Peer relationships in physical activity contexts: a road less traveled in youth sport and exercise psychology research

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Abstract

Background and Purpose. While it is well established that social agents contribute to the quality of youth physical activity experiences, relatively little research has specifically explored peer relationships in physical activity settings. Rather, the bulk of research on social agents has focused on teachers, coaches, and parents. The purpose of this paper is to provide justification for pursuing youth peer relationships research and present conceptual and methodological issues of relevance to such efforts.

Methods. The existing literature base on peer relationships in physical activity contexts is overviewed, emphasizing the contribution of peers to self-perceptions, moral attitudes and behaviors, affect, and motivation.

Results and Conclusions. Promising future research directions are forwarded, focusing on (a) the possible contribution of peer relationships research to understanding self-presentational processes and developmental transitions, (b) the importance of examining the interaction of peer relationships and other social relationships in the physical activity context, and (c) the value of using the physical activity setting to promote quality peer relationships.

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Two roads diverged in a wood, and I
I took the one less traveled by,
And that has made all the difference
Robert Frost (1874–1963)
Introduction

Quality physical activity experiences are those that prompt commitment and adherence to active living, as well as those that facilitate outcomes such as moral and social development, motor competence, positive self-perceptions, and positive affect. Research on youth physical activity has been championed by many sport and exercise psychologists (e.g., Duda, 1987; Gould, 1996; Sallis & McKenzie, 1991; Weiss & Bredemeier, 1983), and deliberate efforts in this research area have provided deeper understanding of factors that contribute to and detract from quality physical activity experiences. Significant others in youths’ lives are among these factors, serving as primary socializing agents in physical activity contexts. The research literature suggests that coaches, teachers, parents, and peers are among those who shape youth physical activity experiences, however many research avenues that might provide a better understanding of social influence have yet to be explored.

The overwhelming bulk of research on social influence in youth sport and physical activity has focused upon the role of adults in governing youth psychosocial and behavioral outcomes (Brustad, Babkes, & Smith, 2001; Sallis & Owen, 1999). Emphasis on coaches, teachers, and parents in youth physical activity research is certainly not misplaced. However, it is puzzling the degree to which research on peers has paled in comparison given the relevance of these social agents and the vast array of research questions that could be pursued. A youngster’s experience with peers in the physical activity setting can be explored at several levels of social complexity, ranging from an individual’s social orientation and perceptions through interactions, relationships, and group-level processes (Rubin, Bukowski, & Parker, 1998). Research methods and investigations linked with each of these levels will be discussed in this paper, however primary attention will be directed toward peer relationships in the physical activity domain. A relationship is comprised of individuals familiar to one another, and has a history characterized by successive interactions (Rubin et al., 1998). Thus, the study of friendships and acceptance within groups of familiar peers will be emphasized. The following sections of this paper address why sport and exercise psychologists should spend more time examining peer relationships, highlight existing literature on peer relationships in physical activity contexts, and forward ideas for future research. In so doing, the purpose of this paper is to encourage sport and exercise psychologists to take a road that to this point has been considerably less traveled.

Why this road?

Absence of research on a particular topic, in and of itself, is not sufficient justification for advancing a rallying cry to pursue a research line. Some less traveled research paths hold greater potential than others for illuminating interesting ideas and findings along the journey, as well as linking with and enhancing existing research avenues. Further, some paths are more suited to public use than others, allowing the practitioner as well as the researcher to gain from what lies ahead. The study of peer relationships in the physical activity domain has this potential, as evidenced by the literatures on youth sport participation motives, ‘readiness’ for competition, and preferred sources of competence information, as well as developmental theory.

Organized sport participation is an omnipresent form of physical activity involvement for chil-
It is central to understanding the quality of youth physical activity experiences. Extensive empirical research conducted in the 1970s and 1980s assessed the importance of a variety of possible motives for sport participation, regularly highlighting fun/enjoyment, skill/competence development, social acceptance and affiliation, and fitness and appearance as top participation motives (see Weiss & Ferrer-Caja, in press, for a review). These motives are interconnected with one another, both empirically and theoretically, and suggest that peer relationships are key elements of the youth sport experience. Social acceptance and affiliation have been named as sources of enjoyment (Scanlan, Stein, & Ravizza, 1989) and have been linked with perceived and actual physical competence (Evans & Roberts, 1987; Weiss & Duncan, 1992). Furthermore, both athletic competence and physical appearance are viewed by youth as key social status determinants (Chase & Dummer, 1992). These associations suggest not only that peer relationships are important to study as contributors to quality physical activity experiences, but that the physical domain is an ideal context for developing a deeper understanding of peer relationships.

Discussions on psychological readiness for sport competition also highlight the important role of peers in the physical domain, in that motivational and cognitive markers of readiness are intimately linked with desire for social comparison and capacity to judge one’s competence, respectively (see Brustad et al., 2001; Passer, 1996). While children certainly may be enrolled in competitive sport programs by their parents before they themselves are motivated to participate, it is upon developing a distinct interest in social comparison that achievement contexts such as sport take on special meaning for them. According to Passer, this interest should be reasonably developed by around age seven, with interest in social comparison intensifying as youth move through middle and late childhood. Correspondingly, cognitive abilities such as role-taking and the ability to understand performance outcomes develop across these years. It is not until about age 12 when youth are able to distinguish effort and ability as contributors to performance outcomes (Roberts, 1993), although this capacity matures progressively across childhood (Fry & Duda, 1997). As these capabilities develop, youth shift from relying predominantly on adults for physical competence information to information from peer comparison and evaluation (Horn & Hasbrook, 1986; Horn & Weiss, 1991). Given the link of peer comparison to motivational readiness for sport participation and ascending importance of peers to competence perceptions across childhood, it behooves researchers to better understand peer relationships in this setting.

Peers are not only important to the acquisition of competence information in competitive sport settings, but also more generally to psychological adjustment as well as social and moral development. Sullivan (1953) theorized that general peer acceptance shapes perceptions of authority and views toward competition and compromise, while specific friendships allow youth to understand the self relative to others and provide opportunity for intimacy and validation. Developmental psychologists have generally supported these views by linking peer relationships with affect, sociability, aggression, conflict resolution, and other developmental variables (see Newcomb & Bagwell, 1995; Newcomb, Bukowski, & Pattee, 1993). Physical activity contexts such as organized sport, physical education, and neighborhood games all provide opportunities to interact with peers and therefore may serve as important contexts for youth development, for example by providing opportunity for peer comparison and exposing youth to different points of view. As such, careful examination of peer relationships in physical activity contexts is well justified.
Leaves, roots, and rocks

In taking a less traveled research path, it is important to clear away the leaves to obtain a view of the roots that shape the trail. One must ascertain the scope and boundaries of the topical area as well as central constructs of interest. This allows a more focused and efficient development of the research line, thereby insuring that the journey is meaningful. In addition, clearing the leaves allows one to see rocks that may prove hazardous or interfere with one’s progress down the path. Methodological issues of importance must be considered before embarking on peer relationships research projects. In drawing from parallel avenues of inquiry in developmental and educational psychology, sport and exercise psychologists can avoid pitfalls and make ‘good time’ along the trail. That said, travel along the trail should be carefully paced such that important conceptual and methodological issues unique to the physical activity context are not overlooked. This section will define key peer relationships constructs, and discuss them relative to levels of understanding, measurement issues, and other potential moderators of psychosocial outcomes in the physical activity context.

The peer relationships literature is comprised of two broad research emphases, friendship and peer acceptance (Bukowski & Hoza, 1989). Friendship pertains to close dyadic relationships while peer acceptance is one’s degree of social acceptance, liking, or status within the peer group. The study of friendship by developmental psychologists has entailed consideration of three issues: (a) whether or not an individual has friends, (b) if one has friends, who they are, and (c) the quality of relationships with friends (Hartup, 1996). Thus, there are several levels at which friendship can be studied. Further, both friendships and peer acceptance may be examined at individual, interaction, relationship, or group levels of social complexity (Rubin et al., 1998). As will be apparent in the later section of this paper covering physical activity research on peer relationships, the majority of work has been conducted at the individual level of analysis, with emphasis on individual perceptions of peer relationships. Expanding this research literature to account for other levels of social complexity, drawing from existing work on social interaction and group dynamics in the physical activity and education domains (see Hanrahan & Gallois, 1993; O’Donnell & King, 1999), would considerably enhance our understanding of peer relationships and how they contribute to quality physical activity experiences.

To extend this literature base successfully, researchers will require sound measures of peer relationships. Qualitative approaches, self-report instruments, sociometric techniques, and behavioral analysis procedures can allow for assessment of peer relationships across levels of analysis. In adopting such measurement approaches, it is important to consider the context within which the relationships exist (Weiss, Smith, & Theeboom, 1996; Zarbatany, Ghesquiere, & Mohr, 1992). With regard to friendships, for example, Zarbatany et al. found that activity settings (e.g., sports, school, talking on the phone) dictated the expectations held of one’s friend. Ego reinforcement and character admiration were desired in sport while helping and considerateness were preferred in school. Weiss et al. interviewed male and female summer sport camp participants, ages 8–16 years, about their best friend in sports. The qualitative data revealed a variety of positive (e.g., companionship, self-esteem enhancement, intimacy) and negative (e.g., conflict, betrayal) features of best sport friendships that were consistent with features revealed in the developmental psychology literature. Many of the themes underlying these general dimensions, however, were specific to the sport context and gender differences typically found on intimacy and self-esteem.
enhancement dimensions did not emerge. This suggests that features of the sport social context may shape youth perceptions of peer relationships in sport. More generally, the findings of Zarbatany et al. and Weiss et al. indicate that better understanding of peer relationships in physical activity contexts may require attention to development of context-specific conceptual and measurement models.

Weiss and Smith (1999) developed a self-report assessment of sport friendship quality in an attempt to account for the context-specific nature of friendship perceptions in the sport setting. They began their measurement development efforts by examining items from previous work in developmental psychology (Parker & Asher, 1993) and developing new items grounded in themes that emerged from their qualitative assessment of sport friendships (Weiss et al., 1996). Through a series of studies, they refined and validated a measure of friendship quality that tapped self-esteem enhancement and supportiveness, loyalty and intimacy, things in common, companionship and pleasant play, conflict resolution, and conflict elements of sport friendships. Thus, both positive and negative features of friendship were successfully measured that reflect the perceived quality of a sport relationship. Several of the subscales distinguished youth perceptions of a best friend versus a third-best friend, suggesting that the measure is relatively sensitive to the quality of particular relationships.

Sport and exercise psychology researchers have also successfully used the self-report approach to assess perceived peer acceptance in physical activity contexts (Etzbach, 2000; Smith, 1999; Weiss & Duncan, 1992). In the Etzbach study and the Smith study, items from the social (peer) acceptance subscale of Harter’s (1988) self-perception profile for adolescents were adapted to refer specifically to the physical activity context. In both studies peer acceptance was reliably measured and was related in theoretically expected directions with psychosocial variables that are salient in the physical domain (e.g., positively with physical self-worth, negatively with social physique anxiety). While the use of self-report measures has been fruitful for sport and exercise psychologists studying peer relationships, a limitation of these measures is that peer relationships are only understood at the level of individual perceptions. To pursue research on peer relationships at the interaction, relation, or group levels of analysis, other measurement approaches need to be considered.

Developmental and educational psychologists have used sociometric methods extensively to obtain understanding of an individual’s status within the peer group. Sociometric approaches emanate from Moreno’s (1934) theoretical views on the linkage of individuals and social groups. These approaches have generally evolved into those that categorize individuals based on their degree of social impact and social preference or approaches that assess who chooses to interact with whom, allowing creation of sociograms that capture interconnections within groups (Benenson, Apostoleris, & Parnass, 1998). In the former approach social impact pertains to the conspicuousness of an individual to the peer group and social preference is the valence attached to this impact. Individuals of high social impact are categorized as popular, rejected, or controversial as a function of positive, negative, or both positive and negative social preference scores, respectively. Individuals are categorized as neglected if of low social impact, and average if they fall between the extremes represented by the other categories. Research by developmental psychologists generally shows that popular children are more socially skilled (e.g., less aggressive, more sociable) while those who are least popular are less socially skilled (Newcomb et al., 1993). In a somewhat dated example addressing the sport domain, Buhrmann and Bratton (1977) assessed
the link between high school sport participation and social status of tenth- through twelfth-grade girls in six Canadian schools. They assessed positive and negative status among girls, status with teachers, status with boys, and the degree to which girls were leaders, or of high social position, from their peers’ perspective. Overall, this study showed that participation in sport and greater sport competence were related to higher social status, therefore providing deeper understanding of the meaning of sport for girls. Despite the valuable information provided by this study, however, subsequent physical activity research has not exploited this methodological strategy.

Interconnections within groups can be examined through social network analysis techniques that allow assessment of network density, examination of subgroups or cliques within larger groups, and the discovery of central players within groups (see Scott, 1991). Kindermann (1993) created maps of social networks in fourth- and fifth-grade classrooms, and demonstrated both that groups socialize individuals’ engagement in school and that individuals affiliated themselves with peers of similar motivational characteristics. While similar social network investigations can be found in the psychology and sociology literatures, few researchers have adopted social network techniques better to understand peer interactions or relationships in physical activity contexts. In one instance of such work, Tropp and Landers (1979) examined interpersonal attraction, leadership, and interaction channels, as assessed by initiating and receiving passes, in collegiate field hockey teams. They found that uniqueness and importance of an individual’s playing position, rather than a high degree of interaction per se, accounted for leadership and attraction variability. Further, in a conceptual paper Nixon (1993) advocated use of a social network approach in sport sociology research, suggesting that it could shed light on topics such as pain and injury, stacking (segregation of playing positions based on race or ethnicity), and coaching burnout.

An additional consideration for researchers interested in peer relationships is the development and use of behavioral indexes of social interaction. Research on peer-assisted learning in education settings regularly employs behavioral assessment techniques to document the nature of peer interactions (see O’Donnell & King, 1999; Topping & Ehly, 1998). Behavioral assessment is of particular salience in the physical activity setting, where individuals are using their bodies as instruments, learning movement skills, and/or engaged in competitive and cooperative activities. Recent work in the physical domain by d’Arripe-Longueville, Huet and Gernigon (2000) examined states of goal involvement, performance, and behavioral interactions in competence-symmetric and competence-asymmetric adolescent dyads learning a swimming task. Competence-asymmetric dyads engaged in more observation behaviors, demonstrations, and relevant verbalizations than competence-symmetric dyads, suggesting that relative level of competence among peers impacts behavioral patterns. These and other behavioral patterns may shed light not only on skill learning, but also other important outcomes in the physical activity setting such as friendship quality, peer acceptance, self-perceptions, affect, and motivation.

In summary, the study of peer relationships requires attention to multiple levels of analysis and methods, as well as the specific relationship context. Other possible considerations of relevance to physical activity researchers include gender differences in physical activity experiences and biological maturity. Although Weiss et al. (1996) showed relatively limited gender differences in sport friendship quality dimensions among children and adolescents, Coakley and White (1992) found that gender moderated the role of peers in sport involvement choices of British adolescents. For example, their semistructured interviews revealed that female adolescents were more likely than male adolescents to discuss social support of same-sex friends as important to their involve-
ment and continued participation in sport activities. A youngster’s gender and biological maturity relative to peers can influence physical and other self-perceptions (Malina, 1988; Smith, 1999), making these important variables to explore when conducting developmental investigations. These issues acknowledged, research efforts have been conducted in the physical activity setting that have begun to move us forward on this research path. While the trail map is certainly in its rough form, and there is much more territory to cover, what do we know to this point?

Points of interest on the map

While the literature base on peer relationships in physical activity is considerably smaller than that on coaches or parents, the efforts undertaken to this point provide a sound foundation for travel down the peer relationships research path. There is a preliminary map of the peer relationships territory that has been drafted, and several places on this map are worth noting before progressing. For example, peers have been linked with competence, self-perceptions, moral development, affect, and motivational outcomes in these early efforts (see Brustad et al., 2001; Weiss et al., 1996, for more comprehensive reviews of this literature). In the following paragraphs key findings will be briefly reviewed, with discussion directed toward how these findings lead to research questions worth exploration.

Research in the physical activity domain has linked physical competence with social competence or acceptance (Bigelow, Lewko, & Salhani, 1989; Chase & Dummer, 1992; Evans & Roberts, 1987; Weiss & Duncan, 1992). Chase and Dummer surveyed fourth- through sixth-grade youth (ages 8–13 years) on their perceptions of what factors contribute to popularity. Athletic competence and physical appearance were rated as the most important social status determinants. Bigelow and colleagues surveyed 9–12 year-old sport-involved youth and found that lack of skill was perceived to be an impediment to friendship relations. Corroborating the perceptions of youth, Evans and Roberts report that actual physical competence of third- through sixth-grade boys is linked with playing and leadership opportunity during games at recess, and therefore social status. Higher ability youth are accommodated by peers, while low ability youth receive less opportunity to join games when late, to improve their motor skills, and to play central roles in games. This likely has an impact on youth self-perceptions, as suggested by Weiss and Duncan’s research that showed a strong, positive relationship of indices of actual and perceived physical competence with actual and perceived social acceptance among 8–13 year-old children. Given the importance of self-perceptions to quality physical activity experiences, and in particular motivational processes (see Weiss & Ferrer-Caja, in press), it is clear that research directed toward understanding how peers shape self-perceptions would make an important contribution to the sport and exercise psychology literature. For example, research on the role of peers in modeling motor skills suggests that enhancement of self-perceptions is an important mechanism by which modeling effects are realized (McCullagh & Weiss, 2001). By exploring topics such as modeling effects, as well as how peers provide one another with esteem-enhancing information, positive and negative effects of using peer comparison and evaluation to judge competence, and group-level processes that influence self-perceptions, considerable progress will be made.

Peer modeling may also be a mechanism by which youth learn moral attitudes and behaviors according to Bandura’s (1977, 1986) social learning approach. Sport psychology research has
shown this to be the case, with peer influence on moral attitudes and behaviors strengthening as youth progress through their sport careers (Brustad et al., 2001). Approaches that emphasize moral reasoning structures (e.g., Haan, 1978; Kohlberg, 1969) also have been supported in the physical activity setting, suggesting that peer-based interventions designed to promote dialogue on moral dilemmas and subsequent attempts at reaching moral balance among involved parties can be successfully implemented (Gibbons, Ebbeck, & Weiss, 1995). Thus, research exploring peer relationships relative to moral reasoning and behavior is well justified. Specific issues of interest include the developmental trajectory of peer influence on moral outcomes, the role of the peer group in fostering bracketed morality (context-based suspension of morality; see Shields and Bredemeier (1995) for a more extensive treatment of this concept), and what happens when opposing perspectives of right and wrong are represented within one’s peer group.

In addition to linking peers with youth self-perceptions and moral outcomes, preliminary research efforts suggest peers are associated with affective outcomes in physical activity contexts (Brustad et al., 2001). Duncan (1993) found that higher perceptions of the friendship provisions of companionship and esteem support, respectively, were associated with more positive performance-related affect in physical education in seventh- and eighth-grade youth. These indices of friendship were also associated with an assessment of choice to participate in organized physical activity outside the physical education setting. Smith (1999) corroborated these findings with a sample of 12–15 year-old middle school students. He found that higher perceptions of close friendship associated with more positive physical-activity-related affect and that higher perceptions of peer acceptance indirectly predicted more positive affect via higher physical self-worth. Additionally, both peer variables indirectly predicted challenge preference and actual physical activity behavior, by way of affect. The study supported Sullivan’s (1953) theoretical assertion that friendship and peer acceptance make independent contributions to psychosocial outcomes, suggesting that future research efforts in the physical activity domain concurrently explore specific friendships and dynamics of the larger peer group. Overall, this work supports motivational perspectives that highlight significant others, self-perceptions, and affect as key motivational variables (e.g., Eccles (Parsons) et al., 1983; Harter, 1978, 1981), and suggests that peers are critical to quality physical activity experiences. Future work designed to explore the relationship of context-specific perceptions of friendships, perceived and actual peer acceptance, social interaction, and group structures with physical activity cognition, affect, and behavior should meaningfully enhance the sport and exercise psychology knowledge base.

Preliminary efforts examining peer relationships in the physical activity context suggest that this less traveled research path is well worth exploring. Some of the leaves and rocks on the path have been cleared, as researchers have begun to develop context-specific measurement tools (Weiss & Smith, 1999) and explore the association of friendship and peer acceptance with theoretically relevant psychosocial variables (Brustad et al., 2001). These initial efforts raise important questions about how peers contribute to the shaping of self-perceptions, moral attitudes and behaviors, affect in the physical domain, and motivated behavior in the form of seeking challenges, making physical activity choices, and remaining committed to activity over the long term. Other potentially fruitful directions for research are presented in the next section that emanate less directly from the existing research base, but nonetheless receive some direction from it.
Bushwhacking (with a compass)

Some of the most exciting and rewarding research discoveries take place when one is willing to cover uncharted territory. Covering new territory entails creating fresh lines of inquiry as well as seeking connections with existing avenues of knowledge. Given the relatively limited interest, to this point, in exploring the nature and dynamics of peer relationships in physical activity contexts there are many such opportunities to make progress. New efforts will benefit from guidance provided by developmental and educational psychology research on peer relationships, as well as the fledgling literature base in sport and exercise psychology. That is, while we are out bushwhacking we will at least have a compass in our pocket to help us keep from moving in circles! Following are a few preliminary ideas for future research on peer relationships that may help improve understanding of the youth physical activity experience.

Peer relationships and self-presentational processes

Self-presentational processes are those where people monitor and control how they are viewed by others (Leary, 1992; Leary & Kowalski, 1990; Schlenker, 1980). Such processes, while relevant to individuals of all ages, would seemingly be of particular relevance to youth in late childhood and early adolescence. As noted earlier, these youth consider physical appearance and athletic prowess as important to popularity (Chase & Dummer, 1992), engage in sport because of the desire to make friends and affiliate with peers (Weiss & Ferrer-Čaja, in press), and use peer comparison and evaluation to ascertain their own levels of physical competence (Horn & Hasbrook, 1986; Horn & Weiss, 1991). Therefore, a potentially fruitful line of future research would be to examine the interface of peer relationships and self-presentational processes.

Leary (1992) encouraged sport and exercise psychologists to consider the role of self-presentational processes in participation motivation, activity and context choices, athletic performance, and affective responses to sport and exercise. A considerable amount of research followed on self-presentational processes, the bulk of which has been conducted with adults and has focused upon affective responses to exercise, in particular social physique anxiety. Social physique anxiety is a specific form of social anxiety that emanates from the potential for or presence of evaluation of one’s physique by others (Hart, Leary, & Rejeski, 1989). Social anxiety is a function of the degree of motivation to make an impression and the probability of successfully doing so (Schlenker & Leary, 1982). Greater motivation to make an impression and lower probability of successfully making an impression yield higher anxiety. One possible link between the self-presentation and peer relationships literatures lies in individuals’ perceptions of ability to make desired impressions. Youth of lower peer acceptance might be expected to experience higher social anxiety because of perceived inability to make positive impressions on peers. A study in the general psychology literature by Inderbitzen, Walters, and Bukowski (1997) supports this hypothesis. Adolescents of rejected and neglected social status in their study reported higher social anxiety than adolescents of average or popular status. In a study of physical activity motivation of over 600 youth aged 13–17 years, Etzbach (2000) found that both boys and girls who perceived lower peer acceptance reported higher social physique anxiety. Furthermore, Etzbach found that social physique anxiety was associated with physical activity motivation, corroborating existing research on adults. Thus, a potentially valuable path for future research would be to explore the scope and
mechanisms of peer influence on youth self-presentational processes as they relate to physical activity affect, motivation, and choices.

**Peer relationships and transitions**

A better understanding of youth peer relationships might allow insight into important developmental and career transitions of relevance to physical activity involvement. How peer relationships and relationship continuity are associated with physical activity motivation and behavior upon changing schools (e.g., moving from middle school to high school) is unstudied. A review of research on other forms of health-related behavior by Brown, Dolcini, and Leventhal (1997) suggests that peer relationships influence health behavior and vice versa. Therefore, future research in the physical activity setting might consider not only how peer relationships help encourage, maintain, or discourage active lifestyles among youth, but also if physical activity-related interventions can be designed that shape peer group choices upon moving to new school settings.

Other important transitions youth face include entry into organized sport, movement toward intensive sport involvement and competition, and leaving competitive sport (see Wylleman, De Knop, Ewing, & Cumming, 2000). How do peers ease such transitions or make them more difficult? Do peers play a role in facilitating or delaying sport transitions? Sport-related research suggests that individuals who exclusively identify with the athlete role are at greater risk for adjustment difficulties upon leaving sport or experiencing an injury (Brewer, Van Raalte, & Petitpas, 2000). What role do peers play in the formation of athletic identity or global self-identity? Careful examination of peer group dynamics may provide better understanding of the formation of unidimensional versus multifaceted self-identities, as well as how these identities are behaviorally expressed in and outside the sport setting.

**Peers and other ‘players’ in the physical activity setting**

In attempting to fully understand peer relationships in physical activity contexts, researchers must remember that other social agents, such as coaches and parents, also contribute to youth social, cognitive, affective, and behavioral outcomes. In the physical education setting, for example, a student may be concerned about how he appears to his teacher. In the competitive sport setting, an athlete may be pressured to give up competitive sport by her parents, while coaches are encouraging her to continue. Elite-level participation may be associated with greater dependence upon adults, or co-dependence of the athlete and significant adults. These circumstances exist in concert with interactions with friends and other peers in the respective settings. It would be well worth examining the unique and interactive contributions of different social agents when attempting to understand psychosocial outcomes in physical activity. Anderssen and Wold (1992) examined the association of parents and best friends with leisure-time physical activity of over 900 Norwegian seventh-grade youth. They found that perceived physical activity levels, helping, and support for activity of both parents and best friends contributed to youth physical activity. Drawing from responses of over 39,000 11–16 year-old respondents to the WHO cross-national survey of health behavior, Wold and Anderssen (1992) found that activity of family members and best friends contribute to youth physical activity, with best friends accounting for most explained variance. These findings provide important information about the role of signifi-
cant others in youth physical activity, but they could be expanded to explore the interactive contributions of significant others. The developmental psychology literature, for example, highlights the role of family–peer linkages to psychosocial functioning (Parke & O’Neil, 1999) and has established that family and friendship social systems moderate each other’s relationships with youth adjustment and well-being (e.g., Gauze, Bukowski, Aquan-Assee, & Sippola, 1996). Therefore, exploration of these linkages by sport and exercise psychologists appears to be warranted.

Enhancing peer relationships through physical activity

Because high quality peer relationships are of value in themselves and may translate to positive health-related outcomes, the development of effective and efficient ways to use physical activity contexts to promote peer relationships is a worthy pursuit. The developmental and educational psychology literatures contain numerous evaluations of intervention protocols grounded in cooperative learning and interaction approaches, modeling and reinforcement, and social skills training (see Furman & Gavin, 1989; O’Donnell & King, 1999; Topping & Ehly, 1998), and should be consulted such that potential design pitfalls are averted. Existing intervention research on moral development in the physical activity setting (e.g., Gibbons et al., 1995) should also be consulted, as particular activities grounded in social learning and structural developmental theoretical perspectives are directed toward enhancing quality of interactions among peers. Finally, literature on the promotion of mastery motivational climates in physical activity settings (see Roberts, Treasure, & Kavussanu, 1997) might provide useful ideas for those interested in fostering youth peer relationships. Mastery motivational climates direct attention of youth toward personal improvement and effort rather than normative performance comparisons. As such, these climates may allow for higher quality relationships to develop by reducing potential for interpersonal conflict. Future research that improves our understanding of peer relationships will allow us better to judge such ideas, and will allow for the development of powerful and streamlined techniques for enhancing the well-being of youth.

Making all the difference

To date there has been a great deal of research on the youth physical activity experience, yet many paths of inquiry are left relatively unworn. Traveling down an unworn research path carries some risk. Progress can be slow and mistakes are probable. Other researchers may not readily see the value of pursuing time-consuming foundational efforts. At the same time, taking the less traveled route affords opportunity to be deliberate, learn from mistakes, and in return make exciting discoveries that enhance understanding. To this point, relatively few research investigations have been conducted that specifically target understanding of peer relationships in youth physical activity contexts. Nonetheless, careful study of peer relationships by sport and exercise psychology researchers is warranted. Initial efforts have been promising and numerous potential lines of exploration are evident, suggesting this is a research path that can make a difference should we choose to travel it.
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