

Chapter 8

Promoting Healthy Lifestyles Through Youth Activity Participation: Lessons from Research

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Every year, millions of American youth participate in sports and, on average, spend more time in athletic activities than in any other organized extracurricular activity (Hofferth & Sandberg, 2001). In addition, many youth participate in other movement activities, such as dance or exercise classes (Agans, Säfvenbom, Davis, Bowers, & Lerner, 2013). Given the amount of time that youth spend in these activities, they represent a key context for adolescents' development. Therefore, the goal of this chapter is to explain how movement activity settings can contribute to young people's positive youth development (PYD) and continued participation in these types of activities throughout their lives. In the final section of the chapter, we highlight specific ways in which practitioners and policy makers can use these research findings to support young people's participation in movement activities that promote PYD and sustained participation across the life span.

It is important to understand the potential benefits and risks of movement activity participation for adolescent development and how activity contexts can impact cognitive, emotional, social, and health outcomes for youth. Deeper knowledge of how movement activities can contribute to the positive development of participants can help practitioners and policy makers provide maximally beneficial and effective opportunities for youth. These efforts to promote youth well-being reflect a PYD approach, which is based on the idea that all youth have strengths that can be supported by family and community resources to promote positive and healthy development (Lerner et al., 2005, 2013; Vandell, Larson, Mahoney, & Watts, 2015).

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PYD was studied extensively in the 4-H Study of PYD and was defined using the “Five Cs” model (see Bowers, Geldhof, Johnson, Lerner, & Lerner, 2014; Lerner et al., 2005; Lerner, Lerner, Bowers, & Geldhof, 2015; and Chap. 1, for more details about the 4-H Study). The Five Cs are comprised of competence, confidence, connection, caring, and character (Lerner et al., 2005). When youth develop high levels of PYD, they are likely to show evidence of a “Sixth C”: contribution to self, family, community, and civil society (for a more in-depth discussion of contribution, see Lerner et al., 2005; see too Chap. 11).

Findings from the 4-H Study (e.g., Agans et al., 2014; Zarrett et al., 2009) and other research studies (e.g., Vandell et al., 2015) support the view that programs that are based on a PYD model, and use movement activities as a platform to support positive outcomes, have the potential to positively impact the development of youth (Mahoney, Vandell, Simpkins, & Zarrett, 2009; Vandell et al., 2015; Zarrett et al., 2009). 4-H Study researchers examined the different types of activities in which young people may be involved and found that while participation in any activity is associated with more positive developmental outcomes than not participating at all, there are some combinations of activities that are associated with more positive outcomes (Agans & Geldhof, 2012; Zarrett et al., 2009). Specifically, youth participating in both sports and youth development programs show higher levels of PYD than youth participating in other combinations of activities or who participate in sports alone (Zarrett et al., 2009).

Thus, youth sports programs and other movement activities (such as dance, circus arts, martial arts, or exercise classes) can serve as important resources to promote PYD (Mahoney et al., 2009; Mueller et al., 2011). Although different organizations and programs use different methods, feature different activities, and are based in different contexts, they can share an underlying focus on using movement experiences to promote PYD among participants.

In addition to general PYD outcomes, participation in movement activities can influence the development of healthy active lifestyles, both among youth and across the life span (Telama et al., 2005). Although many programs focus either on sports or on youth development, the integration of movement into youth programs or the development of “sports-based youth development programs” illustrates the importance of connecting health and PYD (Perkins & Le Menestrel, 2007). Indeed, a key implication for practice in youth development programs is that collaborations between sports programs and programs aimed at promoting PYD (such as 4-H or the Boy Scouts and Girl Scouts of America) could create synergies that would enhance youth thriving. The importance of these synergies is heightened by the fact that physical and psychological health are not two separate domains but, instead, are interconnected aspects of human thriving (e.g., Cohen & Herbert, 1996). Thus, in this chapter, we focus both on psychosocial well-being (represented here by PYD) and physical health. Moreover, in the concluding section of this chapter, we return

to our ideas about the importance of cross-program collaboration for promoting youth thriving.

Although movement activities *have the potential* to support PYD and to be beneficial to physical health, they do not always do so. Many parents, educators, and practitioners believe that participation in athletic activities is guaranteed to be beneficial for all youth. However, this “sport evangelism” has not been supported by research findings (Coakley, 2011). Instead, findings from the 4-H Study of PYD suggest a more nuanced picture, in which specific individual and situational factors need to be present for young people to benefit the most from their participation (e.g., Zarrett et al., 2009). For example, the individual characteristic of goal-pursuit skills (the ability to set and pursue goals and to navigate barriers to goal achievement) can help young people to make the most of the resources in their contexts (e.g., Urban, Lewin-Bizan, & Lerner, 2010). Programs should, therefore, help youth learn how to get the most out of opportunities (e.g., by teaching skills related to effective goal pursuit; Gestsdottir & Lerner, 2008), rather than assuming that all youth will benefit equally simply from their attendance.

In addition, sports and other movement activities can provide opportunities for skill building, leadership, and positive and sustained relationships with adults. In fact, these three characteristics are so important that, in the context of being present within safe spaces for youth, they have been termed the “Big Three” characteristics of effective youth programs (Lerner, 2004). Accordingly, in this chapter we present research findings illustrating the importance of these three aspects of youth programming, and we discuss how they can be applied in movement activity settings.

For youth-serving programs that use movement activities to maximize their developmental impact, research findings should be used to inform the design, delivery, and assessment of activities. Such evidence-based programs will increase the likelihood of fostering positive and healthy outcomes among participating youth. Many potential benefits are associated with participation in movement activities, and program characteristics can affect the extent to which youth may gain these positive outcomes through participation. Knowing which factors are important for promoting PYD across diverse youth and contexts can help practitioners and policy makers to structure evidence-based programs around these practices (for instance, by incorporating the “Big Three,” described more throughout this chapter). It is also important to know why and how youth participate in movement activities in order to better encourage and maintain participation. Therefore, the following sections discuss each of these issues in turn: the potential benefits and risks associated with youth participation in movement activities, the “Big Three” characteristics associated with high-quality programs and how they apply to movement activity contexts, factors that serve as barriers to participation or promote participation in different contexts, and how knowledge of these issues can help promote PYD and sustained participation. Finally, we present priorities for policy and practice centered on the idea that positive development results from the integration of factors across all the contexts in which youth engage and that movement activities can play a key role in this process.

Potential Benefits and Risks of Participation in Movement Activities

More American youth are now more involved in organized athletic activities than ever before (e.g., Sabo & Veliz, 2008). However, despite a seemingly widespread belief that participation in sports is universally beneficial for young people, research demonstrates mixed outcomes for youth athletes (Coakley, 2011).

Benefits of participation in movement activities have been shown for physical and psychological health (such as reduced rates of obesity, reduced depression) and social outcomes (such as increased peer support and social skills; Coatsworth & Conroy, 2007; Le Menestrel & Perkins, 2007). Athletic participation has also been linked to increased educational attainment, higher grades, and decreased risk of school dropout (e.g., Le Menestrel & Perkins, 2007; McNeal, 1995). However, these beneficial effects are not universal, and they may also be combined with negative outcomes for youth.

Risks of athletic participation include higher rates of alcohol use for athletes, compared to their nonathlete peers (Barber, Eccles, & Stone, 2001), and the potential for negative experiences, such as increased levels of stress and performance anxiety (Scanlan, Babkes, & Scanlan, 2005), reduced sense of self-worth (Grossman & Rhodes, 2002), decreased motivation for learning (Dworkin & Larson, 2006), disordered eating habits (Sundgot-Borgen & Torstveit, 2010), and negative group norms (Stattin, Kerr, Mahoney, Persson, & Magnusson, 2005). These findings suggest that, although participation in youth sports and other movement activities has the potential to promote PYD, participation also has the potential to be harmful. The likelihood of providing beneficial outcomes can be enhanced, however, if movement activity programs are designed to support PYD (for instance, through incorporating the “Big Three”; Lerner, 2004; and see too Eccles & Gootman, 2002; Roth & Brooks-Gunn, 2003).

Characteristics of High-Quality Programs: The “Big Three”

Programs that provide safe spaces for youth and incorporate the “Big Three” elements of youth development programs may have a more positive impact on youth development than programs that focus only on teaching sport or movement skills. These three key elements—youth-adult relationships, skill building, and meaningful leadership opportunities—are discussed in more detail below.

Youth-Adult Relationships

Sustained, caring relationships with adults are the first and, perhaps, the most important of the “Big Three” critical elements of effective PYD programs (Eccles & Gootman, 2002; Lerner, 2004; Roth & Brooks-Gunn, 2003), and these relationships

can be an important component of youth movement activities as well. The presence of supportive nonparental adults in young people's lives is strongly linked to PYD (Bowers et al., 2012), and these adults (including coaches, teachers, instructors) are a central element of most athletic activities for youth. However, although research has demonstrated the potential for these relationships to contribute to PYD, these relationships are not always positive (Erickson & Gilbert, 2013). Therefore, attention to the qualities and characteristics of effective relationships is key to ensuring that movement activities support youth development. Two primary aspects of youth-adult relationships are the direct interactive behaviors that adults have with youth and how youth perceive the social and psychological environment created by adults. Much of this research has been focused on sports coaches (Horn, 2008), but a smaller amount of research has considered other adults that youth may encounter within other movement activities (such as dance teachers; Mainwaring & Krasnow, 2010).

In regard to direct adult interactive behavior, supportive and instructive coaching behavior, such as providing positive reinforcement after successes and encouragement after mistakes, while emphasizing what went right or how it could be fixed, has positive effects on a range of personal and social outcomes for young athletes (e.g., Horn, 1985; Smith & Smoll, 1990, 2007). For example, higher levels of supportive and instructive coach behaviors are linked to increases in athletes' perceptions of their own competence over the course of a season (Horn, 1985), and the positive effects of such behaviors on self-esteem are particularly strong for youth with initially low levels of self-esteem (Smith & Smoll, 1990). In contrast, higher levels of punitive coach behavior are associated with negative sport experiences for youth (Erickson & Gilbert, 2013). Importantly, coaches can be trained to be more supportive and instructive and less punitive with young athletes. For example, youth participants who played on teams where coaches had received such training reported increased enjoyment and self-esteem and reduced performance anxiety. They were also more likely to return to the sport the following year when compared to youth participants on teams where coaches had not received the training (Smith & Smoll, 2007).

With regard to the way that youth perceive the environment created by adults, positive effects are noted when coaches create a setting where effort, self-improvement, and learning are valued and rewarded; such a climate is typically classified as mastery oriented (Roberts, 2012). When youth perceive a mastery-oriented motivational climate, they may gain a range of positive youth outcomes including higher self-motivation, sport enjoyment and satisfaction, persistence, self-perceived sport competence, and fair-play attitudes (e.g., Horn, 2008; Roberts, 2012). Other contexts may be performance or ego oriented, encouraging youth to compare themselves to others rather than focus on their own self-improvement (Roberts, 2012). Compared to these contexts, contexts with mastery-oriented motivational climates may foster more positive athlete-coach relationships and help coaches to incorporate the skill-building element of the "Big Three" through a focus on self-improvement.

In sum, nonparental adults play significant roles in organized movement activities for youth. Caring and sustained relationships with adults are one of the "Big Three"

components of effective PYD programs, and these relationships provide a foundation on which the other two elements of the “Big Three” (skill building and opportunities for leadership in valued activities) can be facilitated. Given this critical role of adults in youth programs, it is important for youth development researchers and practitioners to understand the ways in which these relationships contribute to PYD and the promotion of long-term healthy lifestyles both within and outside of movement activity contexts. The beneficial influence of these relationships can be enhanced when adult leaders are primarily supportive and instructive in their interactions with young people and avoid overemphasis on punishment, while actively fostering a supportive and mastery-oriented climate (e.g., Erickson & Gilbert, 2013; Horn, 2008; Smith & Smoll, 2007). With these supportive relationships in place, movement programs can then focus on the second component of the “Big Three” – skill building.

Life Skill Development

The second component of the “Big Three” is opportunities for young people to develop and practice life skills. Organized activities, such as sports and other movement activities, can provide these opportunities. Life skills, such as communication, decision-making, and goal-setting, can help youth to cope with challenges both within the movement activity context and in other areas of life, and these skills are important for positive development (Gould & Carson, 2008; Holt, Tink, Mandigo, & Fox, 2008). Thus, in addition to teaching young people the physical skills necessary to participate in movement activities, teaching life skills can be a valuable aspect of movement-based programs.

Activity settings can offer *opportunities* for young people to learn life skills through interactions with peers and mentors within a supportive and challenging environment (e.g., Gould & Carson, 2008; Holt, Tamminen, Tink, & Black, 2009). Although movement activities have the potential to teach life skills, the structure, content, and style of the program affect adolescents’ experiences and, thus, what they learn (Holt et al., 2008; Mahoney et al., 2009). Therefore, attention to the qualities and characteristics of movement programs is key to ensuring that these activities support PYD and help youth to build life skills.

How can movement programs ensure that they are helping their participants build these life skills? Coaches often do not provide direct teaching of these non-sport skills, but rather can create environments that require and encourage this skill building (Holt et al., 2008). Youth participants report learning initiative, respect, and leadership on teams where decision-making opportunities are shared, respectful conduct is reinforced, and athletes have time for peer interaction (Holt et al., 2008). In addition, youth social interactions with peers, parents, and coaches are all influential aspects of the activity context that enable young athletes to build life skills, whether directly taught or learned through experience (Holt et al., 2009). In short, young people can learn life skills in movement programs without direct instruction,

but the program needs to be structured in a way that facilitates these skill-building opportunities.

The life skills that youth learn in activity settings (such as communication, leadership, and decision-making skills) should be applied to experiences and situations that young people encounter both within and outside of these settings, to maximize their likelihood of positive and healthy functioning across diverse contexts (e.g., Lerner, Alberts, Jelacic, & Smith, 2006). In short, life skills need to be translated from the movement activity context to other situations in the adolescent's life. One potential way in which program or activity leaders may support this translational process is by facilitating discussion with youth about how life skills practiced in the athletic context may be meaningfully applied in different settings (Gould & Carson, 2008). For example, discussion of how communication and team-building skills that youth learn in a sport setting might be applied to effectively work with classmates in school or peers in other activity contexts and may help to enhance a young person's relationships and functioning in these different settings. Thus, the movement activity environment, with its emphasis on skill development and self-improvement and its role models and mentors, can be the perfect place to lay the groundwork for life skills if structured appropriately.

In sum, movement activities can serve as key venues for the development of life skills, as youth work with mentors and other important adults who can serve as role models. Developing these life skills is one of the "Big Three" components of effective PYD programs, and the skills learned in movement program contexts can be applied across the wide variety of situations in which young people find themselves. Given the importance of learning these skills, participation in movement programs that give youth the opportunity to practice and enhance these skills and capacities is extremely valuable. Furthermore, as youth develop these skills, they can take on meaningful leadership roles, the last component of the "Big Three."

Opportunities for Leadership

The final component of the "Big Three" is youth leadership, which activity settings can help to foster when they provide young people with opportunities to make meaningful decisions about issues that are important to them. Within structured movement activity settings, the coach or instructor is the leader, but there are often areas in which youth can exercise leadership and contribute meaningfully to the functioning of the group. Examples of such leadership opportunities include assuming the role of a team captain, engaging in peer mentoring, and facilitating group discussion of different issues. These opportunities for leadership allow participants to take responsibility for themselves and others and to apply their life skills to serve the team, troupe, or community.

Youth leadership in athletic settings can be formal (such as team captains) or informal (such as peer leaders), and these youth leaders help others to achieve goals by encouraging them, helping to make decisions, or serving as role models

(Price & Weiss, 2011). To develop such leaders, movement activity programs must provide not only opportunities for leadership but also explicit training and feedback so that adolescents can hone their leadership skills (Gould & Voelker, 2012). However, many sports teams do not provide these structural supports for youth leadership (Gould & Voelker, 2012), and, on average, few differences in leadership skills exist between athletes and nonathletes (Extejt & Smith, 2009). If movement activities are to promote PYD through the “Big Three,” then they must provide and support youth leadership opportunities.

Peer leadership can enhance the functioning of a group, which can be especially important in team sport settings. Cooperation and teamwork can be improved when youth motivate and inspire their teammates, lead by example, set high standards, and work with teammates to provide support (Price & Weiss, 2011). Thus, coaches should encourage all youth to view themselves as potential leaders, and coaches should use their own leadership position to model good leadership and offer opportunities for youth to practice leadership skills.

There are several key ways in which the leadership practices of the coach, instructor, or program leader can serve to support youth leadership. Adult leaders should provide focused support to all youth in developing these skills and should explicitly educate them about what constitutes true leadership (for instance, encouraging and supporting others and being a good role model, not just yelling instructions or being called “captain”; Gould & Voelker, 2012). In addition, the adult leader of the team or program should model effective and empowering leadership by providing support for the youth, using a variety of different techniques to allow youth to learn leadership skills, and giving clear and supportive feedback to help youth leaders improve (Gould & Voelker, 2012). Finally, it is essential to remember that, for youth to lead, adults must step back and allow them to make decisions, contribute to conversations, and take on responsibilities. Youth at different points in development will benefit from different expectations for leadership (more responsibility can be offered to older participants) and different ways of teaching leadership (more concrete examples may be needed for younger participants). Nevertheless, at every level, adult leaders must patiently work with youth to allow them to make, and learn from, mistakes (Gould & Voelker, 2012).

In sum, youth can learn leadership skills through their participation in movement activities, but only if these activities actively support and promote youth leadership. Helping youth to develop leadership skills that enable them to make meaningful decisions that affect their lives, and the lives of others, is one of the “Big Three” components of successful PYD programs, and these skills also serve youth well in other contexts. Through the mentorship of supportive adults, and with the development of life skills and opportunities for leadership, movement programs can actively foster the “Big Three” and support the positive development of youth participants. However, not all youth participate in these programs, or continue to participate across adolescence, potentially forgoing these developmental opportunities. In the following section, we discuss research findings about the barriers to participation that some youth experience and the ways these barriers can be overcome.

Who Participates (and Does Not Participate) in Movement Activities and Why

High-quality programs that promote PYD and physical health offer valuable opportunities to young people. Although many youth do participate in movement activities (Hofferth & Sandberg, 2001), such participation is not universal and dropout is common (Wall & Côté, 2007). Accordingly, in this section, we review research that describes some of the factors that promote youth activity participation, as well as discuss potential barriers to sustained participation.

Mastering certain fundamental motor skills (such as running, balancing, catching) is necessary before youth can effectively participate in most movement activities (Senne, 2013). Children who are highly competent in these skills are, therefore, more likely to be highly active as adolescents (Barnett, Van Beurden, Morgan, Brooks, & Beard, 2009) and as adults (Tammelin, Näyhä, Hills, & Järvelin, 2003). In general, prior levels of physical activity, as well as belief in one's ability to do well, are associated with higher levels of physical activity across adolescence, such that youth who have more experience in these activities tend to continue to participate (Craggs, Corder, van Sluijs, & Griffin, 2011). Involvement in developmentally appropriate movement activity contexts (that promote a variety of movement skills and enjoyment of physical activity) at a young age, therefore, seems to promote sustained involvement (Côté, 1999), which can lead to consistent activity across the life span and an increased likelihood of physical health and other developmental benefits.

Overall, young people participate in movement activities for a variety of reasons, including for fun; for the opportunity to express themselves, to keep fit, to enhance physical appearance and function, to experience competition and achievements; and for social networking and the opportunity to make and spend time with friends (Seippel, 2006). Given the motivation to participate, youth who are confident in their abilities show higher levels of physical activity in both physical education classes and in leisure time, as compared to their peers who have lower levels of confidence (Taylor, Ntoumanis, Standage, & Spray, 2010). In addition, the motivation to participate, and the confidence to be willing to try a new activity, must be paired with access to movement activities or the ability to overcome barriers to participation, which may vary according to the area in which the young person lives. Accordingly, the following sections explore potential barriers to activity participation that youth may encounter in rural and/or urban environments.

Barriers to Movement Activity Participation Among Rural Youth

Youth who live in rural contexts are less likely than their urban peers to engage in physical activity, and they are more likely to be overweight or obese (Yousefian, Ziller, Swartz, & Hartley, 2009). Given that rural youth are at greater risk than urban

youth for health problems related to physical inactivity (Yousefian et al., 2009), it is important to understand the features of rural environments that may function as barriers to youth activity participation. For example, some of the barriers to physical activity engagement among rural youth (some of which may also apply to suburban and urban youth) are (1) time and costs associated with transporting youth to and from activities, (2) adolescents' preference to watch television or play video games, (3) school policies that restrict adolescents' physical activity (older youth no longer get recess), and (4) concerns about safety (gunshots from hunters, fear of sexual predators; Moore et al., 2010; Yousefian et al., 2009).

Additional environmental factors have also been found to hinder rural adolescents' activity participation. Examples of such factors include a lack of sidewalks, unpaved road surfaces, few indoor youth recreation centers, lack of public transportation, and land use policy (such as the availability of public spaces; Hennessey et al., 2010; Yousefian et al., 2009). The low population density found in rural environments often results in a lack of socially unified "neighborhoods" or communities, which may deprive youth of access to others with whom to engage in physical activities (Yousefian et al., 2009). Despite these limitations, however, many rural youth still find ways to be active (for instance, through performing household chores such as mowing the lawn, taking care of livestock; Walia & Liepert, 2012). Thus, although barriers to participation in movement activities exist within rural settings, these contexts may also provide youth with opportunities for different types of physical activity. Programs operating within rural settings should, therefore, be aware of the participation barriers that local youth face and capitalize on the unique strengths of rural environments (such as ample outdoor space) in order to actively engage youth in movement activities.

Barriers to Movement Activity Participation Among Urban Youth

Although some barriers to movement activity engagement observed in rural settings have been found to overlap with those found in urban environments (such as distance and costs associated with commuting, school physical education policies, youth preference for television and video games; Moore et al., 2010), there are obstacles that are more often observed in urban contexts. For instance, the degree to which activities are culturally sensitive can impact youth engagement in both rural and urban settings; however, it may be especially challenging for programs to be responsive to participants' cultural backgrounds, values, and needs when programs serve larger and more culturally diverse populations of youth, demographic characteristics that may be observed more often in urban (as opposed to rural) settings (Moore et al., 2010). As such, programs delivered within urban areas need to take into account the experiences and preferences of the culturally diverse youth whom they serve (Moore et al., 2010). In some cases, young people's decision to not participate in activities may stem from feelings that program staff and content do not

relate well to the experiences of youth from their communities (Borden, Perkins, Villarruel, & Stone, 2005).

In addition, safety concerns among urban parents may inhibit their children's participation in physical activities, and these concerns differ from those expressed by rural parents. For example, urban parents may fear their children's potential exposure to gang activity and peer violence (Moore et al., 2010). Neighborhood disorder (as indexed by graffiti, abandoned buildings) and lack of neighborhood safety are also associated with low levels of activity participation among youth (Molnar, Gortmaker, Bull, & Buka, 2004).

Some movement programs have been specifically designed in response to the challenges of urban environments. One example is a youth cycling initiative in Philadelphia that focused on increasing physical activity and providing youth with a means of transportation (Hoffman, Hayes, & Napolitano, 2014). Youth in this program acknowledged the environmental and health benefits of cycling, but they also expressed concerns about crime (such as concerns about having their bicycles stolen), fear of injury, physical discomfort from exercise, competing school demands, and a preference for engaging in more sedentary activities such as watching television (Hoffman et al., 2014). Thus, although programs can be designed to address particular environmental demands and constraints, the potential overlap among these concerns should also be recognized so that programs can effectively overcome barriers to youth participation.

Encouraging Youth Movement Activity Participation Across Diverse Contexts

As part of efforts to promote positive and healthy developmental outcomes among *all* youth, researchers have sought to better understand how physical and social aspects of community environments can influence young people's access to, and participation in, movement activities (Moore et al., 2010). These findings can be used to help movement settings to more effectively serve youth and support their development. Given the obstacles and barriers to youth involvement in movement activities, it is also important to consider factors that encourage participation. For example, social activities may inspire more frequent participation. Some parents support their children's participation in movement activities because these contexts provide an opportunity to make friends and develop social skills (Moore et al., 2010). Similarly, some youth prefer to engage in movement activities with their friends and peers (such as in community centers), as opposed to engaging in more solitary activities (such as walking alone; Moore et al., 2010).

There are also environmental factors that can encourage young people's participation. Parents and youth have identified the need for more indoor spaces that offer diverse activity options (including bowling, skating, swimming) in one facility that is easily accessible and helps to facilitate supervised socialization with friends

(Moore et al., 2010). Because the perceived availability of recreational facilities, perceptions of safety, and support and engagement from parents and friends are key facilitators of youth movement activity participation (Hoffman et al., 2014; Walia & Liepert, 2012), an increase in accessible facilities that provide supportive programs could greatly enhance young people's involvement.

In light of the many benefits associated with participation in activities that involve healthy movement, it is important to understand why some youth show low levels of participation in movement activities and to explore how to facilitate these adolescents' engagement with movement activity contexts. Accordingly, the following section reviews potential facilitators of youth activity participation and how to promote PYD in movement activity contexts. We then turn to a discussion of suggested priorities for policy and practice, in light of what research suggests about factors that may inhibit or promote youth engagement and positive developmental outcomes.

Promoting PYD and Sustained Movement Activity Participation

Participation in movement activities during childhood and adolescence can potentially promote PYD and other positive developmental outcomes and contribute to continued participation in movement activities into adulthood (e.g., Tammelin et al., 2003; Telama et al., 2005). Because participation in movement activities can be beneficial to cognitive, emotional, and physical health, sustained participation in movement activities across adolescence and throughout adulthood can be a key facilitator of positive development across the life span.

In order to promote healthy engagement in movement activities across the life span, it is important for young people to have positive experiences in these activities during adolescence. Early experiences in school physical education classes and both in-school and out-of-school sport programs serve as a foundation for later involvement (Kirk, 2005). For example, young people should go through a "sampling phase" in which they participate in a wide variety of movement activities purely for enjoyment (rather than to increase performance) in order to learn about the different types of contexts in which they can participate without worrying about intense competition (Côté, Baker, & Abernethy, 2003). The fun of playing the game should be established before youth begin to specialize and focus on a more limited number of activities (Kirk, 2005). Otherwise, the likelihood of dropping out of athletics is higher (Wall & Côté, 2007), and dropping out prevents youth from reaping the possible benefits of long-term participation.

Because young people have unique interests and talents, finding an activity in which the skills or interests of the participant "fit" with the demands of the activity may also be an effective strategy for promoting continued participation. The "goodness of fit" between individual qualities and the demands of social contexts is

crucial for positive outcomes, as a mismatch is likely to lead to negative experiences (Lerner & Lerner, 1987). For some individuals, finding this “fit” may involve giving consideration to features such as a certain type of coaching, a particular activity, or the right level of competition that enables them to be challenged and engaged (Fredricks, Alfeld, & Eccles, 2010). Different activity contexts can offer unique developmental experiences and opportunities (Agans & Geldhof, 2012; Hansen, Skorupski, & Arrington, 2010), and individuals should, thus, be given opportunities to find the activities that best suit their needs and interests.

Participating in a wide variety of activities (such as sports, youth programs, school clubs), and maintaining a consistently high level of participation, is associated with positive outcomes across adolescence (Agans et al., 2014). However, changes in the number of different activities (particularly when the change involves a reduction in participation) have been found to be associated with higher levels of substance use and depressive symptoms (Agans et al., 2014). For youth sports participation in particular, different types of sports and patterns of participation can lead to different developmental outcomes (Agans & Geldhof, 2012). For instance, female athletes who participate in any type of sport consistently across high school, and athletes who participate in a combination of individual and team sports, showed the most positive outcomes (in regard to PYD and contribution to community), compared to youth who did not participate in sports (Agans & Geldhof, 2012). Therefore, each activity context may offer unique developmental opportunities for the particular individuals who choose to participate, and these effects may be better promoted when youth participate consistently across more than one season.

The wide variety of outcomes (both positive and negative) associated with sports participation reflects the complex role of these extracurricular activities in the lives of youth. For example, there are differences in the types of skills and relationships that youth gain from participation in different types of activities (e.g., between individual sports and team sports and among types of school clubs and performing arts activities; Hansen et al., 2010). With regard to movement activities, team sports have been found to provide more developmental opportunities than individual sports for certain characteristics, such as opportunities for identity exploration, developing emotional regulation skills, and cultivating relationships with peers and adults. In comparison, performance arts have been found to provide more opportunities for emotion regulation than other arts activities (Hansen et al., 2010). Therefore, it is important for program leaders to understand the ways in which their particular program or activity can best support the development of participants and to focus on this goal rather than only working to produce a winning season or elite performance. In addition to promoting PYD directly, an emphasis on promoting youth development in movement programs may also serve to encourage continued participation.

In sum, no single activity will be a good fit for every adolescent, so it is important to provide opportunities for participation in a variety of areas, especially for those youth whose low skill might otherwise exclude them from movement activity contexts. Recreational programs, in-school activities, and youth development programs incorporating athletics should ensure that the potential benefits of these contexts are

not reserved for the elite few. When the benefits of participation can only be gained by those who are admitted into the program (often by tryout or audition), failing to gain entry to valued activities can have negative effects on adolescents' self-worth and identity (Barnett, 2006). Of course, competitive teams and elite performance groups may still select players based on skill, but all programs should consider the long-term PYD and health consequences of participation and tailor their programming to maximally benefit the youth populations they serve.

Priorities for Policy and Practice

Movement activities can have positive outcomes for young people, especially when certain conditions are met, for example, when they feature the "Big Three." However, the potential for negative or maladaptive outcomes also exists, especially when programs themselves lack important features (such as supportive relationships and opportunities for skill building and leadership) or inadequately support the development of personal and social assets that are linked to positive and healthy youth functioning (Yohalem & Wilson-Ahlstrom, 2010). Finally, there are individual and contextual factors that either limit or promote young people's participation in structured movement activities. Overall, it is critical that youth programs and relevant policies draw on existing evidence in designing and implementing opportunities for movement activity. The research findings we have presented in this chapter have important implications for youth policy and practice.

Toward this goal, we have distilled the research findings into one key lesson, with associated priorities for practice and policy related to young people's participation in structured movement activities. These priorities represent an important first step in suggesting how research findings can be incorporated into the policy and practice of youth movement activities in order to promote sustained participation in these activities and, as well, positive and healthy lifestyles across the life span.

The key lesson to learn from the synthesis of research findings on participation in movement activities, and the associations between such participation and positive developmental outcomes, is that development takes place within an integrated system of individual youth, the social relationships in which they are involved, and the multiple environments in which participation occurs (Agans et al., 2013). Just as the "Big Three" work together within safe spaces to facilitate PYD, sports programs, schools, and families all influence young people's participation in movement activities and their experiences in athletic contexts. Synergy among the various contexts in which youth spend their time can help to more effectively support all youth toward positive development and healthy, active lifestyles. Movement activities, as one such context, can therefore positively contribute to the developmental outcomes of young people if they are focused on promoting PYD.

As previously discussed, youth often participate in multiple programs, and those youth who participate in both sports and youth development programs tend to show

the most positive functioning (e.g., Zarrett et al., 2009). The diversity of programs in which each young person is a participant can be leveraged to further promote positive development, especially if there are opportunities for these programs to generate shared resources or common visions for youth outcomes based in PYD. Thus, one policy priority would be to fund collaborative efforts among youth programs, and give opportunities for program leaders, coaches, and youth workers to learn from each other. By capitalizing on the existing diversity within each community, young people can be supported in all sectors. Program providers can also work together to cultivate such collaborations across projects. For instance, leaders of different youth-serving activities (e.g., athletics, performing arts) could organize and participate in meetings or workshops to facilitate discussion of ideas in regard to how to promote positive development among diverse youth participants across activity contexts. Key questions for such discussions may include: What are leaders' goals for the youth in their care, and how do these goals compare and contrast across activity contexts? How do these goals align with developmental research? What are strategies and resources for achieving these goals, and how might they be leveraged across activity contexts? Such conversations around best practices can help all programs effectively promote the positive development of their participants.

In addition, it is important to remember that participation in movement activities (like involvement in any setting) occurs in relation to the cognitive, social, and physical development of the individual. Programs must, therefore, adopt practices that allow them to provide developmentally appropriate and culturally relevant experiences to their participants, rather than using a one-size-fits-all approach. Furthermore, individuals' motives for continued physical activity participation differ. Whereas some youth seem to emphasize the importance of extrinsic rewards (such as the prospect of winning or gaining status or rewards), other youth indicate that the enjoyment and excitement inherent in participation in sports helps to sustain their involvement (Weinberg et al., 2000). As such, program leaders and facilitators should strive to be attuned to potential individual-level differences in motives that underlie young people's decision to join an activity, which may influence their continued engagement or disengagement.

Furthermore, practitioners can work to identify the ways in which their programs both facilitate and constrain youth participation, and they can think about ways in which their programs can address or, at the very least, work around these barriers. For instance, if obtaining access to transportation to/from an activity represents a challenge for youth, perhaps program providers could explore ways in which to organize and facilitate transportation (such as through arranging carpools or purchasing a shuttle van or bus).

Similarly, policy makers should prioritize assessments of how diverse individuals can gain maximum benefit from participation. Such assessments should examine how individuals and their contexts interrelate (what factors, for what individuals, with what characteristics, in what portion of development, in what settings, are associated with what outcomes? see Agans et al., 2013). In addition, it is recommended

that such assessments give consideration to the needs of diverse youth across diverse contexts and how to address gaps between current conditions and the needs and desires of these youth and other stakeholders (such as families and communities).

For instance, what types of activities are currently available to youth, and what are the corresponding participation and retention rates? What are young people's reasons for participating or not participating? Are there activities in which youth would like to participate that are not currently available? Policy makers can also identify the ways in which communities may both constrain and/or facilitate young people's ability to participate in various kinds of movement activities and promote policies that can enhance participation for all youth in their constituencies.

Finally, both practitioners and policy makers should pay attention to the "Big Three" characteristics of youth programs. Practitioners can evaluate their programming in regard to how their services align with each element of the "Big Three" and work to address any areas of concern. At the policy level, national youth movement activity organizations and recreational and high-school sports-governing bodies can support local organizations in addressing each of the components of the "Big Three." For example, to promote positive and sustained youth-adult relationships, certain types and amounts of appropriately targeted coach training could be provided (see the Suggested Additional Resources at the end of this chapter for specific programs that offer such training).

Conclusions

A considerable number of adolescents participate in movement activities, and important links exist between positive experiences in these activities and positive youth development (including the promotion of healthy lifestyles). In light of these findings, it is critical that youth-serving programs and policies be informed by research (such as the findings presented in this chapter), in order to maximize the likelihood of positive and healthy functioning among participants. To accomplish this goal, we have outlined research findings and suggested priorities for evidence-based changes in youth programs and the policies that are made by and for movement activity organizations.

It is important for all adults involved in structured movement programs to acknowledge that benefits do not accrue automatically to young people by simply participating in sports or movement activities. Although the potential for positive outcomes is significant, there is also the potential for negative outcomes, regardless of the type of activity in which youth participate. Practitioners and policy makers should acknowledge that individual experiences in movement activities, in relation to experiences in the various other contexts in which youth participate, are important in determining whether positive outcomes occur. Those who work with youth in structured movement activities should also pay attention to the reasons why youth participate (or choose not to participate) in these activities, as well as how long they

continue their participation and the enjoyment they experience during the activity. The “Big Three” characteristics of youth programs are particularly valuable in increasing the odds that youth have positive experiences both within and outside of structured movement activity contexts. In addition, these program characteristics maximize participants’ likelihood of positive and healthy cognitive, emotional and physical functioning, and continued participation across the life span. Accordingly, practitioners and policy makers should pay particular attention to these program characteristics (i.e., providing opportunities for positive adult-youth relationships, skill building, and leadership) and explore how to incorporate them into their initiatives. Furthermore, keeping in mind that all youth are embedded in multiple contexts, activities, and communities, programs and policies should develop and maintain an integrative focus on supporting youth development.

The ideas and research findings presented in this chapter should help those involved in movement programs for young people to optimize the developmental benefits these programs can provide. The key elements for promoting positive development and healthy active lifestyles can be achieved in any movement program and should be prioritized as essential program components. Through acknowledging individual needs and circumstances and incorporating the “Big Three,” movement programs can be both fun for participants and beneficial for their development.

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Recommendations Additional Resources

Allen, L. R., & Barcelona, R. J. (Eds.). (2011). *New directions for youth development: Recreation as a developmental experience* (Vol. 130). Hoboken, NJ: Wiley.

This book features chapters from leading researchers that outline the importance of recreation for positive youth development. Chapters in this volume discuss leisure and recreation generally, as well as camp and outdoor recreation settings, and may be useful for practitioners to gain insight into ways these contexts can support youth development.

Holt, N. L. (Ed.). (2008). *Positive youth development through sport*. New York: Routledge.

This book brings together researchers from many fields to present chapters on organized sport programs, instructional athletic programs, and the promotion of positive youth development. Practitioners can use this book to gain an overview of the research findings on positive youth development in sport contexts.

Perkins, D. F., & Le Menestrel, S. (Eds.). (2007). *New directions for youth development: Sports-based youth development* (Vol. 115). Hoboken, NJ: John Wiley & Sons, Inc.

This edited volume discusses the importance of out-of-school time sports for PYD, emphasizing how these “sports-based youth development programs” can promote positive youth development. Practitioners can use this book to learn more about how to integrate a PYD perspective into youth athletic programs.

Positive Coaching Alliance. (<http://www.positivecoach.org/>)

This national nonprofit organization works with coaches, athletes, and families to use sports as a venue for character building and positive development. They offer live workshops and books as well as a host of online tools for coaches, parents, athletes, and program leaders that help to teach character through sport.

The Aspen Institute’s Project Play. (<http://www.aspenprojectplay.org/>)

This initiative aims to improve access to sports for all young people by supporting people (coaches and administrators), places (recreation facilities and parks), and programs (based in communities and accessible to all). Their website hosts reports that synthesize research findings around youth participation in sports and associated developmental outcomes that may be useful for program leaders.

Play Like a Champion Today. (<http://playlikeachampion.nd.edu/>)

This project, based at the University of Notre Dame, seeks to promote character development through sport using clinics, workshops, online courses, and an annual Summer Leadership Conference. They offer interactive clinics and resources for promoting character and preventing bullying in sports that practitioners can use to enhance their programs.

References

- Agans, J. P., Champine, R. B., DeSouza, L. M., Mueller, M. K., Johnson, S. K., & Lerner, R. M. (2014). Activity involvement as an ecological asset: Profiles of participation and youth outcomes. *Journal of Youth and Adolescence*, *43*(6), 919–932.
- Agans, J. P., & Geldhof, G. J. (2012). Trajectories of participation in athletics and positive youth development: The influence of sport type. *Applied Developmental Science*, *16*(3), 151–165.
- Agans, J. P., Säfvenbom, R., Davis, J. L., Bowers, E. P., & Lerner, R. M. (2013). Positive movement experiences: Approaching the study of athletic participation, exercise, and leisure activity through relational developmental systems theory and the concept of embodiment. In R. M. Lerner & J. B. Benson (Eds.), *Embodiment and epigenesis: Theoretical and methodological issues in understanding the role of biology within the relational developmental system part B: Ontogenetic dimensions* (pp. 261–286). San Diego, CA: Academic Press.
- Barber, B. L., Eccles, J. S., & Stone, M. R. (2001). Whatever happened to the jock, the brain, and the princess? Young adult pathways linked to adolescent activity involvement and social identity. *Journal of Adolescent Research*, *16*, 429–455.

- Barnett, L. A. (2006). Flying high or crashing down: Girls' accounts of trying out for cheerleading and dance. *Journal of Adolescent Research, 21*(5), 514–541.
- Barnett, L. M., Van Beurden, E., Morgan, P. J., Brooks, L. O., & Beard, J. R. (2009). Childhood motor skill proficiency as a predictor of adolescent physical activity. *Journal of Adolescent Health, 44*(3), 252–259.
- Borden, L. M., Perkins, D. F., Villarruel, F. A., & Stone, M. R. (2005). To participate or not to participate: That is the question. *New Directions for Youth Development, 105*, 33–49.
- Bowers, E. P., Geldhof, G. J., Johnson, S. K., Lerner, J. V., & Lerner, R. M. (2014). Special issue introduction: Thriving across the adolescent years: A view of the issues. *Journal of Youth and Adolescence, 43*(6), 859–868.
- Bowers, E. P., Geldhof, G. J., Schmid, K. L., Napolitano, C. M., Minor, K., & Lerner, J. V. (2012). Relationships with important nonparental adults and positive youth development: An examination of youth self-regulatory strengths as mediators. *Research in Human Development, 9*(4), 298–316.
- Cookley, J. (2011). Youth sports: What counts as “positive development?”. *Journal of Sport and Social Issues, 35*(3), 306–324.
- Coatsworth, J. D., & Conroy, D. E. (2007). Youth sport as a component of afterschool programs. *New Directions for Youth Development, 115*, 57–74.
- Cohen, S., & Herbert, T. B. (1996). Health psychology: Psychological factors and physical disease from the perspective of human psychoneuroimmunology. *Annual Review of Psychology, 47*(1), 113–142.
- Côté, J. (1999). The influence of the family in the development of talent in sport. *The Sport Psychologist, 13*(4), 395–417.
- Côté, J., Baker, J., & Abernethy, A. B. (2003). From play to practice: A developmental framework for the acquisition of expertise in team sports. In J. L. Starkes & K. A. Ericsson (Eds.), *Expert performance in sports: Advances in research on sport expertise* (pp. 89–113). Champaign, IL: Human Kinetics.
- Craggs, C., Corder, K., van Sluijs, E. M., & Griffin, S. J. (2011). Determinants of change in physical activity in children and adolescents: A systematic review. *American Journal of Preventive Medicine, 40*(6), 645–658.
- Dworkin, J., & Larson, R. (2006). Adolescents' negative experiences in organized youth activities. *Journal of Youth Development, 1*(3).
- Eccles, J., & Gootman, J. A. (Eds.). (2002). *Community programs to promote youth development*. Washington, DC: National Academy Press.
- Erickson, K., & Gilbert, W. (2013). Coach-athlete interactions in children's sport. In J. Côté & R. Lidor (Eds.), *Conditions of children's talent development in sport* (pp. 139–156). Morgantown, WV: Fitness Information Technology.
- Extejt, M. M., & Smith, J. E. (2009). Leadership development through sports team participation. *Journal of Leadership Education, 8*(2), 224–237.
- Fredricks, J. A., Alfeld, C., & Eccles, J. (2010). Developing and fostering passion in academic and nonacademic domains. *Gifted Child Quarterly, 54*(1), 18–30.
- Gestsdottir, S., & Lerner, R. M. (2008). Positive development in adolescence: The development and role of intentional self-regulation. *Human Development, 51*(3), 202–224.
- Gould, D., & Carson, S. (2008). Life skills development through sport: Current status and future directions. *International Review of Sport and Exercise Psychology, 1*(1), 58–78.
- Gould, D., & Voelker, D. K. (2012). Enhancing youth leadership through sport and physical education. *Journal of Physical Education, Recreation & Dance, 83*(8), 38–41.
- Grossman, J. B., & Rhodes, J. E. (2002). The test of time: Predictors and effects of duration in youth mentoring relationships. *American Journal of Community Psychology, 30*, 199–219.
- Hansen, D. M., Skorupski, W. P., & Arrington, T. L. (2010). Differences in developmental experiences for commonly used categories of organized youth activities. *Journal of Applied Developmental Psychology, 31*(6), 413–421.

- Hennessey, E., Kraak, V. I., Hyatt, R. R., Bloom, J., Fenton, M., Colby Wagoner, M. S., et al. (2010). Active living for rural children: Community perspectives using PhotoVOICE. *American Journal of Preventive Medicine*, 39(6), 537–545.
- Hofferth, S. L., & Sandberg, J. F. (2001). How American children spend their time. *Journal of Marriage and Family*, 63(2), 295–308.
- Hoffman, M. F., Hayes, S., & Napolitano, M. A. (2014). Urban youths' experiences and perceptions of a community cycling initiative. *Urban Studies*, 51(2), 300–318.
- Holt, N. L., Tamminen, K. A., Tink, L. N., & Black, D. E. (2009). An interpretive analysis of life skills associated with sport participation. *Qualitative Research in Sport and Exercise*, 1(2), 160–175.
- Holt, N. L., Tink, L. N., Mandigo, J. L., & Fox, K. R. (2008). Do youth learn life skills through their involvement in high school sport? A case study. *Canadian Journal of Education/Revue canadienne de l'éducation*, 31, 281–304.
- Horn, T. S. (1985). Coaches' feedback and changes in children's perceptions of their physical competence. *Journal of Educational Psychology*, 77(2), 174.
- Horn, T. (2008). Coaching effectiveness in the sport domain. In T. Horn (Ed.), *Advances in sport psychology* (3rd ed., pp. 239–267). Champaign, IL: Human Kinetics.
- Kirk, D. (2005). Physical education, youth sport and lifelong participation: The importance of early learning experiences. *European Physical Education Review*, 11(3), 239–255.
- Le Menestrel, S., & Perkins, D. F. (2007). An overview of how sports, out-of-school time, and youth well-being can and do intersect. *New Directions for Youth Development*, 115, 13–25.
- Lerner, R. M. (2004). *Liberty: Thriving and civic engagement among American youth*. Thousand Oaks, CA: Sage.
- Lerner, R. M., Alberts, A. E., Jelicic, H., & Smith, L. M. (2006). Young people are resources to be developed: Promoting positive youth development through adult-youth relations and community assets. In E. G. Clary & J. E. Rhodes (Eds.), *Mobilizing adults for positive youth development: Strategies for closing the gap between beliefs and behaviors* (pp. 19–39). Minneapolis, MN: Search Institute.
- Lerner, J. V., Bowers, E. P., Minor, K., Lewin-Bizan, S., Boyd, M. J., Mueller, M. K., et al. (2013). Positive youth development: Processes, philosophies, and programs. In R. M. Lerner, M. A. Easterbrooks, & J. Mistry (Eds.), *Handbook of psychology* (Developmental psychology 2nd ed., Vol. 6, pp. 365–392). Hoboken, NJ: Wiley. Editor-in-chief: I. B. Weiner.
- Lerner, R. M., & Lerner, J. V. (1987). Children in their contexts: A goodness of fit model. In J. B. Lancaster, J. Altmann, A. S. Rossi, & L. R. Sherrod (Eds.), *Parenting across the lifespan: Biosocial dimensions* (pp. 377–404). Chicago: Aldine.
- Lerner, R. M., Lerner, J. V., Almerigi, J. B., Theokas, C., Phelps, E., Gestsdóttir, S., et al. (2005). Positive youth development, participation in community youth development programs, and community contributions of fifth-grade adolescents: Findings form the first wave of the 4-H Study of positive youth development. *The Journal of Early Adolescence*, 25, 17–71.
- Lerner, R. M., Lerner, J. V., Bowers, E., & Geldhof, G. J. (2015). Positive youth development and relational developmental systems. In W. F. Overton & P. C. Molenaar (Eds.), *Theory and method* (Handbook of child psychology and developmental science 7th ed., Vol. 1, pp. 607–651). Hoboken, NJ: Wiley. Editor-in-chief: R. M. Lerner.
- Mahoney, J. L., Vandell, D. L., Simpkins, S., & Zarrett, N. (2009). Adolescent out-of-school activities. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (3rd ed., Vol. 2, pp. 228–267). Hoboken, NJ: Wiley.
- Mainwaring, L. M., & Krasnow, D. H. (2010). Teaching the dance class: Strategies to enhance skill acquisition, mastery and positive self-image. *Journal of Dance Education*, 10(1), 14–21.
- McNeal, R. B. (1995). Extracurricular activities and high school dropouts. *Sociology of Education*, 68(1), 62–80.
- Molnar, B. E., Gortmaker, S. L., Bull, F. C., & Buka, S. L. (2004). Unsafe to play? Neighborhood disorder and lack of safety predict reduced physical activity among urban children and adolescents. *American Journal of Health Promotion*, 18(5), 378–386.

- Moore, J. B., Jilcott, S. B., Shores, K. A., Evenson, K. R., Brownson, R. C., & Novick, L. F. (2010). A qualitative examination of perceived barriers and facilitators of physical activity for urban and rural youth. *Health Education Research, 25*(2), 355–367.
- Mueller, M. K., Phelps, E., Bowers, E. P., Agans, J. P., Urban, J. B., & Lerner, R. M. (2011). Youth development program participation and intentional self-regulation skills: Contextual and individual bases of pathways to positive youth development. *Journal of Adolescence, 34*(6), 1115–1125.
- Perkins, D. F., & Le Menestrel, S. (Eds.). (2007). *New directions for youth development: Sports-based youth development* (Vol. 115). Hoboken, NJ: Wiley.
- Price, M. S., & Weiss, M. R. (2011). Peer leadership in sport: Relationships among personal characteristics, leader behaviors, and team outcomes. *Journal of Applied Sport Psychology, 23*(1), 49–64.
- Roberts, G. C. (2012). Motivation in sport and exercise from an achievement goal theory perspective: After 30 years, where are we? In R. C. Roberts & D. C. Treasure (Eds.), *Advances in motivation in sport and exercise* (3rd ed., pp. 5–58). Champaign, IL: Human Kinetics.
- Roth, J. L., & Brooks-Gunn, J. (2003). What is a youth development program? Identification and defining principles. In F. Jacobs, D. Wertlieb, & R. M. Lerner (Eds.), *Handbook of applied developmental science: Promoting positive child, adolescent, and family development through research, policies, and programs* (Enhancing the life chances of youth and families: Public service systems and public policy perspectives, Vol. 2, pp. 197–223). Thousand Oaks, CA: Sage.
- Sabo, D., & Veliz, P. (2008). *Go out and play: Youth sports in America*. East Meadow, NY: Women's Sports Foundation.
- Scanlan, T. K., Babkes, M. L., & Scanlan, L. A. (2005). Participation in sport: A developmental glimpse at emotion. In J. L. Mahoney, R. W. Larson, & J. S. Eccles (Eds.), *Organized activities as contexts of development: Extracurricular activities, after-school and community programs* (pp. 275–309). Mahwah, NJ: Erlbaum.
- Seippel, Ø. (2006). The meanings of sport: Fun, health, beauty or community? *Sport in Society, 9*(1), 51–70.
- Senne, T. (2013). A better path toward ensuring lifelong physical activity participation. *Journal of Physical Education, Recreation and Dance, 84*(4), 4–6.
- Smith, R. E., & Smoll, F. L. (1990). Self-esteem and children's reactions to youth sport coaching behaviors: A field study of self-enhancement processes. *Developmental Psychology, 26*(6), 987.
- Smith, R. E., & Smoll, F. L. (2007). Social-cognitive approach to coaching behaviors. In S. Jowett & D. Lavallee (Eds.), *Social psychology in sport* (pp. 75–90). Champaign, IL: Human Kinetics.
- Stattin, H., Kerr, M., Mahoney, J., Persson, A., & Magnusson, D. (2005). Explaining why a leisure context is bad for some girls and not for others. In J. L. Mahoney, R. W. Larson, & J. S. Eccles (Eds.), *Organized activities as contexts of development: Extracurricular activities, after-school and community programs* (Vol. 12, pp. 211–234). Mahwah, NJ: Erlbaum.
- Sundgot-Borgen, J., & Torstveit, M. K. (2010). Aspects of disordered eating continuum in elite high-intensity sports. *Scandinavian Journal of Medicine & Science in Sports, 20*(s2), 112–121.
- Tammelin, T., Näyhä, S., Hills, A. P., & Järvelin, M. R. (2003). Adolescent participation in sports and adult physical activity. *American Journal of Preventive Medicine, 24*(1), 22–28.
- Taylor, I. M., Ntoumanis, N., Standage, M., & Spray, C. M. (2010). Motivational predictors of physical education students' effort, exercise intentions, and leisure-time physical activity: A multilevel linear growth analysis. *Journal of Sport & Exercise Psychology, 32*(1).
- Telama, R., Yang, X., Viikari, J., Välimäki, I., Wanne, O., & Raitakari, O. (2005). Physical activity from childhood to adulthood: A 21-year tracking study. *American Journal of Preventive Medicine, 28*(3), 267–273.
- Urban, J. B., Lewin-Bizan, S., & Lerner, R. M. (2010). The role of intentional self regulation, lower neighborhood ecological assets, and activity involvement in youth developmental outcomes. *Journal of Youth and Adolescence, 39*, 783–800.
- Vandell, D. L., Larson, R. W., Mahoney, J. L., & Watts, T. W. (2015). Children's organized activities. In M. H. Bornstein & T. Leventhal (Eds.), *Handbook of child psychology and developmen-*

- tal science* (Ecological settings and processes in developmental systems 7th ed., Vol. 4, pp. 1–40). Hoboken, NJ: Wiley. Editor-in-chief: R. M. Lerner.
- Walia, S., & Liepert, B. (2012). Perceived facilitators and barriers to physical activity for rural youth: An exploratory study using Photovoice. *Rural and Remote Health, 18*(42).
- Wall, M., & Côté, J. (2007). Developmental activities that lead to dropout and investment in sport. *Physical Education and Sport Pedagogy, 12*(1), 77–87.
- Weinberg, R., Tenenbaum, G., McKenzie, A., Jackson, S., Anshel, M., Grove, R., et al. (2000). Motivation for youth participation in sport and physical activity: Relationships to culture, self-reported activity levels, and gender. *International Journal of Sport Psychology, 31*, 321–346.
- Yohalem, N., & Wilson-Ahlstrom, A. (2010). Inside the black box: Assessing and improving quality in youth programs. *American Journal of Community Psychology, 45*, 350–357.
- Yousefian, A., Ziller, E., Swartz, J., & Hartley, D. (2009). Active living for rural youth: Addressing physical inactivity in rural communities. *Journal of Public Health Management and Practice, 15*(3), 223–231.
- Zarrett, N., Fay, K., Li, Y., Carrano, J., Phelps, E., & Lerner, R. M. (2009). More than child's play: Variable-and pattern-centered approaches for examining effects of sports participation on youth development. *Developmental Psychology, 45*(2), 368.