

SPORT

The Effects of Motivational Climate on Youth Sport Participants

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Abstract

Sports are popular across the nation and youth sport participation is at an all-time high, yet children are quitting youth sports at an alarming rate. If this trend is going to change, several areas of concern must be addressed. The climate created on youth teams can be polarizing, having the potential for significant positive or negative developmental effects. Therefore, the authors explore achievement goals, motivational climate and personal development, and TARGET descriptions. They offer suggestions for coaches, such as creating a mastery climate or fostering a more positive environment, so this negative trend can hopefully be curbed. Creating a mastery climate presents an environment in which children feels competent and successful and could be the key important factor in their continued participation in youth sport.

There is little doubt that the world is infatuated by sports. People watch them, analyze them, argue about them, spend money on them, and encourage their children to play them. Not surprisingly, youth sport is the most popular structured activity in the United States, with an estimated 45 million American children enrolled in an organized program or team in 2005 (Mahoney, Larson, Eccles, & Lord, 2005). Attention has been devoted to maximizing this access and determining effective ways to use the popularity as a tool in youth

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development. Researchers Côté and Fraser-Thomas (2007) identified three major developmental goals that should ideally be accomplished through youth sport. First, sports can contribute to a child's physical health and development by providing youth with opportunities to be active. Second, youth sport can facilitate appropriate psychosocial development as children learn important life skills such as teamwork, discipline, leadership, sportsmanship, and self-control. Third, children learn motor skills that build a foundation for successful lifetime participation in athletics, from future professional athletes to recreational weekend warriors.

Few people would disagree that sport participation offers significant opportunities for health betterment. The potential physical benefits of exercise are numerous and have been well researched. Weight control, cardiovascular health, muscle and bone development, and flexibility are just a few of the important physical developments associated with youth participation in sports (Wankel & Berger, 1990). In addition, habits associated with physical activity in youth have been linked to exercise habits in adulthood (Robertson-Wilson, Baker, Derbyshire, & Côté, 2003), so developing these positive tendencies toward sport and physical activity in childhood is critical for continued involvement. Physically active adults are significantly less likely to develop diseases such as obesity, diabetes, depression, cancer, heart disease, and osteoporosis (Berger & Owen, 1988). Also, participation in youth sport has been associated with the development of key character elements such as citizenship, leadership skills, positive peer relationships, and teamwork (Côté & Hay, 2002). Individuals who participated in organized athletics growing up were also more likely to attend college and experience career success (Eccles & Barber, 1999).

The potential for positive outcomes relating to youth sport participation undeniably exists, but involvement does not guarantee these effects will automatically occur. Despite youth sport participation being at an all-time high, so too is the frequency of childhood obesity (Tremblay, Katzmarzyk, & Willms, 2002). Furthermore, although the potential for positive psychosocial developments exists, some youth sport participants report negative cognitions related to their involvement. These feelings include lack of enjoyment, decreased self-confidence, and high levels of performance anxiety. The most common offenders responsible for these adverse changes include feeling excessive pressure to win, low perception of abilities, feelings of unattachment to one's team, and vulnerability in the

presence of their teammates (Martens, 1993). Last, a telling statistic is that attrition rates are extremely high, with around 25% of youth sport participants between 10 and 17 years old withdrawing from organized sport programs yearly. Clearly, a considerable disparity exists between the ideal outcomes of youth sport and the actual results. Similarly in physical education classes, identifying key aspects to ensure a favorable experience for youth sport participants has been the goal of many psychologists, educators, and researchers (Prichard & Deutsch, 2013). One variable that has received a substantial amount of attention for its potential omnipotence in the youth sport context is the motivational climate.

Achievement Goals

Research on achievement goals began in the late 1970s; Carol Ames, Carol Dweck, Marty Maehr, and John Nicholls explored individuals' purposes for engaging in behavior in an achievement situation. They conducted their research independently, but the four psychologists also exercised a collaborative effort that led to the identification of two types of achievement goals: performance goals and mastery goals. The goals represent two distinct reasons for approaching and participating in achievement tasks as well as different conceptions of success and outcomes (Ames, 1992).

Performance goals are based upon ability and a sense of self-worth; ability is believed to be nonmalleable and is demonstrated by outperforming others, surpassing normative-based standards, or achieving success with little effort (Dweck, 1986). Public recognition of superiority is especially important to performance-oriented achievement. Attention is directed toward achieving normatively defined success. When an individual adopts a performance goal, that person's self-worth is determined by his or her ability to perform and achieve the normative standard of success; consequently, expending effort may threaten their self-image when the outcome may be construed as failure (Ames, 1992).

In contrast, the purpose of behavior when mastery goals are salient is to develop competence and work toward task mastery. In this mind-set, individuals are oriented toward developing new skills, improving their competence, or achieving mastery based on self-referenced standards. The focus of attention is on the intrinsic value of learning and maximizing effort (Nicholls, 1989). Within the context of mastery goals, failure may be construed as helpful information in the process of learning and mastering a task (Elliot, 2005).

Motivational Climate

The nature of achievement goals is influenced by environmental or instructional demands. Research indicates that practice structures and coaches' behavior during training and games can affect the salience of a particular goal orientation and lead to its adoption (Ames, 1992). Called the motivational climate, an environment that promotes the salience of performance goals is fittingly called a performance-oriented motivational climate; an environment that supports mastery goals is referred to as a mastery-oriented motivational climate. Epstein (1989) suggested relevance of six achievement structures that can be modified to promote either a performance- or a mastery-oriented motivational climate: Tasks, Authority, Recognition, Grouping, Evaluation, and Time. The first letters of these structures create the acronym TARGET. These structures have been shown to influence the effort, persistence, cognitions, emotions, and behavior of individuals in youth sport (Ntoumanis & Biddle, 1999). These environmental structures are highly controllable by the coach, and the effects of their adjustment may be significant.

TARGET Descriptions

Tasks

Designing the tasks and learning activities is a key facet in forming the motivational climate in youth sport. Children's perceptions of tasks influence their approach to learning as well as affect how they use their time. Tasks that are challenging and diverse foster a willingness to put forth effort. When children perceive meaningful reasons for engaging in a task or activity (e.g., developing an understanding of the activity), they are more willing to pursue learning in a manner consistent with a mastery goal. Variety in task structure is simply more engaging and does not allow for complacency, which also allows less opportunity to engage in social comparison. Thus, performance differences among teammates are less likely to translate into perceived ability differences (Ames, 1992).

Authority

Authority is the locus of responsibility on a team. In a climate that promotes mastery goals, athletes are given decision-making opportunities and leadership roles, an environment in which the coach controls all decision-making power and supports performance goals.

Using rewards or other external sources of motivation to encourage children to engage in a particular activity or achieve certain results is also indicative of a performance-oriented motivational climate. In these cases, even if they demonstrate improvement or perceive their ability to be high upon completion, the reasons for participation are not likely to be intrinsic, but rather a means to an end as structured by the coach (Ames, 1992). To achieve the long-term goal of enjoyment leading to continued preference for athletic participation, this instant gratification is insufficient and ineffective. Suggestions to involve youth athletes in decision making include requesting input regarding prioritization of tasks and the pace or methods of learning. However, this delegation of responsibility must come with proper support from the coach for the preparation and application of a plan of action (Ryan, Connell, & Deci, 1985). Without this support, the experience of added responsibility and autonomy may be discouraging and counterproductive for children.

Recognition

Environments in which athletes are recognized privately and praised for their improvement and effort are characteristic of a mastery-oriented motivational climate. Making social comparisons or recognizing normative performances in front of an audience will certainly contribute to a performance-oriented climate (Ntoumanis & Biddle, 1999). For most athletes, receiving praise for improvement and effort helps to reemphasize the importance of the learning process. Using public recognition as a reward serves as an extrinsic motivator and is believed to steer children toward valuing the outcome over the process and emphasizing ability as a predetermined quality. Thanks in part to the increasing media coverage of sports and the adoration of “winners” in competitive athletics, coaches may find it challenging to minimize this type of recognition among youth sport participants, but to do so at a young age when developmental processes are malleable is important.

Grouping

Grouping youth sport participants with the intent to promote cooperative learning and peer interaction must be done regardless of ability for the climate to be perceived as mastery. If groups are formed based on ability, children are more likely to adopt performance goals and engage in maladaptive motivational responses. Such responses include attribution of failure to lack of ability or

learned helplessness; these responses to failure are based on the child's perception that the opportunity to succeed is not within their control (Dweck & Leggett, 1988).

Evaluation

The ways in which children are evaluated is one of the most influential factors on motivation (Ames, 1992). Depending on how evaluation is structured (i.e., standards, criteria, methods, and frequency of evaluation), young athletes may be oriented toward different goals and elicit different motivational approaches (Ames & Ames, 1984). In particular, social comparison is associated with the development of performance goals. Comparing scores, times, or accomplishments within a team can have detrimental effects on athletes' motivation. Children's self-evaluations regarding their ability are consistently more negative when they are focused on winning, outperforming their peers, or reaching a normative standard compared to when they are focused on giving maximal effort, improving their personal performance, or just participating (Ames, 1984).

Time

Whenever possible, allowing flexibility and ample opportunity to practice and complete a task increases the likelihood that children will form mastery goals (Ntoumanis & Biddle, 1999). On the other hand, allocating a uniform length of time for learning or completing a task supports the salience and formation of performance goals. Failure to complete an exercise in the allotted time can be interpreted as failure to meet the "normative" standard and can naturally lead to social comparisons.

Motivational Climate and Sport Participation and Enjoyment

Children participate in sports for a multitude of reasons. Mahoney et al. (2005) estimated that close to 45 million youth between ages 4 and 18 participate in organized sports in the United States. This makes it the most popular structured activity for youth participation. Over 10,000 children responded to a national survey in which they were asked why they participated in sports. The top two reported reasons for participation were to "have fun" and to "improve skills" (Seefeldt, Ewing, & Walk, 1992). Youth sport participants also frequently report social reasons for involvement. The development of close social relationships and having fun with others

were found to be strongly correlated with adolescents' reported level of interest and enjoyment in sport (Allen, 2003).

Coaches of youth sport strongly influence the nature and the quality of the sport experience. They contribute to the creation of the motivational climate by the goal priorities they promote, the attitudes and values they transmit, and the way they treat the members of their team. Coaching behaviors can have important effects on how children define success, which can be linked to the enjoyment and satisfaction they experience and influence the attitudes they form toward sport (Christianson, Breker, & Deutsch, 2012). The sizeable body of research on motivational climate in youth sport indicates that the development of a mastery-oriented motivational climate will cultivate maximum enjoyment, satisfaction, and intent for continued participation in children of all ability levels. As previously stated, enjoyment is a result of great importance to youth and affects their satisfaction and influences their intent for future participation.

Smith, Smoll, and Cumming (2007) conducted a study in which 20 youth basketball coaches attended a 75-min motivational climate workshop before the start of their season. During the training session, coaches in the experimental group were presented with behavioral guidelines and instructions to create a mastery-oriented climate among their teams. Coaches in the control group did not receive training or instruction. At the end of the season, children who played for the coaches in the experimental group reported decreased anxiety, whereas athletes who played for coaches in the control group reported an increase in anxiety as the season progressed. Performance anxiety has been associated with damaging effects, such as high levels of autonomic arousal, worry, and negative self-oriented cognitions. These stress responses have been shown to disrupt attentional processes and other cognitive functions (Smith, Smoll, & Passer, 2002). Perhaps the most alarming consequences of performance anxiety are high frequencies of organized sport avoidance, athletic burnout, and attrition. Based on this research, it appears that a mastery climate may minimize performance anxiety, therefore making it a viable tool to work toward high attainment rates in youth sport.

Support for the creation of a mastery climate has been corroborated in a number of other studies. For example, tennis players who perceived a mastery-oriented climate in their training also reported increased perceptions of ability and greater satisfaction with level

of play (Balaguer, Duda, & Crespo, 1999). Seifriz, Duda, and Chi (1992) examined the perceptions of high school basketball players and concluded that athletes who perceived a mastery climate on their team reported greater enjoyment of basketball. These athletes also expressed the belief that hard work and cooperation with teammates are affiliated with success in sport. The relationship between the perception of the mastery climate and the positive beliefs did not change across win–loss records. In this instance, enjoyment and satisfaction were not dependent on winning games. This is an encouraging finding because it appears that youth do not require normative-based “winning” outcomes to experience sport enjoyment.

The long-term effects of cultivating enjoyment and prolonged participation in sport have also been seen in relation to academic achievement. Eccles and Barber (1999) conducted a longitudinal study that followed over 1,000 individuals from sixth grade to age 25. After years of data collection, they found that the 10th and 12th graders involved in organized sport reported a stronger enjoyment of school than did nonathletes. Furthermore, individuals who participated in sports were significantly more likely to be enrolled in college at age 21 than their nonparticipating counterparts. For these young adults to participate in high school organized athletics, an enjoyment of sport was presumably developed in their youth and propelled their continued involvement. Eccles and Barber concluded that the development of traits such as self-esteem, cooperation, discipline, work ethic, and perseverance likely contributed to the resulting academic pursuit, enjoyment, and achievement. These results are important regarding the formation of favorable attitudes toward sport and the intent for continued participation as well as implications for career success.

Just as mastery climates can foster positive developments in youth sport participants, perceptions of a performance climate have been associated with negative experiences. Ommundsen, Roberts, Lemyre, and Miller (2005) surveyed over 1,700 adolescent Norwegian soccer players and examined their perceptions of the motivational climate and elements of social cohesiveness with their teammates. Ommundsen et al. found relationships between a perceived performance climate and a reduced quality of peer relations as well as decreased feelings of friendship with teammates. These findings indicate that in an environment in which intrateam rivalry is emphasized, a de-emphasis on collaborative effort and cooperation among team members can cause relations and friendships to suffer. Consid-

ering that two of the strongest factors that influence a child's desire to participate in sport are the development of close social relationships and having fun with others, a climate that negatively affects friendships and peer interactions would likely result in future avoidance of organized athletics (Allen, 2003).

Walling, Duda, and Chi (1993) examined the perceptions of motivational climates among 169 youth baseball, basketball, softball, and soccer participants. Athletes were administered questionnaires to determine the perceived motivational climate and related cognitive effects. The results show that a performance-oriented climate is associated with decreased satisfaction regarding team membership and increased performance anxiety. In all likelihood, young athletes who are not experiencing satisfaction with their team membership are more apt to discontinue their involvement. After all, the pursuit of a fun experience or time with friends likely initiated involvement in the first place. If their participation continues despite this lack of enjoyment, the dissatisfaction may evolve and grow into even stronger negative attitudes, ultimately resulting in extreme negative feelings toward organized sport participation.

Concerns About Youth Sport Attrition

The attrition rate brings to life the fears that an ineffective climate can have detrimental results on youth sport participation. Hedstrom and Gould (2004) reported that by age 15, an estimated 70% of children have quit participating in organized sport in the United States, with the yearly attrition rate around 25%. In Seefeldt et al.'s (1992) survey results, the majority of feedback children gave for quitting sports was directly related to the coach and the environment he or she created (e.g., "I was not having fun," "The coach played favorites," "Too much emphasis was placed on winning"). As mentioned previously, many children seek membership of a sports team to have fun and experience feelings of enjoyment, satisfaction, and accomplishment. It should come as no surprise that when their experiences do not match their emotional and social needs, they discontinue involvement. To address the discouraging attrition rates in youth sport, it may be advisable to focus on creating a climate that supports maximum enjoyment for the athletes (Ellenburger & Deutsch, 2014). This notion may seem outdated in a society that has become increasingly obsessed with championships and record-breakers, but children want to have fun when they are playing sports. The majority will not make their living by competing professionally,

so creating an environment suitable to train the next Michael Jordan or Mia Hamm alienates the children who simply want to enjoy being active, learning new skills, or developing meaningful relationships with their teammates. Instead, supporting continued participation through a climate that nurtures a desire to learn and rewards hard work is one of the most important roles of a coach.

Motivational Climate and Personal Development

In addition to cultivating the enjoyment and satisfaction necessary for prolonged sport participation, another primary goal of youth sport is to promote optimal psychosocial development. Ideally, personal development through sport participation

enables individuals to lead a healthy, satisfying, and productive life as youth, and later as adults, because they gain the competence to earn a living, to engage in civic activities, to nurture others, and to participate in social relations and cultural activities. (Hamilton, Hamilton, & Pittman, 2004)

However, there is a shortage of research in which youth sport participation has been linked to relevant personal development. MacDonald, Côté, Eys, and Deakin (2011) postulated that this may be in part due to the extremely recent development of a valid tool to measure personal development in sport participants: Youth Experience Survey for Sport (YES-S), adapted by MacDonald, Deakin, Eys, and Côté (2009).

In a study that was the first of its kind, MacDonald et al. (2011) used the recently developed YES-S to survey over 500 youth sport participants aged 9–19 in school or nonelite community leagues across a variety of team sports. These sports included baseball, basketball, curling, football, lacrosse, rowing, softball, synchronized swimming, and volleyball. The intent was to identify associations between perceptions of motivational climates and positive or negative personal developments. These developments included self-knowledge, goal setting, effort, time management, emotional regulation, teamwork, social skills, leadership, and diverse peer relations. The data suggest that the most important predictors supporting growth in these areas are related to a mastery-oriented motivational climate: positive affiliation with peers, maximum effort expenditure, and self-referenced competency. The strongest predictor of negative personal development was explicitly stated as the salience of a performance climate. These findings indicate that the climate created can be polarizing, having the potential for significant positive

or negative developmental effects (MacDonald et al., 2011). This study was the first in which a mastery climate was linked with the development of personal skills in youth of varying ages and sport affiliations. As discussed previously, the body of research in which enjoyment and mastery climate has been linked with prolonged participation in sport is well documented; however, to build a more conclusive body of literature, we recommend further research to identify the specific effects a mastery climate may have on particular areas of personal development (MacDonald et al., 2011).

Recommendations for Youth Coaches

Research conclusively indicates that a mastery-oriented motivational climate can foster beneficial cognitive and affective responses in youth sport participants, which may help achieve the goals of appropriate physical and psychosocial development. In situations in which a mastery climate was created, children reported greater enjoyment and satisfaction, increased perceptions of efficacy, reduced anxiety levels, and fulfilling social interactions. Implementing a mastery climate appears to be an effective and proven strategy toward achieving higher attainment rates in youth sport, a key step toward nurturing a healthy, confident, and well-developed generation (Bjorling & Deutsch, 2012).

The good news for coaches is that the motivational climate is remarkably controllable, and a significant amount of responsibility falls squarely on their shoulders to reverse the alarming trend of dissatisfied youth sport dropouts. Ideally, efficient and effective education will increase coaches' understanding and influence their actions. As mentioned previously, a onetime, 75-min instructional coaching session in which ways to form a mastery climate were addressed resulted in results that lasted an entire season for youth basketball players (Smith et al., 2007). Educational opportunities will unquestioningly help coaches grow, but a gentle reminder that most children are playing sports for reasons other than grooming their skills for a career as a professional athlete may go a long way. Children want to have fun. They want to feel good about themselves. All children, regardless of skill level, deserve these opportunities in a sport context. Creating a mastery climate presents an environment in which each team member is able to feel competent and successful because their effort is within their control. Supporting the pursuit of enjoyment and love of sports may be an easy but meaningful adjustment toward improved experiences for youth athletes. Perhaps this

small change can lead to extended participation and even greater developmental benefits for the next generation.

References

- Allen, J. (2003). Social motivation in youth sport. *Journal of Sport and Exercise Psychology, 25*, 551–567.
- Ames, C. (1984). Competitive, co-operative, and individualist goal structures: A motivational analysis. In R. Ames & C. Ames (Eds.), *Research on motivation in education* (pp. 177–207). New York, NY: Academic Press.
- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*, 261–271.
- Ames, C., & Ames, R. (1984). Systems of student and teacher motivation: Toward a qualitative definition. *Journal of Educational Psychology, 76*, 535–556.
- Balaguer, I., Duda, J., & Crespo, M. (1999). Motivational climate and goal orientations as predictors of perceptions of improvement, satisfaction and coach ratings among tennis players. *Scandinavian Journal of Medicine and Science in Sports, 9*, 381–388.
- Berger, B., & Owen, D. (1988). Stress reduction and mood enhancement in four exercise models: Swimming, body conditioning, hatha yoga, and fencing. *Research Quarterly for Exercise and Sport, 59*, 148–159.
- Bjorling, S., & Deutsch, J. (2012). How to run a baseball hitting camp in a small town market. *Journal of Youth Sports, 6*(1), 3–9.
- Christianson, N., Breker, M., & Deutsch, J. (2012). How to run a soccer camp: For adolescents (age 6–14). *Journal of Youth Sports, 7*(1), 13–18.
- Côté, J., & Fraser-Thomas, J. (2007). Youth involvement in sport. In P. Crocker (Ed.), *Introductions to sport psychology: A Canadian perspective* (pp. 266–294). Toronto, Canada: Pearson Prentice Hall.
- Côté, J., & Hay, J. (2002). Children's involvement in sport: A developmental perspective. In J. Silva & D. Stevens (Eds.), *Psychological foundations of sport* (pp. 484–502). Boston, MA: Allyn & Bacon.
- Dweck, C. (1986). Motivational processes affecting learning. *American Psychologist, 41*, 1040–1048.

- Dweck, C., & Leggett, E. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95, 256–273.
- Eccles, J., & Barber, B. (1999). Student council, volunteering, basketball, or marching band: What kind of extracurricular involvement matters? *Sport, Education, and Society*, 7, 151–166.
- Ellenburger, R., & Deutsch, J. (2014). How to run a football camp for youth. *Journal of Youth Sports*, 7(2), 9–19.
- Elliot, A. (2005). A conceptual history of the achievement goal construct. In A. Elliot & C. Dweck (Eds.), *Handbook of competence and motivation* (pp. 52–72). New York, NY: Guilford Press.
- Epstein, J. (1989). Family structures and student motivation: A developmental perspective. In C. Ames & R. Ames (Eds.), *Research on motivation in education* (pp. 259–295). San Diego, CA: Academic Press.
- Hamilton, S., Hamilton, M., & Pittman, K. (2004). Principles for youth development. In S. Hamilton & M. Hamilton (Eds.), *The youth development handbook: Coming of age in American communities* (pp. 3–23). Thousand Oaks, CA: Sage.
- Hedstrom, R., & Gould, D. (2004). *Research in youth sports: Critical issues status*. Retrieved April 22, 2012, from <http://edweb3.educ.msu.edu/ysi/project/CriticalIssuesYouthSports.pdf>
- MacDonald, D., Côté, J., Eys, M., & Deakin, J. (2011). The role of enjoyment and motivational climate in relation to the personal development of team sport athletes. *Kinesiology and Physical Education*. Retrieved from http://scholars.wlu.ca/kppe_faculty/8
- MacDonald, D., Deakin, J., Eys, M., & Côté, J. (2009). *Psychometric properties of the Youth Experience Survey with young athletes*. Paper presented at the Canadian Society for Psychomotor Learning and Sport Psychology, Toronto, Canada.
- Mahoney, J., Larson, R., Eccles, J., & Lord, H. (2005). Organized activities as developmental contexts for children and adolescents. In J. Mahoney, R. Larson, & J. Eccles (Eds.), *Organized activities as contexts of development* (pp. 3–22). Mahwah, NJ: Lawrence Erlbaum Associates.
- Martens, R. (1993). Psychological perspectives. In B. Cahill & A. Pearl (Eds.), *Intensive participation in children's sports* (pp. 9–18). Champaign, IL: Human Kinetics.

- Nicholls, J. (1989). *The competitive ethos and democratic education*. Cambridge, MA: Harvard University Press.
- Ntoumanis, N., & Biddle, S. (1999). A review of motivational climate in physical activity. *Journal of Sports Sciences*, *17*, 643–665.
- Ommundsen, Y., Roberts, G., Lemyre, P., & Miller, B. (2005). Peer relationships in adolescent competitive soccer: Associations to perceived motivational climate, achievement goals, and perfectionism. *Journal of Sport Science*, *23*, 977–989.
- Prichard, A., & Deutsch, J. (2013). The effects of motivational climate on students in physical education classes. *Global Journal of Health and Physical Education Pedagogy*, *2*, 103–110.
- Robertson-Wilson, J., Baker, J., Derbyshire, E., & Côté, J. (2003). Childhood physical activity involvement in active and inactive female adults. *Avante*, *9*, 1–8.
- Ryan, R., Connell, J., & Deci, E. (1985). A motivational analysis of self-determination and self-regulation in education. In C. Ames & R. Ames (Eds.), *Research on motivation in education* (pp. 13–51). San Diego, CA: Academic Press.
- Seefeldt, V., Ewing, M., & Walk, S. (1992). *Overview of youth sports programs in the United States*. Washington, DC: Carnegie Council on Adolescent Development.
- Seifriz, J., Duda, J., & Chi, L. (1992). The relationship of perceived motivational climate and beliefs about success in basketball. *Journal of Sport and Exercise Psychology*, *14*, 375–391.
- Smith, R., Smoll, F., & Cumming, S. (2007). Effects of a motivational climate intervention for coaches on young athletes' sport performance anxiety. *Journal of Sport and Exercise Psychology*, *29*, 39–59.
- Smith, R., Smoll, F., & Passer, M. (2002). Sport performance anxiety in children and youth. In F. Smoll & R. Smith (Eds.), *Children and youth in sports: A biopsychosocial perspective* (pp. 501–536). Dubuque, IA: Kendall/Hunt.
- Tremblay, M., Katzmarzyk, P., & Willms, J. (2002). Temporal trends in overweight and obesity in Canada, 1981–1996. *International Journal of Obesity and Related Metabolic Disorders*, *26*, 538–543.

- Walling, M., Duda, J., & Chi, L. (1993). The perceived motivational climate in sport questionnaire: Construct and predictive validity. *Journal of Sport and Exercise Psychology, 20*, 476–489.
- Wankel, L., & Berger, B. (1990). The psychological and social benefits of sport and physical activity. *Journal of Leisure Research, 22*, 167–182.