

## The Role of a Caring-Based Intervention in a Physical Activity Setting

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This preliminary study examined the effect of a caring-based versus a traditionally-focused physical activity intervention on underserved adolescents' perceptions of the caring climate, the motivational climate, empathetic concern, enjoyment, and future anticipated participation. Multiethnic youth (N = 353) aged 9 to 17 involved in two National Youth Sports Program (NYSP) sites participated in the study. The Caring Group (n = 90) participated in a program infused with themes of caring while the Traditional Group (n = 263) followed prototypical NYSP training, practices, and procedures. Self report assessments were gathered after 5 weeks in either setting. After accounting for demographic differences findings revealed that the Caring Group perceived significantly higher levels of a caring climate, empathetic concern, future expected participation, and lower levels of perceptions of an ego-involving motivational climate. The relevance of these findings with respect to the optimal development of youth is discussed.

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**KEY WORDS:** Underserved; Physical activity; Youth development; Caring; Motivational climate.

A common criticism of physical activity programming for underserved youth has been the tendency of those programs to, ironically, under serve

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the very target population they are designed to assist by providing low quality experiences. In fact, observation may suggest many programs do little more than warehouse youth and function primarily as a reprieve for young people unable to navigate the high crime rates, poverty, drug use and general isolation endemic in many urban communities. Furthermore, programs tend to be problematic because they often focus on 'fixing troubled youth' rather than working with their strengths, assets, and competencies. However, as has been stated elsewhere, "these young people are not the problem; in fact, they do incredibly well, given the negative influences they have to navigate through and the minimal institutional support available to them....they need programs that work" (Hellison & Cutforth, 1997, p. 224).

Researchers and practitioners have recognized physical activity as a potentially powerful vehicle for optimizing the physical well-being as well as psychological development of youth. Kirkcaldy, Shepard and Siefen (2002) found a strong association between adolescent's participation in regular exercise and lower levels of anxiety and depression and enhanced self-image. Additional research indicates that adolescents who reported engaging in regular physical activity tended to have better interpersonal relationships with their parents, reported less frequent drug use and depression (Field, Diego, & Sanders, 2001), and experienced fewer feelings of sadness (Broshnan, Steffen, Lytle, Patterson & Boostrom, 2004). Unquestionably, often times the 'hook' that attracts youth to programs is a physical activity component. While activities such as arts, computer literacy, and academic enhancement may be enticing, it is play, games, and sport that are a magnet for many youth. When playing youth experience a myriad of emotions and emotional reactions and must learn to manage and express them in appropriate ways. In no other context is the ability to relate to others, manage oneself in a group, and get along with a diverse set of individuals as prevalent as in physical activity settings. Traditionally, the primary objectives of physical activity programming have been to optimize the motor and physiological development of youngsters. However, a more holistic perspective would focus on the potential of physical activity to impact multiple domains of development.

In the context of youth programming and physical activity the efforts of Hellison are of critical importance. For over 25 years Hellison (1978, 1995, 2000, 2003) has implemented a physical activity program that attempts to foster the holistic development of the participants. While a number of versions of the program exist, each is conceptually linked to Hellison's Responsibility Model (1995). Using physical activity as a vehicle for positive change, Hellison attempts to treat adolescents as individuals, empower their decision-making capabilities, and priority is given to the emotional safety of

each young person as well as the importance of providing caring adult supervision (Hellison, 2000). The humanistic model seeks to create a student-centered approach to facilitate development of student personal and social responsibility. The uniqueness of the model is situated in focusing the youth on setting daily goals for their participation in class. In addition, the model encourages youth to become more reflective in their decision making and provides them with a “voice” in which to express their opinions, interests, and feelings.

Hellison’s model consists of five levels or goals. The first level addresses youth learning how to respect the rights and feelings of others. Level 2 focuses on participation and effort, while Level 3 encourages youth to take more responsibility for their own well being and physical activity patterns. The development of empathy, compassion and interpersonal skills is the focus of Level 4. Lastly, level 5 seeks to transfer the skills learned in levels 1–4 to outside the physical activity setting. Thus, the underlying hope is that students will demonstrate appropriate behavior and activity choices through this type of instruction as well as show greater concern for the well being, safety, and quality of experience of their peers (Hellison, 1995, 2003). Hellison emphasizes an asset-based (Larson, 2000) rather than a ‘problem to be fixed’ approach with adolescents, attempting to accentuate and supplement the positive attributes and skills that each child brings to the setting. Hellison’s focus on the relational and affective domains is evident when he states, “Teachers need to genuinely and sensitively care about each student’s emotional, social, and physical health, and to develop a positive relationship with as many kids as possible” (Hellison, 2000, p. 37).

Noddings (1984, 1992, 1995) has written extensively on the importance of the caring in educational settings. Caring is often viewed as a virtue. That is, teachers who work hard, develop sound curricula, and keep their students in line are said to care. Certainly they may care quite deeply but it is not guaranteed that they care in the relational sense. Noddings conceptualizes caring as a relation between a care-giver and a care-receiver that involves recognition of subtle verbal and nonverbal cues and the ability to identify the motivation and intentions of those involved. Noddings identifies four dimensions of caring (Noddings, 1984, 1992, 1995). First, caring for someone requires attention or being open and receiving another in a bias free manner. Second, the notion of nonselectivity suggests that a care-giver is nonjudgmental and does not attempt to shape the care-receiver. Third, caring embodies motivational displacement. Motivational displacement refers to being seized by the needs of the care-receiver, having concern, and displaying empathy for the individual. Lastly, caring is characterized by giving priority to the needs of the receiver of care. The needs of the care-receiver are provided genuine attention. At its essence caring captures the

affective and relational elements of the connection between individuals and is characterized by fully and openly receiving another, being completely present and engaged in the moments of interaction, and alteration of the care-giver's motivation such that the needs of the other is given primacy.

Noddings suggests that integrating caring into educational settings serves as a foundation for optimal pedagogy and would allow individuals to thrive (Noddings, 1984, 1992, 1995). Teachers who create caring relations listen intently, model caring behaviors, offer experiences that elicit caring relations, and provide for open-ended dialogue with their students and between their students (Noddings, 1992). Learning in a caring context provides the psychological safety, security, and connection needed to fully develop unique capabilities and strengths.

Given the salience of physical activity in the lives of youth and the possible relevance of caring to optimize the development of young people the aim of this study was to examine the role of a caring-based physical activity program on youth. Specifically, the aims of this preliminary investigation were to determine if differences existed between youth in a caring-based physical activity program and youth in a traditional physical activity program on perceptions of a caring climate, perceptions of motivational climate and levels of empathetic concern, enjoyment and future anticipated participation.

## METHOD

### *Design*

To examine the impact of a caring intervention on youth involved in a summer physical activity program a comparison group design was used with one summer program infusing a caring curriculum and a second summer program maintaining a traditional curriculum. Given the preliminary nature of this investigation only one program was introduced to the caring intervention. To allow sufficient time for the climate to emerge, data were collected only at posttest. Recognizing this as a limitation we attempted to examine the similarities across the summer programs using several demographic variables (i.e., age, gender, race/ethnicity, and place of birth). Variables that demonstrated differences between the two groups were used as covariates in the statistical analyses.

### *Participants*

Youth ( $N = 353$ ), aged 9 to 17 years ( $M_{age} = 12.18$ ,  $SD = 1.55$ ), enrolled in the National Youth Sport Program (NYSP) participated in this

study. NYSP is a federally funded summer program that has offered physical activity opportunities for underserved youngsters for over 30 years. Program funding eligibility stipulates that 90% of camp participants be from underserved or low-income families. The free five-week summer program includes a minimum of 50 instructional hours in sport/physical activity and drug and alcohol awareness programming.

Youth from two NYSP programs were involved in the current study. Youngsters who participated in a NYSP in the western region of the U.S. represented the Caring Group while kids from a NYSP in the midsouthern region of the U.S. made up the Traditional Group. Both groups have offered programming for over 10 years and followed the guidelines stipulated by NYSP. The manner in which the guidelines were met was altered depending on group assignment. Staff training in the Traditional Group was not altered and prototypical NYSP training was implemented.

### *Caring Group*

Participants in the intervention group included 90 youngsters ( $n = 46$  girls &  $n = 43$  boys;  $n = 1$  unidentified;  $M_{age} = 12.49$ ,  $SD = 1.36$ ). The majority (i.e., 63%) of the campers were born in the U.S. and their race/ethnicity included Hispanic (46%), White/Caucasian (4%), Black/African American (3%), Chicano (2%), Asian (2%), Venezuelan (1%), Samoan (1%), Other/Mixed (1%), and 36% chose not to identify their race.

### *Traditional Group*

Participants in the second program included 263 youngsters ( $n = 171$  boys &  $n = 92$  girls;  $M_{age} = 12.08$ ,  $SD = 1.60$ ). These children were largely born in the U.S. (90%) and represented a more homogenous group (i.e., 91% Black/African American, 5% Other/Mixed, & 4% unidentified).

### ***Caring-Based Programming Protocol***

Creation of the caring-based physical activity program was grounded in the model used in the Child Development Project (CDP) (Dasho, Lewis, & Watson, 2001). The CDP is a comprehensive program with the aim of assisting schools in becoming 'caring communities' of learners (Battistich, Solomon, Watson, & Schaps, 1997). Creation of a caring school community has been linked to greater enjoyment of school, prosocial attitudes, concern for others, prosocial moral reasoning as well as lower antisocial behaviors, student drug use, and delinquency (Battistich & Hom, 1997; Battistich, Schaps, & Wilson, 2004; Watson, Battistich, & Solomon, 1997).

The program intervention sought to address four primary components: 1) Building Staff Community, 2) Literature-based Support, 3) Student-center Learning Strategies, and 4) Caring Discipline. The intervention consisted of a two-day staff training module and infusion of the four components throughout the camp's daily functioning. Each component of the caring-based NYSP is discussed.

### *Building Staff Community*

Thirty-two staff participated in the two-day training module. The training was held on-site (i.e., university campus) and was approximately 6 hours in length for each day. The first day of the training sought to facilitate a sense of staff community by conducting activities on a low Ropes Challenge Course. Course leaders were instructed to set the context of each activity relative to what the staff might encounter during daily routine of the NYSP camp. For example, frontloading/framing was used to focus participants' attention on the attributes of the activity (e.g., teamwork) that they were to experience. In addition, processing was utilized following completion of each activity. Processing is a three-step procedure used to highlight attributes of the activities, discuss the importance of those attributes, and lead participants to find ways to apply those attributes to their daily life. The nature of engaging in Ropes Challenge Courses creates a dissonance in which participants can be encouraged via processing techniques, to draw parallels between their feelings and possibly those of youth who would participate in the camp. For example, as a group of staff struggle to navigate the spider web (activity in which participants are passed through small openings of varying sizes), they can begin to consider (encouraged during processing) how they will assist youth within the program to work cooperatively with each other during activities.

### *Literature-based Support*

The second day of the training module sought to facilitate a link between what was to be expected of each staff during the summer and what was known to be good practice as evidenced in the literature. Evaluation results from prior summers were shared with the staff. Specific information regarding the nature of the evaluations is located in previously published papers (Watson, Newton, & Kim, 2003; Newton, Watson, Kim, & Beacham, 2006). Staff also underwent training on steps to caring (Noddings, 1992) in which strategies for positively engaging youth were presented and role modeled.

### *Student-centered Learning*

A core theme within the staff training was the creation of learning situations that would provide more autonomy, choice and hands-on experiences in the classes provided to the youth. A major aspect of this component incorporated divergent teaching styles. Student-centered (e.g., divergent) teaching allows students to make decisions within the learning context. This approach is unique in that it engages the learner in the discovery and production of options within the subject matter (Mosston & Ashworth, 1994). For example, youth were afforded the opportunity to set their own learning pace during lesson practice, select the type(s) of equipment that best match their ability level, and work in small collaborative groups.

Providing an overall curriculum that was non-traditional in nature was the second component of creating of a student-centered learning environment. While youth enrolled in the camp did have the opportunity to participate in basketball, soccer and tennis, they also experienced less traditional activities such as lacrosse, team handball, badminton and dance. The opportunity to engage in less common sporting activities was believed to “even the playing field” in that the youth would have little or no background engaging in these activities and as a result, the competitive nature inherent in more traditional activities would be minimized as each youth experienced the new activities at essentially a similar level (Buchanan, 2001).

Lastly, the caring-based camp curriculum incorporated a cooperative games class in which youth engaged in activities similar to the types of activities the staff experienced during the Ropes Challenge Course. Each week, different themes were the focus for the types of games or activities chosen. For example, week two focused youth on better understanding the concept of communication; e.g., different ways of communicating, what constitutes good communication skills and how to be a better listener. Thus, the combination of a non-traditional sport curriculum matched with divergent teaching styles and supported by the cooperative games class served to facilitate creation of teachable moments in which the youth as well as the staff, would be mindful of the manner in which they related to each other.

### *Caring Discipline*

Although a number of elements were rigorously attended to throughout the duration of the camp in an effort to lessen chances for off-task or misbehavior, (e.g., small participant to staff ratio, maximum time per lesson in activity, and weekly staff meetings for maintenance of program

components), it was still necessary to develop clear guidelines by which the staff operated relative to discipline. During the staff trainings, the NYSP camp was positioned to the staff as a youth development program. As such, the discipline program created sought to foster positive relationships between the youth in the camp and the staff and therefore, was situated as a proactive rather than a reactive strategy.

To accomplish this task, staff arrived well in advance of the youth each day to ready their activity areas. All staff then proceeded to the bus drop-off point and greeted the arriving buses every single day. This was to convey to the youth that they were wanted and that the staff was excited to see them each day. At the conclusion of every day, all staff accompanied a group of kids to the bus drop-off site and remained until the last bus left the university campus. Thus, the first and last thing each youth saw every day was an eager and excited staff member.

Having staff members emotionally “check-in” with the youth on a regular basis also created a caring discipline program. Because staff to participant ratios were small (i.e., 1:8) it was possible for staff to really get to know each participant. Thus, when a kid was having a bad day, instead of reacting to the behavior, staff would inquire about how the kid’s day was going and if there was something bothering them. This afforded both staff and the youth the time to process what was occurring rather than simply react. Staff were also mindful of the manner in which they engaged in conversation with youth; staff were trained to physically “get on the youths level” by taking a knee when talking to participants or engaging in the conversation with both parties seated.

To maintain the proactive nature of the discipline plan, staff maintained discipline logs in which they noted all situations or misbehaviors that occurred. Logs were evaluated for emergent themes, which assisted the director in identifying repeat patterns of behavior. If it was deemed necessary for a youth to meet with the director as a result of repeated or persistent misbehavior, the meeting took place in a clean, cool and private location. The assistant director or a staff member was also always present during the conversations. The conversation always began with the statement, “We are very glad you are coming to NYSP. We take a lot of pride in our program and want to do the very best we can for the kids who come here. But, it seems as though you are having some problems and I want to make certain that you understand what is expected of you while you are here and help you identify strategies or things you can do to do a better job. Does that make sense?” At that time the director would then inquire of the youth if they were aware of what the camp rules were and whether or not they understood what each one meant. Clarification was then provided if necessary. At that time, both parties identified strategies to overcome the difficulty and the

youth completed a behavior contract. Penalty for failure to uphold their end of the contract was determined by the youth at the time of the contract construction. Parents were only contacted if the contract was broken or it was the second time the youth was enlisted to create such an agreement.

Finally, an incentive program was designed to reinforce participant behavior that acted in accord with the ideals of a caring environment. "Do-Right" slips were given to camp participants that demonstrated behavior above and beyond what would have been deemed typical good behavior. Youth who received such slips were noted to have helped a fellow camper during an activity, they may have assisted an instructor in picking up equipment without being asked to, or the youth may have volunteered to work with a new camper for the day to help get them orientated to the program. Do-Right slips could then be redeemed at the end of the day for various things such as sport posters, university insignia water bottles, etc. At the end of each week all the names of every camper in addition to the names of youth who had received a Do-Right, were placed into a hat for the opportunity to win a new bike, scooter or various sport gear. Thus, throughout the program, every attempt was made to create teachable moments that focused on elements or behaviors that supported a caring environment. Reinforcement was maintained throughout the program as well and matched with a discipline plan that was proactive and focused on problem solving and ensuring the youth felt respected and welcomed in the program.

### ***Procedures***

Directors at both NYSP sites indicated a willingness to participate in the study. Since the questions tapped the campers' perceptions of the environment within their NYSP program it was important to allow sufficient time for the climate to be established. Data were collected during the fifth and final week of camp at both sites. All participants completed consent and assent forms prior to completion of the surveys. The questionnaire required approximately 25 minutes to complete. Two versions of the questionnaire packet were created by counterbalancing the measures in order to reduce response bias. Participants were gathered in groups and each item was read aloud. Research assistants circulated while the surveys were being completed in order to answer any questions. Due to the nature of the questions on the survey (i.e., asking specifically about the environment created by the NYSP leaders), no NYSP personnel remained in the room during the data collection.

## **Measures**

### *Demographic Information*

Demographic information was collected from the campers including age, gender, ethnicity, and place of birth.

### *Caring*

Until recently no measurement of caring in physical activity settings existed. The Caring Climate Scale (CCS; Newton et al., in press) is a 13-item questionnaire designed to assess the extent to which physical activity participants perceived the setting to be caring. Stemming from the philosophical contributions of Noddings (1984, 1992, 1995) a caring climate is operationally defined as the extent to which individuals consistently perceive a particular setting to be interpersonally inviting, safe, supportive, and provides the experience of being valued and respected. Example items include "In \_\_\_\_ (insert name of program) the leaders want to get to know all the kids", "In \_\_\_\_ (insert name of program) kids feel welcomed every day." Each item is responded to on a five point Likert-type scale (1 = strongly disagree, 3 = not sure, 5 = strongly agree). Preliminary research has supported the validity and reliability of the CCS (Newton et al., in press). The CCS has been shown to be internally consistent ( $\alpha = .92$ ) and to possess adequate construct, discriminant, and concurrent validity (Newton et al., in press).

### *Perceived Motivational Climate*

The Perceived Motivational Climate in Sport Questionnaire (PMCSQ; Seifriz, Duda, & Chi, 1992) was used in this investigation to assess whether the campers perceived a predominantly task- or ego-involving climate in their NYSP program. A task climate is characterized by an emphasis on effort, personal mastery, and cooperation while an ego climate features the promotion of rivalry among members and recognition is based on superior ability. The 21-item measure was slightly adapted for use in the NYSP program by changing the stem from "On this team" to "In my group" as well as by changing any references from "coach" to "leader". A sample item from the task-involving scale is "In my group the leader wants us to try new skills" while "In my group, only the athletic kids get noticed" is an example of an ego-involving item. Participants responded using a 5-point scale (1 = strongly disagree; 5 = strongly agree). Mean scale scores for each subscale were calculated. In this study the task-involving and ego-involving subscales were found to have adequate internal reliability ( $\alpha = .72$  and  $.75$ ,

respectively), which was in line with previous research that supports the validity and reliability of this measure (Seifriz et al., 1992; Walling, Duda, & Chi, 1993).

### *Empathetic Concern*

To assess the children's tendencies toward empathetic concern and ability to sympathize with others we utilized seven items from two independent questionnaires: Bryant's (1982) Index of Empathy for Children and Adolescence (four items) and Davis' (1983) empathetic concern subscale of the Interpersonal Reactivity Index (3 items). Bryant's (1982) Index of Empathy for Children and Adolescence asks children to rate on a 5-point scale (0 = no, not like me; 4 = yes, like me) the feelings they experience when a child is in a specific situation (e.g., "It makes me sad to see a girl who can't find anyone to play with"). Research has revealed that these four items do represent a single factor related to empathetic concern (Eisenberg, Fabes, Murphy, Karbon, Smith, & Maszk, 1996).

The second three items of the empathetic concern measure utilized in this study were drawn from a modified version of the empathetic concern subscale of the Interpersonal Reactivity Index (Davis, 1983). The items tapped a person's ability to experience feelings of concern for others (e.g., "I often feel sorry for other children who are sad or in trouble") on a 5-point scale (0 = no, not like me; 4 = yes, like me). The items from this scale were found to be reliable ( $\alpha = .67$ ) when used with children (Eisenberg, Fabes, Schaller, Carlo, & Miller, 1991). Additionally, when collapsed into one scale, the seven items demonstrated adequate internal consistency ( $\alpha = .73$ ) (Eisenberg et al., 1996). For this investigation, a mean scale score was calculated for the combined seven item assessment of empathetic concern. The empathy measure was found to be internally reliable with the sample used for this project ( $\alpha = .81$ ).

### *Enjoyment*

Duda and Nicholls' (1992) five-item measure of sport enjoyment was employed in this study to assess participants' perceptions of the fun they experience during NYSP. "I usually enjoy NYSP activities" is a sample item from this measure. A 5-point response scale was used (1 = strongly disagree; 5 = strongly agree) and a mean scale score was calculated for enjoyment. As with previous research, this study found the enjoyment scale to have adequate internal reliability ( $\alpha = .82$ ).

### *Future Anticipated Participation*

In order to measure the extent to which participants would choose to participate in their NYSP in the future, three items were developed by the investigators of the study (e.g., "I really want to attend NYSP next year"). Participants responded on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). A mean scale score was calculated based on participants' responses to the three items. This scale was found to be internally reliable ( $\alpha = .88$ ).

## RESULTS

### *Descriptive Statistics*

The caring climate seemed to be a salient part of the climate for most youth involved in the intervention program. Specifically, children perceived the general context in which they found themselves to be caring. In terms of the other variables, youngsters were characterized by moderate levels of empathy, felt the NYSP program was highly enjoyable, and were looking forward to being involved next year (see Table 1).

### *Demographic Differences*

To determine similarities between the Caring and Traditional groups, comparisons were made for the four demographic variables measured in this study (i.e., age, gender, race/ethnicity, and birthplace). To determine if differences existed for age an independent t-test was conducted. The findings revealed that children in the Traditional Group were significantly younger than children in the Caring Group,  $t(351) = 2.19, p = .03$ . Differences in

**TABLE 1.**  
**Descriptive statistics**

	Entire sample <i>M (SD)</i>	Caring intervention <i>Adjusted M</i>	Traditional group <i>Adjusted M</i>
Caring Climate	3.87 (0.75)	4.48	3.71
Ego-involving Climate	3.11 (0.67)	2.85	3.18
Task-involving Climate	3.98 (0.64)	4.17	3.97
Future Involvement	3.90 (1.17)	4.25	3.79
Enjoyment	4.13 (0.80)	4.36	4.10
Empathetic Concern	2.65 (1.00)	3.18	2.51

gender, race/ethnicity, and birthplace were examined using a Chi-square test. Significant differences in observed frequencies were noted for all three variables. There were more males,  $\chi^2(1, 352) = 7.79, p = .01$ , and a higher percentage of U.S. born children,  $\chi^2(1, 322) = 80.24, p = .001$ , in the Traditional Group. Additionally, the Traditional Group had a higher percentage of African American children while the Caring Group included a higher percentage of Hispanic American children,  $\chi^2(1, 310) = 284.41, p = .001$ . Given the significant differences in the two groups these variables were used as covariates in all subsequent analyses.

### ***Manipulation Check of the Caring Climate***

The first purpose of this study was to determine if differences existed between youth in a caring-based physical activity program and youth in a traditional physical activity program on perceptions of a caring climate. With this goal in mind, a One-way Analysis of Covariance (ANCOVA) was conducted with the group (i.e., Caring or Traditional) serving as the independent variable and the perceived caring climate operating as the dependent variable with the demographic variables (i.e., age, gender, race/ethnicity, and birthplace) included as covariates. Prior to running this analysis the statistical assumptions for the ANCOVA (i.e., normality, absence of outliers, linearity, homogeneity of variance, and homogeneity of regression slopes) were examined. All assumptions were satisfactorily met. Additionally, means were weighted to adjust for the unequal sample size, which is the standard (default) approach in most statistical software packages.

Examination of the One-way ANCOVA revealed two of the covariates, age,  $F(1, 264) = 5.44, p = .020$ , and birthplace,  $F(1, 264) = 6.84, p = .025$ , were significant. However, gender,  $F(1, 264) = 0.23, p = .636$ , and race/ethnicity,  $F(1, 264) = 0.00, p = .997$ , were not. After taking into account covariates the Caring Group was found to perceive higher levels of caring than the Traditional Group,  $F(1, 264) = 35.93, p = .000, \eta^2 = .12$  (see Table 1 for adjusted means).

### ***Differences between the Caring Group and Traditional Groups***

The second aim of this study was to examine whether differences existed between the two groups in regard to perceptions of the motivational climate, levels of enjoyment, anticipated future participation, and empathetic concern while controlling for demographic variables. A One-way Multivariate Analysis of Covariance (MANCOVA) was chosen to analyze the data with group entered as the independent variable, demographic variables included as covariates, and perceptions of the motivational climate, enjoyment,

empathetic concern, and future participation inserted as dependent variables. Statistical assumptions (i.e., normality, absence of outliers, linearity, absence of multicollinearity, homogeneity of variance-covariance matrices, and homogeneity of regression slopes) were also tested for this analysis and found to be adequately met with the exception of homogeneity of variance-covariance matrices. The Box's  $M$  test revealed a significant difference in variance-covariance matrices (Box's  $M = 27.64$ ,  $p = .03$ ). However, examination of the variances between the two groups revealed that the Caring Group, which had the smallest sample size, had a smaller variance for all variables except enjoyment (variances differed by .16 for enjoyment). Therefore, the alpha levels were anticipated to be conservative providing greater confidence in rejecting the null hypothesis (Tabachnick & Fidell, 2001).

Analysis of the One-way MANCOVA revealed a multivariate effect for the differences between the two groups, Wilks'  $\lambda = .91$ ,  $F(5, 250) = 4.78$ ,  $p = .001$ ,  $\eta^2 = .087$ . The univariate analyses showed that some of the covariates were significant (see Table 2). Specifically, gender, ethnicity/race, and birthplace were significant for the ego-involving climate while birthplace was significant for empathetic concern. After adjusting for covariates differences still emerged in some dependent variables (see Table 2). Children in the Traditional group perceived a greater ego-involving climate than children in the Caring Group. Additionally, children in the Caring Group indicated that they planned to be involved with NYSP next year at higher rates than those in the Traditional Group. Finally, youth in the Traditional Group indicated lower levels of empathetic concern compared to the Caring Group. However, no significant differences were noted in the perception of a task-involving climate or self-reported enjoyment (see Table 1).

## DISCUSSION

The aim with this preliminary investigation was to examine differences between a caring-based curriculum versus a traditional curriculum on participant's perceptions of a caring climate and the motivational climate, enjoyment, future expected participation, and empathetic concern in a physical activity setting. Results suggested that underserved youth participating in a caring-based physical activity program perceived their situation to be more caring as well as less ego-involving. Additionally, they tended to indicate greater empathy as well as higher expectations about future involvement than adolescents in the traditional group. As one of the first studies to examine caring in a physical activity setting, this study provides preliminary evidence that positive youth development in physical settings might be optimized if the concept of caring is fully integrated into the

**TABLE 2.**  
**Univariate analysis of covariance F ratios of dependent variables as a function of group, with demographic variables as covariates**

Variable	Ego-involving climate <sup>b</sup>	Task-involving climate <sup>b</sup>	Future involvement <sup>b</sup>	Enjoyment <sup>b</sup>	Empathetic concern <sup>b</sup>
Age <sup>a</sup>	2.30	3.19	1.31	0.99	0.99
Gender <sup>a</sup>	4.21*	0.72	1.69	2.60	0.77
Race/Ethnicity <sup>a</sup>	5.37*	0.43	1.11	1.54	0.62
Birthplace <sup>a</sup>	3.82*	2.13	0.00	0.95	4.72*
Group	8.01**	2.92	4.56*	2.86	14.38***

Note. <sup>a</sup>Covariates in Analysis; <sup>b</sup>Univariate *df* = 1, 254  
 \**p* < .05; \*\**p* < .01; \*\*\**p* < .001

philosophy of the program, the leader training as well as each component of a program.

**Impact of Caring**

Youth in the Caring Group reported lower perceptions of an ego-involving motivational climate than the Traditional Group. This finding may have been due to a number of reasons. Most importantly, outdoing or outperforming others was not endorsed or reinforced in the caring-based group. Buchanan (2001) noted that it is difficult for caring to occur in competitive sport settings and the use of alternative and cooperative games in the caring group probably influenced perceptions of an ego-involving climate. Second, the interpersonal interaction styles employed by camp staff and treating youth as assets are behaviors that are contrary to the creation of an ego-involving climate. If each individual is treated as a worthy competent asset to the program it is very difficult to perceive a rivalrous and ability-focused context. Given the less than optimal outcomes associated with perceiving an ego-involving motivational climate (Fry & Newton, 2003; Gano-Overway, Magyar, Waldron, & Ewing, 2005) these results strongly suggest that coaches and leaders should employ strategies that foster caring if they are interested in de-emphasizing the ego-involving nature of the motivational climate they create or that is created by the competitive nature of the game or the larger sport context.

Of particular interest in this study was the finding that youth in the caring-based group reported greater mean levels of empathetic concern than those in the traditional group. In other words, these youngsters indicated greater feelings and concern for other kids at the program. This finding is interesting for two reasons. First, limited research has examined the

associations between caring and empathy as well as prosocial development. A noted exception is the work of Wentzel (1997) who reported a small but positive relationship between teacher caring and prosocial behavior and a small negative association with irresponsible behavior. These findings are also in line with Battistich's work that has reported a positive relationship between sense of community and concern for others (Battistich et al., 1997). Second, the literature has demonstrated the important role that empathy plays in the development of prosocial tendencies (Bandura, Caprar, Barbaranelli, Gerbino, & Pastorelli, 2003; Eisenberg, Valiente, & Champion, 2004) and also suggests that empathy mitigates or lessens the likelihood of aggressive behavior in school-aged children (Kaukiainen, et al., 1999).

The two groups also differed in regards to future anticipated involvement in the program. Youth who participated in the program site that incorporated caring-based programming components indicated a greater likelihood of wanting to return to camp the next summer than those in the Traditional Group. Any programmatic development that increases a participants' sense of connection may cultivate a desire to return to camp (Furrer & Skinner, 2003; Ryan & Deci, 2000). There is increasing empirical support associating school belonging with positive social, emotional, behavioral and academic outcomes (Anderman & Anderman, 1999). In addition, programs that strive to create a greater sense of membership may facilitate a protective factor against school withdrawal, negative behaviors, and dropping out (Dornbusch, Erickson, Laird, & Wong, 2001).

The youth in the Caring and Traditional groups did not differ in their self-reported levels of enjoyment. Even though this relationship was expected, the lack of significant differences is not totally surprising. NYSP serves youth from low socioeconomic backgrounds. The program provides these youngsters with the exciting opportunity to spend five weeks on a college campus. Each day the children are provided snacks and lunch, the chance to swim and play a variety of sports, as well as to participate in a number of other enrichment activities that may be novel for them. In this way, it is not unforeseen that, overall, NYSP participants reported high enjoyment of the program, regardless of whether caring was integrated into the program.

### ***Conclusions and Future Directions***

Caring appears to be a salient construct for underserved youth involved in summer physical activity camps. We emphasize that this study is preliminary and the results should be used to stimulate discussion and further research. We utilized a comparison group design analyzing differences at the end of the camp. This is clearly a limitation and it is imperative that future

work utilize a stronger research design that is better able to account for initial differences. While our analysis accounted for the demographic differences it would be advantageous to control for differences prior to the initiation of the study. Physical activity programming for underserved youngsters often occurs in complex, and less than optimal circumstances. It remains challenging to conduct sound research on real programs with real kids but it remains a most worthy pursuit as such findings may have the most 'real' impact.

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