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# Predicting Social Responsibility and Belonging in Urban After-School Physical Activity Programs with Underserved Children

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## Abstract

Purpose: The purpose of this cross sectional study was to predict feelings of belonging and social responsibility based on the motivational climate perceptions and contingent self-worth of children participating in urban after-school physical activity programs. Method: Three-hundred and four elementary school students from a major Midwestern city participated. Results: Based on multiple regression analyses we predicted 39% of the variance in feelings of belonging largely due to perceptions of leadership emotional support and task climate and 31% of the variance in feelings of social responsibility largely due to perceptions of a caring climate. Conclusions: Our findings support the importance of after school physical activity programs, which appear to provide nurturing environments that may contribute to feelings of belonging and social responsibility.

Keywords: Health, motivational climate, self-esteem

Predicting Social Responsibility and Belonging in Urban After-School Physical Activity Clubs  
with Underserved Children

The high rates of overweight and obesity among children in the USA has, in part, fueled research efforts into how to promote physical activity (PA). Researchers have recently sought to understand the role and effectiveness that innovative and non-traditional activities (e.g., after school PA clubs) might play in promoting both PA and enhancing psychosocial development (Atkin, Gorely, Biddle, Cavill, & Foster, 2011; Beets, Beighle, Erwin, & Huberty, 2009).

The ways in which such voluntary programs are viewed by participants is critical for maximizing youth participation. For example, a long history of research into sport and PA participation motivation indicates that if children do not enjoy their PA or social experiences they will not participate or will drop-out (Martin, 2006; Ullrich-French & Smith, 2009). Although research in PA engagement in after-school programs is increasing, very little work examining the psychosocial dynamics involving the participants of such programs exists (Garn et al., 2014).

After-school PA programs, in contrast with more traditional settings (e.g., physical education) where participation is mandatory, represent relatively new initiatives that are not well understood. However, the limited evidence in this area suggests that effective programs only target PA (i.e., versus weight gain prevention or targeting nutrition and PA), are located in schools versus community settings, and are theory based (Atkin et al., 2011). Researchers have shown that sport and PA based positive youth development (PYD) programs can enhance children's self-esteem, quality of life, social responsibility and body image perceptions (Amorose, & Riley, 2013; Ullrich-French, McDonough, & Smith, 2012). It is particularly important to examine after-school PA programs because the decrease in traditional physical education means after-school programs are becoming increasingly important as vehicles for PA engagement. Additionally, children from inner

city urban environments tend to get less PA and are more overweight and obese compared to children from non-urban settings (Skinner & Skelton, 2014). We do not know if after-school PA based programs in urban settings offer psychological benefits. However, the limited research on after-school PA programs in urban settings suggests they have the potential to promote favorable psychosocial outcomes. For example, Garn et al. (2014) reported that high school students across 14 urban inner city after-school PA programs cited the PA club leaders as one of the most critical components in having a successful after-school club. Leaders who were caring, supportive, and promoted positive student interactions were viewed as exemplary leaders. In the current study we examined three types of motivational climates that are often highly contingent on PA program leaders' behaviors.

Two of the three motivational climates (i.e., ego and task) have their roots in a long history of achievement goal theory and research in both academics (Nicholls, 1984) and sport (Duda & Nicholls, 1992). PA club leaders, who create task-oriented motivational climates focusing on personal mastery, promote cooperation, and who facilitate the inclusion of every participant, regardless of skill level, are important. Conversely, leaders who create an ego-oriented motivational climate rewarding superior abilities create contests and rivalries among participants, and discipline participants for making mistakes, marginalize many of the participants involved in these types of programs (Newton et al., 2007a). When athletes perceive a task-oriented motivational climate, they are more likely to have positive attitudes and greater commitment to their sport (Fry & Gano-Overway, 2010). MacDonald and colleagues (2011) found that positive sport experiences such as social and cognitive skill development are predicted by athletes' perceptions of a task climate, positive peer relationships, self-referenced skill assessment, and high effort expenditure. Self-referenced skill assessment and effort are critical elements of a task

climate. In contrast, an ego climate predicted negative sport experiences (MacDonald, Côté, Eys, & Deakin, 2011).

In addition to a task and ego climate, a more contemporary line of research emphasizing social responsibility is caring climate work (Newton et al., 2007a) which is the third motivational climate we examined. A caring climate is evident when program participants perceive the atmosphere as inviting, supportive and safe. Teammate and leader relationships are viewed as warm, close, and supportive. Children who have positive relationships with their peers and after-school PA program leaders feel respected and cared about. As a function of feeling respected and cared about, it is plausible that such feelings may then lead to positive psychological outcomes such as enhanced social responsibility and belongingness (Fry & Gano-Overway, 2010; Newton et al., 2007b). The three motivational climates are not mutually exclusive and often task and caring climates are positively related whereas an ego climate is often negatively related to a caring and task climate.

In addition to the aforementioned three climates (i.e., task, ego, care), we also examined a relatively new construct that has received little attention in the youth PA literature: contingent competitive self-esteem. The concept of contingent self-esteem is a recent development augmenting traditional conceptions of self-esteem. The traditional view of self-esteem is that high self-esteem is beneficial whereas low self-esteem is deleterious. Crocker and Wolfe (2001) argue that the domain that individuals garner their self-esteem from (e.g., sport versus academics) and the degree to which their self-esteem is contingent or non-contingent is vital. Individuals with contingent self-esteem base their self-worth on outside contingencies that are often unstable such as approval from others or achievement (e.g., earning an A in school). Individuals with non-contingent self-esteem typically ground their self-worth in internal contingencies that represent

unique and core qualities of the self. Such non-contingent internal contingencies are thought to be much more stable and reliable sources of self-regard. Contingent self-esteem is considered to be domain specific. In the current study, we specifically examined “competition” contingent self-esteem given its relevance to sport and PA contexts relative to other far less relevant domains (e.g., academic, religion: Crocker, Luhtanen, Cooper, & Bouvrette, 2003).

A major reason for assessing task, ego and caring climates along with contingent self-esteem was to predict our two outcome variables: social responsibility and belongingness.

Belonging is an individual’s feelings of “engagement in, commitment to, and connectedness” to leaders and peers within their PA program (McDonough et al., 2012, p. 9). The creation of a sense of a belonging is a critical goal of sport and PA based programs because feelings of belonging contribute to continued participation (Anderson-Butcher & Conroy, 2002).

Social responsibility is our second outcome construct and is defined as “acting respectfully, responsibly, fairly, and cooperatively with others” in their PA or sport program (McDonough et al., 2012, p. 10).

The influence of contingent self-esteem on positive psychosocial outcomes should vary depending on student’s perceptions of the climate. For instance, a student with very strong contingent self-esteem may be particularly vulnerable to an ego climate resulting in a weak sense of belonging. In contrast, the same student may feel quite positive when exposed to a task and caring climate resulting in strong positive feelings of belonging and social responsibility. Furthermore, strong and salient caring and task climates combined with weak ego climates and non-contingent competitive self-esteem should be positively related to belonging and social responsibility.. In contrast, weak task and caring climates, strong ego climates and contingent competitive self-esteem should be linked to reduced belonging and social responsibility.

The development of social responsibility in PA settings can often transfer to other settings outside of sport such as showing respect to others in an academic setting (McDonough et al., 2012). Children with non-contingent competitive self-esteem, who perceive their after-school PA program as possessing a caring and task climate, and a minimal ego climate, should also express a strong sense of belonging and social responsibility. Caring climates should promote a sense of belonging because youth who perceive they are genuinely cared for and supported by program peers and leaders should develop feelings of commitment and connectedness to the program. A task climate may also lead to social responsibility because team work, cooperation and effort are emphasized. According to Coakley (2011) virtually all research aimed at substantiating the value of youth sport and PA participation is grounded in an individualistic perspective with a goal of determining if participation builds psychological based qualities (e.g., self-efficacy, life skills). Coakley (2011) argues that researchers have been remiss by not examining if sport and PA participation produces broader social benefits. Hence, our assessment of social responsibility addresses this perceived shortcoming in an urban setting with underserved children.

There is limited psychological based research on after-school PA programs, especially in urban settings. For example, a 2010 narrative review produced only ten papers on after-school PA clubs and some studies included competitive sports (e.g., football), took place in non-school community settings, or diverged in other significant ways (e.g., obese children only) from the current study (Atkin, Gorely, Biddle, Cavill, & Foster, 2011). A 2009 meta-analysis also reported on a paucity (i.e., 11 studies) of research in this area (Beets, Beighle, Erwin & Huberty, 2009). Although researchers have established the value of motivational climates, research on caring climates is less prevalent and research on contingent competitive self-esteem in PA settings appears non-existent. We also know of no research examining if motivational climates (i.e., task

and ego), and caring climates and contingent competitive self-esteem predict belongingness and social responsibility. Finally, we also sought to provide greater insight into how important socially based influences, such as motivational climates, might interact with important personal characteristics, such as contingent competitive self-esteem, to influence belongingness and social responsibility. Therefore, we also examined all potential two-way interactions. Although our analyses of the interactions are exploratory in nature there are theoretical propositions for positing them. We offer three potential examples next: First, the deleterious effects of an ego climate on belongingness and social responsibility should be offset by both strong task and caring climates. Additionally, children with high contingent competitive self-esteem are very dependent on external contingencies such as adult and peer feedback to feel good about their involvement in after-school PA programs. Therefore, we anticipated that under conditions of high ego or low task and caring climates, children with contingent competitive self-esteem may express weak feelings of social responsibility and belongingness. Finally, the positive influence of task and caring climates may augment non-contingent competitive self-esteem to produce strong feelings of belongingness and social responsibility (Crocker et al., 2003; Fry & Gano-Overway, 2010; Newton et al., 2007).

To summarize, the purpose of the current study was to determine if task, ego, and caring climates, and contingent competitive self-esteem predicted feelings of belonging and social responsibility of children involved in an urban based after school PA program. It was hypothesized that children who perceived the program as having a strong caring and task climate, and weak ego climate along with lower contingent competitive self-esteem would report strong self-perceptions of belonging and social responsibility. In addition to the above main effects we also conducted a series of exploratory analyses examining all possible two-way interactions between the three

climates and competitive contingent self-esteem. This was done to determine if the interactions would predict additional variance in belongingness and social responsibility beyond the main effects.

## **Method**

### **Participants**

A sample of 304 elementary school children (male = 149, female = 139, missing = 16) between the ages of 8 to 12 years old ( $M = 9.30$ ,  $SD = 1.11$ ) from an urban city in the Midwest participated. Participants had multiple ethnic backgrounds (44.2% Black, 36.1% White, 9.2% Multi-racial, 6.3% did not report, 2.3% Hispanic, 1.4% Asian American, 0.3% Arab American). We considered our participants “underserved” because they were from an urban area and county facing a significant economic depression and the poverty level (24.5% to 38.4%) is one of the highest in the country (U.S. Census Bureau, 20118).

### **After school PA Clubs**

Data was collected at 14 schools that held after school PA programs titled *Healthy Kids Club* (HKC) over a two year period. Data was collected by a team of trained data collectors about a month into the semester to allow children to become familiar with the HKCs. Data collection took an average of 20 minutes. The HKC was a free after school program that included 40 minutes of physical activity lead by a trained HKC leader. Each leader participated in an hour workshop and was provided educational material to assist them with conducting the after school program. Children met an average of 22.25 sessions over a 7 month period. An average of 22 children attended each session depending on the school and day.

## Measures

All measures were previously constructed with developmental considerations in mind. Additionally all the instruments employed in the current study have been used before with similar aged participants producing adequate reliability scores (Anderson-Butcher & Conroy, 2002; Anderson-Butcher, Wade-Mdivanian, Riley, & Davis, 2010; Cohen & Cohen, 1975; Cox & Williams, 2008; Newton et al., 2007a). Evidence for validity in previous research (e.g., construct, convergent, divergent) has also been established.

**Demographic scale.** The demographic information provided by students included their gender, age, and race/ethnicity.

**Motivational climate.** The motivational climate was assessed with the Perceived Motivational Climate in Sport Questionnaire (PMCSQ) (Seifriz, Duda, & Chi, 1992). Two subscales measure a task climate (9 items) and an ego climate (12 items) each. Participants answer on a 5 point scale with 1 representing “strongly disagree” and 5 representing “strongly agree.” A sample task climate item is: “Each student has an important role.” A sample ego climate item is “The group leader favors some students” Scores are summed and divided by 9 or 12 to obtain mean scores for both a task climate and ego climate. Evidence of satisfactory internal consistency ( $\alpha = .80-.84$ ) and validity has been established (Seifriz et al., 1992). A confirmatory factor analysis has also established construct validity (Walling, Duda, & Chi, 1993).

**Caring climate.** The Caring Climate Scale (CCS) (Newton et al., 2007a) was used to measure participant’s perceptions of how caring they viewed the PA club climate. Newton and colleagues (2007a) have established initial validity with adolescents. The CCS has 13 items using a 5 point Likert scale. One is represented by “strongly disagree” and 5 by “strongly agree.” A sample item is “The leaders of my PA club care about kids.” Scores are summed and divided by

13 to obtain a mean CCS score. Adequate internal consistency ( $\alpha = .92$ ) and construct, discriminant and convergent validity have been established via confirmatory factor analysis (Newton et al., 2007b). Subsequent research has also supported the validity and reliability of the scale (Newton et al., 2007a; Fry & Gano-Overway, 2010; Fry et al., 2012).

**Contingent Competition Self-Esteem.** We used the competition contingent self-esteem scale developed by Crocker and colleagues (2003) to measure self-esteem that is dependent upon performing better than others. The scale consists of 5 questions answered on a 7 point Likert scale with 1 representing “strongly disagree” and 5 representing “strongly agree.” An example question is; “I feel worthwhile when I perform better than others on a task or skill.” Scores are summed and divided by 5 to obtain a mean score. Crocker et al. (2003) provided evidence of satisfactory validity through 2,000 participants in two studies that established internal reliability, test-retest reliability, predictive, convergent, discriminant, and construct validity.

**Belonging.** Anderson-Butcher and Conroy’s (2002) measure of belonging in youth programs was used to assess participant’s perceptions of belonging within the PA clubs. The scale consists of 5 questions answered on a 5 point Likert scale with 1 representing “not at all true” and 5 representing “really true.” An example question is; “I am supported at my PA club.” Scores are summed and divided by 5 to obtain a mean belonging score. Anderson-Butcher and Conroy (2002) have provided evidence of satisfactory validity (i.e., construct validity via confirmatory factor analysis), predictive and convergent validity, and adequate internal reliability ( $\alpha = .96$ ). The measure has also performed well (e.g., demonstrated validity and reliability) in similarly aged samples and sport contexts (Anderson-Butcher et al., 2013).

**Social responsibility.** The Social Sports Experiences Scale (SSES) was used to measure social responsibility in PA (Anderson-Butcher et al., 2010). The scale has 8 items that are answered

on a 5 point Likert scale with 1 representing “not at all true” and 5 representing “really true.” An example item is; “I act responsibly when playing sports and doing PA.” Scores are summed and divided by 8 for a mean social responsibility score. Satisfactory internal consistency ( $\alpha = .85$ ) and construct validity via confirmatory factor analyses have been reported (McDonough et al., 2012) and research with similar settings and participants has also demonstrated that the SSES produces valid and reliable scores (Anderson-Butcher, Riley, Amorose, & Ball, 2013).

### **Procedures**

Permission from the University Internal Review Board, the school district office, school principals, after school program leaders and students was obtained. Parents were notified through an information letter and were asked to respond if they did not want their child to participate in the study. Multiple data collectors collected data during meeting times for after school PA clubs. One data collector read each question out loud while participants followed along reading and answering each question. Any questions participants had about particular items were addressed by data collectors before moving on to subsequent questions.

### **Results**

**Preliminary results.** Data were screened for outliers and normality. We then checked the data for missing values and mean imputation was used for 9 missing data points of 3 variables. Data were also screened for outliers and normality. Participants’ scale completion scores produced alpha coefficients indicative of satisfactory reliability (See Table 1). Means, standard deviations, ranges, skewness, kurtosis, and Pearson product correlations can all be found in Table 1. Finally, prior to running the regression analyses, tolerance (.38 - .64) and variance inflation factors (1.55- 2.66) ranges were examined, suggesting there was no evidence of multicollinearity (Cohen, Cohen, West, & Aiken, 2003). A brief visual overview of the descriptive data (i.e., M’s) relative to the

scale end points indicates that most participants perceived a strong caring and task climate and reported being high in belonging and social responsibility. Participants reported a moderate ego climate and contingent competitive self-esteem.

**Multiple Regression Results.** Two multiple linear regression analyses were conducted to examine the ability of the three motivational climates and competition contingent self-esteem to predict belonging and social responsibility. All four variables were entered in a block to test for main effects. Then in a second block all six two-way interactions were entered. For the interactions all predictor variables were mean-centered and all possible two-way interaction terms (i.e., between all three climates and contingent competitive self-esteem) were created from the cross-product scores (Cohen et al., 2003). Graphic plots were used to interpret significant interactions with low = -1 standard deviation and high = +1 standard deviation.

For belongingness, the main effects model was statistically significant,  $F(4,299) = 44.50$ ,  $p < .001$ . Adding the block of interaction variables was also significant  $F(10, 293) = 19.05$ ,  $p < .001$  and we accounted for 39% of the variance ( $R^2 = 0.39$ ; see Table 2) in belonging. Belonging was primarily predicted by the main effects of a caring climate ( $p < .001$ , standardized  $\beta = 0.43$ ), a task climate ( $p < .001$ , standardized  $\beta = 0.23$ ), and low perceptions of an ego climate ( $p < .001$ , standardized  $\beta = -.13$ ). The interaction (see Figure 1) of a caring climate and competition contingent self-esteem was also significant ( $p < .08^1$ , standardized  $\beta = 0.12$ ).

The main effects model for social responsibility was significant,  $F(4,299) = 27.98$ ,  $p < .001$ . Adding the block of interaction variables was also significant  $F(10, 293) = 13.40$ ,  $p < .001$  and we accounted for 31% of the variance ( $R^2 = 0.31$ ; see Table 3). Social responsibility was predicted by two main effects, strong perceptions of a caring climate ( $p < .001$ , standardized  $\beta = 0.46$ ) and a negative relationship with competition contingent self-esteem ( $p < .05$ , standardized  $\beta = -0.12$ ).

Additionally, three interactions were also significant. A competition contingent self-esteem and caring climate interaction ( $p < .01$ , standardized  $\beta = 0.19$ ), a task and ego climate interaction ( $p < .02$ , standardized  $\beta = .18$ ), and an ego and caring climate interaction ( $p < .04$ , standardized  $\beta = -0.15$ ). These three interactions are depicted in Figures 2 to 4. Effect sizes (Cohen's  $d$ ) for multiple regression analyses were as follows for social responsibility (Cohen's  $d = 1.35$ ) and for belonging (Cohen's  $d = 1.62$ ) and both effect sizes are considered large (Cohen, 1988).

### **Discussion**

The purpose of the current study was to determine if task, ego and caring motivational climates and competition contingent self-esteem predicted feelings of belonging and social responsibility of underserved children enrolled in an urban after-school PA program. In general our correlational findings supported expected associations among our various predictor and outcome variables. However, the regression equations highlight the most critical predictor variables. Three main effects were significant as favorable perceptions of both a caring and task climate positively predicted feelings of belonging. Perceptions of an ego climate were negatively related to feelings of belonging. All three of these findings support our hypotheses and are in line with previous research in this area, that also focuses on children considered to be underserved (i.e., low social economic status; Gould, Flett, & Lauer, 2012; McDonough et al., 2012; Ullrich-French & McDonough, 2013). For example, in a study that produced findings similar to the current study, belonging was significantly correlated with a host of positive psychosocial constructs such as self-esteem, social competence and attraction to PA (Ullrich-French & McDonough, 2013). A unique finding of the current study is that all three climates were significant in predicting belonging in the expected directions. These findings are in line with similar research in which a caring, ego and mastery climate all significantly predicted positive developmental experiences with middle school

children in sport leagues from the same urban setting as where the current study was conducted (Gould et al., 2012).

A task climate likely leads to a feeling of belonging because in a task climate cooperation and team work are emphasized. A caring climate also likely leads to feelings of belonging because feeling cared about by other children and program leaders likely increases a desire to be part of the group (i.e., belonging). Finally, perceptions of an ego climate were negatively related to belonging. Ego climates often reflect social comparison processes whereby children are judged relative to other children and competitive versus cooperative processes are emphasized. Such climates, as evidenced in the current results, often serve to undermine feelings of mutual affection and belonging.

Although contingent competitive self-esteem did not predict belongingness, it moderated the relationship between caring and belonging as evident by the significant interaction (see Figure 1). Children with high contingent competitive self-esteem had a more fluctuating sense of belonging depending on their perceptions of the caring climate relative to the children with low contingent self-esteem. Under conditions of a low caring climate, children with high contingent competitive self-esteem had the lowest sense of belonging but under perceptions of a high caring climate they had the highest sense of belonging. In contrast, children with low contingent competitive self-esteem had more stable feelings of belonging that did not fluctuate as much according to the caring climate.

In contrast to the three main effects predicting belonging two main effects, a caring climate and contingent competitive self-esteem, were significant, in expected directions, predicting social responsibility. Children who perceived a strong caring climate reported strong feelings of social responsibility. Children with strong contingent competitive self-esteem reported lower feelings of

social responsibility. In addition to the two main effects, there were 3 significant interactions. Similar to the significant interaction predicting belonging, the same variables (i.e., caring climate and contingent competitive self-esteem) interacted in a similar pattern to predict social responsibility (see Figure 2). Children with high contingent competitive self-esteem had a more fluctuating sense of social responsibility depending on their perceptions of the caring climate relative to the children with low contingent competitive self-esteem. Under conditions of a low caring climate children with high contingent competitive self-esteem had the lowest sense of social responsibility but under perceptions of a high caring climate they had the highest sense of social responsibility. In contrast, children with low contingent competitive self-esteem had more stable feelings of social responsibility that did not strongly fluctuate according to the caring climate.

Children with low contingent competitive self-esteem had social responsibility and belonging scores (see Figure 1 and 2) for low and high caring climates that fell in between the social responsibility and belonging scores obtained under low and high caring climates for children with high contingent competitive self-esteem. Both significant interactions involved the caring climate and contingent competitive self-esteem predicting belongingness and social responsibility. These two findings support the theoretical proposition that individuals with high contingent self-esteem are more vulnerable to negative affective outcomes relative to individuals with lower contingent self-esteem (Crocker et al., 2003; Crocker & Wolfe, 2001).

The final two interactions both involved the ego climate predicting social responsibility and were dependent on children's perceptions of whether the task and caring climates were viewed as high or low (see Figures 3 and 4). Irrespective of children's perceptions of the ego climate (i.e., high or low) they expressed more social responsibility when they also viewed the climate as high in caring compared to having lower perceptions of the caring climate (see Figure 3). Unexpectedly,

a high ego climate along with a low caring climate was linked with greater social responsibility compared to a low caring and low ego climate. This finding was unexpected as under conditions of a low caring climate a high ego climate was expected to be associated with less and not more social responsibility.

For the last interaction, children perceiving a high ego climate expressed greater social responsibility if they also perceived a high task climate (see Figure 4). In contrast, if children viewed the climate as both high ego and low task their feelings of social responsibility dropped. Children with high ego and low task climate perceptions had lower social responsibility perceptions compared to children with low ego and low task climate perceptions. Thus, under conditions of a low task climate children also perceiving the ego climate as high produced lower social responsibility compared to a low ego climate suggesting the combination of low task and high ego reduced social responsibility. In general our interactions (3 of 4) were aligned with the theoretical tenants of both goal orientation theory and contingent self-esteem principles. While the variance accounted for was small these findings are consistent with previous youth development research (Benson, Scales, Hamilton, & Sesma, 2006). Additionally, small effects are not necessarily trivial because if findings are robust in cross-sectional research the influence of factors such as a caring climate can have cumulative effects over time (Abelson, 1985; Cortina & Landis, 2009; Prentice & Miller, 1992).

Our research findings extent the current literature in four significant ways. First, psychological based research on urban based after-school PA clubs is scarce relative to more traditional PA settings (e.g., youth sport, physical education). Second, we examined both feelings of belonging and social responsibility as outcome variables. Both outcome variables are critical in enhancing psychosocial development in PA environments. Third, we also examined multiple

dimensions of the climate with a focus on the caring climate which is a newer research area relative to the historical focus researchers have had on task and ego climates. Finally, our examination of contingent competitive self-esteem has, to our knowledge, not been done in PA settings. Furthermore, our examination of the interactions among contingent competitive self-worth and the three climates proved a fruitful avenue of investigation given the four significant interactions we found. We were able to explain a large amount of variance of both outcome variables as we accounted for 39 % of the variance in feelings of belonging and 31% of the variance in social responsibility with large effect sizes (Cohen & Cohen, 1975). Limitations to the current study include the correlational nature of our design that precludes asserting cause and effect dynamics.

In summary, we found that underserved children participating in an after-school PA program who experienced strong task and caring climates and minimal ego climates expressed a strong feeling of belonging. Youth who experienced a strong caring climate and lower contingent competitive self-esteem also reported a strong sense of social responsibility. Finally, four significant interactions also suggest that perceptions of the climate in predicting belonging and social responsibility are also, to a small degree, dependent on context specific (i.e., competitive) contingent self-esteem. These findings add to the body of knowledge on urban based after-school PA programs by highlighting the value of motivational climates and contingent competitive self-esteem in predicting belongingness and social responsibility with an understudied population. In ending we should also note that factors outside of the psychosocial internal dynamics of urban after-school PA clubs also determine how successfully (e.g., well attended) they function. Such factors (e.g., transportation, facilities, and competing interests among participants) are also critical (Maljak et al., 2014). The degree to which adults leading after-school PA clubs consider

psychosocial factors, like the ones reported on in the current paper, and the environmental factors noted by Maljak et al. (2012), will determine the success of after-school PA clubs in increasing PA and combating obesity.

**Footnote.** Given the dearth of research in this area it was determined that making a Type II error would be more serious than making a Type I error. Therefore a  $p$  value of .10 was selected for determining statistical significance. Additionally we believe that effect size (i.e., variance accounted for) is of value and should not be dismissed simply because  $p > .05$  (Cohen, 1994; Franks & Huck, 1986).

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Table 1

*Means, Standard Deviations, Skewness, Kurtosis, Alpha's and Pearson Product Correlations for Variables*

Variable	1	2	3	4	5	6
1. Social Resp						
2. Belong	0.50*					
3. Task	0.31*	0.45*				
4. Ego	-0.14*	-0.17*	0.08			
5. Care	0.51*	0.57*	0.53*	-0.16*		
6. CCSE	-0.03*	0.04	0.26*	0.49*	0.07	
Mean	4.50	4.49	4.23	2.90	4.21	4.26
SD	0.67	0.73	0.64	0.89	0.69	1.70
Skewness	-1.77	-1.94	-1.20	.51	-1.09	-0.13

Kurtosis	3.08	4.22	2.02	-0.36	1.60	-0.72
Alpha	.89	.86	.76	.87	.92	.85

*Note.* Social Resp = Social Responsibility; Belong = Belonging; Task = Task Motivational Climate; Ego = Ego Motivational Climate; Care = Caring Climate; CCSE = Contingent Competition Self-Esteem. \* Significant at  $p < .01$

Table 2

*Multiple regression results predicting Belonging:*

*Model Summary*

Step		R	R <sup>2</sup>	F	df	$p <$	$\Delta R^2$	F change	Sig of F change
1	Variables	0.61	0.37	44.50	4,299	0.001*	0.37	44.50	0.001*
2	Inter	0.63	0.39	19.05	10,293	0.001*	0.02	1.68	0.13

*Note.* Inter = Interactions; \* Significant at  $p < .01$

*Multiple regression results predicting Belonging:*

*Coefficients for Final Model*

Variable	Standardized $\beta$	$t$	Significance
1. Task	0.19	3.08	0.002*
2. Ego	-0.16	-2.73	0.007*
3. Care	0.41	7.15	0.001*
4. CCSW	0.01	0.11	0.91

Interactions			
5. Task X Ego	0.10	1.34	0.18
6. Task X Care	-0.05	-0.78	0.43
7. Task X CCSE	-0.03	-0.45	0.65
8. Ego X Care	-0.11	-1.64	0.11
9. Ego X CCSE	0.09	1.50	0.13
10. Care X CCSE	0.12	1.74	0.08***

*Note.* Task = Task Motivational Climate; Ego = Ego Motivational Climate; Care = Caring Climate; CCSE = Contingent Competition Self-Esteem..

\* Significant at  $p < .01$ ; \*\* Significant at  $p < .05$ , \*\*\* Significant at  $p < .10$

Table 3

*Multiple regression results predicting Social Responsibility:*

*Model Summary*

Step		R	R <sup>2</sup>	F	Df	$p <$	$\Delta R^2$	F change	Sig of F change
1	Variables	0.52	0.27	27.98	4,299	0.001*	0.27	27.98	0.001*
2	Inter	0.56	0.31	13.40	10,293	0.001*	0.04	2.95	0.008*

*Note.* Inter = Interactions; \* Significant at  $p < .01$

*Multiple regression results predicting Social Responsibility:*

*Coefficients for Final Model*

Variable	Standardized $\beta$	$t$	Significance
1. Task	0.07	0.97	0.34
2. Ego	-0.05	-0.80	0.42
3. Care	0.46	7.46	0.001*

4. CCSE	-0.12	-1.99	0.05**
Interactions			
5. Task X Ego	0.18	2.28	0.02**
6. Task X Care	-0.08	-1.05	0.30
7. Task X CCSE	-0.03	-0.41	0.69
8. Ego X Care	-0.15	-2.12	0.04**
9. Ego X CCSE	-0.01	-0.19	0.85
10. Care X CCSE	0.19	2.66	0.01*

Note. Task = Task Motivational Climate; Ego = Ego Motivational Climate; Care = Caring Climate; CCSE = Contingent Competition Self-Esteem..

\* Significant at  $p < .01$ ; \*\* Significant at  $p < .05$ , \*\*\* Significant at  $p < .10$

Figure 1

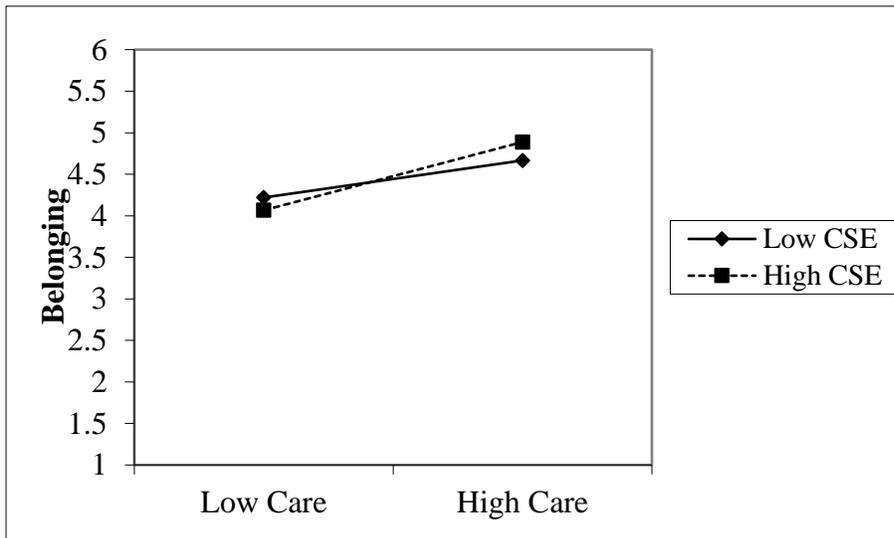


Figure 1. Simple slopes tests with Care Climate x Contingent Competitive Self-Esteem predicting Belonging.

Figure 2

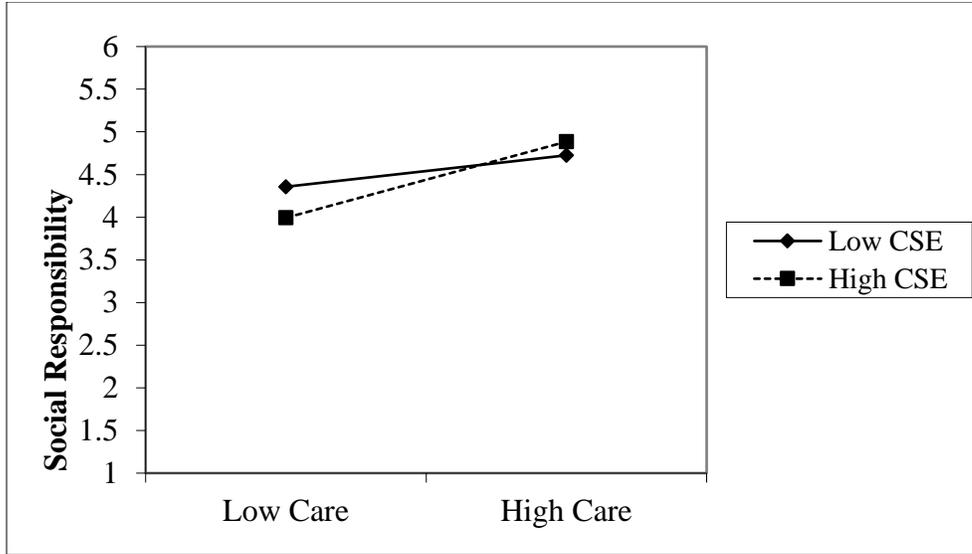


Figure 2. Simple slopes tests with the Care Climate x Contingent Competitive Self-Esteem predicting Social Responsibility.

Figure 3

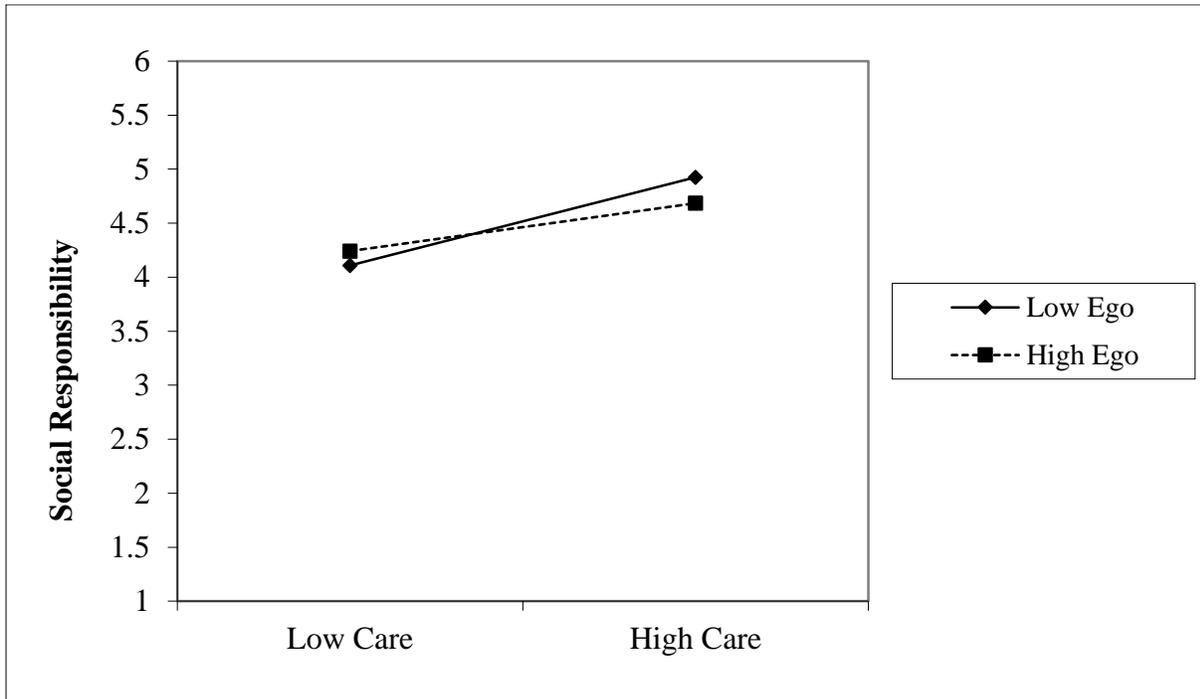


Figure 3. Simple slopes tests with Care Climate x Ego Climate predicting Social Responsibility.

Figure 4

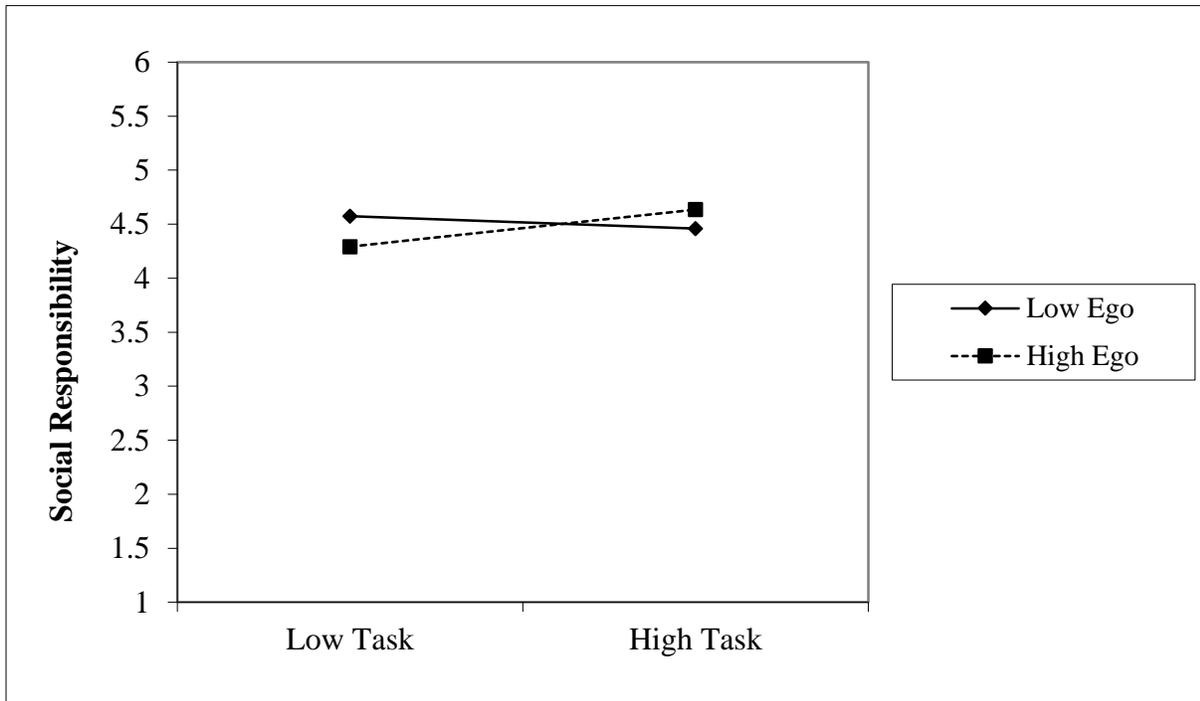


Figure 4. Simple slopes tests with Task Climate x Ego Climate predicting Social Responsibility