

**MY TEAMMATE, MY PEER: AN EXAMINATION OF PEER RELATIONSHIPS
WITHIN THE CONTEXT OF SPORT**

by

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Abstract

The current study examined the association between perceived peer acceptance on a sports team and the psychological outcomes of self-esteem, depressive symptoms, enjoyment and physical competence. Cohesion and sport orientation were also examined as possible moderating factors. A total of $N = 93$ adolescent female athletes ($M_{\text{age}} = 14.43$, $sd = 1.64$) completed a set of self-report measures. Results of hierarchical linear regression analyses indicated a significant association between team acceptance and self-esteem and depressive symptoms, with team acceptance being positively associated with self-esteem and negatively associated with depressive symptomatology. Further analysis indicated that the association between team acceptance and self-esteem was buffered by a win orientation. Additionally, task cohesion was found to partially mediate the association between team acceptance and depressive symptoms. Results of the present study have implications for the study of peer relationships in sport and highlight the importance of teammates for the psychological development of female adolescents.

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My Teammate, My Peer: An Examination of Peer Relationships within the
Context of Sport

Youth and Sport Participation

Sport is an important part of many young girls' lives. According to a 2005 report by Statistics Canada, 44% of girls aged 5 to 14 participated in organized sports. A more recent survey conducted by the Canadian Fitness and Lifestyle Institute (CFLI; 2011) reported that 70% of girls aged 5 to 17 years participated in "physical activities that involve competition and rules and that develop specific skills" (p. 1). Although the statistics are somewhat varied, it is evident that a large portion of Canadian girls participate in sport. And, it would appear that the majority who do participate, engage in a team sport, with soccer the most commonly played sport among Canadian children (CFLI, 2011). Soccer also appears to be the only sport played by both boys and girls at a relatively equal rate (Statistics Canada, 2005). With young girls, soccer is followed by swimming, basketball and hockey, in popularity (Statistics Canada, 2005). The fact that so many young girls participate in sport, and specifically team sports, is encouraging as involvement in sports has been associated with a number of positive developmental outcomes.

The physical benefits associated with sport participation have been well documented. Regular physical activity has been associated with the prevention of a number of chronic diseases such as cardiovascular disease, cancer, and diabetes (Warburton, Nicol & Bredin, 2006). According to the Public Health Agency of Canada, physical activity in youth is vital to healthy growth and development (Public Health Agency of Canada, 2011). Specifically, physical activity in youth promotes

cardiovascular health, strength and a healthy skeletal system (Public Health Agency of Canada, 2011).

Sport has also been linked to many psychological benefits. Children and adolescents who participate in organized sport are more likely to report enhanced well-being (Rose-Krasnor, Brussier, Willoughby & Chalmers, 2006), higher self-esteem (Fredricks & Eccles, 2006; McHale, Vinden, Bush, Richer, Shaw & Smith, 2005) and a decrease in depressive symptoms (Barber, Eccles & Stone, 2001; Boone & Leadbeater, 2006; Fredricks & Eccles, 2006). With the number of youth involved in sport, such positive implications for psychological well-being are encouraging. However, there is a need to better understand the processes through which sport participation leads to such positive outcomes. This is a principal point when the longitudinal implications of sport are considered and the fact that recent research points to a positive association between involvement in sport and long term developmental outcomes.

Likely related to the positive psychological outcomes, sport appears to also provide a context that promotes positive developmental outcomes. In a longitudinal study of high school students by Eccles, Barber, Stone and Hunt (2003), involvement in team sports was predictive of a number of positive academic outcomes. Specifically, participants reported enjoying school more (both high school and university), were more likely to attend university full-time by age 21, had higher GPAs, and were more likely to graduate from university by age 25 (Eccles et al., 2003). The authors highlight the need for more research to understand the mechanisms at work; to go beyond a mere evaluation of the efficacy of the program. Understanding how sport leads to such outcomes is essential to the design and implementation of sports programs.

One argument is that such positive long-term outcomes are due to the specific opportunities that sport provides for psychological, social and emotional development in youth. Some key experiences that children in sport are exposed to include learning to set and work toward goals, learning to work co-operatively, dealing with failure, working to improve skill, and taking direction from others. These, along with many other factors, present children with opportunities to practice skills that are commonly associated with positive developmental outcomes. This is demonstrated in a study by Dworkin, Larson and Hansen (2003) where adolescents reported on the growth experiences that they felt sport had provided. The results were then categorized into the following six domains: identity work, development of initiative, emotional self-regulation, developing peer relations, teamwork and social skills, and adult networks and social capital. These categories represent important aspects of development and it is likely the additional opportunity to gain experience in these domains that makes sport such a positive influence on development. This was reiterated in a study by Hansen, Larson and Dworkin (2003), with youth engaged in sport reportedly learning skills related to personal development. It would seem that giving children the ability to develop and practice such skills beyond the traditional social contexts to which children are exposed (i.e. classroom), gives sport-involved youth a developmental advantage. This is a particularly salient point when the breadth of developmental skills provided by sport is considered.

Of course, it should be noted that sport is also associated with some negative outcomes. Hanson et al. (2003) reported that sport was a poor context for learning pro-social norms and was associated with higher incidences of negative peer experiences.

Positive and negative experiences have been found in other studies as well. For example, Fraser-Thomas and Cote (2009) found that adolescent athletes enjoyed the challenges that sport presented but reported both positive and negative experiences with coaching support and peer relations. With regard to peer relations, negative experiences included competitiveness between teammates and feelings of jealousy towards others (Fraser-Thomas & Cote, 2009). Additionally, Larson, Hansen & Moneta (2006) found sport to be related to lower rates of identity work in student athletes and higher rates of stress. It has also been reported that athletes engage in riskier behaviour, such as drinking excessive amounts of alcohol (Barber et al., 2001; McHale et al., 2006). Thus, the sport experience is not entirely positive and does have some negative implications. However, sport is associated with a number of positive outcomes and, overall, appears to provide a unique context for positive development.

Research has clearly demonstrated that sport can be beneficial for both physical and psychological development in youth. However, what is lacking from the current knowledge base is an understanding of the mechanisms within sport that lead to such positive outcomes. There are a number of factors specific to the sport setting that may influence developmental outcomes of youth. For example, team cohesion and sport orientation are all components of the athletic environment that may affect the experience of youth involved in sport. Another rather important, and somewhat overlooked factor is teammates and peers in sport. Peer relations have been widely researched in other social settings, particularly in the classroom. The results of such studies have demonstrated the importance of peers for the social, emotional and psychological development of youth. Youth who participate in sports develop relationships with teammates that may, in fact,

be quite similar to those developed in the classroom setting and may have similar implications with regard to psychological outcomes.

Peer Relations and Development

Until recently, teammates had been overlooked as significant social relationships in the life of a child athlete. Hence, the aim of the present study was to examine peer relations within a sport context to gain a better understanding of the role that peers play in the relation between sport participation and psychological outcomes and to better understand the role of sport specific factors in the association between acceptance in sport and psychological outcomes. There has been a great deal of research devoted to the examination of peer relationships in academic settings where children spend the majority of time with peers. As such, the following section will provide a brief overview of the literature related to peer interactions and acceptance/rejection in peer relationships.

Peer Interactions. Interactions with peers are essential throughout childhood and adolescence because interactions allow children to practice and master social skills (Rubin, Bukowski, Parker, & Damon, 1998). As well, within peer groups children learn how to control emotions, experience intimacy, and interact with others (Bierman, 2004). Exposure to peer groups begins in early childhood with basic interactions and continues through to adulthood with the nature of interactions becoming increasingly difficult. Navigating these interactions and relationships with peers is an important factor in positive development. Interactions with peers are critical in early childhood because it is through these interactions that young children learn how to engage in and sustain reciprocal play (Fabes, Martin & Hanish, 2009). Play is an important part of young children's peer interactions and has been argued to serve important adaptive, self-

regulatory, and cognitive functions (Coplan & Arbeau, 2009). During play, young children learn how to share and cooperate, express positive emotion, as well as learning how to control negative emotions, such as anger (Bierman, 2004; Coplan & Arbeau, 2009; Fabes et al., 2009). These are the basic skills necessary for successful interaction (Rubin, Bukowski & Parker, 2006). Failure to obtain such skills would place children at a severe disadvantage, as social interactions only become more complex as children age (Fabes et al., 2009).

Initially, the focus in young children's peer interactions is on mutual engagement, sharing in play and sustaining the interaction (Hay, Caplan & Nash, 2009; Fabes et al., 2009). As children move into grade school, the nature of peer interactions change. The concept of group norms is introduced with activities typically lasting longer and involving guidelines and rules that must be followed (Fabes et al., 2009). Negative peer interactions may become evident at this point if participants are unable to behave in an acceptable manner and follow the rules set out by the group (Coie, Dodge, & Kupersmidt, 1990).

As children enter adolescence and move to high school, the peer group expands rather drastically. Peer relations in high school become somewhat more complicated with the increase in the size of the peer group. These relationships also become more important as time spent with peers increases (Larson & Richards, 1991). Adding to the complication is the fact that greater importance is placed on peer reputation during this time period (Lafontana & Cillessen, 2010). So, not only are adolescents spending more time with peers but fitting in with said peers becomes a major concern.

Of course, play becomes less of a focus in adolescence and activities are more diverse and tend to occur outside of school hours (Fabes et al., 2009; Garton & Pratt, 1991; Shaw, Kleiber & Caldwell, 1995) with little to no adult supervision. Interactions remain centered around shared activities but go beyond school-yard games to activities like shopping, video games, and participating in sport. At this stage, more emphasis is placed on communication skills for positive peer interaction (Rubin et al., 2006).

Peer interactions become more frequent and demanding with age. It is therefore vital that children continue to learn and master appropriate social behaviour. Failure to do so places a child at a significant disadvantage as the interactions become more complex. However, providing an additional context where youth can practice social skills and interactions with peers may be one way in which sport promotes positive developmental outcomes. Beyond that, sport also exposes children to an additional set of peers and provides a different peer context. This may be particularly important for adolescents who have difficulties with the school peer group.

Acceptance and Rejection. Acceptance and rejection refer to how much a child is liked (accepted) or disliked (rejected) by the peer group (Bierman, 2004). Children who are liked by their peers typically display conversational skills, cooperative behaviours and other positive social behaviours (Bierman, 2004, Coie et al., 1990). Conversely, children who are disliked by peers are more likely to display negative behaviours such as aggression or disruptiveness (Coie & Dodge, 1988; Rubin, Bukowski & Parker, 1998).

Children who possess pro-social behaviours are more likely to be accepted by peers (Bierman, 2004). This is evinced by an increase in support, invitations and positive

response to pro-social peers (Bierman, 2004). In turn, acceptance by the peer group is associated with a number of positive psychological outcomes. Specifically, peer acceptance has been linked with positive well-being (Oberle, Schonert-Reichl, & Thompson, 2010), academic ability (Wentzel, 2009), and, perhaps most importantly, social and emotional adjustment (Rubin, Dwyer, Booth-Laforce, Burgess & Krasnor, 2004). Being accepted by the peer group clearly has developmental benefits and is much more advantageous for positive developmental outcomes.

Conversely, rejection by the peer group can lead to a number of negative psychological outcomes. Children and adolescents who experience rejection and victimization are more likely to experience problems with emotional, behavioural and academic adjustment (Lopez & DuBois, 2010). In addition, peer rejection has also been associated with loneliness, social dissatisfaction (Asher, Hymel & Renshaw, 1984; Parker & Asher, 1993) and depression (Biggs, Nelson & Sampilo, 2010). As well, peer rejected youth are at an increased risk for problems in later adolescence and adulthood (Parker, Rubin, Price, & Desrosiers, 1995). Such problems include emotional difficulties, criminal activity, and negative social behaviours (Parker & Asher, 1987). Low peer acceptance and rejection have consequences for youth that are not only serious but are also long term.

Stability of Acceptance and Rejection. The fact that status within a peer group has such implications is a critical point as acceptance and rejection are fairly stable constructs (Cillessen, 2009). Recently, Lansford, Killeya-Jones, Miller and Constanzo (2009) reported a moderate to high correlation between reported social standing in grade 7 and social standing reported a year later. In this case, social standing was obtained in

only one setting. However, stability has also been reported across social settings. A seminal study by Coie and Kupersmidt (1983) obtained the social status for a group of boys in a school setting and then assigned each to a group of either familiar or unfamiliar peers. The study found that boys in both groups re-established their original social status within the newly founded peer group. Even more compelling, it took only two sessions for boys in the familiar-peer group to re-establish social status and only three sessions for those in the unfamiliar-peer grouping. This is an important finding as it demonstrates both the stability of peer status and the relatively short time frame in which it is established. It would appear that status within a peer group is established after only a few hours together.

Although status can be a stable construct, it is also possible for social standing to vary according to the social setting. Martin (2011) conducted a study with children from third to sixth grade using positive and negative nominations to categorize children as preferred, rejected, ignored, controversial, average or unclassified in both an academic and leisure setting. Results showed the rejected classification to be the most stable across contexts with 53.8% of children rejected in both settings. This was followed by the unclassified category (40.6% unclassified in both settings) and the preferred category (40.4% preferred in both settings). On the other hand, the majority of ignored, controversial and average children were reported as such in only one of the contexts. Overall, 45.8% of children had changes in sociometric standing from the academic to leisure setting. Interestingly, the study found no children who were preferred in one setting and rejected in the other, preferred in one setting and ignored in the other, or

controversial in one setting and ignored in the other. However, all other combinations were reported.

The results of the Martin (2011) study have important implications for the present study. Primarily, there is some stability in peer status, particularly with regard to accepted and rejected youth. Coie and Kupersmidt (1983) observed poor social behaviours on the part of rejected children and such behaviours have been demonstrated to be antecedents of peer rejection (Dodge, 1983). Poor social skills will be poor in any social situation and, as such, it would make sense that there would be greater stability amongst the rejected classification of peer status. On the other hand, Martin (2011) did report that peer profiles could change from an academic to a leisure setting. Perhaps the expectations within a given setting can also play a role in peer assessments and would explain the differing evaluations. Behavioural and social expectations within an academic setting would not necessarily be the same as those for a leisure setting. In the Martin (2011) study, participants were asked to name the boys/girls they would most like to work with in class and then which boys/girls they most like to be with during free time. Clearly, what someone looks for in an ideal work partner could be quite different from what someone looks for in a play partner. The expectations for the settings somewhat dictate what people look for in acceptable behaviour and likely what can be overlooked as far as unacceptable behaviour. With regard to the present study, a sport setting is quite different than a classroom setting and with that come specific factors that may play a unique role in peer relationships. For example, an individual who is quite physically skilled but lacking in pro-social skills may not experience the same sort of rejection in a sport setting as an individual who lacks both physical skill and social skills. As well,

perceptions of peer acceptance may differ for an individual on a highly cohesive team where camaraderie is valued and will likely translate to greater feelings of acceptance as compared to a team with low cohesion. The team atmosphere and the expectations of teammates that all members feel like an important part of the team would likely be reflected in an individual's feeling of acceptance.

Ultimately, acceptance in one social context does not necessarily translate into acceptance in another. Additionally, children's behaviours vary within a social context depending on the setting (Fabes et al., 2009). Children may feel more comfortable in certain situations and be better able to positively and appropriately engage in social interactions. This is an important consideration as it demonstrates the complexity of a child's social realm and the need for research in varied contexts to obtain a clear and accurate picture of a child's social world.

Peer Acceptance and Psychological Outcomes. A number of studies have examined peer acceptance as a predictor of specific psychological outcomes. In a departure from previous developmental studies, Ladd (2006) demonstrated that peer rejection could be a significant predictor of psychological maladjustment (e.g. internalizing problems, such as depression and anxiety) independent of aggressive or withdrawn behaviours in middle childhood. Previous research has tended to focus on the implications of negative behaviours on adjustment. However, recent studies have begun to examine peer relationships as an independent contributor to psychological outcomes in children, above and beyond behavioural contributors (e.g. Ladd & Troop-Gordon, 2003; van Lier & Koot, 2010). Such research is in line with longitudinal studies demonstrating

a clear association between peer rejection and the development of depressive symptoms over time, in both children and adolescents (Kiesner, 2002; Panak & Garber, 1992).

In a particularly interesting study, Kaisner, Poulin, and Nicotra (2003), investigated the impact of two separate peer networks (in-school and after-school) on depression in a group of middle school students (early adolescence). It was found that both peer networks provided a unique explanation for the variance in depression scores. These findings support the predictive validity of peer acceptance, but beyond that, demonstrate the importance of examining different peer contexts. The authors contend that such a finding highlights the need for studies looking at relationships across peer networks. Kaisner et al. (2003) go on to state that the contributions of the in-school peer group and after-school peer group to depression scores appeared to be of equal importance. The Kaisner et al. (2003) study is especially relevant with regard to the objectives of the present study. As previously mentioned, sport is a common social context for youth and, based on the Kaisner et al. (2003) findings, it would appear that relationships developed within that context play a significant role in the psychological well-being of youth.

Peer acceptance has also been shown to predict self-worth and self-esteem in girls. Klima and Repetti (2008) reported that peer acceptance predicted psychological adjustment, with lower acceptance linked to poorer outcomes. Furthermore, the authors found that peer acceptance was associated with future self-worth of girls. To that point, Walker and Greene (1986) found that peer relationships were predictive of self-esteem for girls, but not boys. Primarily, such results support the contention that peer relationships predict specific psychological outcomes in youth. The other valuable

finding relates to the decision to restrict the sample of the current study to female athletes. The work of Klima and Repetti (2008) and Walker and Greene (1986) highlight the fact that gender differences are present in peer relationships and suggest the need to examine the social experiences of females separately in order to obtain an accurate understanding of females' peer relationships in context.

Peer Relations, Sport and Development

A sports team represents a relatively common social context for many youth. Taking into account both the influential nature of peers and positive outcomes associated with peer group acceptance, an examination of peer relationships within sport is warranted. This is especially pertinent if sport provides a context in which youth can gain additional experience in social interactions and benefit from psychological outcomes associated with positive social relationships.

To date, relatively little work has examined peers as social agents in sport (Smith, 2003). However, the work that has been done has shown peers to be important factors in the psychological development of sport involved youth. Sport does not take place in a solitary environment, particularly in team sports and, as such, teammates are individuals that a child or adolescent will spend a great deal of time with. It is therefore essential to gain an understanding of how the relationships between teammates influence the development of youth and what role they play with regard to the psychological outcomes associated with participation in sport.

Perceptions of Peers in Sport. Weiss, Smith, and Theeboom (1996) conducted a study with 38 children (8 to 16 years old) who were attending, or had previously attended, a university run sports camp. Each child had participated in a team or

individual sport at recreational and/or competitive levels. The authors interviewed each child to determine their perceptions of peer relationships in sport. Children were asked to select a best friend in sport defined as “someone with whom the participants do sports frequently” (Weiss et al., 1996, p. 353). The results showed a number of similarities between friendship expectations in sport and those from the non-sport literature (Weiss et al., 1996). Using factor analysis, 12 dimensions of friendship were obtained and included factors such as companionship, self-esteem enhancement, emotional support, intimacy, loyalty, and conflict resolution (Weiss et al., 1996). Although the focus of this study was on friendship rather than peer relationships, the findings are important to the present study due to the authors’ assertion that results demonstrate an important association between sport and the development and maintenance of peer relationships (Weiss et al., 1996).

Bigelow, Lewko and Salhami (1989) conducted a similar study looking at how children viewed the role of friends in organized sport. A key finding from this study was that skill was found to be a key indicator of social acceptance with poorly skilled players viewed negatively by others. Weiss and Duncan (1992) reported a similar association between skill and group acceptance. Children involved in a university sponsored sport program completed self-report measures of perceived sport competence and social acceptance. Consistent with findings by Bigelow et al. (1989), a strong correlation was observed between athletic ability and social acceptance. Interestingly, children who reported a high level of competence in sport reported a similar level of competence in relationships with peers.

Taking it a step further, Smith (1999) studied peer relations and motivation in physical activity. According to Smith (1999), friendship and peer acceptance are indirectly related to physical activity outcomes. Specifically, the higher the perceived acceptance by peers, the greater sense of physical self-worth reported by the participants. As well, perceptions of friendship predicted motivation with greater perceived friendship associated with enhanced intrinsic (as opposed to extrinsic) motivation (Smith, 1999). Ullrich-French & Smith (2009) reported similar findings that continued participation in competitive soccer was predicted by high quality friendship and perceived support.

Perceived support was also found to be a significant factor in a study by Cox & Ullrich-French (2010). The authors studied perceived social support (teacher support, peer acceptance, and friendship quality) in a middle school physical education class. Students who reported high peer acceptance, high teacher support, and high quality friendships also reported the most enjoyment, effort and value (Cox & Ullrich-French, 2010). This study is interesting to note due to the incorporation of perceived teacher support. In a typical sport setting, this may translate to coach support and the importance of athletes perceiving high levels of support from both coaches and teammates.

Peer Relations in Sport. Smith, Ullrich-French, Walker and Hurley (2006) conducted what appears to be the first study incorporating a form of sociometric status into an evaluation of peer relationships and motivation in sport. Using a subscale of Harter's Self-Perception Profile for Children (Harter, 1988) and The Sport Friendship Quality Scale (Weiss & Smith, 1999), 243 children from a summer sports camp (aged 10-14) were grouped into 1 of 5 profiles; isolate, reject, survive, thrive and alpha. According to perceptions of peer acceptance and friendship quality, participants who engaged in low

levels of social interaction with peers were characterized by low peer acceptance, poor friendship quality and low conflict, and were considered *isolated* (11.9% of sample). Participants categorized in the *rejected* profile (7% of sample) had similar perceptions of peer acceptance and friendship quality but reported higher instances of peer conflict. The *survive* profile (25.5% of sample) consisted of individuals who had high perceived friendship quality and low conflict but who reported difficulty in being accepted by the group. Individuals categorized in the *thrive* profile (32.9%) were those with high acceptance and friendship quality and low conflict. Finally, participants categorized in the *alpha* profile (22.6%) reported high acceptance and friendship quality but also reported high level of friendship conflict.

As would be expected, participants in the *thrive* category reported the most positive psychological outcomes. Overall, thrive participants had the highest competence, enjoyment and self-determined motivation scores and the lowest anxiety and self-presentational concern scores (Smith et al., 2006). The *isolate* profile was associated with the lowest enjoyment and self-determined motivation scores while the *reject* profile was associated with the highest anxiety and self-presentational concerns (Smith et al., 2006). In line with previous findings regarding acceptance and competence, the *survive* profile reported the lowest level of perceived competence. The authors argue that the results of this study demonstrate the importance of positive peer relationships and combinations of social relationships (Smith et al., 2006). Smith et al. (2006) point out the nature of the *alpha* profile and the fact that high levels of conflict did not translate into negative psychological outcomes was likely due to high acceptance and friendship

quality. Conversely, the *survive* profile characterized by low conflict and high friendship quality but low group acceptance was associated with more negative outcomes.

The Smith et al. (2006) study is significant. Primarily it demonstrates that peer relations within sport are categorically similar to those in a classroom setting. Within the larger group there are individuals who are rejected and those who are accepted. It is interesting to note that approximately half of the sample reported being accepted by the group while the other half reported difficulty being accepted by the group. It could be expected that, due to the emphasis placed on cohesion and teamwork, there would be a higher rate of acceptance in a team environment. However, athletes involved in the study were from both individual (i.e. golf, tennis) and team (i.e. baseball, basketball) sports. Perceptions of acceptance from athletes engaged in individual sports would likely differ from athletes in team sports, as there is not the same emphasis placed on cohesion and co-operative behaviours.

Demonstrating further similarity to traditional peer relations studies, athletes who reported low group acceptance also reported negative psychological outcomes such as higher anxiety, low perceived competence, and low enjoyment (Smith et al., 2006). This is a critical point as it suggests that being accepted as part of the team is important to the athlete. Furthermore, being accepted has positive implications for psychological well-being. A study conducted by Daniels and Leaper (2006) provides additional support for such a statement and the importance of group acceptance within sport. In a longitudinal study, peer acceptance fully mediated the relation between sport participation and global self-esteem. The authors acknowledge that participation, acceptance, and self-esteem were not strongly correlated, suggesting that many other factors contribute to self-esteem.

However, the fact that the relation between participation and self-esteem was fully mediated by acceptance demonstrates the degree to which peers influence psychological outcomes and further suggests that it is the factors within sport that lead to positive outcomes and not merely participation itself.

In summary, the above-mentioned studies demonstrate the importance of studying peer groups within a sport environment and are among the first to consider the effect that sport has on measures of acceptance. It is evident that peers are influential players in the social context of sport. Primarily, the relationships that children have with their peers in sport are important social relationships (Bigelow et al., 1989; Weiss et al., 1996). This is a key statement as relationships that are not viewed as important to children are not likely to be influential and thus not have an effect on developmental outcomes. Because athletes value these relationships, the relationships will be associated with social and emotional development. As can be seen by the literature, peers in sport appear to play an important role in the enjoyment, effort, value (Cox & Ullrich-French, 2010), self-esteem (Daniels & Leaper, 2006) and motivation (Smith, 1999) of young athletes. Furthermore, the relationships are similar to those developed in other social settings. Individuals in sport are accepted and rejected and face similar psychological outcomes related to that status. For example, accepted youth have reported enhanced well-being in both classroom (Oberle et al., 2010) and sport (Smith, 1999) settings. Although research examining peer relations in sport is sparse, what has been done clearly demonstrates a need for further study. Gaining a better understanding of how peers influence psychological outcomes in sport may provide a better understanding of the role of sport in positive youth development.

Gender Differences and the Present Study

Participants for the present study were restricted to adolescent female athletes. The primary reason for selecting adolescents was due to the importance placed on peer relationships during this developmental time period. Relationships with peers become much more significant relationships during adolescence (Berndt, 1982; Hartup, 1993; Savin-Williams & Berndt, 1990). And, free time tends to be spent more with peers, as opposed to with family or even alone (Csikszentmihalyi & Larzon, 1984; Savin-Williams & Berndt, 1990). Thus, the impact of peer acceptance would arguably be greater during this time period when the relationships are so highly valued.

Restricting the sample to females was done based on expectations that gender differences would be present. And, based on previous literature, it was expected that outcomes would be more salient for female athletes. Empirical work has demonstrated a difference between males and females with regard to self-esteem. In a meta-analysis, Kling, Hyde, Showers, and Buswell (1999), found females to have lower self-esteem across the lifespan. This difference has been reported in adolescents (Chubb, Fertman, & Ross, 1997) and has been shown to be present in late childhood/early adolescence (Bolignini, Plancherel, Bettschart, & Halfon, 1996). Gender differences have also been reported in depression and depressive symptoms. Rates of depression and the experience of depressive symptoms have been found to be higher for females at all ages (Kuehner, 2003). Gender differences in depression emerge in adolescents (Nolen-Hoeksma & Girgus, 1994) with girls showing a considerable increase in depressive symptoms after the age of 13 (Hankin & Abramson, 2001). Furthermore, Hankin, Mermelstein, and

Roesch (2007) reported that in both 8th and 10th grade, depressive symptoms were higher for girls as compared to boys.

The interactions between children and their peers can also be different and have different implications for boys and girls. As was previously mentioned, peer acceptance has been linked with self-worth and self-esteem for girls, but not boys (Klima & Repetti, 2008; Walker & Greene, 1986). Additionally, the structure and content of children's peer relationships differ according to gender (Rose & Rudolph, 2009). For example, boys tend to engage in more physical play and girls spend more time in dyadic interactions (Rose & Rudolph, 2006). Adolescent girls are also more socially oriented (Nolen-Hoeksma, & Girgus, 1994) and express greater concern and stress over the status of relationships (Rose & Rudolph, 2006). Rose and Rudolph (2006) highlight behavioural differences with girls being more co-operative, pro-social and adopting connection oriented goals as compared to boys. Girls are also said to spend more time talking with peers (Moller, Hymel & Rubin, 1992) and characteristics such as empathy and optimism have been found to positively predict peer acceptance in girls (Oberle et al., 2010).

The pro-social characteristics typical of girls' relationships could be viewed as beneficial in a sport setting where such things as co-operation and optimism are valued. Additionally, enhanced conversation with peers and the desire to form attachments with teammates would suggest that forming relationships with teammates would be more common and of greater value for female athletes. Thus, the nature of relationships among female adolescents would lead one to believe that a girls' sports team would be more social in nature and girls would place more value on acceptance by the group.

With regard to sport participation, girls are less likely than boys to engage in competitive activities with peers (Mathur & Berndt, 2006; Zarbatany et al., 2000) and are more likely to have negative experiences when engaging in competition with peers (Benenson, Roy, Waite, Goldbaum, Linders, & Simpson, 2002). A recent survey reported that girls participated more in sports that occur one to two times per week whereas boys participated more in sports that occur four or more times a week (Canadian Fitness & Lifestyle Research Institute, 2011). That would suggest that boys are more likely to be involved in highly competitive sports that require a greater commitment while girls tend to favour sports with less of a time commitment required. It should be noted that girls are just as interested as boys in participating in competitive situations (Benenson et al., 2002). And, perhaps most pertinent to the present study, girls report relationships with peers as a source of enjoyment in sport more than boys do (Patrick, Ryan, Alfred-Liro, Fredricks, Hruda & Eccles, 1999). The research provides further evidence that girls place more emphasis on the social aspects of sport participation and that the purpose goes beyond mere competition.

Potential Moderating Variables

There are a variety of factors within sport that may influence the development of peer relationships. Specifically, the present study will examine the potentially moderating effects of cohesion and goal orientation.

Cohesion. Carron, Brawley, and Widmeyer (1998) defined cohesion as “a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs” (p. 213). Cohesion is a multidimensional construct that is influenced by

a variety of environmental, personal, leadership and team factors (Carron, 1982).

Cohesion is a measure of the orientation of members to both the group as a whole and its individual parts. To that point, Carron, Widmeyer and Brawley (1985) have proposed a conceptual model in which cohesion can be broken down into 4 constructs: group integration – task (GI-T), group integration – social (GI-S), attraction to group– task (ATG-T), and attraction to group– social (ATG-S). Group integration (e.g. bonding, similarity) and individual attraction to group (e.g. involvement with team members) represent the two major components of the model. Within each component are task and social concerns. The task aspect relates to group goals and working toward achieving such goals while the social aspect relates to the development and maintenance of relationships among group members (Carron et al., 1985). It should be noted that Eys, Loughhead, Bray and Carron (2009) found that adolescents made distinctions between task and social aspects but did not distinguish between group integration and individual attraction. As such, the present study considered cohesion in terms of social and task perspectives.

Cohesion in sport has come to be viewed as a positive aspect of successful teams. This is no doubt due to the great amount of research devoted to the study of cohesion and the positive outcomes commonly reported by such research. Primarily, cohesion has been positively associated with performance outcomes at various levels of participation (Carron, Colman, Wheeler & Stevens, 2002; Grieve, Whelan & Meyers, 2000; Salminen & Luhtanen, 1998). This is the most consistent and widely reported association. In a meta-analysis, Carron, Colman, Stevens and Wheeler (2002) found a moderate to large

effect size for the relation between cohesion and team success. Interestingly, this association has been found to be strongest in female sports teams (Carron et al., 2002).

Cohesion has also been found to affect behaviour with higher levels of cohesion associated with more adaptive motivation (Gu, Solmon, Zhang & Xiang, 2010) and increased participation (Estabrooks & Carron, 1999) in physical activity. There are also affective implications of cohesion with both satisfaction (Widmeyer & Williams, 1991) and positive emotion (Blanchard, Amoit, Perrault, Vallerand & Provencher, 2009) positively associated with cohesion in highly competitive athletes. Finally, cohesion has been linked with socio-emotional outcomes. Allen (2006) found social cohesion and perceived belonging in sport to be positively correlated, while Julian, Bishop and Friedler (1966) reported a positive association between cohesion and self-esteem. Cohesion seemingly has a number of positive outcomes for both the team in general and for each team member.

Based on the current research, it is evident that cohesion plays an important role in the group dynamics of sport. To date, there do not appear to be any studies that have examined cohesion as a moderating factor in sport. As can be inferred from the above-mentioned research, much of the cohesion literature in sport has been correlation in nature or has examined the predictive nature of cohesion with various outcomes. However, research from other areas of psychology has demonstrated that cohesion can play a moderating role. In two recent studies, cohesion was found to act as a buffer and reduced the likelihood of negative outcomes. Barr, Hanson, Begle, Kilpatrick, Saunders, and Amstadter (2012) reported that family cohesion moderated the association between witnessing violence and future delinquency with a more cohesive family unit associated

with reduced delinquent behaviour. Nebbitt, Lombe, Yu, Vaughn and Stokes (2012) found that social cohesion moderated the relation between mental health and substance abuse. In this case, higher social cohesion reduced the likelihood of mental health issues leading to increased levels of substance abuse.

Ultimately, this research shows that cohesion can act as a moderating factor and minimize the effect of negative situations on well-being. So, while sport based research has demonstrated that cohesion can lead to positive outcomes, non-sport research shows that cohesion can influence the relation between negative circumstances and outcomes for individuals. With regard to the present study, one could then argue that cohesion would not only lead to positive outcomes for team members but would moderate the relation between acceptance and psychological outcomes. Consequently, the present study examined how cohesion interacted with social acceptance to predict psychological well-being. Understanding how cohesion influences the relation between social acceptance and the athlete's well-being will, primarily, help to clarify the nature of the relationship and may have implications for the implementation of sports programs.

Sport Orientation. Nicholls has proposed an approach to achievement goals in sport in which ability is the central motive for achievement (Horn, 2009). One's ability can be measured from a self-referential perspective where past performances are contrasted with current performance, to assess ability. Conversely, ability can be measured comparatively with performances of others used to measure one's own ability. Those who take a self-referential perspective are said to be task oriented and focus on mastery of skill and generate a sense of achievement from improvement (Horn, 2009). Those who tend to compare themselves with others are said to hold an ego orientation

and gain a sense of achievement from demonstrating superior ability over others (Horn, 2009). In general, a task orientation is associated with more positive behavioural and psychological outcomes.

According to Le Bars, Gernigon and Ninot (2009), a task orientation tends to promote more adaptive behaviours in competitive athletes. This has been characterized by setting challenging goals, increased effort, and persistence (Le Bars et al., 2009; Ntoumanis, Biddle & Haddock, 1999). In addition, a task orientation has been positively associated with enjoyment, perceived competence, and performance in both competitive and recreational athletes (Duda & Newton, 1993; Stuntz & Weiss, 2009; van de Pol & Kavussanu, 2011). In contrast, an ego orientation has been associated with a focus on ability and poor development of strategies (Duda & Newton, 1993). Furthermore, Mouratidis and Sideridis (2009) reported ego goals to be related to such negative emotions as anger, anxiety, and shame. Harwood, Spray and Keegan (2009) state that, in a review of the literature, an ego orientation has either been negatively associated with enjoyment and satisfaction or no significant association has been found. It is important to note that ego orientation is not necessarily detrimental to the athlete. A moderate level of task orientation can in fact buffer the effect of an ego orientation (Smith et al., 2006). Nevertheless, it is apparent that focus on skill development, as opposed to achievement over others, is a more adaptive and psychologically beneficial orientation to sport participation.

With regard to peer acceptance, Smith et al. (2006) conducted a study with male soccer players aged 9 to 12. Using the Task Ego Orientation in Sport Questionnaire (Duda, 1989) and the social acceptance subscale of Harter's Self-Perception Profile

(Harter, 1988), Smith et al. (2006) assessed goal orientations and perceived social acceptance of 223 athletes with varying degrees of experience in soccer. The authors found that athletes with high task orientation had similarly high levels of perceived social acceptance. The authors postulate that such findings imply that peer relationships are perhaps best developed within a task-involved environment. This may be related to Duda and Nicholls (1992) assertion that task orientation is associated with a belief that cooperation is an integral part of success in sport. Indeed, it could be argued that a belief in achievement as a measure of one's improvement in ability would foster a greater sense of camaraderie among teammates. Conversely, those comparing ability to others would enhance competitiveness amongst teammates that is not likely to encourage affiliation.

Sport orientation can also be conceptualized in terms of achievement motivation. To assess achievement motivation, Gill and Deeter (1988) have developed the Sport Orientation Questionnaire (SOQ). The SOQ is a multidimensional measure of achievement orientation and provides indices of an athlete's competitiveness, win orientation, and goal orientation. According to Gill and Deeter (1988), competitiveness refers to an athlete's desire to be successful in competitive situations, win orientation reflects an athlete's desire to be successful over others, and goal orientation reflects an athlete's desire to achieve personal goals. As can be seen, win and goal orientations are similar to the task and ego orientations discussed previously. Thus, a win orientation would be considered less adaptive than a goal orientation. A recent study by Findlay and Bowker (2009) supports this contention as goal orientation was positively associated with self-esteem and win orientation was found to be negatively associated with self-esteem. It is interesting to note that the negative association between win orientation and self-

esteem was weaker for elite athletes as compared to competitive athletes and non-athletes.

Relatively few studies have examined goal orientations and peer acceptance in sport and there appear to be no studies investigating goal orientation as a moderating factor in peer relations. However, taking the positive association between peer acceptance and task orientation together with the implications of goal orientation, a case for orientation as moderating factor can be made. A goal orientation appears to be linked with characteristics that would likely enhance relationships with teammates. For example, exerting greater effort and demonstrating persistence are qualities that would be revered in a teammate because they benefit the team. Additionally, someone who is enjoying playing would generally be more pleasant to be around, increasing the likelihood of forming a social bond.

Due to the limited amount of research examining peer relations and achievement orientation in sports, the present study took a somewhat exploratory approach to examining the interaction between peer acceptance and goal orientations in predicting psychological outcomes. Understanding how goal orientations influence peer relations and well-being in sport is important as it may have implications for coaches, parents and athletes.

The Present Study

With the amount of time youth spend in sport, it is important to examine the many factors associated with sport to gain an understanding of how participation affects the social, emotional and psychological development of youth. Much research has shown participation in sport to be associated with many positive psychological outcomes for

youth (e.g. Dworkin et al., 2003; Eccles et al., 2003; Rose-Krasnor et al., 2006).

However, the role of peers in sport has just begun to receive attention from researchers.

From the peer relations literature it is clear that peers represent important social relationships for youth. Interactions with peers are essential throughout development in order for children and adolescents to learn appropriate social skills. As well, acceptance by the peer group is associated with a number of positive psychological outcomes, such as social and emotional adjustment (Rubin et al., 2004) and positive well-being (Oberle et al., 2010). The implications of positive peer relationships warrant an examination of the role of peers in different social contexts, and sport in particular.

Despite the fact that a great number of youth engage in sport, and spend a great deal of time with teammates, peers are just beginning to receive attention as social agents in the sport context (Smith, 2003). Findings to date suggest that peers in sport represent important social relationships and have shown them to be associated with such things as enhanced enjoyment (Cox & Ullrich-French, 2010), higher self-esteem (Daniels & Leaper, 2006), and greater motivation (Smith, 1999). As well, findings indicate a similarity between peer relations in a classroom and in a sport setting. Youth in sport are accepted and rejected by their peers and experience similar psychological outcomes related to that status (see Smith et al., 2006). Based on such findings, it is apparent that teammates affect the psychological well-being of young athletes. As such, following from both the peer relations literature and research from sport-based studies, psychological outcomes were assessed using social and emotional adjustment variables of self-esteem and depression along with physical competence and enjoyment.

Furthermore, within the context of sport, there are factors that may influence the development and maintenance of social relationships. Cohesion and sport orientation have both been found to relate to performance outcomes, a sense of competence and positive attitudes towards participation. Additionally, research has shown both to be associated with perceptions of peer relationships with cohesion and sport orientation said to be positively associated with perceived belonging in sport (Allen, 2006). To date, no studies have examined how cohesion and goal orientation interact with peer acceptance to predict psychological outcomes of athletes in team sport. Based on the previously mentioned research and the fact that each factor is associated with psychological outcomes and perceptions of peer relationships it would seem that cohesion and goal orientation play an important and influential role in the sport context.

It is evident that research on sport as a social context and its affect on youth development is lacking. The primary purpose of the present study was to examine how perceptions of peer acceptance within a team sport setting would be associated with specific psychological outcomes of youth. The study further examined how sport specific factors of cohesion and sport orientation influenced the association between team acceptance and psychological outcomes of self-esteem, depressive symptoms, physical competence and sport enjoyment.

To achieve these objectives the following hypotheses were be tested.

Hypothesis I. It was hypothesized that peer acceptance would predict psychological outcome variables of self-esteem, physical competence, depressive symptoms, and enjoyment. Specifically, it was expected that higher levels of perceived peer acceptance would be associated with more positive psychological outcomes (e.g.

higher self-esteem and lower depressive symptoms). This was based on past research that has reported a positive association between peer acceptance in sport and perceived competence, enjoyment (e.g. Smith et al., 2006), and self-esteem (e.g. Daniels & Leaper, 2006). As well as non-sport based research that has found peer acceptance to predict self-esteem (e.g. Walker & Green, 2003) and depressive symptoms (e.g. Kaisner et al., 2003)

Hypothesis II. It was hypothesized that task and social cohesion would interact with peer acceptance to predict psychological outcome variables (self-esteem, physical competence, depressive symptoms, and enjoyment). Specifically, it was expected that higher levels of both task and social cohesion would enhance the association between team acceptance and positive psychological outcomes. This was based on work by Allen (2006) that has reported a positive association between cohesion and perceived belonging in sport and work from non-sport settings that has shown cohesion to be a protective factor in minimizing the effect of negative events on psychological outcomes (e.g. Barr et al., 2012). In addition, the hypothesis was based on the positive psychological outcomes commonly associated with cohesion in a sport setting, such as greater athlete satisfaction (e.g. Widmeyer & Williams, 1991) and positive affect (e.g. Blanchard et al., 2009).

Hypothesis III. It was hypothesized that sport orientation would interact with peer acceptance to predict psychological outcomes. Specifically, it was expected that higher levels of goal orientation would enhance the association between team acceptance and positive psychological outcomes. And, it was expected that higher levels of win and competitive orientations would buffer the association between team acceptance and positive psychological outcomes. This was based on past research by Smith et al. (2006)

who reported a positive association between social acceptance and task (goal) orientation. In addition, the hypothesis was based on past research that demonstrates an association between a goal orientation to sport and positive psychological outcomes, such as enjoyment and perceived competence (e.g. Duda & Newton, 1993; Stuntz & Weiss, 2009; van de Pol & Kavussanu, 2011) and an association between an ego/competitive/win orientation and negative outcomes such as lower self-esteem and decreased enjoyment (e.g. Findlay & Bowker, 2009; Harwood, Spray and Keegan (2009).

Method

Participants

The sample consisted of 93 female athletes engaged in competitive basketball ($n = 8$), hockey ($n = 13$), rugby ($n = 19$) and soccer ($n = 53$). Participants were between the ages of 12 and 18 ($M = 14.43$, $sd = 1.64$) and were recruited from sports associations in the Ottawa area.

Procedure

An email was sent to parents and coaches explaining the nature of the study. Those interested in participating completed a permission form to allow athletes to participate in the study. Upon receipt of the permission form, a time was arranged to hand out questionnaire packages to the individual athletes (i.e. after a practice). Prior to handing out questionnaires, participants were reminded that completion of the study is not mandatory and they may stop at any time. As well, participants were informed that all responses would be kept strictly confidential. Participants were then given the questionnaire package to be completed at home. Completed questionnaires were collected approximately one week later.

Measures

Background Information. All participants completed a background questionnaire (see Appendix A). The background questionnaire was used to obtain information such as age, skill level, and number of years participating.

Peer acceptance. A measure of perceived peer acceptance was obtained using a subscale of the Self-Perception Profile for Adolescence (Harter, 1988 – see Appendix B). The subscale consists of five items in a structure-alternative format where respondents select one of two statements that most accurately describes them. Upon selecting the statement, participants then rate whether the item is really true or sort of true. Item scores range from 1 to 4 with higher scores representing higher perceived peer acceptance. In line with previous sport-based peer relationships studies (e.g. Smith et al., 2006), items were modified to reflect a sport setting (e.g. some athletes find it hard to make friends on the team but for other athletes it's pretty easy). Additionally, for the present study, the presentation of the questions was modified to ensure ease of use. Previous sport-based studies have found the Self-Perception Profile to be a valid and reliable measure of peer acceptance (e.g. Smith et al., 2006). Reliability for the present study was moderate ($\alpha = .70$).

Self-Esteem. To obtain a measure of self-esteem, participants completed a subscale of the Self Description Questionnaire (SDQIII; Marsh, 1990 – see Appendix C). The 'General Esteem' subscale of the SDQIII consists of twelve items related to how participants feel about themselves (e.g. 'Overall, I do lots of things that are important') and asks participants to rate from 1 (definitely false) to 8 (definitely true) how accurate the statement is. Scores were summed with possible scores ranging from 12 to 96, with

higher scores representing higher esteem. The SDQIII has been used in a number of studies and has been shown to be a valid and reliable measure (e.g. Byrne, 1988; Marsh & O'Neill, 1984; Marsh, Perry, Horsely & Roche, 1995). Reliability for the current study was strong ($\alpha = .90$).

Physical Competence. To obtain a measure of physical competence, a subscale of the Self-Description Questionnaire (SDQIII - Marsh, 1990 – see Appendix D) was used. The 'Physical Ability' subscale consists of ten items related to how participants feel about their ability in sport (e.g. 'I am a good athlete') and asks participants to rate from 1 (definitely false) to 8 (definitely true) how accurate each statement is. Scores were summed to generate a score between 10 and 80, with a higher score representing higher physical ability. The SDQIII has been used in a number of studies and has been shown to be a valid and reliable measure (e.g. Byrne, 1988; Marsh & O'Neill, 1984; Marsh et al., 1995). Reliability for the present study was moderate ($\alpha = .79$).

Depressive symptoms. A measure of depressive symptoms was obtained using the Centre for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977 – see Appendix E). The CES-D is a 21-item questionnaire consisting of statements relating to how an individual may have felt or behaved in the past week (e.g. 'I felt that I was just as good as other people'). Participants were asked to identify how frequently they felt or behaved in that way (0 = rarely, 3 = most of the time). Items were summed to obtain a value between 0 and 63 with higher scores representing higher levels of depressive symptoms. The CES-D has been widely used by researchers and is a valid and reliable measure of depressive symptoms in the general population (e.g. Radloff, 1977; Radloff,

1991; Roberts & Sobhan, 1992). Consistent with previous research, the measure showed good reliability in the present study ($\alpha = .85$).

Enjoyment. To obtain a measure of enjoyment, participants completed the Physical Activity Enjoyment Scale (PACES; Motl, Dishman, Saunders, Dowda, Felton & Pate, 2001 – see Appendix F). The PACES is a 16-item questionnaire that asks participant about their feelings while engaging in physical activity by considering the statement ‘When I am active...’ and then responding to items such as ‘I enjoy it’ or ‘it frustrates me’. For the purpose of the present study, the statement ‘when I am active’ was changed to reflect the given sport, for example, ‘when I play hockey’. Participants rated items on a 5-point likert scale (1=disagree a lot, 5 = agree a lot) with higher scores indicating greater enjoyment. Studies using the PACES have reported acceptable validity and reliability (e.g. Crocker, Bouffard & Gessaroli, 1995; Kendzierski & DeCarlo, 1991; Motl et al., 2001). Reliability for the present study was good ($\alpha = .84$).

Cohesion. To obtain a measure of task and social cohesion, participants completed the Youth Sport Environment Questionnaire (YSEQ; Eys et al., 2009 – see Appendix G). The YSEQ has been designed for use with youth aged 13 to 17 and provides a measure of both task and social cohesion. The YSEQ is an 18-item questionnaire with 8 task-cohesion (e.g. I like the way we work together as a team), 8 social-cohesion (e.g. ‘Some of my best friends are on this team’), and 2 spurious negative items. Items are rated on a 9-point scale (1=strongly disagree, 9 = strongly agree). Scores range from 1 to 9 with a higher score representing higher levels of cohesion. Eys et al. (2009) have reported an acceptable level of reliability and validity with the scale. Reliability was strong for the present study ($\alpha = .92$).

Sport Orientation. To obtain a measure of sport orientation, participants were asked to complete the Sport Orientation Questionnaire (SOQ; Gill & Deeter, 1988 – see Appendix H). The SOQ is a 25-item questionnaire that provides a measure of competitiveness (desire to be successful in sport), win orientation (desire to beat others), and goal orientation (desire to achieve personal goals). To complete the questionnaire, participants were asked to rate how strongly they agreed (1 = strongly disagree, 5 = strongly agree) with statements about sport and competition (i.e. ‘I am a determined competitor’ or ‘my goal is to be the best athlete possible’). The SOQ has been used in previous sport-based studies and has been shown to be a valid and reliable measure of competitiveness, win orientation and goal orientation (e.g. Beaudoin, 2007; Wartenberg & McCutcheon, 1998). Reliability was strong for the present study ($\alpha = .89$).

Results

The aim of the present study was to examine the role of peer acceptance in a team context. Based on previous research (e.g. Ladd & Troop-Gordon, 2003; Smith et al., 2006), it was anticipated that higher team acceptance would be associated with positive psychological outcomes. Sport orientation (goal, win, and competitive orientations) and cohesion (task and social) were examined as moderating variables. Following work from a non-sport setting, and the positive associations between cohesion and belonging and self-esteem, task and social cohesion were expected to have an enhancing effect on the relation between team acceptance and the psychological outcome variables.

With regard to sport orientation, a goal-focused orientation, where skill development is emphasized, has been linked with more positive outcomes, such as perceived competence and enjoyment (Duda & Newton, 1993; Stuntz & Weiss, 2009). It

has also been linked with higher perceived social acceptance (Smith et al., 2006). On the other hand, a competitive or win orientation has been linked with negative behavioural and psychological outcomes (e.g. Findlay & Bowker, 2009; Mouratidis and Sideridis, 2009). It was expected that higher goal orientation would enhance the effect of team acceptance on psychological outcomes. Conversely, it was anticipated that higher win and competitiveness scores would buffer the effect of team acceptance on psychological outcomes.

Preliminary Analysis

Missing Data. The data set was initially screened to ensure that no errors had been made during data entry. Following this, a missing value analysis was conducted. Less than 5% of data were missing and the result of Little's MCAR test was not significant. Therefore, data were assumed to be missing completely at random (Little, 1988). One participant was missing four items for the depressive symptoms scale and one participant was missing three items for the goal orientation scale. Additionally, a total of eleven participants were missing a single data point. The Expectation-Maximization (EM) algorithm was used to impute these missing values (Dempster, Laird, & Rubin, 1977).

Examination of data also found that two participants failed to complete the team acceptance scale, one participant failed to complete the sport orientation scale, and one participant failed to complete the sport orientation and cohesion scales. Values for the other measures were not extreme for any of these participants and they remained in the dataset. List-wise deletion was used in all subsequent analyses to deal with these missing values.

Testing of Assumptions. The assumptions of regression were then tested. Linearity and heteroscedasticity were assessed by visual inspection of scatterplots of model versus expected residuals. No significant departures from the expected pattern were detected, suggesting these assumptions had been met.

Normality was assessed using the Kilmogorov-Smirnov test, a visual inspection of bar graph showing distribution scores, and the calculation of a z-score using skewness and kurtosis values. Team acceptance, enjoyment, task cohesion, goal orientation and competitive orientation were significantly, negatively skewed. Depressive symptoms was significantly, positively skewed. Transformation of variables was considered as an option to deal with violations of normality. However, after transforming variables and running analyses, results were not significantly different from results obtained with original variables. Additionally, with the nature of the sample (competitive athletes), skewed data was not unexpected. Therefore, variables were not transformed and remained skewed.

The presence of univariate and multivariate outliers was then assessed. The presence of univariate outliers was examined by calculating z-scores and identifying any scores that fell beyond the critical value of ± 3.29 . A single univariate outlier was found for acceptance, task cohesion, and competitive orientation scores. Additionally, three univariate outliers were found for enjoyment scores. The values for all univariate outliers were adjusted to be within range (3 standard deviations below the mean). Residual values were also examined to ensure that any remaining extreme scores did not significantly influence the variable. Multivariate outliers were assessed using Mahalanobis distance. Multivariate outliers were not found as no value exceeded the

critical value of $\chi^2 = 29.59$. Finally, correlations and tolerance values indicated that problems with singularity and multicollinearity were not present.

Control Variables. Prior to conducting the main analyses, background information variables were examined to determine if any had a significant effect on the dependent variables. Using results from bivariate correlations and regression analyses, age and time played with team members were significantly related to self-esteem ($p_{\text{age}} = .019$; $p_{\text{timeplayed}} = .02$) and skill rating was significantly associated with enjoyment ($p = .008$). Accordingly, these variables were controlled for whenever the respective dependent variable was entered in the regression model.

Descriptive Statistics. Descriptive statistics for study variables are presented in Table 1. As can be seen in Table 1, means for each variable are as would be expected, given the sample characteristics. Overall, participants felt accepted by their teammates. Furthermore, the value for the depressive symptoms variable was low and suggests that the sample, in general, experiences a mild level of depressive symptoms. In addition, participants appeared to have a strong belief in their own physical ability and enjoyed participating in their given sport. Self-esteem scores were moderately high and appeared to be quite varied as compared to the other outcome variables.

For the proposed moderating variables, sport orientation mean values were, again, what would be expected given that the sample consists of competitive athletes. Win, goal, and competitive orientations were all high. It is interesting to note that task cohesion scores were higher than social cohesion scores in the given sample and less varied.

Descriptive statistics for the background variables of interest were also obtained and are displayed in Table 2. As can be seen in Table 2, on average, participants started playing the given sport at 7 years of age, had been playing for 7 years, and had played at the competitive level for 4 years. Additionally, participants reported playing with 8 to 9 team members in previous years and had played with these team members for approximately. The mean skill rating suggested that participants viewed themselves as highly skilled as compared to their teammates. Furthermore, 87.1% of players had played with team members in previous years and 79.6% of participants indicated that they socialized with teammates outside of team-sponsored events. Finally, the frequency distribution of the age of participants was obtained and is presented in Table 3. As displayed in Table 3, the majority of participants were between the ages of 13 and 15. League standing and win-loss record variables were not calculated due to the inconsistency in responses.

Bivariate correlations were calculated for the study variables and are presented in Table 4. Team acceptance was significantly correlated with all dependent variables, except for enjoyment. Task cohesion was significantly, positively correlated with team acceptance and self-esteem and was significantly negatively correlated with depressive symptoms. Social cohesion was significantly positively correlated with team acceptance, self-esteem and physical competence. The orientation variables did not significantly correlate with team acceptance. Goal and competitive orientation were significantly correlated with physical competence and enjoyment.

Bivariate correlations were also calculated between team acceptance and the background information variables. This was done to assess if an association was present

between a participant's background in sport and team acceptance. Interestingly, no association was found between background variables (e.g. years playing sport, age when started, years playing with team members, years playing competitive sport) and team acceptance.

Table 1

Descriptive Statistics of the Study Variables

Study Variables	<i>N</i>	Mean	<i>SD</i>	Min.	Max.
Acceptance	91	3.39	.61	1.40	4.00
Task Cohesion	92	6.79	1.51	2.13	9
Social Cohesion	92	5.90	2.07	1.25	9
Win Orientation	91	21.28	4.61	9	30
Goal Orientation	91	30.54	3.92	19	35
Competitive Orientation	91	54.09	5.32	37	60
Self-Esteem	93	76.19	10.66	43	96
Depressive Symptoms	93	12.42	5.53	0	35
Physical Competence	93	71.22	6.18	53	80
Enjoyment	93	73.69	5.53	55	80

Table 2

Descriptive Statistics of the Background Information Variables

Study Variables	<i>N</i>	Mean	<i>SD</i>	Min.	Max.
Years Playing Sport	93	7.27	3.20	1	13
Age Started Playing	93	7.39	2.04	3	17
Years Playing at Recreational Level	90	3.08	2.04	0	9
Years Playing at Competitive Level	90	4.36	2.22	1	9
Number of Teammates Played with Before	92	8.62	5.69	0	20
Years Played with Team Members	92	2.51	1.61	0	8
Skill Rating	89	4.81	1.48	2	9
Games Played During a Season	79	14.18	6.38	4	50
Tournaments Played During a Season	83	3.27	1.43	1	7
Games Played Per Week	92	1.07	.25	1	2
Practices Per Week	93	2.26	.46	2	4

Table 3

Frequency Distribution of the Age of Participants

Age	Frequency
12	6
13	27
14	23
15	15
16	7
17	10
18	5

Table 4

Bivariate Correlations of Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	1											
2. Time Played	-.17	1										
3. Acceptance	.09	.15	1									
4. Task Cohesion	-.33**	.004	.41***	1								
5. Social Cohesion	-.02	.15	.52***	.32**	1							
6. Goal Orientation	-.02	-.10	.09	.15	.17	1						
7. Win Orientation	-.13	.01	.04	-.01	-.10	.24*	1					
8. Competitive Orientation	-.06	.07	.09	.10	.28**	.58***	.44***	1				
9. Self-Esteem	-.24*	.24*	.38***	.31**	.23*	.09	-.17	-.04	1			
10. Physical Competence	.01	.12	.22*	-.01	.24*	.24*	-.08	.38***	.34**	1		
11. Depressive Symptoms	.13	-.17	-.34**	-.39**	-.13	.001	.04	.05	-.57***	-.004	1	
12. Enjoyment	.03	-.10	.13	.19	.10	.28**	.07	.25*	.18	.23*	-.34**	1

* $p < .05$ ** $p < .01$ *** $p < .001$

Hierarchical Linear Regression Analyses

The present study was interested in examining the effects of cohesion and sport orientation on the relation between team acceptance and psychological outcomes. To achieve this goal, a series of hierarchical regression analyses were conducted to examine the moderating role of task and social cohesion as well as goal, win and competitive orientations. Tests of moderating effects were carried out following procedures outlined by Aiken and West (1991) and Frazier, Tix, and Baron (2004).

Prior to analysis, the predictor (team acceptance) and moderator (task cohesion, social cohesion, win orientation, goal orientation, and competitive orientation) variables were standardized using z-scores. This was done to reduce any multicollinearity problems with the predictor variables and to ease interpretation of results (Frazier et al., 2004). A total of 5 two-way interaction terms were then calculated by multiplying the predictor variable by the appropriate moderator variable (team acceptance x task cohesion, team acceptance x social cohesion, team acceptance x goal orientation, team acceptance x win orientation, and team acceptance x competitive orientation).

It has been suggested that tests of moderation be conducted with predictor and outcome variables that have a substantial association to ensure that effects of moderation are detected (Chaplin, 1991; Frazier et al., 2004; Jaccard, Turrisi, & Wan, 1990). The association between team acceptance and enjoyment was not significant (see Table 4) indicating that tests of moderation would be low in power (Frazier et al., 2004). In support of this contention, the results of the hierarchical regression analyses examining the relation between team acceptance and enjoyment and the moderating effects were not significant.

Cohesion as Moderator. Task and social cohesion were examined as moderating factors in the relation between team acceptance and the psychological outcome variables of self-esteem, physical competence, and depressive symptoms.

With self-esteem entered as the dependent variable, age and years playing with team members were entered as control variables in Step 1. Team acceptance was then entered in Step 2 with task and social cohesion variables entered on Step 3. The interaction terms were entered in Step 4. A summary of results is presented in Table 5. With age and years playing with team members held constant, team acceptance significantly predicted self-esteem scores ($t(88) = 4.05, p < .001$). The interaction between team acceptance and task cohesion was not significant. Neither was the interaction between social cohesion and team acceptance. Additionally, with team acceptance held constant in Step 3, neither task cohesion nor social cohesion was significantly associated with self-esteem. Conversely, with task cohesion, social cohesion and the control variables held constant in Step 3, team acceptance remained a significant predictor of self-esteem scores ($t(88) = 2.73, p = .008$).

A second hierarchical regression analysis was conducted with physical competence entered as the dependent variable. Team acceptance was entered in Step 1 with task and social cohesion entered in Step 2 and the interaction term entered in Step 3. Results are summarized in Table 6. Team acceptance significantly predicted physical competence scores in Step 1 ($t(89) = 2.12, p = .037$). However, with task and social cohesion held constant in Step 2, team acceptance no longer significantly predicted physical competence scores. Neither the interaction between acceptance and task

cohesion nor the interaction between team acceptance and social cohesion was significant.

A hierarchical regression analysis was then conducted with depressive symptoms entered as the dependent variable. Team acceptance was entered in Step 1. Task and social cohesion were entered in Step 2 with the interaction term entered in Step 3. Results are presented in Table 7. Consistent with previous analyses, the interaction between acceptance and the cohesion variables was not significant. However, team acceptance significantly predicted depressive symptoms scores in Step 1 ($t(89) = -3.02, p = .001$). In Step 2, both team acceptance ($t(89) = -2.15, p = .034$) and task cohesion ($t(89) = -2.98, p = .004$) were significantly associated with depressive symptoms scores.

Summary of results. Cohesion was not a significant moderating factor in the relation between team acceptance and the psychological outcome variables. Team acceptance significantly predicted self-esteem scores and depressive symptoms scores when social cohesion and task cohesion was held constant. Higher levels of team acceptance were related to an increase in self-esteem scores and a decrease in depressive symptoms.

Neither task nor social cohesion was significantly associated with self-esteem. However, task cohesion was a significant predictor of depressive symptoms scores. A higher level of task cohesion was related to a decrease in depressive symptoms.

None of the variables predicted physical competence scores when entered together in the regression model. Ultimately, the results of the hierarchical regression analyses suggest that cohesion does not interact with team acceptance to significantly

impact the relation between team acceptance and the psychological outcomes of self-esteem, physical competence, and depressive symptoms.

Table 5

Summary of Hierarchical Regression Analysis Predicting Self-Esteem Scores From Team Acceptance and Cohesion Scores

Variables Entered	R^2	F	ΔR^2	ΔF	B	SE
Step 1	.09	4.35*				
Age					-2.17	1.11
Time played					2.08	1.13
Step 2	.24	8.89***	.15	16.40***		
Age					-2.67*	1.03
Time played					1.37	1.05
Team acceptance					4.17***	1.03
Step 3	.25	5.42***	.01	.40		
Age					-2.24	1.14
Time played					1.51	1.08
Team acceptance					3.63**	1.33
Task Cohesion					1.13	1.26
Social Cohesion					-.03	1.20
Step 4	.26	4.08**	.02	.81		
Age					-2.37*	.70
Time played					1.33	.68
Team acceptance					2.99*	1.47
Task cohesion					.54	1.34
Social Cohesion					.09	1.22

Acceptance x Task	-.93	.79
Acceptance x Social	-.12	1.10

* $p < .05$

** $p < .01$

*** $p < .001$

Table 6

Summary of Hierarchical Regression Analysis Predicting Physical Competence Scores from Team Acceptance and Cohesion Scores

Variables Entered	R^2	F	ΔR^2	ΔF	B	SE
Step 1	.05	4.49*				
Team acceptance					1.37*	.65
Step 2	.09	2.83*	.04	1.95		
Team acceptance					1.21	.80
Task cohesion					-1.01	.72
Social cohesion					1.17	.75
Step 3	.11	2.16	.02	1.15		
Team acceptance					1.77	.90
Task cohesion					-.63	.76
Social cohesion					1.12	.76
Acceptance x task					.64	.49
Acceptance x social					.25	.69

* $p < .05$

Table 7

*Summary of Hierarchical Regression Analysis Predicting Depressive Symptoms Scores
From Team Acceptance and Cohesion scores*

Variables Entered	R^2	F	ΔR^2	ΔF	B	SE
Step 1	.12	11.79**				
Team acceptance					-3.02**	.88
Step 2	.20	7.31***	.08	4.60*		
Team acceptance					-2.26*	1.05
Task cohesion					-2.82**	.95
Social cohesion					.93	.99
Step 3	.23	5.03***	.03	1.49		
Team acceptance					-1.99	1.18
Task cohesion					-2.33*	1.00
Social cohesion					.68	1.00
Acceptance x task					1.07	.64
Acceptance x social					-.83	.90

* $p < .05$

** $p < .01$

*** $p < .001$

Sport Orientation as Moderator. Another set of hierarchical regression analyses was conducted to examine the moderating effect of goal, win and competitive orientation on the psychological outcome variables of self-esteem, physical competence, and depressive symptoms. As with the previous analyses, age and time played with team members were entered as control variables when self-esteem was entered as the dependent variable. In all other cases, team acceptance, goal, win, and competitive orientation were entered in Step 1 and the interaction terms (acceptance x goal, acceptance x win, and acceptance x competitive) were entered in Step 2 of the regression analysis.

Results from the initial hierarchical regression analysis examining the moderating role of goal orientation in the association between team acceptance and self-esteem are summarized in Table 8. As can be seen in Table 8, the interaction between team acceptance and win orientation was significant. With regard to the first-order effects, team acceptance ($t(87) = 4.12, p < .001$) and win orientation ($t(87) = 2.19, p = .032$) were significantly associated with self-esteem scores. An increase in team acceptance scores was related to an increase in self-esteem scores. Conversely, an increase in win orientation scores was related to a decrease in self-esteem scores. As stated, the interaction between team acceptance and win orientation was significant ($t(87) = -2.34, p = .022$). Results from a follow-up simple slopes analysis are presented in Figure 1. As displayed in Figure 1, team acceptance was more strongly associated with self-esteem at low levels of win orientation ($B = 6.20; t(77) = 3.90, p < .001$). At high levels of win orientation, the slope was not significantly different from zero ($B = .84; t = .52, p = .603$).

A second hierarchical regression analysis was conducted with physical competence entered as the dependent variable. Results are summarized in Table 9. Team acceptance was not a significant predictor of physical competence scores. However, with team acceptance held constant, win orientation ($t(88) = -2.96, p = .004$) and competitive orientation ($t(88) = 4.11, p < .001$) were significantly associated with physical competence scores. None of the interaction terms were significant.

Depressive symptoms was then entered as the dependent variable. A summary of results is presented in Table 10. Team acceptance was the only significant predictor of depressive symptoms when all other variables were entered in the regression equation ($t(88) = -3.67, p < .001$).

Summary of results. A significant effect was found for the interaction between win orientation and team acceptance. Win orientation moderated the relation between team acceptance and self-esteem such that team acceptance was positively associated with self-esteem at lower levels of win orientation. A significant association was not found at high levels of win orientation.

Win and competitive orientation significantly predicted physical competence scores. An increase in win orientation scores corresponded to a decrease in perceived physical competence. Conversely, an increase in competitive orientation was related to an increase in physical competence scores. Team acceptance was the only significant predictor of depressive symptoms.

Table 8

Summary of Hierarchical Regression Analysis Predicting Self-Esteem Scores From Team Acceptance and Sport Orientation Scores

Variables Entered	R^2	F	ΔR^2	ΔF	B	SE
Step 1	.09	4.39*				
Age					-2.24*	1.12
Time played					2.05	1.13
Step 2	.31	6.13***	.22	6.44***		
Age					-3.00**	1.02
Time played					1.62	1.04
Team acceptance					4.27***	1.03
Goal Orientation					1.99	1.12
Win Orientation					-2.46*	1.22
Competitive Orientation					-1.23	1.33
Step 3	.38	5.30***	.07	2.83*		
Age					-3.11**	.99
Time played					1.44	1.02
Team acceptance					3.52**	1.11
Goal Orientation					1.94	1.18
Win Orientation					-1.82	1.12
Competitive Orientation					-.52	1.45
Acceptance x Goal					-.01	1.17
Acceptance x Win					-2.71*	1.16

Acceptance x Competitive	2.90	1.54
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* $p < .05$

** $p < .01$

*** $p < .001$

Figure 1. Interaction between team acceptance and win orientation in the prediction of self-esteem scores

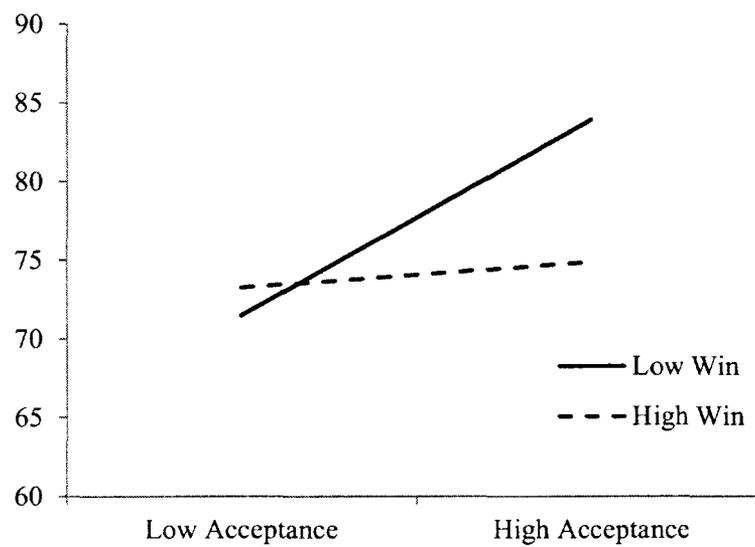


Table 9

Summary of Hierarchical Regression Analysis Predicting Physical Competence Scores from Team Acceptance and Sport Orientation Scores

Variables Entered	R^2	F	ΔR^2	ΔF	B	SE
Step 1	.26	7.36***				
Team acceptance					1.04	.60
Goal Orientation					.04	.71
Win Orientation					-1.95**	.66
Competitive Orientation					3.16***	.77
Step 2	.27	4.25***	.01	.34		
Team acceptance					1.35	.68
Goal Orientation					.03	.69
Win Orientation					-1.99**	.72
Competitive Orientation					2.86**	.86
Acceptance x Goal					.49	.71
Acceptance x Win					.19	.72
Acceptance x Competitive					-.94	.94

* $p < .05$

** $p < .01$

*** $p < .001$

Table 10

Summary of Hierarchical Regression Analysis Predicting Depressive Symptoms Scores from Team Acceptance and Sport Orientation Scores

Variables Entered	R^2	F	ΔR^2	ΔF	B	SE
Step 1	.14	3.48*				
Team acceptance					-3.36***	.92
Goal Orientation					-.15	1.08
Win Orientation					.33	1.00
Competitive Orientation					.73	1.17
Step 2	.18	2.50*	.04	1.18		
Team acceptance					-3.21**	1.02
Goal Orientation					-.12	1.08
Win Orientation					.07	1.03
Competitive Orientation					.36	1.29
Acceptance x Goal					-1.04	1.08
Acceptance x Win					1.01	1.07
Acceptance x Competitive					-.79	1.41

* $p < .05$

** $p < .01$

*** $p < .001$

Mediating Effect of Task Cohesion

The results of the moderation analyses indicated that task cohesion might play a mediating role in the association between team acceptance and psychological outcomes. Because of this and due to the exploratory nature of this study, mediating effects of task cohesion were also tested. A moderating variable affects the association between an independent and dependent variable (Baron & Kenny, 1986). A mediating variable accounts for the association between an independent and dependent variable (Baron & Kenny, 1986). Empirical and theoretical work is limited with regard to the role of cohesion and it would appear that task cohesion might provide an explanation for the association between team acceptance and psychological outcomes. Therefore, both tests of moderation and mediation were conducted to better understand the nature of the relations between team acceptance and task cohesion.

Task cohesion was examined as a mediator in the relation between team acceptance and the outcome variables of self-esteem, physical competence and depressive symptoms. Enjoyment was not examined as a dependent variable because it was not significantly correlated with team acceptance (see Table 4). Consistent with previous tests, age and time played with team members were entered as control variables whenever self-esteem was entered as the dependent variable. Additionally, to ensure that statistically significant results were attributable to the variable of interest, when task cohesion was entered as the mediating variable, social cohesion was controlled for.

Mediation analyses were conducted following procedures outlined by Baron and Kenny (1986). According to Baron and Kenny (1986), three conditions must be met before it can be concluded that a mediating effect is present. It must be demonstrated that

the independent variable is significantly related to the dependent variable (analysis 1), that the independent variable is significantly related to the mediator variable (analysis 2), and that the mediating variable is significantly related to the dependent variable when the independent variable is held constant (analysis 3). Full mediation can be concluded if the relation between the IV and DV is no longer statistically significant when the mediator is entered into the equation. Partial mediation can be concluded if the IV is still significantly related to the DV, but the magnitude of the association has decreased (Baron & Kenny, 1986).

Analyses of Mediating Effect. Task cohesion was first examined as a mediating factor in the relation between team acceptance and self-esteem. Along with age and time played with team members, social cohesion was entered as a control variable. A summary of the results of the three regression analyses is presented in Table 11. In analysis 1, the path between team acceptance (IV) and self-esteem (DV) was significant ($t(89) = 3.29, p = .001$). In analysis 2, the path between team acceptance (IV) and task cohesion (entered as DV) was significant ($t(89) = 2.99, p = .004$). Finally, in analysis 3, the path between task cohesion (entered as IV) and self-esteem (DV) was not significant when team acceptance was held constant. Because task cohesion failed to significantly predict self-esteem with team acceptance held constant, it was concluded that a mediating effect was not present.

The mediating role of task cohesion in the relation between team acceptance and physical competence was then assessed. The results of the three regression analyses are presented in Table 12. In analysis 1, the path between team acceptance (IV) and physical competence (DV) was not significant when social cohesion was held constant. In

analysis 2, the path between team acceptance (IV) and task cohesion (entered as DV) was significant ($t(89) = 2.99, p = .004$). In analysis 3, with team acceptance held constant, task cohesion did not significantly predict physical competence. Because task cohesion failed to significantly predict physical competence with team acceptance held constant, it was concluded that a mediating effect was not present.

Task cohesion was then examined as a mediating factor in the relation between team acceptance and depressive symptoms. A summary of the results of the three regression analyses is displayed in Table 13. In analysis 1, the path between team acceptance (IV) and depressive symptoms (DV) was significant ($t(89) = -3.11, p = .003$). In analysis 2, the path between team acceptance (IV) and task cohesion (entered as DV) was significant ($t(88) = 4.28, p < .001$). In analysis 3, the path between task cohesion and depressive symptoms was significant when team acceptance was held constant ($t(89) = -2.97, p = .004$). Task cohesion significantly predicted depressive symptoms when team acceptance was held constant, and this suggests that a mediating effect was present. As can be seen in Table 13, the magnitude of the association between team acceptance and depressive symptoms decreases from analysis 1 to analysis 3. As presented in Figure 2, such results indicate a partially mediated model. With the addition of task cohesion, the path between team acceptance and depressive symptoms was reduced, but still significant ($t(89) = -2.18, p = .032$).

A Sobel test was then conducted to determine if the partial mediation effect was statistically significant (Sobel, 1982). Results indicated that the decrease in the unstandardized regression coefficient for team acceptance from step 1 to step 3, was significantly different from zero ($z = -2.11, p = .035$). The results of the Sobel test

provide additional support for a partial mediating effect of task cohesion in the association between team acceptance and depressive symptoms.

Summary of Results for Mediating Effects. Task cohesion was tested as a mediating factor in the association between team acceptance and psychological outcomes of self-esteem, depressive symptoms and physical competence. Task cohesion did not mediate the associations between team acceptance and the outcome variables of self-esteem and physical competence. However, task cohesion partially mediated the association between team acceptance and depressive symptoms. With task cohesion entered into the regression equation, the association between team acceptance and depressive symptoms was diminished.

Table 11

Summary of results of regression analyses testing the mediating effect of task cohesion in the association between team acceptance and self-esteem

Variables Entered	R^2	B	SE	CI	β
Analysis 1	.23***				
Age		-1.63*	.64	[-2.89, -.36]	-.25*
Time played		.87	.66	[.45, 2.19]	.13
Social cohesion		.07	.58	[-1.08, 1.22]	.01
Team acceptance		6.56**	1.99	[2.60, 10.52]	.37**
Analysis 2	.19***				
Social cohesion		.10	.08	[-.06, .27]	.14
Team acceptance		.84**	.28	[.28, 1.40]	.34**
Analysis 3	.24***				
Age		-1.38	.70	[-2.77, .02]	-.21
Time played		.96	.67	[-.38, 2.30]	.14
Social cohesion		.01	.59	[-1.15, 1.17]	.002
Team acceptance		5.85**	2.16	[1.54, 10.15]	.33**
Task cohesion		.70	.83	[-.94, 2.35]	.10

* $p < .05$

** $p < .01$

*** $p < .001$

Table 12

Summary of Regression Analyses Testing Mediating Effect of Task Cohesion in the Association Between Team Acceptance and Physical Competence

Variables Entered	R^2	B	SE	CI	β
Analysis 1	.07*				
Social Cohesion		.49	.36	[-.23, 1.21]	.16
Team acceptance		1.44	1.24	[-1.02, 3.90]	.14
Analysis 2	.19***				
Social cohesion		.10	.08	[-.06, .27]	.14
Team acceptance		.84**	.28	[.28, 1.40]	.34**
Analysis 3	.09*				
Social cohesion		.55	.36	[.17, 1.28]	.18
Team acceptance		1.97	1.29	[-.60, 4.55]	.19
Task cohesion		-.63	.47	[-1.56, .30]	-.15

* $p < .05$

*** $p < .001$

Table 13

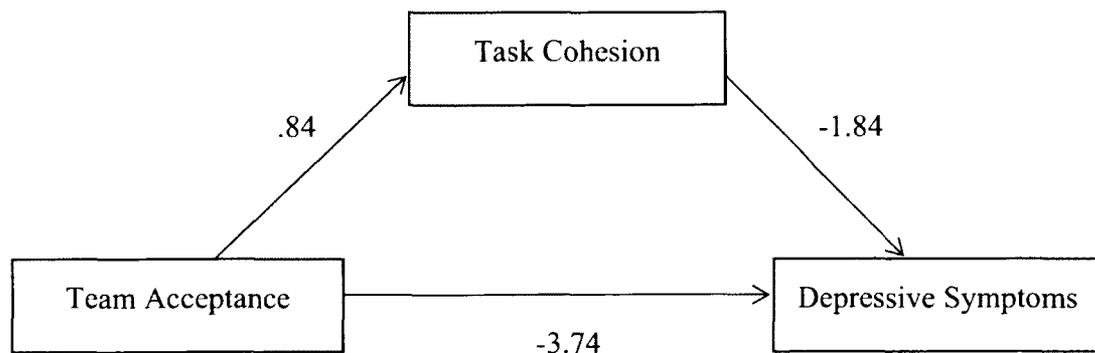
Summary of regression analyses testing mediating effect of task cohesion in the association between team acceptance and depressive symptoms

Variables Entered	R^2	B	SE	CI	β
Analysis 1	.12**				
Social cohesion		.26	.50	[-8.68, -1.91]	.06
Team acceptance		-5.30**	1.70	[-.74, 1.25]	-.37**
Analysis 2	.19***				
Social cohesion		.10	.08	[-.06, .27]	.14
Team acceptance		.84**	.28	[.28, 1.40]	.34**
Analysis 3	.20***				
Social cohesion		.45	.48	[-.51, 1.41]	.11
Team acceptance		-3.74*	1.71	[-7.15, -.33]	-.26*
Task cohesion		-1.84**	.62	[-3.08, -.62]	-.32**

** $p < .01$

*** $p < .001$

Figure 2. Task cohesion as a partial mediator in the relation between team acceptance and depressive symptoms.



Discussion

It has been stated that, “next to the family, the sport team may be the most influential group to which children belong.” (Carron and Brawley, 2009, p. 215). Yet, to date, relatively few studies have examined the nature of peer relations within a sports team. The majority of work examining peer relations has focused on the classroom/academic setting. Such work has demonstrated a clear association between peer acceptance and psychological development and adjustment (e.g. Keisner, 2002; Ladd, 2006; Lopez & DuBois, 2010). With the outcomes associated with positive peer relationships and given the above sentiment, it is somewhat surprising that more research has not been conducted examining the relations among peers in differing social contexts. This is particularly salient when one considers that social status can change depending on context (Martin, 2011) and that each peer group uniquely impacts psychological development (Kaisner et al., 2003).

Children and adolescents spend a great deal of time devoted to sport participation at both a recreational and competitive level. The work that has been done to better understand the nature of peer relationships in a sport setting reflects the accuracy of Carron and Brawley’s statement. Peer relations in a sport setting have been linked with enjoyment, effort (Cox & Ullrich-French, 2010), motivation (Smith, 1999) and self-esteem (Daniels & Leaper, 2006). Furthermore, studies have shown that children view relationships with teammates as important social relationships (Bigelow et al., 1989). Rejection in a sport setting is linked with negative psychological outcomes (Smith et al., 2006), consistent with findings from a classroom setting (e.g. Lopez & DuBois, 2010).

And, according to Weiss et al. (1996), a sport environment is an important context for developing and maintaining peer relationships.

It is also important to study peer relations within a team context based on the environmental factors that are inherent to the sport setting and that would, seemingly, serve to enhance peer acceptance. Of primary interest to the present study were team cohesion and sport orientation. Higher cohesion and positive sport orientations have been linked with positive psychological outcomes in sport (e.g. Blanchard et al., 2009; Duda & Newton, 1993; Julian et al., 1966; LeBars et al., 2009; Widmeyer & Williams, 1991). And, of greatest relevance to the present study, both cohesion and a positive sport orientation (e.g. task oriented) are positively associated with peer acceptance in sport (Allen, 2006; Smith et al., 2006). Evaluating the role that such factors play in peer relations in sport is essential to better understand the role of peers and the sport context.

As such, the goal of the present study was to add to the literature on peer relations in a sport context. Specifically, the study explored the relation between team acceptance and psychological outcome variables of self-esteem, depression, physical competence and enjoyment. Furthermore, sport-specific factors of cohesion and sport orientation were examined as influential factors in the association between team acceptance and the psychological outcome variables. It was hypothesized that team acceptance would be associated with higher self-esteem, physical competence and enjoyment as well as lower depressive symptoms scores. Cohesion and sport orientation were expected to moderate these relations. Specifically, task cohesion, social cohesion, and goal orientation were expected to enhance the relation. Conversely, win orientation and competitive orientation were expected to buffer the relation. Although results only partially

supported the hypotheses, there are noteworthy findings with regard to the nature of peer relationships and psychological outcomes in the context of sport.

Primarily, the results of the present study support findings from previous peer relations research that show a positive association between acceptance by the peer group and positive psychological outcomes. Specifically, team acceptance was positively associated with self-esteem and negatively associated with depressive symptoms. In addition, the association between team acceptance and self-esteem was moderated by win orientation. And, unexpectedly, the relation between team acceptance and depressive symptoms was partially mediated by task cohesion.

Team Acceptance, Win Orientation and Self-Esteem

The strongest association in the present study was between team acceptance and self-esteem, such that higher perceived acceptance corresponded to an increase in reported self-esteem scores. Peer acceptance has been linked with self-worth and self-esteem in girls (Klima & Repetti, 2003; Walker & Greene, 1986). In addition, previous research has found peer acceptance to mediate the association between sport participation and self-esteem (Chen, Chen, Lin, & Chen, 2012; Daniels & Leaper, 2006). Such studies have tended to evaluate peer acceptance from a more general perspective. The present study took it a step further to assess the predictive validity of context specific acceptance (i.e. perceived acceptance within sport team) on self-esteem scores. For the current sample, team acceptance predicted 15% of the variance in self-esteem scores. Such a finding is significant. Primarily, it demonstrates the importance of considering peer acceptance within this context and highlights the fact that perceived acceptance within a sports team can contribute to the psychological well-being of adolescent girls.

If team sport is a valued part of an individual's life then it can easily be seen how teammates would act as important social relationships to athletes. Feeling accepted by a group of people that are an integral part of one's life would no doubt enhance feelings of self-worth and positively impact self-esteem. This may be particularly noticeable in a competitive sport environment where athletes are more dedicated to their given sport and spend even more time with teammates.

Sport is also a rather unique context that may, by its very nature, encourage acceptance among team members. Again, the characteristics inherent to the sport environment may be even more salient in a competitive team environment. Perhaps similar to a classroom setting, one does not get to select her teammates. However, unlike a classroom setting, there is not the luxury of moving away from someone who is disliked or only interacting with certain people. On a team, everyone must, to some degree, get along and work together. To that point, on a team, everyone is working together to achieve a common goal; success. Each individual can have goals and objectives for their own development. Yet, at the end of the day, everyone is working to help the team, as a whole, achieve its goal. This is an interesting dynamic as it demands that everyone be included and implies that every athlete is an integral part of the team. This may partially explain why sport is an important context for examining social relationships and why higher perceived acceptance is associated with positive outcomes. However, there are aspects to the sport environment that would not encourage such camaraderie and acceptance. Demonstrating such a fact, the present study found win orientation to be a significant factor in explaining the association between team acceptance and self-esteem.

Although it is desired that all athletes place team goals at the forefront and possess a one-for-all attitude, an individual's sport orientation may, in fact, hinder the development of social relationships. Win orientation (i.e., a desire to win at all costs) was the only variable to moderate the association between team acceptance and psychological outcomes. Specifically, win orientation moderated the association between team acceptance and self-esteem. At low levels of win orientation, peer acceptance was positively associated with self-esteem. However, at high levels of win orientation, higher peer acceptance was not associated with increased self-esteem scores. Such a result is in line with the findings of Findlay and Bowker (2009) who reported a negative association between win orientation and general self-esteem. Franken and Brown (1996) reported similar findings as participants who reported a need to win had lower self-esteem scores. According to results of the present study, win orientation not only negatively impacts self-esteem, but, at higher levels, can reduce the positive effect that team acceptance has on self-esteem scores.

Indeed, placing emphasis on achievement over others has been consistently linked with negative outcomes (e.g. Duda & Newton, 1993; Mouratidis and Sideridis, 2009). It can easily be seen how a win-focused attitude would negatively impact the association between team acceptance and self-esteem scores. A team sport requires that individuals work together to succeed. Each athlete has her own role and she is expected to work hard to help the team achieve success. However, an athlete with a win orientation may not demonstrate the same commitment to the team as her own performance takes precedence. Additionally, such an individual may feel competitive with teammates and feel it

important to achieve at the expense of teammates. Such behaviour would likely not encourage affiliation and acceptance among teammates and undermine self-esteem.

Team Acceptance, Task Cohesion and Depressive Symptoms

Peer acceptance has been linked with the development of depression in children and adolescents (Kiesner, 2002; Panak & Garber, 1992). Furthermore, perceived acceptance in different peer contexts can independently contribute to depression in children (Kaisner et al., 2003). With regard to a sport setting, a study by Boone & Leadbeater (2006), found that positive sport experiences mediated the association between sport participation and depressive symptoms. Boone and Leadbeater (2006) postulated that enhanced social support stemmed from positive experiences in sport (e.g. social support) and that led to a decrease in reported depressive symptoms. The results of the present study are in-line with the previous work indicating that peer acceptance is negatively associated with depressive symptoms in youth. In the current study, an increase in perceived team acceptance was associated with a decrease in the reported level of depressive symptoms.

An unexpected finding was that task cohesion partially mediated the association between team acceptance and depressive symptoms. That is to say, the relation between team acceptance and depressive symptoms can be partially attributed to the indirect effect of task cohesion. As mentioned, an increase in task cohesion was related to a decrease in depressive symptoms. Studies by Terry, Keohne, and Lane (1996) and Terry, Carron, and Pink (2001) have reported a similar association. In examining task cohesion and mood in a group of athletes, higher levels of task cohesion were linked with lower levels of depression, anger and tension (Terry et al., 1996; Terry et al., 2001). Moreover, across

a group of rugby, netball, and rowers, perceived task integration was negatively associated with feelings of depression (Terry et al., 2001). According to Terry et al. (2001), the experience of depression is related to a perceived discrepancy in the relationship between the athlete and their team and team members. Athletes who feel that the team is committed to task goals and that everyone is working together to achieve these goals will likely not experience an increase in depressive symptoms. However, if an athlete perceives that there is a 'disconnect' between the individual and team goals or a perception that the team is not working together, an increase in depressive symptoms is possible.

The partial mediating effect of task cohesion suggests that it is not merely the perception of acceptance that is important to the experience of depressive symptoms. But, also, the perception that the team is a cohesive unit that works together and supports one another in achieving goals. This may be particularly relevant to a competitive team where the achievement of goals is paramount to both the team and the individual. An individual playing at a competitive level has spent more time and energy in the sport and would have a greater investment in the team and the outcomes. Thus, perceiving that the team does not possess the same investment creates a disparity and an increase in depressive symptoms. Future research should examine if a causal relation exists between team acceptance and task cohesion. For example, does higher team acceptance lead to higher task cohesion and, in turn, decrease depressive symptoms?

Team Acceptance, Physical Competence, and Enjoyment

In contrast to expectations, team acceptance was not significantly associated with enjoyment or physical competence. Based on the review of literature it was expected that

acceptance would be linked with greater perceived enjoyment and higher physical competence scores. Cox and Ullrich-French (2010) reported a positive association between social acceptance and enjoyment in a physical education setting. Peer acceptance has also been found to predict motivation (Smith, 1999) and continued soccer participation (Ullrich-French & Smith, 2009). Additionally, Smith et al. (2006) found that poor acceptance within a sport environment correlated with low enjoyment and low perceived competence. With regard to competence, Bigelow et al. (1989) and Weiss and Duncan (1992) have both reported skill to be a key indicator of social acceptance in the physical domain.

The lack of a significant relation in the present study may be due to the nature of the sample. All of the athletes were playing at an elite level and the majority had been playing for a number of years. At a higher level of competition, the social aspect may not be a significant source of enjoyment. It clearly is important, as indicated by the associations with self-esteem and depressive symptoms. However, when it comes to what creates joy for these athletes, aspects relating to competition and the physical aspect of sport appear to be what is most important. This is emphasized by the fact that physical competence and enjoyment were positively correlated. Furthermore, both were positively correlated with goal orientation and competitive orientation. For athletes in the study, the honing and testing of skill appears to be a key component to enjoyment.

The lack of significant association between team acceptance and enjoyment and physical competence also highlights an intriguing finding in the present study. It should be noted that findings from regression analysis indicated a significant relation between acceptance and physical competence. However, this association was no longer

significant when social and task cohesion were held constant. What is intriguing about the present study is the fact that team acceptance was most strongly associated with psychological outcomes that were more global in nature. Physical competence and enjoyment both directly related to the sport environment whereas self-esteem and depressive symptoms are measures of overall psychological well-being.

The fact that social acceptance within a team environment can have an impact on self-esteem and depressive symptoms highlights the importance of teammates and the significance of sport to psychological development. Future research is necessary to confirm the findings of the present study. Additionally, a comparison of how these relations might vary as a function of level of participation (i.e., recreational versus competitive) is necessary. Currently, little is known about how participation in recreational athletics differs from elite/competitive sports. The impact of peer relations and the psychological outcomes associated with participation may differ.

Implications

The results of the present study have important implications. Results demonstrate the significance of peer relations in sport for the psychological well-being of adolescents. Future work is necessary to confirm directionality of the relations. However, results support the contention that peer acceptance in a team environment is linked with positive psychological outcomes (i.e. higher self-esteem and lower depressive symptoms). Results also support the notion that factors inherent to the sport environment can impact those relations. Such findings have implications for researchers, coaches and sporting organizations.

Researchers have just begun to consider teammates as social agents in sport. It is evident that additional research is necessary to fully understand the nature of the relationships between teammates and how those relationships affect developmental outcomes for children and adolescents. Furthermore, how those relations differ and/or are similar to traditional peer relationships needs to be addressed. Perhaps exposure to multiple groups and acceptance/rejection across group settings has an additive effect on psychological outcomes or perhaps higher acceptance in one setting will buffer the negative impact of rejection in another setting.

Additionally, social relationships may provide at least a partial explanation for why sport is commonly associated with positive psychological outcomes. If so, the sport context presents a great opportunity for individuals who are less socially skilled or uncomfortable in traditional social settings. For example, an extremely shy child may have difficulty interacting with children in a classroom setting but may be more at ease in a hockey rink where interactions are centered on a puck. The focus on sport may create a friendlier environment where the child feels more at ease to converse with other children. It is clear that researchers must begin to consider the sport team as a significant social context and evaluate what exactly that means for the development of youth.

The results of the current study also have implications for coaches and sport organizations. The fact that win orientation and task cohesion influenced the association between acceptance and the respective psychological outcome variable highlights the importance of the nature of the sport environment to peer relationships. That is to say, coaches and organizations need to ensure that focus is placed on enhancing the appropriate motivations in sport. Cohesion, and task cohesion specifically, was found to

explain a portion of depressive symptoms scores and partially mediate the association between team acceptance and depressive symptoms. Thus, the development of task cohesion and a high level of task cohesion appears to be an important component of positive outcomes. Cohesion has consistently been linked with performance outcomes (e.g. Carron et al., 2002; Grieve et al., 2000; Salminen & Luhtanen, 1998) but coaches may be unaware of the degree to which task cohesion can influence players in ways beyond those relating to performance outcomes.

Coaches may also be unaware of the negative impact that a win orientation can have on psychological outcomes that span beyond the playing surface. Coaches and sport organizations should be encouraging players to adopt a more adaptive orientation to sport. This can be done by limiting the number of performance-based goals and focusing on the processes related to performance and not the outcomes. For example, a win should be celebrated but greater emphasis should be placed on things that the team did well to allow them to win. And, players should receive as much attention for assisting on a goal as they do for scoring a goal.

As a final note with regard to implications, the results of the present study are not necessarily limited to a sport context. Results would suggest that differing social contexts contribute to psychological adjustment. So while this study examined a sports team, research in other contexts may find similar results. Children involved in theatre would have a similar environment where there is a common objective and everyone works together to put on a successful show. Furthermore, Scouts or Girl Guides represent a group where there is little competition and camaraderie is encouraged through learning and practical application of wilderness skills. Even a musical band can be a

significant social context for youth. Additional research is needed to examine peer relations across social contexts. It is possible that the social relationships developed within extra-curricular activities are a key component to positive youth development.

Limitations and Future Directions

There are a number of limitations of the present study that must be addressed. Primarily, scores for a number of variables were significantly skewed. Team acceptance, enjoyment, task cohesion, goal orientation, and competitive orientation scores were all negatively skewed. In addition, depressive symptoms scores were positively skewed. This was not entirely unexpected given the positive psychological outcomes related to sport participation as well as the competitive nature of the athletes in the sample. Generally, one would anticipate competitive teams to have both a goal and competitive achievement motivation as well as report high task cohesion. Furthermore, participation in sport has been linked with a decrease in depressive symptoms (Boone & Leadbeater, 2006). Because analyses were conducted with skewed data, it must be noted that results may be biased and limits the ability to generalize findings. It is recommended that future research with elite athletes increase sample size to limit the effect that violations of normality have on results. It is worth noting that although skewed data is not desired from an analytical perspective, the distribution of scores for the present sample may highlight the value of sport participation to positive psychological and developmental outcomes.

Another limitation of the present study was the use of self-report measures. All measures were completed by the participant themselves thereby increasing the likelihood of responder bias. Future studies should incorporate observational methods to more

accurately capture the social relationships within a team environment. Additionally, obtaining ratings from multiple sources (e.g. coaches, parents) for such measures as peer acceptance and physical competence/skill rating, among others, would increase validity of the study. With regard to the peer acceptance measure, the acceptance subscale of the Harter Self-Perception Profile (1988) has been used in a number of studies. In the present study, the measure had moderate reliability. Ullrich-French and Smith (2009) reported a similar, yet more severe, problem with a reliability rating of $\alpha = .63$. Thus, any additional work should consider an alternative measure or incorporate an additional measure of acceptance to ensure that results obtained are valid and reliable.

Future work would benefit from a longitudinal design to evaluate the developmental and psychological change in team acceptance, cohesion, achievement motivation and psychological outcomes. The current study was cross-sectional and correlational in nature. A longitudinal design would allow for an evaluation of causation with regard to acceptance and self-esteem and depressive symptoms. Furthermore, a causal path with cohesion, team acceptance and psychological outcomes could be evaluated if scores were obtained at multiple points during the season. This may be particularly important for cohesion scores, as cohesion has been said to be a dynamic process (Carron, 1982). Understanding the role of cohesion in both peer acceptance and psychological outcomes may have important implications for how sport programs are designed and coaching methods are implemented.

A few limitations with regard to the sample should also be mentioned. Primarily, the present sample was restricted to female adolescents. Future work should examine gender differences with regard to peer relations in sport to determine if those

relationships differentially impact psychological outcomes for boys as compared to girls. An evaluation of differences in age groups would also add to the understanding of peers in the sport context. For example, are peers similarly associated with psychological outcomes in children as they are in adolescents? Because peers play a different role in childhood than they do in adolescence, the nature of relationships in sport may be quite different and the effect they have on development may vary according to the age of the athlete.

As well, the sample was drawn from suburban areas of a major Canadian city. Although not tested, it would be expected that participants of the present study would be of a higher socio-economic status and have similar demographics. This limited the ability to generalize the findings of the study. Researchers should examine sports teams from various geographical locations in order to better understand the role that societal factors play in the sport context and to increase the generalizability of findings.

Finally, four team sports were represented in the present study. More than half of the participants were from soccer teams followed by rugby, hockey, and basketball, respectively. As such, the number of participants within each team sport did not allow for a comparison of the four sports. Furthermore, all teams were from competitive sport associations, but the competitive level varied between teams. For example, soccer teams varied from level 3 to level 5 and the hockey team was from B-level. Thus, it must be acknowledged that differences may have existed between the types of team sport and the levels of competitiveness that were not detected due to the uneven distribution of the sample. Additional work should explore the potential for such differences.

Conclusion

Despite the limitations and need for future research, the present study adds to the literature and provides new research regarding the nature of peer relationships within a sport context. Additionally, the present study appears to be the first to consider how sport-specific factors affect the association between team acceptance and psychological outcomes.

Acceptance by teammates appears to be significantly associated with global measures of psychological well-being for adolescent, female athletes. Greater perceived team acceptance was associated with higher levels of self-esteem and lower levels of depressive symptoms. Furthermore, such associations were differentially affected by sport-specific factors. Task cohesion mediated the association between team acceptance and depressive symptoms. Win orientation was found to moderate the association between team acceptance and self-esteem.

Ultimately, the results of the present study demonstrate that the sport context is also a social context. Relationships developed within a sport setting are not only affected by factors related to that environment, but can affect psychological well-being that goes beyond sport.

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Appendix A

Background Information

1. Age: _____
2. How many years have you been playing soccer? _____
3. How old were you when you started? _____
4. Do you currently play on a recreational or competitive team?

5. From when you first started playing, how many years have you played on recreational teams and/or competitive teams?
Recreational _____ years
Competitive _____ years
6. Have you played with members of your team in previous years? YES
NO
If so, how many members of your current team have you played with before?

- On average, how many years have you played together? _____
7. In comparison to your teammates, what would you rate your skill level on the following scale:

1	2	3	4	5
Below Average		Average		Above Average
8. How many games will you play in the current season (not including tournaments or play off games)? _____
9. By the end of the current season, how many tournaments will your team have participated in?

10. Where is your team in current league standings? _____

11. What is your current win-loss record in regular league play (not including tournament games)?

Number of wins _____ Number of losses _____

12. How many games and practices do you have per week?

Games _____ Practices _____

13. Do you and members of your team get together outside of team events? YES

NO

If yes, what kinds of things do you do together?

14. How do you and members of your team contact each other outside of soccer? Please check all that apply.

Text _____ Facebook _____ Phone _____ Email _____

School _____ Other (please specify) _____

Appendix B

Harter's Self-Perception Profile**What I am Like**

In the following 5 questions, you will be presented with two statements that describe what some athletes are like. Please mark an 'X' next to the statement that you feel is the most true for you. Once you have selected a statement you will then be asked to rate how true that statement is for you (please mark with an 'X').

1. Select the response that is most true for you:

_____ Some athletes find it hard to make friends on the team BUT

_____ For other athletes it's pretty easy

Was the statement you selected really true for you or sort of true?

_____ Really true for me

_____ Sort of True for me

2. Select the response that is most true for you:

_____ Some athletes have a lot of friends on their team BUT

_____ Other athletes don't have very many friends on their team

Was the statement you selected really true for you or sort of true?

_____ Really true for me

_____ Sort of True for me

3. Select the response that is most true for you:

_____ Some athletes are kind of hard to like BUT

_____ Other athletes are really easy to like

Was the statement you selected really true for you or sort of true?

_____ Really true for me

_____ Sort of True for me

4. Select the response that is most true for you:

_____ Some athletes are popular with others on their team BUT

_____ Other athletes are not very popular with others on the team

Was the statement you selected really true for you or sort of true?

_____ Really true for me

_____ Sort of True for me

5. Select the response that is most true for you:

_____ Some athletes feel that they are socially accepted by their teammates

BUT

_____ Other athletes wished that more of their teammates accepted them

Was the statement you selected really true for you or sort of true?

_____ Really true for me

_____ Sort of True for me

Appendix C

Self-Description Questionnaire III – General Esteem

On the following pages are a series of statements that are more or less true (or more or less false) descriptions of you. Please use the following eight-point response scale to indicate how true (or false) each item is as a description of you. Respond to the items as you now feel even if you felt differently at some other time in your life.

1	2	3	4	5	6	7	8
Definitely False	False	Mostly False	More False than True	More True than False	Mostly True	True	Definitely True

- ___ 1. I have a lot of respect for myself
- ___ 2. I lack self-confidence
- ___ 3. I am pretty accepting of myself
- ___ 4. I don't have much respect for myself
- ___ 5. I have a lot of self-confidence
- ___ 6. I have a very good self-concept
- ___ 7. Nothing that I do is very important
- ___ 8. I have pretty positive feeling about myself
- ___ 9. I have a very poor self-concept
- ___ 10. I have pretty negative feelings about myself
- ___ 11. I do lot of things that are important
- ___ 12. I am not very accepting of myself

Appendix D

Self-Description Questionnaire III – Physical Ability

On the following pages are a series of statements that are more or less true (or more or less false) descriptions of you. Please use the following eight-point response scale to indicate how true (or false) each item is as a description of you. Respond to the items as you now feel even if you felt differently at some other time in your life.

1	2	3	4	5	6	7	8
Definitely False	False	Mostly False	More False than True	More True than False	Mostly True	True	Definitely True

- ___ 1. I am a good athlete
- ___ 2. I am awkward and poorly coordinated at many sports and physical activities
- ___ 3. I have good endurance and stamina in sports and physical activities
- ___ 4. I hate sports and physical activities
- ___ 5. I have a high energy level in sports and physical activities
- ___ 6. I am not very good at any activities that require physical ability and coordination
- ___ 7. I like to exercise vigorously at sports and/or physical activities
- ___ 8. I am poor at most sports and physical activities
- ___ 9. I enjoy sports and physical activities
- ___ 10. I am a sedentary type who avoids strenuous activities

Appendix E

Centre for Epidemiological Studies Depression Scale

How I Felt During the Past Week

Directions: Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way during the past week by circling the appropriate letter.

	Rarely or none of the time	Some of the time	Occasionally	Most or all of the time
	A	B	C	D
In the past week:				
1. I was bothered by things that usually don't bother me.			A	B C D
2. I did not feel like eating; my appetite was poor.			A	B C D
3. I felt that I could not shake off the blues even with help from my family or friends.			A	B C D
4. I felt that I was just as good as other people.			A	B C D
5. I had trouble keeping my mind on what I was doing.			A	B C D
6. I felt depressed.			A	B C D
7. I felt that everything I did was an effort.			A	B C D
8. I felt hopeful about the future.			A	B C D
9. I thought my life had been a failure.			A	B C D
10. I felt fearful.			A	B C D
11. My sleep was restless.			A	B C D
12. I was happy.			A	B C D
13. I talked less than usual.			A	B C D
14. I felt lonely.			A	B C D
15. People were unfriendly.			A	B C D

- | | | | | |
|--------------------------------------|----------|----------|----------|----------|
| 16. I enjoyed life. | A | B | C | D |
| 17. I had crying spells. | A | B | C | D |
| 18. I felt sad. | A | B | C | D |
| 19. I felt that people disliked me. | A | B | C | D |
| 20. I could not get "going". | A | B | C | D |
| 21. I felt like eating all the time. | A | B | C | D |

Appendix F

Physical Activity Enjoyment Scale

The following questions ask you how you feel when you play hockey. Please CIRCLE a number from 1 to 5 to indicate how much you agree with the statement.

	Disagree a lot			Agree a lot	
When I play hockey...					
1. I enjoy it	1	2	3	4	5
2. I feel bored	1	2	3	4	5
3. I dislike it	1	2	3	4	5
4. I find it pleasurable	1	2	3	4	5
5. It's no fun at all	1	2	3	4	5
6. It gives me energy	1	2	3	4	5
7. It makes me depressed	1	2	3	4	5
8. It's very pleasant	1	2	3	4	5
9. My body feels good	1	2	3	4	5
10. I get something out of it	1	2	3	4	5
11. It's very exciting	1	2	3	4	5
12. It frustrates me	1	2	3	4	5
13. It's not at all interesting	1	2	3	4	5
14. It gives me a strong feeling of success	1	2	3	4	5
15. It feels good	1	2	3	4	5
16. I feel as though I would rather be doing something else	1	2	3	4	5

Appendix G

Youth Sport Environment Questionnaire

The following questions ask about your feelings toward your team. Please CIRCLE a number from 1 to 9 to show how much you agree with each statement.

1. We all share the same commitment to our team's goals.

1 2 3 4 5 6 7 8 9

2. I invite my teammates to do things with me.

1 2 3 4 5 6 7 8 9

3. As a team, we are all on the same page.

1 2 3 4 5 6 7 8 9

4. Some of my best friends are on this team.

1 2 3 4 5 6 7 8 9

5. I like the way we work together as a team.

1 2 3 4 5 6 7 8 9

6. I do not get along with the members of my team.

1 2 3 4 5 6 7 8 9

7. We hang out with one another whenever possible.

1 2 3 4 5 6 7 8 9

8. As a team, we are united.

1 2 3 4 5 6 7 8 9

9. I contact my teammates often.

1 2 3 4 5 6 7 8 9

10. This team gives me enough opportunities to improve my own performance.

1 2 3 4 5 6 7 8 9

11. I spend time with my teammates.

1 2 3 4 5 6 7 8 9

12. Our team does not work well together.

1 2 3 4 5 6 7 8 9

13. I am going to keep in contact with my teammates after the season ends.

1 2 3 4 5 6 7 8 9

14. I am happy with my team's level of desire to win.

1 2 3 4 5 6 7 8 9

15. We stick together outside of practice.

1 2 3 4 5 6 7 8 9

16. My approach to playing is the same as my teammates.

1 2 3 4 5 6 7 8 9

17. We contact each other often.

1 2 3 4 5 6 7 8 9

18. We like the way we work together as a team.

1 2 3 4 5 6 7 8 9

Appendix H

Sport Orientation Questionnaire

The following statements describe reactions to sport situations. We want to know how you usually feel about sports and competition. Read each statement and circle the letter that indicates how much you agree with each statement on the scale: A, B, C, D, or E. There are no right or wrong answers; simply answer as you honestly feel. Do not spend too much time on any one statement. Remember, choose the letter which describes how you usually feel about sports and competition.

	Stronlgy Agree	Slightly Agree	Neither Agree Nor Disagree	Slightly Disagree	Strongly Disagree
	A	B	C	D	E
1. I am a determined competitor	A	B	C	D	E
2. Winning is important	A	B	C	D	E
3. I am a competitive person	A	B	C	D	E
4. I set goals for myself when I compete	A	B	C	D	E
5. I try my hardest to win	A	B	C	D	E
6. Scoring more points than my opponent is very important for me	A	B	C	D	E
7. I look forward to competing	A	B	C	D	E
8. I am most competitive when I try to achieve personal goals	A	B	C	D	E
9. I enjoy competing against others	A	B	C	D	E
10. I hate to lose	A	B	C	D	E
11. I thrive on competition	A	B	C	D	E
12. I try hardest when I have a specific goal	A	B	C	D	E
13. My goal is to be the best athlete possible	A	B	C	D	E

14. The only time I am satisfied is when I win	A	B	C	D	E
15. I want to be successful in sports	A	B	C	D	E
16. Performing to the best of my ability is very important to me	A	B	C	D	E
17. I work hard to be successful in sport	A	B	C	D	E
18. Losing upsets me	A	B	C	D	E
19. The best test of my ability is competing against others	A	B	C	D	E
20. Reaching personal performance goals is very important to me	A	B	C	D	E
21. I have the most fun when I win	A	B	C	D	E
22. I perform best when I competing against an opponent	A	B	C	D	E
23. The best way to determine my ability is to set a goal and try to reach it	A	B	C	D	E
24. I want to be the best every time I compete	A	B	C	D	E