

Development of a Cohesion Inventory for Children's Sport Teams

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The purpose of the present study was to develop an inventory designed to measure cohesion in children's (ages 9–12) sport teams. In order to carry out this task, a three-phase research program was undertaken. Phase 1 involved the use of focus groups with 35 ($n_{\text{males}} = 14$, $n_{\text{females}} = 21$) children, open-ended questionnaires with 132 ($n_{\text{males}} = 63$, $n_{\text{females}} = 69$) children, and a literature review in order to better understand children's perceptions of the concept of cohesion. Phase 2 involved using information gathered from Phase 1 in order to develop potential items and determine their content validity. In Phase 3, factorial validity was established using confirmatory factor analyses with an independent heterogeneous sample ($n = 298$) of child sport participants. The result is the final version of the Child Sport Cohesion Questionnaire (CSCQ) containing 16 items that assess both task and social cohesion.

Keywords: cohesiveness, group dynamics, child, measurement, questionnaire

Cohesion is defined 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” (Carron, Brawley, & Widmeyer, 1998, p. 213). A considerable amount of research has been dedicated to this phenomenon in many different areas of study including sociology, social psychology, business and industry, the military, education, and the psychology of sport and exercise (e.g., Dion, 2000). Not surprisingly, given the breadth of interest in cohesion, some social scientists have described it as the most important small

group variable (Golembiewski, 1962; Lott & Lott, 1965).

Carron, Widmeyer, and Brawley (1985) proposed that a group's level of cohesiveness could be assessed through individual members' perceptions. Consistent with this suggestion, they advanced five assumptions: (a) the group has observable properties, (b) individuals are socialized and integrated into the group and develop beliefs about the group, (c) individuals' beliefs are based on the information gathered about the group, (d) individuals' beliefs are reflections of the common values throughout the group, and (e) individuals' perceptions of the cohesiveness of their group can be assessed through paper and pencil questionnaires.

Based on these assumptions, a conceptual model of cohesion was developed (Carron et al., 1985). The foundation of this conceptual model is the proposition that cohesion results from an individual's perceptions of both his or her attractions to the group and the group's integration. Furthermore, it was proposed that these two factors possess either a task or social orientation. The result is a four dimensional model of cohesion comprised of: (a) Individual Attractions to the Group-Social (i.e., perceptions by the individual about his or her involvement in the group's social activities; ATG-S), (b) Individ-

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ual Attractions to the Group-Task (i.e., perceptions by the individual about his or her involvement in the group based on the task; ATG-T), (c) Group Integration-Social (i.e., perceptions by the individual about the group's unity toward social aspects; GI-S), and (d) Group Integration-Task (i.e., perceptions by the individual about the group's unity toward task aspects; GI-T).

Based on this conceptualization, Carron et al. (1985) developed the Group Environment Questionnaire (GEQ) in order to measure individual perceptions of a group's level of cohesion. The GEQ is the most widely accepted measure of cohesion for sport (Carron, Eys, & Martin, in press); however, it is restricted in its potential usage in that the items were developed for athletes between the ages of 18 and 30. Due to this restriction, researchers subsequently developed other cohesion inventories better suited to specific target populations. For example, Estabrooks and Carron (2000) developed the Physical Activity Group Environment Questionnaire (PAGEQ) to assess cohesiveness in older adult (greater than 60 years) physical activity groups. Additionally, Eys, Loughhead, Bray, and Carron (2009a) developed the Youth Sport Environment Questionnaire (YSEQ) in order to assess cohesion in adolescent (ages 13–18) sport teams. Extending the work of Estabrooks and Carron and Eys et al., the focus of the present study was to develop a questionnaire to assess cohesion in children's (ages 9–12) sport teams.

Sport provides children with an opportunity for both physiological and psychological benefits. From a physiological perspective, lack of involvement in sport and physical activity over a life span is associated with numerous health problems including cardiovascular disease, coronary heart disease, and some cancers (Bouchard, Shepard, Stephens, Sutton, & McPerson, 1990; Lox, Martin-Ginis, & Petruzzello, 2006; Warburton, Nicol, & Bredin, 2006). In addition, decreased activity levels have also been related to increased levels of depression and anxiety (Dunn, Trivedi, & O'Neal, 2001; Warburton, Gledhill, & Quinney, 2001a; Warburton, Gledhill, & Quinney, 2001b). Research also demonstrates that children involved in sport have higher levels of self-esteem and social status, along with lower levels of shyness (Chase & Dummer, 1992; Findlay & Coplan, 2008; McHale, Vinden, Bush, Richer, Shaw, &

Smith, 2005) compared to their nonsport counterparts. Therefore, the importance of sport for this age group is apparent. Unfortunately, research indicates that participation and adherence rates in physical activities (including sport) are decreasing while obesity and overweight levels in industrialized nations such as Canada are increasing (Statistics Canada, 2006).

Given the physical and psychological benefits associated with sport and physical activity, there is a need to develop protocols aimed at increasing sport participation rates. Xiaobei Chen's (2003) gardening metaphor (in which childhood is considered a *strategic time in life*—a period during which a person, like a tender plant, can be easily and permanently influenced more than at any other time) emphasizes the importance of targeting this age group. Children between the ages of 9 and 12 are in an impressionable period, and the fact that sport participation peaks between the ages of 10 and 13 (Ewing & Seefeldt, 1996) makes this population a perfect target for attempting to increase long term sport participation and adherence rates (Epstein, Coleman, & Myers, 1996).

A logical first step for increasing participation and adherence rates for this population is to understand the reasons for entering into and remaining involved in sport. Some of the major reasons children have cited as motives for their participation are “to play as part of a team”, “to make new friends”, and “for affiliation” (Ewing & Seefeldt, 1996; Weiss & Petchlickoff, 1989). These motives are consistent with the theorizing of Baumeister and Leary (1995), who suggested that the need to belong (the desire for interpersonal attachments) is a fundamental human motivation. Essentially, the group phenomenon of “cohesion” is a direct measure of perceptions of belonging and affiliation—it represents coherence, and sticking together. In adult populations, a considerable amount of research has tested the relationship between cohesion and participant adherence. Consistent findings suggest cohesion has a positive association with several adherence-related outcomes including punctuality and attendance (e.g., Carron, Widmeyer, & Brawley, 1988; Study 2), resistance to the effects of disruptive events (e.g., Brawley, Carron, & Widmeyer, 1988, Study 2), and work output (Prapavessis & Carron, 1997).

Beyond improving participation and adherence rates, cohesion also has the ability to enrich the sporting experience for individuals who choose to become and remain involved in sport. For instance, cohesion is positively related to important outcomes in youth and adult populations such as increased willingness to accept responsibility for negative results (Brawley, Carron, & Widmeyer, 1987), decreased use of self-handicapping strategies (Hausenblas & Carron, 1996), increased satisfaction (Paradis & Loughead, 2011; Widmeyer & Williams, 1991), reduced anxiety (Eys, Hardy, Carron, & Beauchamp, 2003; Prapavessis & Carron, 1996), and reduced depression (Terry et al., 2000).

In addition to these important outcomes for youth and adults involved in sport, cohesion has also been identified as a key factor in impacting health behaviors in children and youth in social contexts such as neighborhoods and families (e.g., Barber & Buehler, 1996; Bray, Adams, Getz, & Baer, 2001; Van der Linden, Drukker, Gunther, Feron, & van Os, 2003). More specifically, lower levels of family cohesion have been related to increased adolescent problems such as delinquency, anxiety, depression (Barber & Buehler, 1996), and alcohol abuse (Bray et al., 2001).

Therefore, the potential importance of the cohesion construct in the child sport setting is apparent; however, in order to determine whether cohesion could increase participation and adherence rates, while also enriching the overall sport experience, a psychometrically sound measurement tool is necessary. Current cohesion inventories cannot be used with children; neither the items nor the response scales are appropriate. For example, a child who is in Grade 4 (age 9) cannot be expected to read at the same level as an adolescent in Grade 12 (age 17). As another example, an item that queries attendance at team parties is likely irrelevant to most children in Grade 4. In fact, a major limitation identified in research is the attempt to generalize adult operational definitions to younger populations (Duda, 1987). In this regard, Stadulis, MacCracken, Eidson, and Severance (2002) commented that the "reliability and validity of administering the adult version to children would be suspect due to the child's inability to comprehend terminology and concepts" (p. 148). Finally, researchers engaged in developmental research (e.g., Brustad, 1998;

Whaley, 2007) also noted that measures should reflect the cognitive stage of a sample, be written in a language and format appropriate for that sample, and address concerns that are relevant to that sample.

As indicated above, the general purpose of the program of research summarized in the present report was to develop a cohesion inventory for use in children's (ages 9–12) sport teams. Based on the belief that the utility and long-term viability of any instrument emanates from the use of psychometrically sound principles to guide its development (Carron et al., 1985; Estabrooks & Carron, 2000; Eys et al., 2009a), three phases incorporating both qualitative and quantitative methodologies were undertaken. In Phase 1, children's perceptions about the nature, antecedents, and consequences of cohesive and noncohesive groups were examined using qualitative protocols. The results from that phase have been published but a brief reiteration is necessary here to clearly understand the protocol we undertook (Martin, Carron, Eys, & Loughead, 2011). In Phase 2, we used the information gathered in Phase 1 to generate items and assess their content validity. Finally, in Phase 3, a heterogeneous sample of child sport participants completed the questionnaire in order to test its factorial validity.

Method

Phase 1: Children's Perceptions of Cohesion

The overall objective of Phase 1 was to gain an understanding of the concept of cohesion as it pertains to children. As Carron et al. (1985) pointed out, an important process in the development of any questionnaire is the use of participants as active-agents in expressing the meaning of the construct because "the actual representation . . . (i.e., the semantics and the descriptors used) might be more clearly expressed by the actual subjects than by the investigators" (p. 249). To this end, two projects in Phase 1 involved the use of qualitative methodologies to explore children's understanding of the general nature of cohesion in sport teams to obtain a pool of descriptors (phrased in their terminology) that reflected group cohesion. As indicated above, the two projects—one using focus groups and the other using open-ended

questionnaires—are discussed in detail elsewhere (Martin et al., 2011) and, therefore, are not repeated in detail here. Suffice to say that a rich collection of terms/descriptors reflecting the antecedents, consequences, and nature of cohesion in children's sport teams was obtained.

Also, a literature search focusing on sport and exercise participation in children was used to complement the results gathered from the two qualitative studies. It was believed that the analysis of previously conducted studies examining children and youth sport (e.g., Eys et al., 2009a; Eys, Loughhead, Bray, & Carron, 2009b; Findlay & Coplan, 2008; McCarthy, Jones, & Clark-Carter, 2008; Ullrich-French & Smith, 2009; Weiss & Smith, 2002) would help in item generation.

Phase 2: Item Generation and Content Validity

The overall objective of Phase 2 was to develop items for the cohesion inventory using the information obtained from Phase 1. From the Martin et al. study, 172 potential items were generated and placed into categories (e.g., all items dealing with sense of belonging were categorized together, all items dealing with unity of task purpose were categorized together, etc.). Once the items were categorized into groupings containing similar or identical content, the researchers were able to continue the trimming process. As a result, the 172 potential items were reduced in number to 64. The items were then examined for readability, comprehensibility, and relevance to the cohesion construct. At the same time, also considered as a source of items were (a) the general results from previous research on children's sport and (b) the specific items used to measure cohesion in the Eys et al. (2009a) Youth Sport Environment Questionnaire (YSEQ).

Preliminary analyses revealed that a majority of the remaining 64 items generated from the qualitative studies and the literature search were similar (in some cases were identical) to the items used in the YSEQ. Thus, our research team used those items generated for the present project and items contained in the YSEQ as a basis to produce a 16-item questionnaire assessing task and social cohesion. The following provides a general overview:

(a) Seven task and seven social cohesion items were included with no distinction made between the "individual attractions to the group" and "group integration" dimensions from the Carron et al. (1985) conceptual model;

(b) Five of the 14 items were taken verbatim from the YSEQ;

(c) In addition, six of the 14 items were taken from the YSEQ but modified for reading and comprehension levels (using the Flesch Kincaid assessment of readability; Kincaid, Fishburne, Rogers, & Chissom, 1975);

(d) Three of the 14 items were taken from the data obtained in our initial qualitative studies (Martin et al., 2011); and

(e) Two negatively worded items were added to the 14 items to aid in the identification of response acquiescence (e.g., "Our team *does not* work well together" and "I *do not* get along with my teammates").

A 5-point Likert scale anchored at the extremes by *strongly disagree* = 1 and *strongly agree* = 5 was used in the response format. The scale was oriented so that higher scores reflect stronger perceptions of cohesion. Parenthetically, it should be noted that other cohesion inventories for sport and physical activity use 9-point response scales (Carron et al., 1985; Estabrooks & Carron, 2000; Eys et al., 2009a). During the review process, we were asked to provide a rationale for our decision to use a 5-point scale. Initially, it should be noted that considerable research has been undertaken to determine the optimal rating scale; a definite conclusion has not been reached (Preston & Colman, 2000). This fact notwithstanding, we chose a 5-point Likert scale for three reasons. First, researchers have suggested that most Likert type scales used in recent practice are either 5- or 7-point (e.g., Bearden, Netmeyer, & Mobley, 1993; Peter, 1979). Second, in some cases, 5-point Likert scales have actually demonstrated higher reliability scores (e.g., Jenkins & Taber, 1977; Mckelvie, 1978). Finally, and most importantly, it has been suggested that 5-point scales are more practical for a younger age group (Hall, Munroe-Chandler, Fishburne, & Hall, 2009; Pajares, Hartley, & Valiante, 2001).

Three reasons led to the use of the two-factor model advanced by Eys et al. (2009a) rather than the original Carron et al. (1985) four-factor model. The first is that the responses obtained

from the qualitative studies in Phase 1 indicated that children discussed cohesion with regard to task and social aspects, and made no distinction between the individual attractions to the group and group integration dimensions. The second pertains to the similarity of our results to those found by Eys et al. (2009b) in their qualitative studies on cohesion in a youth sport population. The third and final reason was based on the results found by Eys et al. (2009a). Although their qualitative studies suggested the presence of a two-factor model based solely on task and social cohesion, they nonetheless tested the four-factor model advanced by Carron et al. (1985). Due to the poor four-factor model fit, and the subsequent strong two-factor model fit, they concluded that adolescents (ages 13–17) perceive cohesion exclusively from a task and social orientation. Given the above, we felt that it would be unreasonable to support a conclusion that—from a developmental standpoint—children (ages 9–12) perceive cohesion from the perspective of a four-factor model, regress to a two-factor model in adolescence (ages 13–18), and readopt the four-factor model in adulthood. As a consequence, the items were written from the perspective of a two-factor model of cohesion (i.e., task vs. social with no consideration for perceptions of individual attraction to the group vs. group integration).

The content validity of the new questionnaire was assessed by the research team ($n = 4$), and then eight children ($n_{\text{males}} = 4$, $n_{\text{females}} = 4$, $\text{Age} = 11.1 \pm .89$) representing various team sports. Each child received a copy of the questionnaire and a request to indicate whether any question was too difficult to answer or understand. Considering that our target population was Grades 4 to 7 (i.e., children aged 9 to 12), we insured that no items yielded a higher readability score than Grade 4 and possessed an overall average of Grade 1.9. The children indicated that none of the items were problematic. The resulting Child Sport Cohesion Questionnaire (CSCQ) contained 16 items: seven assessed task cohesion, seven assessed social cohesion, and two were spurious items.

Phase 3: Construct Validity

The purpose of Phase 3 was to conduct a confirmatory factor analysis (CFA) on the 16-item version of the CSCQ to examine its facto-

rial validity. The results of our qualitative studies (Martin et al., 2011) as well as those of Eys et al. (2009a) with the YSEQ served as the rationale for using a CFA rather than an exploratory factor analysis (EFA). A maximum likelihood method of measurement was used through AMOS 18 (Arbuckle, 2009).

Participants. Two-hundred and 98 child sport participants completed the 16-item version of the questionnaire. Based on suggestions from Tabachnick and Fidell (2001) that “it is comforting to have at least 300 cases for factor analysis” (p. 588), the sample size was judged to be sufficient for our purpose. In fact, Tabachnick and Fidell conceded that a sample size as small as 150 is adequate.

The participants were 174 males and 124 females ranging in age from 9–12 years ($\text{Age} = 11.09 \pm 1.02$). Participants represented 22 sports (e.g., hockey, basketball, soccer, baseball, volleyball, synchronized swimming, gymnastics, etc.) and the number of participants playing a certain sport ranged in numbers from 1 to 50 (least amount in golf and greatest amount in hockey). No intact teams were tested.

Measure. The newly developed 16-item CSCQ was used to assess cohesion. As indicated above, two dimensions of cohesion are assessed—task (7 items) and social (7 items)—with the inclusion of two negatively worded spurious items. The participants provided responses on a 5-point Likert scale with 1 = *Strongly Disagree* and 5 = *Strongly Agree*. Higher scores reflected stronger perceptions of cohesion.

Procedure and analysis. Ethical approval was obtained from both the lead author’s institution and the local school board’s research ethics committees. Five elementary schools participated in the study. Parental and participant consent and assent forms were obtained prior to the administration of the questionnaires. Participants were asked to respond to the questions based on their current or most recent teams. They completed the CSCQ during their lunch period to insure that no class time was missed. Once the questionnaire was completed, the student returned it to the lead researcher. The questionnaire took approximately 10 to 15 minutes to complete.

Results

Table 1 provides the descriptive statistics and standardized factor loadings for all items. The chi-squared test was statistically significant, $\chi^2(76) = 148.81, p < .001$. However, obtaining a significant chi-square result is highly likely with large sample sizes. When assessing model fit, acceptable values for the comparative fit index (CFI) and Tucker-Lewis index (TLI) were above the recommended cut-off value of .90 (Bentler, 1990; Kenny, 2010). The root mean square error of approximation (RMSEA) should be below .10 and the standardized root-mean-square residual (SRMR) below .08 (Browne & Cudeck, 1993; Kenny, 2010). The factor analysis provided a strong model fit, CFI = .958, TLI = .950, RMSEA = .058, SRMR = .049. Finally, the interfactor correlation was moderate ($r = .61$) and the internal consistency values (Cronbach's alpha; Cronbach, 1951) were high for both the task ($\alpha = .86$) and social ($\alpha = .90$) dimensions. A copy of the CSCQ is attached as an Appendix.

Two questions that arose during the review process pertained to whether there were differences between sport type and/or gender in levels of cohesion. Thus, two post hoc analyses were carried out. A one-way MANOVA with gender as the independent variable and cohesion as the dependent variable showed males and females

did not differ significantly ($p > .05$) in either task or social cohesion. Similarly, a one-way MANOVA was computed with interactive and independent teams as independent variables and cohesion again as the dependent variable. There was no significant difference ($p > .05$) between interactive and independent sport athletes in perceptions of task cohesion. However, interactive sport athletes did report significantly ($p < .05$) higher levels of social cohesion ($M = 3.77 \pm .79$) than did independent sport athletes ($M = 3.15 \pm .87$).

Discussion

The purpose of the present project was to develop a psychometrically sound instrument to assess cohesion in children's (ages 9–12) sport teams. The overall process followed the developmental protocols used by Carron et al. (1985) and Eys et al. (2009a). That is, three phases were undertaken involving both qualitative and quantitative methodologies. The result, the Child Sport Cohesion Questionnaire (CSCQ), contains 16 items measured on a 5-point Likert scale. Seven items pertain to task cohesion, seven to social cohesion, and two are negatively worded spurious items. The program of research undertaken and the questionnaire that resulted warrant four general points of discussion. The first pertains to the psychometric properties of the CSCQ for its use with child sport teams. The second relates to the support for the two-factor model of cohesion advanced by Eys et al. (2009a). The third is associated with the practical implications of a cohesion measure for this age group (ages 9–12), and finally, the fourth, provides a brief discussion on the readability of the items and provides rationale for the addition of two negatively worded spurious items.

The results from the present study provided evidence that the CSCQ has good psychometric properties. Both the task and social subscales demonstrated greater internal consistency values (task $\alpha = .86$ and social $\alpha = .90$) than what is typically recommended (i.e., .70). Our values also were similar to those reported by Eys et al. (2009a) (task $\alpha = .89$ and social $\alpha = .94$) for their Youth Sport Environment Questionnaire that targets youth 13 to 18 years. Also, the moderate interfactor correlation of .61 indicates that although a relationship is present between

Table 1
Descriptive Statistics and Standardized Factor Loadings for Confirmatory Factor Analysis

| Factor | Item # | Loading | Mean | SD |
|--------|--------|---------|------|------|
| Task | 1 | .51 | 3.74 | .96 |
| | 3 | .52 | 3.56 | 1.07 |
| | 5 | .76 | 4.17 | .90 |
| | 8 | .73 | 3.96 | .89 |
| | 10 | .68 | 4.17 | .85 |
| | 15 | .74 | 4.17 | .87 |
| | 16 | .66 | 4.25 | .91 |
| Social | 2 | .63 | 3.70 | .97 |
| | 4 | .69 | 3.86 | 1.17 |
| | 7 | .73 | 3.59 | 1.07 |
| | 9 | .74 | 3.41 | 1.09 |
| | 11 | .79 | 4.04 | .98 |
| | 13 | .79 | 3.76 | 1.13 |
| | 14 | .76 | 3.53 | 1.06 |

Note. SD = standard deviation. Item scores were obtained on a 5-point scale where higher values reflected stronger perceptions of cohesion.

the factors, children were able to discern between the task and social items. More specifically, as Carron et al., (1985) noted for the Group Environment Questionnaire, since the relation did not exceed .80, the factors differed enough to state with confidence that they are analyzing different constructs. Finally, confirmatory factor analysis provided support for the construct validity of the CSCQ. Analyses showed a strong model fit with high factor loadings. Specifically, all four fit indices met the recommended cut-offs (CFI and TLI > .90; RMSEA < .10, and SRMR < .08), while 12 of the 14 cohesion items exceeded the factor loading cut offs of .63 (very good) and .70 (excellent) (Comrey & Lee, 1992). The remaining two items were greater than .45 (fair); however, note that they were closer to the .55 (good) mark (e.g., item 1 = .51 and item 3 = .52). Therefore, by all indications, the CSCQ is a psychometrically sound measure for use in future research with child populations.

The second point that warrants discussion relates to the fact that children seemingly begin to understand complex constructs at young ages (e.g., Hall et al., 2009; Passer, 1996; Scanlan, Babkes, & Scanlan, 2005). The present results contribute to a suggestion that by the age of nine, children understand the concept of cohesion as it relates to their sport teams (Martin et al., 2011). In addition to understanding the concept, our results suggest that children have the cognitive ability to distinguish between task and social aspects of cohesion. This finding parallels those of Eys et al. (2009a) in their research with an adolescent population (ages 13–18) and builds on two assumptions. The first is that cohesion differs across the developmental life span (i.e., children aged 9 to 18 conceptualize cohesion solely as task and social). The second is that the distinction between task and social concerns supports a number of previous group dynamics researchers who have suggested that these are the two primary orientations for the vast majority of groups (e.g., Carron et al., 1985; Fiedler, 1967; Hersey & Blanchard, 1969).

The third point relates to the *importance* of the fact that children do understand the complex construct of cohesion. It was pointed out in the introduction that childhood is an especially important age for sport participation and adherence. Over 50% of North American children

have their first organized sporting experience by the age of 8 or 9; however, by the ages of 12 to 13 drop-out rates increase consistently (Ewing & Seefeldt, 1996; Malina, Bouchard, & Bar-Or, 2004). Understanding that children perceive cohesion as being both task and social in nature has practical implications. Socially related variables such as friendship, affiliation, peer acceptance, and social support, and task related variables such as teamwork have all been associated with children's participation and adherence rates as well as their enjoyment in sport (e.g., Allen, 2003; Bruner & Spink, 2010; Findlay & Coplan, 2008; Scanlan & Lewthwaite, 1986; Ullrich-French & Smith, 2009; Weiss & Ferrer-Caja, 2002; Weiss & Smith, 2002). In short, coaches who work to build social cohesion contribute to the satisfaction of the child's needs to affiliate, to belong, to experience peer acceptance. Similarly, coaches who work to build task cohesion contribute to the child's desire to experience teamwork.

The final issues worth noting relate to item readability and response acquiescence. Item readability is determined by the grade level in which most children are able to successfully read and understand an item (Cumming, Smith, Smoll, Standage, & Grossbard, 2008). An item's readability score can be determined by applying the Flesch-Kincaid assessment of readability (Kincaid et al., 1975). The five items (e.g., items 2, 4, 5, 8, 15) retained from the YSEQ (Eys et al., 2009a) exhibited scores lower than Grade 4 (youngest grade for our population). The rest of the items were either modified or new, and the resulting readability levels for the CSCQ ranged between 0 and 3.9. These readability scores provide further support for the appropriateness of the CSCQ for children aged 9–12.

As Eys, Carron, Bray, and Brawley (2007) pointed out, mixed items (i.e., negative and positive wording) can identify response acquiescence; that is, agreement tendency (Block, 1965; Nunnally, 1978). Conversely, however, they can also cause confusion and misinterpretation of items (Spector, 1992), thereby decreasing internal reliability (Eys et al., 2007). Therefore, our reason for including two negatively worded spurious items was based on the suggestions made by Eys et al. (2009a) with the YSEQ. They believed that adding two negative items not included in the analysis, would make it possible to

(a) identify response acquiescence without (b) decreasing the internal reliability of the scales. Consistent with these beliefs, in the present study, the researchers were able to identify response acquiescence from three participants. This resulted in the removal of their questionnaires from the analysis.

The importance of participating in children's sport was demonstrated by McCarthy and colleagues (2008) when they stated, "clearly, team sports for children in the sampling and specializing years of sport participation offer a unique blend of enjoyment sources that would benefit all children" (p. 152). They went on to discuss the tendency for children involved in team sports to report significantly greater enjoyment, competitive excitement, and affiliation with peers. Through sport, children also develop important characteristics such as leadership, perseverance, self-control, and the ability to cooperate (e.g., Côté & Fraser-Thomas, 2007; Fraser-Thomas & Côté, 2006). It is our belief that this cohesion inventory will have both practical and theoretical implications. Practically, youth sport coaches can use results from the CSCQ to foster and promote cohesion in their sport teams in order to maximize the level of satisfaction and self-efficacy while minimizing the chance that their athletes experience competitive state anxiety. Theoretically, the information gained with regard to cohesion and sport will serve to compliment the research indicating the benefits children obtain from cohesive environments in other social settings such as the family (e.g., Barber & Bueller, 1996; Bray et al., 2001; Van der Linden et al., 2003). This insight into the dynamics of children's sport may lead to enriched sport experiences as well as a smooth transition from childhood to adolescence.

The present study provides support for the validity of the CSCQ. However, construct validity is an ongoing process and future research should continue to test the psychometric properties of the questionnaire in child sport populations.

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Appendix

Child Sport Cohesion Questionnaire

The following questions ask about your feelings toward **your team**. Please **CIRCLE** a number from 1 to 5 to show how much you agree with each statement.

| | | | | | |
|--|----------|-----------------|-------|----------------|---|
| 1. Our team members all share the same goals. ¹ | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 2. I invite my teammates to do things with me. ² | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 3. We all have the same beliefs. ¹ | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 4. Some of my best friends are on this team. ² | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 5. I like the way we work together as a team. ¹ | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 6. Our team does not work well together. ³ | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 7. We get together with each other a lot. ² | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 8. As a team, we are united. ¹ | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 9. I call or message my teammates a lot. ² | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 10. My team gives me the chance to improve my skills. ¹ | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 11. I like to spend time with my teammates. ² | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 12. I do not get along with my teammates. ³ | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |

(Appendix continues)

Appendix (continued)

| | | | | | |
|--|----------|-----------------|-------|----------------|---|
| 13. I will keep talking to my teammates when the season ends. ² | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 14. We stick together outside of our sport. ² | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 15. We like the way we work together as a team. ¹ | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |
| 16. In games, we all get along well. ¹ | 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree | |

¹ Task cohesion item. ² Social cohesion item. ³ Spurious negative item.

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Revised National Standards for High School Psychology Curricula

In August 2011, the American Psychological Association (APA) approved revisions to the *National Standards for High School Psychology Curricula*, a document that describes what high school students should learn in the high school psychology class. The *National Standards* was designed to guide curriculum development by providing domains, standard areas, content standards, and performance standards. The document is available online at <http://www.apa.org/education/k12/national-standards.aspx>. Hard copies are available upon request to education@apa.org.

Principles for Quality Undergraduate Education in Psychology

At its February 2011 meeting, the APA Council of Representatives adopted as APA policy the *Principles for Quality Undergraduate Education in Psychology*. These guidelines articulate a set of recommendations for quality teaching and learning in psychology. See the full guidelines at <http://www.apa.org/education/undergrad/principles.aspx>. Hard copies are available upon request to education@apa.org.