely positive outcomes will result. Over-emphasizing winning, employing authoritarian and harsh coaching practices, and engaging in constant social comparison have not been shown to be conducive to the development of social and emotional skills. It is especially important to provide youth agency by giving them developmentally appropriate levels of autonomy and choice, and by minimizing adult control.

Creating a caring program climate has also been shown to influence the outcomes of sports participation such as self-efficacy and social behaviors (Fry and Gano-Overway, 2010; Fry et al., 2011). Specifically, a caring climate is one where "each" participant is treated in a caring and supportive manner. Here, clear expectations relative to the team climate are widely understood by all participants and efforts are made to facilitate positive relationships between all involved (Fry, 2010).

Participation in sport for children and adolescents is associated with ***improved psychological and social health.***

Quality of program leadership. The influence of the coach on social and psychological development of the athlete has been the focus of attention for a number of researchers. Results reveal that young athletes who play for coaches who have received training to be more encouraging and supportive in their orientation (versus those who have not) are characterized by a number of positive psychosocial outcomes. These include higher motivation for future involvement, decreased anxiety, increased enjoyment, and enhanced self-esteem (Barnett et al., 1992; Smoll et al., 1993; Smith et al., 2007). Other studies have shown that young athletes derive more benefits from sports participation if their coaches have philosophies that place importance on the development of socio-emotional life skills in their athletes. More effective coaches also establish trusting relationships with their athletes, intentionally teach life skills and emphasize psychosocial values and skills, spend more time teaching skills like goal setting, help their athletes establish competition strategies, and regularly talk about how sports lessons relate to life (Camire, et al., 2012; Gould and Carson, 2010, 2011; Gould et al., 2007; Gould et al., 2012).

*Sports parents can have an important **influence** on their son's or daughter's sports experience.*

In addition to coaches, sports parents have been shown to have important influence on their child's youth sports experience (See Gould et al., 2012, and Holt and Knight, 2014, for detailed reviews). Fredrick and Eccles (2002) have found that parents influence their child's sports experience by doing such things as paying for lessons and transporting children to games and practices. They also serve as role models who provide information about sports involvement, its importance, and how to interact with those in sports. Finally, parents serve as interpreters of their child's sports experience by influencing factors such as perceptions of competence and stress levels (Fredricks and Eccles, 2002). Relative to the purpose of this review, a number of athlete outcomes are influenced by sports parents' actions, expectations, and thoughts. For example, Collins and Barber (2005) found that field hockey players who perceived that their parents placed greater importance on doing well experienced more pre-competition cognitive state anxiety than their counterparts who did not perceive such pressure. Other studies have found links between parental actions, attitudes, and expectations and a variety of social and psychological outcomes, ranging from the formation and development of personality dispositions and affective states (e.g., Appleton et al., 2010; Stein et al., 1999) to the child's actual involvement in sports (e.g., Toftegaard-Stokel, Nielsen, Ibsen, and Andersen, 2011).

Program dosage. In studying high school youth extracurricular activity involvement, including sports, Hansen and Larson (2007) found that dosage or the number of hours a young person participated, the ratio of the number of adults to youth in the program, and taking on a lead role (e.g., being a sport captain) were associated with positive outcomes from participation. Specifically, the findings showed that taking on a lead role and having lower adult-to-youth ratios were linked to having a greater number of positive developmental experiences. It was also discovered that the greater the program dosage, the more positive experiences were reported. Finally, in a recent study examining the relationship between extracurricular activity participation (including sports) and academic success, Knifsend and Graham (2012) reported that students who took part in a moderate number of school activities (compared to students with low or high activity participation) reported greater academic performance and positive school affect. This result suggests that some optimal level of involvement may be critical.

Individual differences: Socioeconomic status, gender differences, and athletes with disabilities. Researchers have examined whether socioeconomic status and gender influence the sports participation-social and psychological outcomes relationship. Gould, Flett, and Lauer (2012), for instance, found that underserved baseball and softball players reported higher teamwork and social relationship experiences from their participation, which is consistent with the general literature on the topic. In addition, Holt and colleagues (2011) interviewed low-income young athletes and their parents, and found that participation was associated with a number of personal (e.g., confidence, emotional control) and social (e.g., making new friends, teamwork) benefits. However, the parents also reported that they faced a number of challenges and barriers that restricted participation of their children (e.g., not having the finances to pay for participation). Altogether, this research, while limited, suggests that low socioeconomic status youth experience the same physical and social benefits of sports participation as their more well-off counterparts. However, because a clear link has been found between socioeconomic status and physical activity participation, with higher socioeconomic status youth having more opportunities than their less well-off counterparts (Stalsberg and Pedersen, 2010), low socioeconomic status youth do not have the same opportunities to participate in sports and to experience the associated benefits as their more well-off counterparts. This is a problem of considerable concern.

Sports participation of females has increased steadily since the advent of Title IX, but continued efforts to facilitate female participation in sports are needed.

Gender has been examined in a number of studies. In the previously discussed competence and sportspersonship areas, males have been found to report higher levels of physical competence and lower levels of moral development than females. Gould and Carson (2011) found that females experienced more identity work, teamwork, social skills, and initiative-taking than males, while Gould, Flett, and Lauer (2012) found that males reported more negative experiences. Thus, gender differences were evident with clearer patterns occurring for competence and sportspersonship, whereas less clear patterns exist for other social and psychological outcomes. Definitive conclusions await additional research on topics such as socioeconomic status. However, the biggest issue may be that fewer females participate in sports, often as a result of gender stereotypes and lower perceptions of competence (Eccles and Harold, 1991; Fredricks and Eccles, 2002, 2005). Thus, while sports participation of females has increased steadily since the advent of Title IX, continued efforts to facilitate female participation in sports are needed. This is especially important for certain subgroups of females, such as low income African-American and Hispanic women, because they have some of the lowest sports participation rates (Kane and Lavoi, 2007).

Researchers have also investigated the social and psychological outcomes of participation in disability sports. Studying individuals taking part in both recreational activities and sports, Blinde and McClung (1997) found that participation influenced participants' views of their physical (e.g., experiencing one's body in new ways, increased confidence) and social (e.g., expanded social interactions and opportunities) selves. More recently, Groff and colleagues (2009) discovered that a vast majority of international cerebral palsy athletes surveyed indicated that adaptive sports participation positively influenced their quality of life, quality of family time, and quality of social skills. Campbell and Jones (1994) compared wheelchair sports participants to non-sports participants and found that the participants reported high levels of mastery and more positive views of health and well-being when compared to the nonparticipants. Finally, Greenwood and colleagues (1990) found that wheelchair tennis players, when compared to nonplaying counterparts, were more confident not only in their tennis skills, but in their wheelchair mobility in general. Thus, disabled athletes report a number of psychological and social benefits of sports participation.

While the research on the social and psychological outcomes of disability sports participation is highly encouraging, this research must be view with caution. Only a small number of studies have been conducted and few experimental or longitudinal designs have been employed.

Finally, while some studies have examined age and racial differences relative to the social and psychological effects of sports participation, these types of influences have only been looked at sporadically. Therefore, firm conclusions cannot be drawn at this time.

Recommendations

Justify Sport Participation on Its Social and Psychological Grounds

The results of studies examining the social and psychological benefits of sports participation clearly show that sports involvement is linked to a number of important benefits like enhanced confidence, academic involvement and success, teamwork, and social skills. These effects are more likely to occur when sports programs identify and target these outcomes, utilize trained coaches who place priority on the development of these attributes, and when task-oriented and caring motivational climates are created by the parents and coaches involved. The evidence also reveals that, if run incorrectly, programs can lead to negative outcomes like increased athlete stress, burnout, and motivational declines.

The results of this review, then, suggest that sports participation be encouraged for the American public based not only on the physical outcomes that result but the social and psychological outcomes as well. However, to ensure that this occurs, the American public need to be informed consumers by seeking out and demanding quality programs that adhere to the factors discussed in this review that enhance program effectiveness.

Beneficial Effects Are More Likely to Occur When Intentionally Targeted

Sports programs are much more likely to lead to desirable outcomes if those coaching and organizing these programs place primary emphasis on the intentional teaching of social and psychological outcomes. A great myth of American sports is that sports "automatically" builds character and leads to any number of desirable personal and social characteristics in participants. This is a myth, because sports does not build character. Character is not "caught" from merely participating in sports (Hodge, 1989). Beneficial effects are much more likely to occur from intentional efforts to teach and foster them.

Educate Coaches and Program Leaders

Beneficial effects of sports participation are much more likely to occur when competently trained leaders run those programs. There is an extensive literature on what comprises quality coaching and coaching education (see Gould, 2013). However, more needs to be done to disseminate and implement this information. Information about quality coaching does little good if it remains in reports or sits on an electronic bookshelf. The American public needs to be informed of what good coaching involves from both human and long-term athlete development perspectives. The public then needs to demand such coaching.

Finally, Americans have always thrived on competition and the love of winning.

This focus on winning must be recognized. Winning is important and has its place in American sports, but must be bound by strong ethical values. In addition, winning not only means beating others but also surpassing individual standards of excellence. American sport should not be designed only for the most highly gifted. It should be designed for all Americans who want to benefit from the physical, psychological, and social benefits of participation—whether they be highly talented, those of average skill level, unskilled neophyte athletes, the disabled, or citizens of all ages. The best way to win in the long run and to create a physically, psychologically, and socially healthy and strong citizenry is to create task-focused motivational climates!

Keep Score through Program Evaluation

Professionals often lament that the American culture is obsessed with winning and does not pay enough attention to the physical, psychological, and social benefits of sports participation because of the "win at all costs" mentality that exists. This should not be surprising, as the win-loss record is the only metric we typically make available for America to judge success in sports. For this reason, greater efforts need to be made to get sports programs to keep score using other metrics. These might include retention rates, fitness levels, and psychological and social outcomes. These metrics should be publicized as widely as win-loss records. Petitpas et al., (2005), for example, have stressed the importance of evaluating sports and physical activity based programs designed to foster psychosocial and life skills development in young athletes. We think their recommendations are appropriate for all levels of sports.

Gould and Westfall (2014) have emphasized the need for not only large scientifically based programmatic evaluation efforts, but efforts by individual coaches, teachers, and administrators to make less formal evaluations of their programs. This evaluation may involve coaches monitoring how their athletes are doing at school by checking attendance, academic progress, and any disciplinary actions. Similarly, high school and college coaches could interview their graduating athletes for the purpose of obtaining feedback about program benefits or to track the success of program alumni. Lastly, leagues could track social and psychological benefits of participation using descriptive measures and then publicize their results.

Conclusion

This review shows that sports involvement has many potential social and psychological outcomes that can be and have been derived from participation. More needs to be done, however, to insure that intentional efforts are made to foster psychological and social outcomes of sports participation. Four recommendations seem especially warranted if the benefits of sport are to be maximized for all Americans. These include: (1) not justifying sports participation only on its physical and health benefits, but its social and psychological benefits as well; (2) recognizing that the beneficial effects of sports involvement are much more likely to occur when they are intentionally targeted and taught by coaches and sport leaders; (3) recognizing that coaches and program leaders must be educated about the social and emotional benefits of sport participation because the beneficial effects of participation are much more likely to occur when competently trained leaders run those programs; and (4) greater efforts need to be made to get sports programs to evaluate themselves using metrics other than winning and losing, such as participant retention rates, fitness levels, and psychological and social outcomes.

Scientific Summary

Diane L. Gill, PhD, Science Board Member and Professor, Department of Kinesiology, University of North Carolina at Greensboro, Greensboro, NC

In this issue of *Elevate Health,* Dr. Dan Gould, Ian Cowburn, and Ashley Shields from the Institute for the Study of Youth Sports at Michigan State University provide an informed and insightful summary of the literature on psychological and social outcomes of sport participation. For the vast majority of participants, these psychosocial outcomes may well be the most real and valuable payoff. As Gould and colleagues point out, research supports positive outcomes, but the findings are mixed and the research is largely cross-sectional and focused on youth and high school sports. Most important, sport does not automatically result in positive outcomes. Character is not "caught" but must be taught by trained, informed coaches and program leaders. As Gould and colleagues recommend, sport leaders must intentionally promote, target, and evaluate psychosocial outcomes. Benefits are likely with a positive, task-oriented climate that shifts focus away from winning, and when programs are designed so that all participants, particularly those who face physical, economic, or social barriers, can gain benefits.

References

Participation in sports increases ***confidence, self-esteem, and social interactions*** *for athletes with disabilities.*

Appleton PR, Hall HK, Hill AP (2010). Family patterns of perfectionism: An examination of junior athletes and their parents. *Psychology of Sport and Exercise,* 11(5), 363–371.

Australian Sports Commission: What is defined as sport. nd. [cited 2012 July]. Available from ausport.gov.au/supporting/nso/asc_recognition.

Barnett N P, Smoll FL, Smith RE (1992). Effects of enhancing coach-athlete relationships on youth sports attrition. *The Sport Psychologist,* 6, 111–126.

Blinde EM, McClung LR (1997). Enhancing the physical and social self through recreational activity: Accounts of individuals with physical disabilities. *Adapted Physical Activity Quarterly,* 14, 327–344.

Bredemeier BJ, Shields DL (1986). Game reasoning and interactional morality. *Journal of Genetic Psychology,* 147, 257–275.

Bredemeier BJ, Weiss MR, Shields DL, Shewchuk RM (1986). Promoting Growth in a summer sports camp: The implementation of theoretically grounded instructional strategies. *Journal of Moral Education,* 15, 212–220.

Camire M, Trudel P, Forneris T (2012). Coaching and transferring life skills: Philosophies and strategies used by model high school coaches. *The Sport Psychologist,* 26(2), 243–260.

Campbell E, Jones G (1994). Psychological well-being in wheelchair sport participants and nonparticipants. *Adapted Physical Activity Quarterly,* 11, 404–415.

Coakley J (2009). *Sports in society: Issues and controversies.* Boston: McGraw Hill Higher Education.

Coakley J (2011). Youth sports: What counts as "positive development?" *Journal of Sport & Social Issues,* 35, 306–324.

Collins K, Barber H (2005). Female athletes' perceptions of parental influences. *Journal of Sport Behavior,* 28(4), 295–314.

Duda JL, Balaguer I (2007). Coach-created motivational climate. In Jowett S and Lavallee D (eds), *Social psychology of sport* (pp. 117–130). Champaign, IL: Human Kinetics.

Eccles JS, Barber BL (1999). Student council, volunteering, basketball, or marching band: What kind of extracurricular involvement matters? *Journal of Adolescent Research,* 14, 10–43.

Eccles JS, Barber BL, Stone M, Hunt J (2003). Extracurricular activities and adolescent development. *The Journal of Social Issues,* 59, 865–889.

Eccles JS, Harold RD (1991). Gender differences in sport involvement: Applying the Eccles expectancy value model. *Journal of Applied Sport Psychology,* 3(1), 7–35.

Eime RM, Young JA, Harvey J, Charity MJ, Payne WR (2013). A systematic review of the psychological and social benefits of participation in sport for children and adolescents: Informing development of a conceptual model of health through sport. *International Journal of Behavioral Nutrition and Physical Activity,* 10, 98.

Fox CK, Barr-Anderson D, Neumark-Sztainer D, Wall M (2010). Physical activity and sports team participation: Associations with academic outcomes in middle school and high school students. *Journal of School Health,* 80(1), 31–37.

Fredricks JA, Eccles JS (2002). Children's competence and value beliefs from childhood to adolescence: Growth trajectories in two male-sex-typed domains. *Developmental Psychology,* 38, 519–533.

Fredricks, JA, Eccles JS (2005). Family socialization, gender, and sport motivation and involvement. *Journal of Sport and Exercise Psychology,* 27, 3–31.

Fry MD (2010). Creating a positive climate for young athletes. *Journal of Sport Psychology in Action,* 1(1), 33–41.

Fry MD, Gano-Overway LA (2010). Exploring the contribution of the caring climate to the youth sports experience. *Journal of Applied Sport Psychology,* 22, 294–304.

Fry MD, Guivernau M, Kim M, Newton M, Gano-Overway LA, Magyar TM (2011). Youth perspectives of a caring climate, emotional regulation, and psychological well-being. *Sport, Exercise, and Performance Psychology,* 9(1), 44–57.

Gano-Overway LA, Newton M, Magyar TM, Fry MD, Kim M-S, Guivernau M R (2009). Influence of caring youth sport contexts on efficacy-related beliefs and social behaviors. *Developmental Psychology,* 45, 329–340.

Geibink MP, McKenzie JL (1985). Teaching sportsmanship in physical education and recreation: An analysis of interventions and generalized effects. *Journal of Teaching Physical Education,* 4(3), 167–177.

Gibbins SL, Ebbeck V, Weiss MR (1995). Fair play for kids: Effects on the moral development of children in physical education. *Research Quarterly for Exercise and Sport,* 66, 247–255.

Gould D (2013). Effective education and development of youth sport coaches. President's Council on Fitness, Sports & Nutrition *Research Digest,* 14(4), 1–10.

Gould D, Carson S (2010). The relationship between perceived coaching behavior and developmental benefits of high school sports participation. *The Hellenic Journal of Psychology,* 7, 298–314.

Gould D, Carson S (2011). Young athletes' perceptions of the relationship between coaching behaviors and developmental experiences. *International Journal of Coaching Science,* 5(2), 3–29.

Gould D, Collins K, Lauer L, Chung Y (2007). Coaching life skills through football: A study of award winning high school coaches. *Journal of Applied Sport Psychology,* 19(1), 16–37.

Gould D, Cowburn I, Pierce S (2012). *Sport parenting research: Current status, future directions, and practical implications.* US Tennis Association White Paper report.

Gould D, Flett MR, Lauer L (2012). The relationship between psychosocial developmental and the sports climate experienced by underserved youth. *Psychology of Sport and Exercise,* 13(1), 80–87.

Gould D, Udry E, Tuffey S, Loehr J (1996). Burnout in competitive junior tennis players: I. A quantitative psychological assessment. *The Sport Psychologist,* 10, 322–340.

Gould D, Westfall S (2014). Promoting life skills in children and youth: Applications to sport contexts. In Rui Gomes A, Resende R, and Albuquerque A (eds). *Positive human functioning from a multidimensional perspective.* Vol. 2: Promoting healthy lifestyles (pp. 53–77). NY: Nova.

Greenwood CM, Dzewaltowski DA., French R (1990). Self-efficacy and psychological well-being of wheelchair tennis participants and wheelchair nontennis participants. *Adapted Physical Activity Quarterly,* 7, 12–21.

Groff DG, Lundberg NR, Zabriskie RB (2009). Influence of adapted sport on quality of life: Perceptions of athletes with cerebral palsy. *Disability and Rehabilitation,* 31(4), 318–326.

Gustafsson H, Kentta G, Hassmen P (2011). Athlete burnout: An integrated model and future research directions. *International Review of Sport and Exercise Psychology,* 4(1), 3–24.

Hansen DM, Larson R (2007). Amplifiers of developmental and negative experiences in organized activities: Dosage, motivation, lead roles, and adult-youth ratios. *Journal of Applied Developmental Psychology,* 28, 360–374.

Hansen DM, Larson RW, Dworkin JB, (2003). What adolescents learn in organized youth activities. *Journal of Research on Adolescents,* 13(1), 25–55.

Hodge KP (1989). Character-building in sport: Fact or fiction? *New Zealand Journal of Sports Medicine,* 17(2), 23–25.

Holt NL, Kingsley BC, Tink LN, Scherer J (2011). Benefits and challenges associated with sport participation by children and parents from low-income families. *Psychology of Sport and Exercise,* 12, 490–499.

Holt NL, Knight CJ (2014). *Parenting in youth sport: From Research to practice.* NY: Routledge.

Kane MJ, Lavoi NM (2007) (ed.). *The 2007 Tucker Center Research Report: Developing physically active girls: An evidence-base multidisciplinary approach.* Minneapolis, MN: University of Minnesota Tucker Center.

Kavussanu M (2008). Moral behavior in sport: A critical review of the literature. *International Review of Sport and Exercise Psychology,* 1, 124–138.

Knifsend CA, Graham S (2012). Too much of a good thing? How breadth of extracurricular participation relates to school-related affect and academic outcomes during adolescence. *Journal of Youth Adolescence,* 41, 379–389.

Kornspan AS (2007). The early years of sport psychology: The work and influence of Pierre de Couberin. *Journal of Sport Behavior,* 30(1), 77–93.

Larson RW, Hansen DM, Moneta G (2006). Differing profiles of developmental experiences across types of organized youth activities. *Developmental Psychology,* 42(5), 849–863.

MacDonald DJ, Cote J, Eys M, Deakin J (2011). The role of enjoyment and motivational climate in relation to the personal development of team sport athletes. *The Sport Psychologist,* 25, 32–46.

Marsh HW (1993). The effects of participation in sport during the last two years of high school. *Sociology of Sport Journal,* 10, 18–43.

Marsh HW, Kleitman S (2003). School athletic participation: Mostly gain with little pain. *Journal of Sport and Exercise Psychology,* 5, 205–228.

Martens R (1975). *Social psychology of sport.* New York: Harper & Row.

Martens MP, O'Connor KD, Beck NC (2006). A systematic review of college student-athlete drinking: Prevalence rates, sport-related factors and interventions. *Journal of Substance Abuse Treatment,* 31, 305–316.

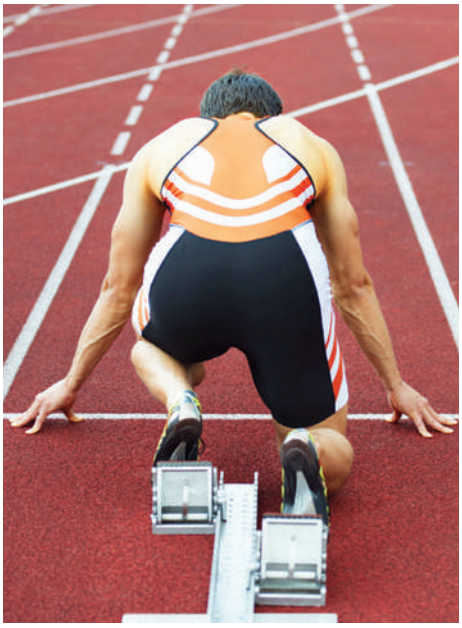
Melnick MJ, Sabo DF, Vanfossen B (1992). Educational effects of interscholastic athletic participation on African-American and Hispanic youth. *Adolescence,* 27, 295–308.

Petitpas AJ, Cornelius AE, Van Raalte JL, Jones T (2005). A framework for planning youth sport programs that foster psychosocial development. *The Sport Psychologist,* 19, 63–80.

Plato (1992). Republic (Rev. ed.) (GMA Grube, CDC Reeve, Trans.) Indianapolis: Hackett Publishing Company, Inc. (Original work written 380 B.C.). Accessed at books.google.com/books/about/Republic_Grube_Edition.html?id=1H7gvzj5_CEC.

Raedeke TD, Smith AL, Kentta G, Arce C, de Francisco D (2014). Burnout in sport: From theory to practice. In Rui Gomes A, Resende R, Albuquerque A (eds). *Positive human functioning from a multidimensional perspective. Vol. 1: Promoting stress adaptation* (pp. 113–141). Hauppague, NY: Nova.

Shields DLL, Bredemeier BL (2007). Advances in sport morality research. In Tenenbaum G, Eklund RC (eds), *Handbook of sport psychology* (3rd ed., pp. 662–684). Hoboken, NJ: Wiley & Sons.



Smith RE, Smoll FL, Cummings FL (2007). Effects of a motivational climate on intervention for coaches on youth athletes' sport performance anxiety. *Journal of Sport and Exercise Psychology,* 29(1), 39–59.

Smoll FL, Smith RE (2002). Coaching behavior research and intervention in youth sports. In Smoll FL, Smith RE (eds), *Children and youth in sport: A biopsychosocial perspective* (2nd ed., pp. 211–233). Dubuque, IA: Kendall/Hunt.

Smoll F, Smith R, Barnett N, Everett J (1993). Enhancement of children's self-esteem through social support training for youth sport coaches. *Journal of Applied Psychology,* 78(4), 602–610.

Sønderlund AL, O'Brien K, Kremer P, Rowland B, De Groot F, Staiger P, Zinkiewicz L, Miller G (2014). The association between sports participation, alcohol use and aggression and violence: A systematic review. *Journal of Science and Medicine in Sport,* 17, 2–7.

Stalsberg R, Pedersen AV (2010). Effects of socioeconomic status on the physical activity in adolescents: A systematic review of the evidence. *Scandinavian Journal of Sports Medicine,* 20, 368–383.

Stein GL, Raedeke TD, Glenn SD (1999). Children's perceptions of parent sport involvement: It's not how much, but to what degree that's important. *Journal of Sport Behavior,* 22, 591–602.

Strachan L, Cote J, Deakin J (2009). "Specializers" versus "samplers" in youth sport: Comparing experiences and outcomes. *The Sport Psychologist,* 23, 77–92.

Strong WB, Malina RM, Blimkie CJR, Daniels SR, Dishman RK, Guten B, Hergenroeder AC, Must A, Nixon PA, Pivarnik J, Rowland J, Trost S, Trudeau F (2005). Evidence based physical activity for school-age youth. *Journal of Pediatrics,* 146(6), 732–737.

Toftegaard-Stockel J, Nielsen GA, Ibsen B, Andersen LB (2011). Parental, socio and cultural factors associated with adolescents' sports participation in four Danish municipalities. *Scandinavian Journal of Medicine and Science in Sports,* 21(4), 606–611.

Trudeau F, Shepard RJ (2008). Physical education, school physical activity, school sports and academic performance. *International Journal of Behavioral Nutrition and Physical Activity,* 5, 10.

US Department of Health and Human Services (1996). *Physical activity and health: A report of the Surgeon General.* Atlanta, GA: US Department of Health and Human Services.

Videon TM (2002). Who plays and who benefits: Gender, interscholastic athletics, and academic outcomes. *Sociological Perspectives,* 45(4), 415–444.

Warburton DER, Crystal WN, Shannon SDB (2006). Health benefits of physical activity: The evidence. *Canadian Medical Association Journal,* 174(6), 801–809.

Weiss MR (2011). Teach the children well: A holistic approach to developing psychosocial and behavioral competencies through PE. *Quest,* 63(1), 55–65.

Weiss MR, Amorose AJ (2008). Motivational orientations and sport behavior. In Horn TS (ed.). *Advances in sport psychology* (3rd edition), Champaign, IL: Human Kinetics, 115–155.

Weiss MR, Ferrer-Caja E (2002). Motivational orientations and sport behavior. In Horn TS (ed.). *Advances in sport psychology* (2nd ed., pp. 101–183) Champaign, IL: Human Kinetics.

Weiss MR, Smith AL, Stuntz CP (2008). Moral development in sport and physical activity. In Horn TS (ed). *Advances in sport psychology* (3rd ed., pp. 187–210), Champaign, IL: Human Kinetics.