**Michael P. Cottingham II, Lindsey C. Blom,
Susan Hubble Burchell, and James T. Johnson**

# Understanding the Relationships Among Social Cohesion, the Coach-Athlete Relationship, and Socioeconomic Status of High School Softball and Baseball Players

**Abstract**        While the relationship between the coach-athlete relationship and social cohesion has been explored (Jowett & Chaundy, 2004), the subjects of this research have been college students, and minimal consideration has been given to the demographics, such as socioeconomic status, of these individuals. The goal of this research was to examine the effects of socioeconomic status on the coach-athlete relationship and social cohesion of baseball and softball players in central and south Mississippi. Data was collected from 141 participants from nine high schools that were selected based on socioeconomic status. The Group Environment Questionnaire (GEQ; Carron, Brawley & Widmeyer, 2002), Coach-Athlete Relationship Questionnaire (CART-Q; Jowett & Chaundy, 2004; Jowett & Cockerill, 2002; Jowett & Ntoumanis, 2004), and demographic questions were used to determine athletes' perception of social cohesion of the coach-athlete relationship and socioeconomic status, respectively. Results indicated that socioeconomic status acted as a buffer, weakening the relationship between social cohesion and the coach-athlete relationship. Results also showed a significant, positive relationship between socioeconomic status and social cohesion. Finally, results indicated no relationship between socioeconomic status and the coach-athlete relationship.

Much research has been done on social cohesion (i.e., interpersonal attachments and network structures) in athletics; the subjects of which have primarily been high school, college and elite-level athletes. The most commonly accepted definition of social cohesion is the "dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives" (Carron, 1982, p. 124). It has been known for sometime that direct positive relationships exist between perceived coaching behaviors and group cohesion (Westrek & Weiss, 1991), which also indirectly correlate positively with winning (Trail, 2004). While

some cohesion research has been focused on leadership styles (e.g., Spink, 1998; Westre and Weiss, 1991), only one article of note discussed cohesion and the coach-athlete relationship directly (Jowett (2004) explains this relationship through the perceptions of closeness, commitment and complimentary (i.e., the three Cs) which are defined as a "...coach's and athlete's feelings of mutual trust, respect, and interpersonal likings, cognitions to maintain the relationship over time, and behaviors of cooperative acts of interactions" (Jowett & Chaundy, 2004, p. 304). The three Cs of the coach-athlete relationship have been considered when studying leadership styles, cohesion, and outcome (Jowett, 2006; Jowett, 2008; Jowett & Chaundy, 2004; Jowett & Ntoumanis, 2004).

Jowett and Chaundy (2004) found social cohesion to be related to the coach-athlete relationship. This correlation is strong for social cohesion, but stronger for task cohesion (Jowett & Chaundy). Jowett and Chaundy suggest that this may be because coaches are focused on task-based goals (e.g., winning), while athletes, however, are more concerned with developing social ties (Spink, 1998). Development of team social cohesion may not be a focus of coaches; coaches may be more concerned by the outcome (i.e., winning and losing), rather than with the social interaction of their athletes. The lack of interest of coaches to develop social cohesion directly contradicts the desire by athletes to have stronger social cohesion facilitated by a coach (Shields & Gardner, 1997). The differing desires of the athlete and coach may cause a rift in their relationship.

While it has been shown that the coach can directly affect social cohesion (Murry, 2006; Spink, 1998; Sullivan & Feltz, 2001), less consideration has been given to athlete social and demographic factors that may influence social cohesion. One study suggests that socioeconomic status, race, and familial makeup do not impact social cohesion (VanYpren, 1993). This study, however, was focused on world-class Dutch youth soccer players and may not be applicable for Mississippi baseball and softball players.

One reason why socioeconomic status has not been regularly included in assessing cohesion is because it is challenging to accurately measure. One way that socioeconomic status is determined is by financial capital, human capital, and social capital (Entwisle & Astone, 1994). Financial capital is clear to conceptually understand and to concretely determine, but human and social capital are not as clearly defined. Some researchers look to familial makeup when determining levels of human capital (Ensminger, Forrest, Riley, Kang, Green, Starfield & Ryan, 2000; Lien, Friestad & Klepp, 2001), defining those from a lower socioeconomic status living within a non-nuclear family (e.g., single parent families, kinder families, stepfamilies). Finally, social capital should be mentioned, as this is another measurement of socioeconomic status by Ensminger et al. Social capital is defined as the environmental factors that form an aspect socioeconomic status (Ensimger

et al.). Environments can undoubtedly impact the quality of life of an individual. Feldman and Steptoe (2004) found that poor social capital manifested through environmental issues such as lack of exercise facilities, limited social integration, and lack of environmental control impact the health of individuals living in low socioeconomic status neighborhoods.

Possibly the most common means of determining socioeconomic status is simply looking at the level of individual or household income. With respect to youth, parental educational and employment levels have been determined to be one of the most effective means of determining income levels, followed by the reception of free and reduced lunches, but all were found to be effective in determining income (Ensminger et al.).

With respect to the three main concepts relevant to this study, case studies have shown primarily that positive mentoring from leaders to individuals from a lower socioeconomic status may provide increased success in the form of cohesion in sports (Forster & Seltzer, 1986) and nonsport environments (Herbert, 2002). This, however, has not been explored quantitatively.

If there is to be a better understanding of the factors affecting the social cohesion and coach-athlete relationship, then researchers should also consider the socioeconomic status. Traditionally accepted stereotypes of sports overcoming all barriers of class: coaches relating to students regardless of their backgrounds, and athletes relating to their teammates as teammates with no preconceptions, need to be considered. By considering these factors and studying the long-accepted stereotypes, coaches will be able to more effectively service their teams. If provided with greater knowledge about the relationship among coach-athlete relationship, social cohesion, and socioeconomic status, high school coaches, and athletic directors may be able to provide more effectively the most positive and pleasant learning environment for their athletes. Therefore the purpose of this study was to examine if relationships exist between social cohesion, the coach-athlete relationship, and socioeconomic status. The hypotheses were, first, that negative correlations would exist between the coach-athlete relationship and socioeconomic status, second, that a positive correlation would exist between and if socioeconomic status and social cohesion, and third, socio-economic status has an impact on the relationship between the coach-athlete relationship and team social cohesion.

## Methodology

### Participants

One hundred forty-one baseball and softball players from nine high schools in central and south Mississippi participated in this study. A stratified sampling method was used in order to have three from each socioeconomic level (i.e., high, medium, and low). Levels were determined by published percent-

ages of students receiving free and reduced lunches, and average income for the counties where the schools were located. Of those schools surveyed, four schools included baseball and softball players, four included only baseball players, and one included only softball players. Of all participants, 69.5 percent (n=98) were male and 30.5 percent (n=43) were female. Athletes' ages ranged from 13 to18 with a mean age of 16.38 years and a standard deviation of 1.08 years. Sixty-six point seven percent (n=94) of the athletes self-identified with Caucasian, 31.2% (n=44) self-identified with African American, and the remaining 2% (n=3) self-identified with other ethnicities.

## Procedures

Correspondence was opened with the schools through their athletic directors and principals. The coaches of the participants were provided with release forms to be signed by the participants and their parents or guardians. The researcher visited the school at a scheduled time to administer the survey to all participants who had completed the release forms and were present and willing to complete the survey.

The coaches were asked to stay at a distance from all students as to not influence the athletes while the surveys were being completed. Prior to the survey administration, participants were allowed to ask questions and were assured that the coaches would not see or receive their results, and no identifiers would be on their surveys. When completed, the surveys were placed in a folder in front of the researcher so neither the coaches nor school administrators had direct contact with the surveys.

## Instrumentation

*Overview.* Questions were used to determine four fields of information: demographic questions, socioeconomic questions, social cohesion and the coach-athlete relationship. Socioeconomic questions were based on findings on reliability of socioeconomic identifiers from Ensminger et al. (2000), social cohesion questions were taken from the Group Environmental Questionnaire (GEQ; Carron, Brawley & Widmeyer, 2002) and coach-athlete relationship questions were taken from the Coach-Athlete Relationship Questionnaire (CART-Q; Jowett & Cockerill, 2002).

*Demographic Questions.* Demographic questions were compiled to control for factors that might not be considered in the other instrumentation. These questions included age, race, sex, team role (i.e., starter, occasional starter, non-starter), years of experience with the sport, and years with their specific high school team.

*Socioeconomic Status.* Socioeconomic questions were included to consider the primary determinants of socioeconomic status. For social capital, participants

were asked about their familial make-up. Due to the difficult nature of determining human capital, it was decided that familial influence would have three questions that determined financial capital, namely fathers' and mothers' employment levels, and personal or sibling's participation in the federal free or reduced lunch program. Each of the aforementioned questions have been shown to be valid measures of socioeconomic status, and that high school age students are able to answer them accurately (Ensminger et al., 2000).

Answers to each of the three questions were given a numeric value. Total possible scores of socioeconomic status range from 0.0 to 3.0. Mothers' and fathers' employment levels were asked with choices provided and scored as follows: work full time (.5), part time (.25), does not work (.0); I live with my (mother, father), I do not know (n/a) and I do not live with my (mother, father) and I do not know (.0). Since the question of each parent was scored separately, each parent had an employment value between 0–.5, with a total employment value of 0–1.0 of total parental employment. Scoring for the question of reception of free and reduced lunch was as follows: I (and/or one of my siblings) receive free and reduced lunch (.0) and I (and/or one of my siblings) do not receive free and reduced lunch (1.0). With respect to familial status, scoring of answers was as follows: I live with both of my parents (1.0), I live with one of my parents and another adult or two other adults (.5), and I live with one of my parents (0.0).

*Social Cohesion.* The Group Environmental Questionnaire (GEQ; Carron, et al., 2002) is one of the most commonly used instruments in determining aspects of both social and task cohesion (Terry et al., 2000). All answers are provided on a 9-point Likert scale ranging from one (strongly disagree) to nine (strongly agree). The GEQ is an 18-item inventory that considers four components of group cohesion. Two of these components are focused on task cohesion and were not used in this study. The other two scales are used to determine social cohesion; these are individual attraction to the group socially (AGT-S) (e.g., I do not enjoy being a part of the social activities of this team) and group integration-social (GI-S) (e.g., members of our team do not stick together outside of practices and games). While there are two separate scales of social cohesion, Gardener, Shields, Bredemier and Bostron (1996) demonstrated they can be combined with reliability of .71. It should be noted that the alpha of this sample was below the recommended .70.

*The Coach-Athlete Relationship.* The coach-athlete relationship questionnaire (CART-Q; Jowett & Chaundy, 2004; Jowett & Cockerill, 2002; Jowett & Ntoumanis, 2004) is an eleven-question instrument designed to explore the relationship between athlete and coach. Data can be gathered either from the athlete's or coach's perspective. The items target three aspects of the coach-athlete relationship:

four items for closeness (e.g., I am close to my coach), three items for commitment (e.g., I am committed to my coach), and four items for complementarity (e.g., I like my coach). These sections can be analyzed separately or in total. All questions are answered on a 7-point Likert scale from strongly disagree to strongly agree. Jowett and Ntoumanis found initial reliability of the CART-Q tested the convergent validity and showed that the three components of the were instrument reliable. Reliability ranged between .68 and .90 and each subscale was found to be statistically significant. Further evidence of reliability was supported by the variance extracted estimate. This system developed by Fornell and Larcker (1981) determines the mean proportion variance with respect to measurement error. Values at or above .5 are considered satisfactory. Jowett and Ntoumanis found from the athletes' perspective results of .61 for commitment, .66 for closeness, and .67 for complementarity. In addition, Jowett (2008) found Cronbach's alpha of closeness .93, commitment .94, and complementarity .95, for a study conducted with 12- to 18-year-old athletes. For the data in this study, the reliability was shown by Cronbach's alpha to be .893 for closeness, .762 for commitment, and .837 for complementarity.

## Results

For all categorical data including means and standard deviations refer to Tables 1 and 2. The first hypothesis was that there would a negative correlation between socioeconomic status and coach-athlete relationship. A Pearson's r revealed a nonsignificant correlation between socioeconomic status and the averaged total score of the CART-Q, r (136) = –.031, p > .05. Additional correlations were performed with each subscale to see if there were correlations for the subscales that were not visible when the scales were combined; none of the relationships were significant, closeness, r (136) = –.058, p > .05; commitment, r(136) =.000, p > .05; and complementarity, r(136) = –.026, p > .05.

The second hypothesis, that there would be a positive relationship between socioeconomic status and social cohesion, was analyzed with a Pearson's r correlation between socioeconomic status and the total mean scores of the GEQ social subscales. A positively correlated was found, r (136) = .231, p < .05. In addition, the subscales were individually examined with AGT-S having a significant positive relationship, r (136) = .208, p < .05, while GIS was not significant, r (136) = .165, p > .05. This finding should be noted, but for the purpose of this study the scales were combined and therefore not analyzed separately.

The third hypothesis was that socioeconomic status would have an impact on the relationship between social cohesion and coach-athlete relationship, and was tested first by performing a correlation between coach-athlete relationship and social cohesion, r (136) = .319, p < .05. Next, a partial correlation was conducted with the aforementioned variables controlling for

**Table 1.   Scale Means and Standard Deviations**

| Variable | Number of participants | Range | Mean | Standard deviation |
|---|---|---|---|---|
| Socioeconomic status | 135 | .25-3 | 2.17 | .82 |
| Closeness | 141 | 1-7 | 5.4 | 1.2 |
| Commitment | 141 | 1-7 | 6.1 | 1.1 |
| Complementarity | 141 | 1-7 | 5.7 | 1.1 |
| AGT-S | 141 | 1-9 | 6.9 | 1.2 |
| GIS | 141 | 1-9 | 6.0 | 1.6 |
| Years of experience in the sport | 141 | 0-15 | 9.22 | 3.70 |
| Years of experience with this team | 140 | 1-13 | 3.19 | 1.7 |

**Table 2:   Team Position**

| Position on the team | Number of participants | Percent value |
|---|---|---|
| Always start | 73 | 51.8% |
| Sometimes start | 48 | 34.0% |
| Do not start | 20 | 14.2% |

socioeconomic status, $r$ (136) = .336, $p < .05$. A positive relationship was evident, meaning that socioeconomic status was shown here to affect the relationship between social cohesion and the coach-athlete relationship.

*Ancillary Results.* Two ancillary questions were considered to benefit future research. An ANOVA was used to compare the differences between athletes' playing status (i.e., starter, periodic starter or nonstarter) and their perspective of the coach-athlete relationship. No difference emerged. The second ancillary question was whether there were differences between familial makeup and coach-athlete relationship. An ANOVA was used to compare the difference between these variables; no difference emerged.

## Discussion

With this study, the researchers aimed to gain a better understanding of the effect that socioeconomic status has on athletes' perspectives of their relationship with their coach and teammates. Past research has shown that youth from low socioeconomic status are less likely to engage in parental consultation and feel less personal agency than their more affluent counterparts (Crosnoe & Huston, 2007). In other words, those youth who

come from more impoverished environments do not look to those in parental roles for formal guidance and instead feel their actions do not directly affect the outcome. In contrast, case studies provide examples of youth in athletics and academics who created strong bonds with adult mentors and coaches (Forster & Seltzer, 1986; Hèbert, 2002). For this reason, it was hypothesized that athletes with lower socioeconomic status would perceive stronger relationships with their coaches. However, the lack of a relationship found between coach-athlete relationship and socioeconomic status indicated the socioeconomic status of athletes' did not impact their perception of their relationship with their coach.

Another factor of interest when exploring social cohesion is socioeconomic status. Although Van Ypren (1993) suggested that race, status and familial make-up do not impact social cohesion, the elite level of the athletes in Van Ypren's study may have played a role in the findings. The relationship was found to be significant in this study, as the higher the level of socioeconomic status, the higher the perception of team cohesion. Another reason for this finding may be the social makeup of the individuals within this study. Letki (2008) and Stolle, Soroka, and Johnston (2008) stated that people feel the most trust in a less ethnically integrated environment. So rather than the socioeconomic status of the individuals affecting social cohesion, it may have been the ethnic socio-cultural heterogeneity of the teams. To address this issue, the researchers attempted to separate ethnicity from socioeconomic status, but it was deemed impossible because ethnicity and socioeconomic status were multicolinear. In addition, the predominantly high socioeconomic schools surveyed had almost no members of the team at or below a 1.5 value of socioeconomic status on this scale and consequently less members of minority. It would stand to reason that this may make for a more homogonous team with respect to ethnicity and perhaps also culture. In contrast, the low and middle socioeconomic schools targeted for this study had at least some members at or above the 1.5 value on the socioeconomic scale, typically someone not a minority. Logic would dictate that there is a greater chance of heterogeneity within these teams with respect to ethnic diversity. This may mean that socioeconomic status may not be the determining factor in lower levels of social cohesion, but instead intra-team socioeconomic diversity. Correlations were attempted intra-school, but due to the low sample size of each school there was no way to determine if this relationship was due to socioeconomic status or team heterogeneity.

It is documented in several different studies that there is a positive relationship between coach-athlete relationship and social cohesion (Grasmuck, 2005; Jowett & Chaundy, 2004; Murry, 2006; Spink, 1998; Sullivan & Feltz, 2001); however, research has yet to determine what factors, external and independent of the coach-athlete relationship, may affect this relationship. The current study supports the existence of a positive relationship between

author:
colinniar or
colinear?

coach-athlete relationship and social cohesion. In addition, when removing the factor of socioeconomic status, the relationship was stronger. In other words, socioeconomic status acted as a buffer, diluting the relationship between social cohesion and coach-athlete relationship. When socioeconomic status is removed the relationship between social cohesion and the coach-athlete relationship is strengthened. In this way, removing the factor of socioeconomic status, the relationship between coach-athlete and social cohesion can be seen more clearly and studied more effectively. However, the GEQ reliability is below the recommended level of .7. Since this survey has been used with success with this population in the past (Gardner et al., 1996; Murry, 2006; Shields, Gardener, Bredemier, and Bostron, 1995), these researchers recommend accepting these results, but with caution and an acknowledgement that further research needs to be conducted.

In social science, much research begins by way of serendipity. It must be stated that these ancillary results only open more questions and should not be accepted as statistical fact, but instead be the catalyst for future research. The first of these considerations stated that there is no relationship between team position (i.e., starting games, sometimes starting games, or not starting games) and the coach-athlete relationship. This means that athletes evaluate their relationship with their coach in more complex terms than simply playing time. This speaks to the realization that high school athletes may embrace this relationship with their coaches on more than a superficial level. It also means that coaches may understand the need to cultivate positive relationships with their athletes who are nonstarters and provide them with the same support (or lack there of) that they do their starters.

It should also be noted that the ratings of the coach-athlete relationship were high. This may contradict the findings of Bortoli et al. (1995) who stated that athletes are always looking to "trade up" to a better coach. The athletes stated in Bortoli et al.'s study that they wanted a better coach, typically a more experienced coach or one with more prestige.

Finally, in considering familial makeup (i.e., single parent homes, step-parent homes/grandparent homes, nuclear-parent homes), the results show familial makeup does not seem to have an impact on the coach-athlete relationship. In this initial ancillary analysis, children of single parent homes do not have differing relationships with their coaches than their counterparts with nuclear families. This would contradict the stereotype that athletes look to their coaches to fill matriarchal/patriarchal roles that are not filled at home.

## Limitations

The most obvious limitations are the fact that this study may not be generalizable to other populations. Central and south Mississippi high schools

may be very different in terms of demographics from other states or nations. Mississippi has limited urban areas and ethnic diversity is primarily limited to African American and Caucasian populations; 97.9% of participants either self identified as African American or Caucasian. This, in turn, may affect the coach-athlete relationships and team social cohesion. The sports of baseball and softball may also have different dynamics from other sports. For example, the social dynamic may be much different from traditionally individual sports that are in a high school team context, e.g., tennis or golf, or have a different dynamic than team sports which call for greater physical interaction, e.g., basketball or football. Finally, the low reliability of the GEQ subscales should be considered. Due to the acceptable levels of reliability results of this survey with like populations, these results should be accepted but with caution and an acknowledgement for the need of additional research. The measure of socioeconomic status must be considered because the scale has not been formally used even though the variables had independently shown to be effective determinants of socioeconomic status. The scores for socioeconomic status were higher than expected, and it is unknown if these scores are due to the nature of baseball and softball players in central and south Mississippi or if the scale may need to be revised.

### Future Directions

Much research on the effects of socioeconomic status on intra-team and coach-athlete relationships is merited for a number of reasons. Research has shown that there are differences in the experiences of those from various socioeconomic levels. It would be naive to assume these different perspectives and experiences would not manifest themselves once an individual enters an athletic environment. With respect to the coach-athlete relationship and socioeconomic status, there appears to be no significant relationship. Future research should be conducted encompassing a larger geographic area and participants from different sports, perhaps including a more urban population. If there still appears to be no difference in the coach-athlete relationship from the athletes' perspective, then subsequent studies should consider if coaches develop relationships in a similar manner with athletes from various socioeconomic statuses.

Future study on SES and social cohesion should be considered for a number of reasons. Research has shown the effects on socioeconomic status on personal development and academic success so it would stand to reason that socioeconomic status would have an effect on team dynamics. If this study is replicated, researchers may consider reverse coding some of the items in order to increase reliability. As stated previously, these results may also be influenced by the heterogeneity and heterogeneity of schools with respect to socioeconomic status. Another important question to consider would be if individuals from teams with diverse socioeconomic statuses have different

rates of social cohesion than individuals from schools with less diversity in socioeconomic statuses.

Finally, the ancillary topics discussed should be considered in future research. Familial makeup is easy information to determine from subjects and is nonintrusive. The effects of familial makeup on the coach-athlete relationship should be explored further. In addition, the question of team role and coach-athlete relationship should be explored. With this question, age and year of school should also be factored. It may be presumed that an athlete may perceive their relationship with their coach differently if they are a freshman nonstarter than as a senior nonstarter.

## References

Bortoli, L., Robazza, C., & Giabardo, S. (1995). Young athletes' perception of coaches' behavior. *Perceptual and Motor Skills, 81*, 1217–1218.

Carron, A.V. (1982). Cohesiveness in sport groups: Interpretations and considerations. *Journal of Sport Psychology, 4*, 123–138.

Carron, A.V., Brawley & Widmeyer (2002) Group Environmental Questionnaire Test Manual. Fitness Information Technologies Inc.

Crosnoe, R. & Huston, A. (2007). Socioeconomic status: Schooling and the development trajectories of adolescents. *Developmental Psychology, 43(5)*, 1097–1110.

Ensminger, M.E., Forrest, C.B., Riley, A.W., Kang, M., Green, B.F., Starfield, B., & Ryan, S. (2000). The validity of measures of socioeconomic status of adolescents. *Journal of Adolescent Research.* Retrieved November 22, 2007 from EJE E-Journals database.

Entwisle, D.R., & Astone, N.M. (1994). Some practical guidelines for measuring youth's race/ethnicity and socioeconomic status. *Child Development, 65,* 1521–1540.

Fornell, C., & Larcker, D. (1981) Evaluating structural equation models with unobservable variables and measurement error. *J Marketing Res* 18: 39–50

Forster, W. & Seltzer, A. (1986). A portrayal of individual excellence in the urban ghetto. *Journal of Counseling and Development, 64(9).* 579–582. Retrieved November 22, 2007.

Gardner, D., Shields, D., (1996, December). The Relationship Between Perceived Coaching Behaviors and Team Cohesion Among Baseball and Softball Players. *The Sport Psychologist, 10*(4), 367–381. Retrieved May 27, 2008, from SPORTDiscus with Full Text database.

Grasmuck, S. (2005). The dominance of hybrids; masculinities and coaching styles in boys' baseball. Conference Papers—American Sociological Association, Retrieved January 27, 2008 from SocINDEX with full text database.

author: initials for ~~Carron,~~ Brawley & Widmeyer?

Hérbert, T. (2002). Educating gifted children from socioeconomic back-
    grounds: Creating visions of hopeful future. *Exceptionality*, *10(2)*, 127–
    138. Retrieved November 22, 2007 from PsychINFO database.

Høigaard, R., Säfvenbom, R., & Tønnessen, F.E. (2006). The relationship be-
    tween group cohesion: Group norms and perceived social loafing in soc-
    cer teams. *Small Group Research, 37(3)*, 217–232. Retrieved March 20,
    2008 from academic search premier database.

Jowett, S., & Chaundy, V. (2004). An investigation into the impact of coach
    leadership and coach athlete relationship on group cohesion. *Group Dy-
    namics: Theory Research and Practice, 8(4)*, 302–311. Retrieved January
    27, 2008 from PsychINFO database.

Jowett, S., & Cockerill, I.M. (2002) Incompatibility in the coach-athlete re-
    lationship. In I. M. Cockerill (Ed.), *Solutions in sport psychology* (pp.
    16–31) London: Thomson Learning.

Jowett, S., & Ntoumanis, N. (2004). The Coach-Athlete Relationship Ques-
    tionnaire (CART-Q): Development and initial validation. *Scandinavian
    Journal of Medicine and Science in Sports*, 14, 245–257.

Jowett, S. (2006). Interpersonal and structural features of Greek coach – ath-
    lete dyads performing in individual sports. *Journal of Applied Sport Psy-
    chology, 18(1)*, 69–81. Retrieved March 7, 2008.

Jowett, S. (2008) Moderator and mediator effects of the association between
    the quality of the coach-athlete relationship and athletes' physical self-
    concept *International Journal of Coaching Science* 2(1) 1–20 Retrived
    May 27, 2008

Letki, N. (2008). Does diversity erode social cohesion? Social capital and race
    in British neighborhoods. *Political studies, 56(1)*, 99–126.

Malecki, C., & Demaray, M. (2006). Social support as a buffer in the relation-
    ships between socioeconomic status and academic performance. *School
    Psychology Quarterly, 21(4)* 375–395. Retrieved November 22, 2007 from
    PsychINFO.

Murray, N. (2006). The differential effect of team cohesion and leadership
    behavior in high school sports. *Individual Differences Research, 4(4)*,
    216–225. Retrieved March 20, 2008 from academic search premier da-
    tabase.

Patterson, M., Carron, A., & Loughead, T. (2005) The influence of team
    norms on the cohesion–self-reported performance relationship:A multi-
    level analysis. *Psychology of Sport and Exercise, 6(4).* Retrived February
    22 2008 from academic search premier database

Shields, D., & Gardner, D. (1997). The relationship between leadership be-
    haviors and group. *Journal of Psychology, 131(2)*, 196. Retrieved January
    27, 2008 from academic search premier database.

Shields, D., Gardner, D., Bredemier, B., & Bostrom, A. (1995). Leadership
    cohesion and team norms regarding cheating and aggression. *Sociology*

*of Sport Journal, 12(3)*, 324–336. Retrieved January 27, 2008 from SocIN-DEX with full text database.

Spink, K. (1998). Mediational effects of social cohesion on the leadership behavior-intention to return relationship in sport. *Group Dynamics: Theory, Research and Practice, 2(2)*, 92–100. Retrieved November 25, 2007 from PsychINFO database.

Spink, K., Nickle, D., Wilson, K. & Odnokon P. (2005) Using a multilevel approach to examine the relationship between task cohesion and team task satisfaction in elite ice hockey players. *Small Group Research 36*, 539–554.

Stolle, D., Soroka, S., & Johnston, R. (2008). When does diversity erode trust? Neighborhood diversity, interpersonal trust and the mediating effects of social interactions. *Political Studies, 56(1)*, 57–75. Retrieved Match 20, 2008.

Sullivan, P. & Feltz, D. (2001). The relationship between interterm conflict and cohesion within hockey teams. *Small Group Research, 32(3)*, 342. Retrieved March 9, 2008.

Terry, P., Carron, A., Pink, M., Lane, A., Jones, G., & Hall, M. (2000). Perceptions of group cohesion and mood in sport teams. *Group Dynamics Theory, Research and Practice, 4(3)*, 244–253.

Trail, G.T. (2004). Leadership, cohesion and outcomes in scholastic sports. *International Journal of Sports Management, 5(2)*, 111–132.

VanYpren, N.W. (1993). Team cohesion, parental support burnout and the performance level of talented young soccer players. *Psicologia de deporto: uma perspective intergrada; actas VII congresso mondial de psicologia do desporto, lisboa*, 22–27.

Westre, K., & Weiss, M. (1991). The relationship between perceived coaching behaviors and group cohesion in high school football teams. *The Sport Psychologist. 5(1)*. Retrieved January 27, 2008 from PsychINFO database.

## About the Authors

Michael Cottingham, a former adaptive athletic coordinator and coach, is a Doctoral Student at the University of Southern Mississippi. His research interests include, organizational behavior in the high school athletic setting, as well as consumer behavior and organizational/structural behavior in adaptive athletics.

Dr. Lindsey C. Blom is an Assistant Professor at Ball State University where she serves as the graduate coordinator of the Sport and Exercise Psychology Master's program. Her research lines are in the areas of psychology of youth

sport and physical activity and coaching education. She is a certified consultant for the Association of Applied Sport Psychology (AASP) through which she has worked with administrators, coaches, and athletes from the youth to collegiate level on issues relating to mental training.

Susan Hubble Burchell – Bio Missing

James T. Johnson – Bio Missing

author: need bios for these two authors!