

GENDER, SPORTS, AND ADJUSTMENT IN PREADOLESCENT CHILDREN

by

Patrick Cooper

A Thesis Submitted to the Faculty of

The Charles E. Schmidt College of Science

in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

Florida Atlantic University

Boca Raton, Florida

May 2010

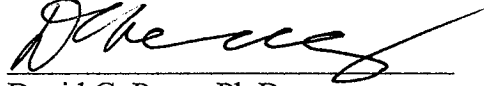
GENDER, SPORTS, AND ADJUSTMENT IN PREADOLESCENT CHILDREN

by

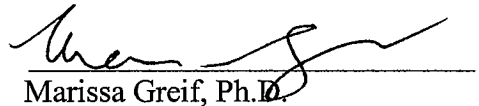
Patrick Cooper

This thesis was prepared under the direction of the candidate's thesis advisor, Dr. David G. Perry, Department of Psychology, and has been approved by the members of his supervisory committee. It was submitted to the faculty of the Charles E. Schmidt College of Science and was accepted in partial fulfillment of the requirements for the degree of Master of Arts.

SUPERVISORY COMMITTEE:



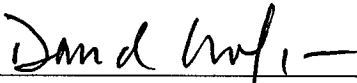
David G. Perry, Ph.D.
Thesis Advisor



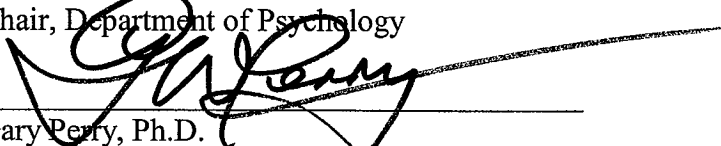
Marissa Greif, Ph.D.



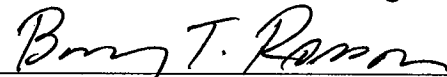
David Bjorklund, Ph.D.



David Wolgin, Ph.D.
Chair, Department of Psychology



Gary Perry, Ph.D.
Dean, Charles E. Schmidt College of Science



Barry T. Rosson, Ph.D.
Dean, Graduate College

April 14, 2010
Date

ACKNOWLEDGEMENTS

The author wishes to thank Dr. David G. Perry for his supervision and Rachel Pauletti for assistance in preparing this thesis. The comments from Dr. Marissa Greif and Dr. David Bjorklund are also greatly appreciated.

ABSTRACT

Author: Patrick Cooper
Title: Gender, Sports, and Adjustment in Preadolescent Children
Institution: Florida Atlantic University
Thesis Advisor: Dr. David G. Perry
Degree: Master of Arts
Year: 2010

The fact that 45% of boys and 32% of girls in the United States participate in youth sports suggests that sports participation might be an important influence on children's psychosocial development. This study explored: (1) how children's gender cognitions influence sports self-efficacy and (2) how sports self-efficacy influences children's psychosocial adjustment. Results suggest that for boys, felt pressure to conform to gender standards and the belief that sports is important for boys influence sports self-efficacy. In girls, both the belief that sports is important for girls and the belief that sports is important for boys predicted sports self-efficacy. Sports self-efficacy predicted benefits for girls adjustment (high self-esteem, higher body satisfaction, lower depression and lower anxiety) but both positive and negative outcomes for boys (higher narcissism, higher aggression, and lower depression and lower anxiety). The findings overall suggest that the correlates of sports self-efficacy are somewhat different for boys and for girls.

DEDICATION

I dedicate this thesis to my girlfriend Nurcan, who has supported me throughout my entire academic career.

GENDER, SPORTS, AND ADJUSTMENT IN PREADOLESCENT CHILDREN

List of Tables.....vii

Introduction..... 1

 Defining Terms..... 2

 Gender Cognitions as Predictors of Sports Self-Efficacy and Competence..... 4

 Sports Self-Efficacy and Competence as Predictors of Adjustment..... 6

 Prior Research on Sports Participation and Adjustment..... 6

 Prior Research on Self-Efficacy, Competence, and Adjustment..... 8

 The Current Study..... 11

Method..... 13

 Participants..... 13

 Measures..... 13

Results..... 17

Discussion..... 20

 Do Gender Cognitions Relate to Sports Self-Efficacy and Sports Competence?.. 20

 Do Sports Self-Efficacy and Competence Relate to Children’s Adjustment?..... 22

 Conclusions..... 24

References..... 26

TABLES

Table 1.	Means and standard deviations of variables.....	31
Table 2.	Intercorrelations of measures by sex.....	32

Gender, Sports, and Adjustment in Preadolescent Children

“Our greatest natural resource is the minds of our children.” This simple yet profound quote, spoken by Walt Disney, exemplifies the attitude that our society holds in regards to our children. Our culture cherishes children; we see them as innocent, graceful, and with much potential. The purpose of this study is to investigate children’s well-being through the lens of sports. In 2001, 45% of high school boys and 32% of high school girls participated in organized athletic activities (Fox, Connelly, & Snyder, 2005). Thus, with this many young athletes, research on the effects of sports should prove valuable.

Much research interest has focused on sports participation and various psychosocial adjustment variables that may be affected by sports participation (e.g., self-esteem, depression, aggression, and delinquency, etc.). My study focuses primarily on sports self-efficacy but it also assesses sports competence. Sports self-efficacy is a self-appraisal capturing how competent at sports an individual believes he or she is, and thus I assess it with self-reports. In contrast, I assess sports competence through peer reports of classmates’ general ability to be successful in sports. Although both objective and subjective appraisals of sports ability (i.e., sports competence and sports self-efficacy respectively) may be important influences on children, I believe that sports self-efficacy is particularly important for the mental health and adjustment of children. That is, feeling that one *can* do sports well, if one wants to, may be important for children regardless of whether they do or do not actively participate in sports (or whether they are perceived by

peers as competent in sports). Sports self-efficacy could contribute to self-esteem and also give one a cognitive resource —knowledge that one can derive satisfaction, enjoyment, and other benefits by participating in sports if one wishes to do so.

This study has two interrelated foci. The first is to examine the influence of children's gender cognitions on sports competence and self-efficacy. I consider children's gender identity and gender stereotypes to be important gender cognitions that might contribute to either sports self-efficacy or sports competence. Gender identity is a complex multidimensional construct assessing one's self-appraisal of being male or female (Egan & Perry, 2001). Gender stereotypes are children's beliefs about behavioral differences between the sexes (and the desirability of such differences). Both gender identity and gender stereotypes may affect sports competence and self-efficacy, as explained later.

A second purpose of this study is to see if sports competence and self-efficacy predict a broader range of adjustment variables than has been formerly examined. Previously, the focus has been on the influence of sports participation on self-esteem, but I believe sports competence and sports self-efficacy will prove to affect various additional aspects adjustment and well-being as well.

Defining Terms

It is important to describe how I will conceptualize and operationalize the variables discussed above before I elaborate the relationships that I am examining. First, as noted, two kinds of gender cognitions will be investigated in this study: gender identity and gender stereotypes. Gender identity encompasses one's self-representation in relation to gender categories. According to Egan and Perry (2001), gender identity comprises of 5

components: (1) *membership knowledge* (knowing your own gender), (2) *gender typicality* (whether or not you feel like a normal member of your gender), (3) *gender contentedness* (satisfaction with your gender), (4) *felt pressure to conform to gender standards*, and (5) *intergroup bias* (the belief that your gender is superior to the other).

Consistent with past studies (Egan & Perry, 2001; Corby, Hodges, & Perry, 2007; Carver, Yunger, & Perry, 2003), I will study three of these components of gender identity: gender typicality, gender contentedness, and felt pressure.

Gender stereotypes refer to children's beliefs specifying that certain behaviors are more important for, or common to, one sex than the other. For example, does a boy believe it is more important for boys than for girls to throw a ball far? Does a boy believe boys should not play with dolls? Or does a girl believe that girls should exhibit communal behavior? These questions address whether or not children have strong beliefs about gender roles in society. This study will examine two gender stereotypes specifically related to sports: Same-sex sports stereotypes (i.e., the belief that sports competence is important for same-sex persons) and other-sex sports stereotypes (i.e., the belief that sports competence is important for other-sex persons). In addition, I will assess children's sexist beliefs in three domains: work, parenting and dating. This will permit seeing if sexist beliefs contribute to sports self-efficacy and competence

As I noted, *self-efficacy* is the confidence an individual has in his or her ability to perform an activity competently (Bandura, 1977). It is a domain-specific construct, that is, an individual may have high self-efficacy in a single domain (e.g., sports or academia) while having low self-efficacy in other domains (e.g., social or physical). The immense literature concerned with self-efficacy often confuses self-efficacy with other variables

such as self-concept, self-competence, and self-confidence. (Feltz, 2007; Fredricks & Eccles, 2002; Gentile, Grabe, Dolan-Pascoe, Twenge, Wells, & Maitino, 2009; Jacobs, Lanza, Osgood, & Eccles, 2002; Klomsten, Torhild, Skaalvik, & Espnes 2004). For my purpose, I will use the term “self-efficacy” to refer specifically to a child’s self-perceived competence to perform sports-related activities.

Psychosocial adjustment is a general term that captures the well-being of children; it is a multidimensional construct that encompasses the mental health, positive psychological development, and the ability to adapt to the environment. For this study, I use seven measures of psychosocial adjustment: global self-worth, depression, narcissism, body satisfaction, internalizing problems (e.g., anxiety), externalizing problems (e.g., aggression and risk-taking behaviors), and prosocial behavior.

As I mentioned, I have two foci for this study. Here, I elaborate the first, which examines how gender cognitions might influence sports competence and self-efficacy. Of course, there are many possible influences on sports competence and self-efficacy including age, physical strength and coordination, team/individual sports participation, and coaching techniques experienced. However, my angle will be from a gender cognition perspective focusing on how children’s gender representations affect their sports competence and self-efficacy (Bowker et al., 2003; Eccles & Wigfield, 1993; Fredricks & Eccles, 2002; Gentile et al., 2009).

Gender Cognitions as Predictors of Sports Self-Efficacy and Competence

I focus first on gender identity and then gender stereotypes. Most previous research on gender identity has focused on the implications of gender identity for children’s adjustment, not for children’s participation in or self-efficacy for specific

behaviors such as sports. For example, Egan and Perry (2001) suggest that gender typicality, gender contentedness, and felt pressure all influence the well-being of children. In particular, higher gender typicality, greater gender contentedness, and lower felt pressure are associated with higher global self-worth and decreased depression (Egan & Perry, 2001). However, in this study, my focus is not primarily on the association between gender cognitions and adjustment but rather on the association between gender cognitions and sports competence and self-efficacy.

If we break down the construct of gender identity, it is easy to hypothesize why there might be a link between gender identity and sports competence and self-efficacy. For example, the more a boy feels like a typical male, the more he should engage in “typical” male behavior. Or, a boy who thinks typical boys throw a ball far, the more likely he will feel the need and try to develop the skill of throwing the ball far. A similar principle works for gender contentedness. For example, a girl who is happy being a girl will be more inclined to do things that she thinks girls do, because it makes her happy. Felt pressure for gender conformity should also motivate same-gender behavior. However if you feel pressure to conform to gender norms, you may be more likely to engage in self-perceived typical behavior and it may have a negative impact on your well-being, which I will discuss later (see Egan & Perry, 2001). In short, higher gender identity should incline children to earn status through engaging in those behaviors they perceive as gender typical. It seems likely that, in general, most children (both boys and girls) view sports as more male-typical, though this is changing (e.g., Title IX legislation). Thus, it seems reasonable to predict that the three gender identity should positively

predict sports competence and self-efficacy for boys and negatively predict these variables for girls.

Gender stereotypes should work through a similar process. The more you think a behavior is appropriate for your sex, the more likely you will engage in this behavior and strive to develop competence in it. For instance, a boy who *thinks* boys should be good at sports (i.e., has high same-sex sports stereotypes) would be more likely to engage in sports. On the other hand, a boy who has low same-sex sports stereotypes may be less inclined to participate. I would not expect other-sex sports stereotypes (i.e., the belief that sports are important for the other sex) to show this effect. For example, sports competence and self-efficacy would not be affected by high other-sex sports stereotypes because this stereotype does not related to one's own identity of male or female. Therefore, it would not affect his or her *own* sports competence and self-efficacy.

The second focus of this study explores the relations between sports self-efficacy, and competence with psychosocial development. Previous research has documented associations between sports participation and adjustment (Bowker, Gadbois, & Cornock, 2003; Feltz, 2007; Slutzky and Simpkins, 2009) and between self-efficacy and self-esteem (Gentile et al., 2009; Stein, Fisher, Berkey, & Colditz, 2007), but no study has addressed the relationship between sports self-efficacy and externalizing behaviors (e.g., aggression), internalizing behaviors (e.g., anxiety), prosocial behavior, narcissism, or body satisfaction. I will examine the relationship of sports self-efficacy to all of these adjustment indexes plus self-esteem. I will first review prior research on sports and children's adjustment. Most of this prior work focuses on children's participation in

sports, not their competence in, or self-efficacy for, sports. I will offer reason for extending the study of sports to include these latter variables.

Sports Self-Efficacy and Competence as Predictors of Adjustment

Prior research on sports participation and adjustment. There are many reasons why children join sports activities: fun, exercise, and peer interaction, to name a few. However, if we asked 100 children why they engage in sports, I'm certain "to help regulate my emotions," "to develop social skills," and "so I can be well-adjusted when I'm an adult" would not top the list. Nevertheless, research has found that these are some of the benefits children reap from participating in sports. Research has shown that sports participation has many potential positive psychosocial outcomes including keeping children from delinquency, cigarette smoking, illegal drug use, and sexual promiscuity (Pate, Trost, Levin, & Dowda, 2000).

However, more recent research has indicated that sports must be one of several extracurricular activities in which children participate in order to have a significant beneficial effect. Gardner, Roth, and Brooks-Gunn (2009) used child self-reports measures to find that children who participate only in sports are more likely to partake in nonviolent delinquency than children involved in multiple activities. The authors argue that some types of peer relationships founded in team sports mediate the sports-delinquency relationship. For example, the aggressive nature of hockey may promote aggression among the youth participating. Participants may generalize these behaviors, which are accepted in hockey, to other situations (e.g., school or clubs) where the behavior is less accepted. Therefore, the nature of the sport has a negative impact on the

adjustment of the participant. However, if the camaraderie exhibited in many team sports is generalized, the psychosocial benefits might be plentiful.

Another positive outcome of sports involvement is the development of certain personality characteristics such as initiative, and the 5 C's (competence, confidence, connections, character, and caring). Livner, Roth, and Brooks-Gunn, (2009) suggest that sports involvement is positively associated with school connectedness, (i.e., the ability to talk with teachers, administration, and school mates) and higher charitable giving. Children participating in sports also tend to goals and sustain effort to complete set goals. This development of initiative is not seen as widely in children who participate in religious, service, or volunteer activities (Larson, Hansen, & Moneta, 2006; Larson, 2000). It may be possible that the distinct success vs. failure categories (i.e., winners and losers) of sport competition interacting with the high motivation for competition in some youths leads children to develop sports-related goals.

Finally, sports competition can result in a new domain of identity formation for children. Research has shown that children who exhibit multiple domain identities are capable of controlling heavy emotional events. For instance, elite youth hockey players who were cut from a selective and competitive hockey league showed different affective trajectories depending on their ability to identify with sport and school (Gaudreau et al., 2009). Sports-school identified players who were cut showed considerably higher affect than sport-only identified players. This suggests that children who can identify with multiple domains and have a setback in one domain can compensate with success with another. This research suggests that sports are tools used to develop many personality characteristics that are important in children's development.

Prior research on sports competence, self-efficacy, and adjustment. Literature on the associations between both sports competence or sports self-efficacy and various psychosocial adjustment variables is limited. Indeed, prior literature on peer-rated sports competence is almost non-existent. Therefore, here I will focus on sports self-efficacy (Bowker et al., 2003, Eccles & Wigfield, 1993; Gentile et al., 2009). Self-efficacy is not a categorical construct wherein an individual either has “it” or not. Rather, self-efficacy is a continuous variable and individuals have different levels of self-efficacy in several/multiple domains (e.g., academic, physical, self-satisfaction, etc.). Of these domains, my interest is in sports self-efficacy.

Most studies that address domain-specific self-efficacy look for associations with self-esteem. In a study of one hundred 11th grade students, Bowker et al. (2003) found self-perceived athletic competence and gender predicted self-esteem. Specifically, boys who self-reported higher athletic competence reported greater satisfaction concerning weight, appearance, and self-esteem. This was not seen in girls. Furthermore, self-esteem was moderated for “feminine” individuals (reported via self-report) by type of competition. Specifically, feminine individuals reported higher self-esteem when participating in non-competitive sports (e.g., cheerleading, dancing) versus competitive sports (e.g., soccer, basketball).

Sports self-efficacy itself may be implicated in the relationship between participation and positive adjustment (Slutzky & Simpkins, 2009). In a longitudinal study of 987 elementary school children, Slutzky and Simpkins found that sports self-concept mediates the psychosocial benefits sports participation has on children. Sports self-concept was measured using a self-report questionnaire asking four questions, (1) How

good are you at sports?, (2) If you were to list all of the students in your class from best to worst at playing sports, where would you put yourself?, (3) Compared to other participants, how good are you at sports?, and (4) How good would you be at learning something new in sports? I believe these questions make the construct of “self-concept” synonymous with “self-efficacy”, so the results reported are of interest.

Results showed that time spent in team sports is associated with high sports self-concept which, in turn, is associated with higher self-esteem. Slutzky and Simpkins measured several other variables including gender self-appraisals (self-perceived instrumental and expressive traits, which the authors intended as measures of self-perceived masculinity and femininity, respectively), sport ability, sport importance beliefs, and peer acceptance and found that these did not predict sports self-concept. The findings of this study are relevant to both foci of my current thesis. First, sports self-efficacy was important in predicting children’s psychosocial adjustment (i.e., sports self-concept was correlated with higher self-esteem). Second, several other variables might influence the effectiveness of sports self-efficacy (e.g., gender self-appraisals predict sports self-efficacy). However, the gender self-appraisals used by Slutzky and Simpkins (e.g., girls’ ratings of femininity) are questionable because some children may not perceive the “feminine” attributes as gender relevant and, therefore, these measures might not accurately reflect how children feel about themselves in relation to their gender. The current study aims to alleviate this problem by measuring gender identity in a more valid way (e.g., by asking children to rate their self-perceived overall gender typicality) and then measure how that influences their sports self-efficacy and sports competence.

It is consistently found that global self-esteem decreases with age (Eccles & Wigfield, 1993; Jacobs et al., 2002; Klomsten et al., 2004). It is theorized that this decline occurs for two reasons. First, younger children are very optimistic about their abilities, and as they grow older, their optimistic outlook fades. Second, as children age, they can more accurately assess their ability in certain domains (Nicholls, 1978). Eccles and Wigfield (1993) find that many domain-specific competence beliefs decrease with age as well. In a study of 865 elementary school children, Eccles and Wigfield examined competence beliefs in four domains (math, reading, sports, and instrumental music) and individual subjective task values for each domain (e.g., the importance of the domain to the individual). Competence beliefs in math, reading, and instrumental music decreased as both boys and girls got older. I will expand on these ideas and also examine age differences in sports self-efficacy, but this will not be a main focus of my study.

Gender differences in domain-specific self-efficacy are plentiful. In a study of 591 elementary school children and 501 secondary school children, Klomsten et al. (2004) found that boys have higher self-concepts in global, sports, and physical domains than girls. Gentile et al., (2009) found similar results. This meta-analysis of 32,486 individuals found that men score higher than women in the following domain-specific self-efficacies: physical appearance, athletic, personal-self, and self-satisfaction.

Gender differences in sports self-efficacy may be of major importance. According to the literature that suggests that sports self-efficacy is considerably higher in boys than girls, one might think that boys should reap the benefits of being self-efficacious whereas girls would be at a disadvantage. But, what of girls with high sports self-efficacy? Do

girls with high efficacy exhibit the same benefits as boys with high efficacy? The present study sought to provide a better answer to this question than previous studies.

The Current Study

The current study focuses on gender, sports, and psychosocial adjustment in preadolescence. In summary, I have two goals in which to examine the relationship between these three constructs. First, I will examine gender-related factors (e.g., gender identity and gender stereotypes) in relation to sports competence and self-efficacy. As I stated above, research in this area is limited, therefore, I will take an exploratory approach to this question and simply ask whether children's conceptions of gender will predict their sports self-efficacy and sports competence.

Second, I will examine the correlates of sports competence and self-efficacy to the following psychosocial development variables: global self-worth, depression, narcissism, body satisfaction, internalizing problems, externalizing problems, and prosocial behavior. Past research suggests that both sports competence and self-efficacy are positively associated with self-esteem. It is, however, unclear whether competence and self-efficacy affect boys and girls in a similar manner. It is possible that since boys have more opportunities to participate in sports, they inevitably have more opportunity to increase their self-esteem. This study looks to see if boys *and* girls who have high competence or self-efficacy have higher self-esteem. Bowker et al. (2003) suggest that high competence boys have higher body satisfaction. Although this relationship is not seen in girls, I predict that individuals from either sex who have higher sports competence and self-efficacy would exhibit higher body satisfaction as well as lower depression. Furthermore, higher sports competence should be negatively related to

internalizing behaviors (e.g., anxiety and depression) because sports participation often involves considerable social interaction. However, sports competence and self-efficacy may be detrimental for both sexes with respect to externalizing behaviors (e.g., aggression). As Gardner et al. (2009) suggest the competitive nature of many sports breeds aggression, which could be generalized in other domains of life. Sports competence and self-efficacy may also be positively associated with narcissism, or an inflated sense of the self, especially for boys who tend to think sports is typical of their gender.

Methods

Participants

A total of 236 children (129 girls, 107 boys) participated in this study. Children were students enrolled in grades 4 through 8 in a local public university school (4th grade n = 58, 5th grade n = 57, 6th grade n = 41, 7th grade n = 47, 8th grade n = 23). The mean age of children was 11 years and 4 months. Ethnic breakdown was as follows: 50% Caucasian, 20% African American, 18% Hispanic, 4% Asian. 5% of children marked “other.” About 80% of students invited to participate obtained parental consent.

Measures

As part of a larger study, each child completed a variety of instruments. The measures relevant to the present study were those assessing gender identity, gender stereotypes, sports competence, sports self-efficacy, and psychosocial adjustment.

Gender identity. A modified version of Egan and Perry’s (2001) gender identity questionnaire was used to assess gender typicality, gender contentedness and felt pressure for gender conformity. The gender typicality scale was eight items and measured the

extent to which a child feels like a typical member of his or her gender. The gender contentedness scale was also eight items and measured the extent to which a child feels content with their gender. Each child was presented with two opposing statements and asked to respond to the more appropriate statement. For gender typicality, a typical question was, “Some girls don’t feel that they’re just like all the other girls their age *BUT* other girls do feel that they’re just like all other girls their age.” A typical gender contentedness question was, “Some boys don’t like being a boy *BUT* Other boys don’t mind being a boy.” Children chose the more appropriate statement pertaining to them and then marked whether that choice was “very true” for me or “sort of true” for them. Scores ranged from 1-4 with a score of one for the “very true” answer to the negative statement and four for the “very true” answer to the positive statement.

For felt pressure (seven items), children responded to a question on a 4-point Likert scale. An example question was, “The boys I know would be upset if I wanted to play with girls’ toys”. Scores ranged from 1-4 with a score of “1” for *not at all true for me* to “4” *very true for me*. Taking the mean of the total score and dividing it by the total number of questions yielded an overall felt pressure score.

Gender stereotypes. As part of a larger gender-related stereotypes questionnaire, children were administered a six-item questionnaire measuring sports stereotypes (e.g., How important is it for boys to throw a ball far?). Children answered each question on a 5-point Likert scale in which a response of “0” indicated “not important at all” while “5” indicated “very important”. Children were asked to answer each question about their own sex followed by the same question about the opposite sex. Higher scores indicate a higher

sports stereotype for the pertinent sex. The reliability alpha was .90 for the same-sex sports stereotype and .88 for the other-sex sports stereotype.

A 24-item sex-role stereotypes questionnaire was used to measure children's sexist beliefs in three domains: dating (eight items), work (eight items), and parenting (eight items). On a 5-point Likert scale, children indicated the extent to which they agreed with a statement (e.g., a girl should treat her boyfriend like he's the boss). High scores indicate higher sexist ideology. The reliability alphas for the scale were .79, .75, and .74 respectively.

Sports self-efficacy. As part of a larger questionnaire, children self-reported their sports self-efficacy on a questionnaire. Responses were on a 4-point Likert scale ranging from very hard to very easy (e.g. "throwing a ball is _____ for me"). The scores were averaged, leaving each child with a sports self-efficacy score ranging from 1-4, with high scores indicating higher self-efficacy. The reliability of this scale was .80. For reasons elaborated later, academic competency self-efficacy was also measured in an identical fashion. That is, children responded to academic competency questions on a 4-point Likert scale, yielding an overall score between 1-4. Higher scores indicated higher academic competence self-efficacy.

Sports competence. Children also completed a peer-nomination inventory in which they checked the names of their same-sex classmates who exhibited each certain behavior: *internalizing* (four items), *externalizing* (five items), *prosocial* (four items) and *sports competence* (three items) (Wiggins and Winder, 1961). Reliability alphas for these scales were .88, .91, .89, and .95, respectively. A child's score on each of the 16 items was calculated according to the percentage of same-sex peers who identified the child as

exhibiting the behavior. The final score for each scale was the average percentage of nominations across scale items, resulting in a score of 0 to 1 for each trait. The purpose of the peer nomination inventory was two-fold. It provided measures of externalizing (e.g., aggression and risk taking) and internalizing (e.g., anxiety) while allowing for a reduction of shared-method variance.

Psychosocial adjustment. Four measures of psychosocial adjustment were used: global self-worth, body satisfaction, narcissism, and depression. Children completed Harter's (1985) six-item self-esteem questionnaire. Each child was presented with two opposing statements and asked to respond to the more appropriate one. For instance, "Some kids are very happy being the way they are *BUT* Other kids wish they were different". The children chose the more appropriate statement pertaining to them and then marked whether this choice was "very true" for them or "sort of true" for them. Scores ranged from 1-4 with a score of 1 for the "very true" answer to the negative statement and 4 for the "very true" answer to the positive statement. A higher score indicates higher global self-worth. The reliability of this measure was .76.

A 10-item questionnaire was used to measure body satisfaction. Children answered questions such as "I am proud of my body" and "I worry about how healthy I am" on a 1-4 point Likert scaled where "1" indicated "not at all true for me" and 4 indicated "very true of me". Higher scores indicated higher body satisfaction. Responses were averaged yielding composite "body satisfaction". The reliability alpha for this scale was .75.

A 17-item Narcissistic Personality Inventory for Children (Barry, Frick, & Killian, 2003) was used to measure narcissism. Children were asked to choose between

two statements, one representing a narcissistic tendency while the other did not (e.g., “I expect people to appreciate what I do” and “People usually appreciate what I do,” respectively). Children’s narcissism scores were calculated by dividing the narcissistic answers by the total number of questions. Scores ranged from 0 to 1. The reliability alpha for this scale was .73.

A 10-item version of the Children’s Depression Inventory (Kovacs, 1981) was used to measure depression. The questionnaire assesses self-appraisals on several topics including friendship and physical attractiveness. Children were given three statements and chose which statement best fit them. For instance children chose from one of the following, “I am sad once in a while”, “I am sad many times”, and “I am sad all the time” and were assigned 1-3 points, respectively. Therefore, a higher score for each item indicated higher depression. Answers were averaged across items, yielding a score from 1-3. The reliability alpha for this measure was .74.

Results

Descriptive Statistics

Means and standard deviations for variables are presented in Table 1. Of interest, six of the eight gender cognition variables showed significant sex differences. Boys exhibited higher felt pressure, same-sex sports stereotypes, and work, parenting, and dating sexist beliefs, whereas girls scored significantly higher on other sex-sports stereotypes. There were no gender differences in within-gender typicality or gender contentedness. As for adjustment variables in question, three of seven indexes showed significant sex differences. Girls exhibited higher depression and narcissism, and boys exhibited higher body satisfaction. There were no gender differences in global self-worth,

internalizing, externalizing, or prosocial behavior. Furthermore, boys exhibited significantly higher sports self-efficacy and sports competence.

As for age differences, within-gender typicality ($\beta = .28, p < .001$) and gender contentedness ($\beta = .22, p < .001$) increased with age. Other gender cognitions decreased with age including same-sex sports stereotypes ($\beta = -.23, p < .001$), work sexism ($\beta = -.20, p < .001$), parenting sexism ($\beta = -.15, p < .01$), and dating sexism ($\beta = -.22, p < .001$). As for adjustment variables, depression ($\beta = -.16, p < .05$) and prosocial behavior ($\beta = -.22, p < .001$) decreased with age.

Relations between Gender Cognitions, Sports Competence, and Sports-Self Efficacy

Previously, it was hypothesized that boys with higher gender identity would exhibit higher sports competence and sports self-efficacy because these variables might play a central role in boys' overall identity. On the other hand, girls who identify highly with their gender might show lower levels of sports competence and self-efficacy because they might not identify sports as central to their identity. The partial correlations in Table 2, controlling for age, show that, for boys, felt pressure and same-sex sports stereotypes were positively correlated with sports self-efficacy. Other gender cognitions including within gender-typicality, gender contentedness, other-sex sports stereotypes, and sexist beliefs did not correlate with sports self-efficacy or sports competence. For girls, same-sex and other-sex sports stereotypes positively correlated with sports self-efficacy, suggesting gender-related sports beliefs significantly affect girls' sports self-efficacy.

It would be expected that high felt pressure to avoid gender-atypical behavior would be negatively associated with sports self-efficacy in girls since these girls might be less likely to engage in sports and therefore have low sports self-efficacy. However, felt

pressure was not associated with sports self-efficacy in girls. Similar results were seen for sports competence.

Thirty-two regressions were run to see if age moderates the associations between gender cognitions and sports self-efficacy/sports competence. Of the 32 regressions, three were significant. For girls, age moderated the relation between parenting sexist beliefs and sports self-efficacy. As girls grew older, this association decreased. Also for girls, age moderated the relationship between felt pressure and sports competence and once again, as girls grew older, this relation decreased.

Relations between Sports Competence, Sports Self-Efficacy, and Adjustment

As seen in Table 2, sports self-efficacy and sports competence were associated with a number of adjustment variables for both boys and girls. For boys, sports self-efficacy was positively associated with body satisfaction, narcissism, and externalizing and negatively associated with depression and internalizing. Sports competence showed similar associations except that it did not correlate with externalizing. Table 2 also shows that for girls, sports self-efficacy was positively associated with global self-worth and body satisfaction and negatively associated with depression and internalizing. Sports competence was positively associated with prosocial behavior and negatively associated with internalizing.

It might be suggested that other domains of self-efficacy contribute to the effects that sports self-efficacy has on adjustment, especially for boys. However, a multiple regression analyses controlling for academic competence self-efficacy refutes this. Seven separate multiple regression analyses were conducted using each of the seven adjustment variables as dependent variables. Step 1 included age and academic competence self-

efficacy and step 2 included sports self-efficacy. For boys, all relations between sports self-efficacy and adjustment remained significant. However, for girls, sports self-efficacy failed to predict global self-worth ($\beta = .16, p = .06$) and body satisfaction ($\beta = .14, p = .10$), indicating that academic self-efficacy contributes to a significant portion of the variance seen in the associations between sports self-efficacy and both global self-worth and body satisfaction.

For several adjustment measures, the effects of both sports self-efficacy and sports competence were significant (for a given sex). To see whether, in these cases, one sports measure mediated the effect of the other, additional regressions were run. Six more regression analyses were conducted; each with a dependent variable that correlated with both sports self-efficacy and sports competence. In Step 1, age was entered; in Step 2, sports self-efficacy and sports competence were entered. The results show that for boys, sports self-efficacy completely mediated the relationship between sports competence and both body satisfaction ($\beta = .26, p < .05$) and externalizing ($\beta = .23, p < .05$). In addition for boys, sports competence mediated the relation between sports self-efficacy and depression ($\beta = -.34, p < .01$). For both boys and girls, sports competence mediated the relation between sports self-efficacy and internalizing (boys: $\beta = -.68, p < .001$; girls: $\beta = -.49, p < .001$).

Twenty-eight regressions were run to see if age moderates the associations between sports self-efficacy/sports competence and psychosocial adjustment. Of the 28 regressions, one was significant. For girls, age moderated the relation between sports competence and prosocial behaviors. As girls grew older, this association diminished.

Discussion

The purpose of this exploratory study was two-fold: to determine how gender-related cognitions are associated with self-reported sports-self efficacy and peer-reported sports competence and to see the potential associations between both sports self-efficacy and sports competence with various psychosocial adjustment variables.

Do Gender Cognitions Relate to Sports Self-Efficacy and Sports Competence?

Overall, there are few associations between gender cognitions (i.e., gender typicality, gender contentedness, felt pressure, gender-related sports stereotypes, and sexist beliefs) and both sports self-efficacy and sports competence. However, a few interesting findings arose. Felt pressure and same-sex sports stereotypes both predicted boys' sports self-efficacy. Boys, who feel pressure to act gender typical, might exhibit higher sports self-efficacy because they tend to engage in sports activities more than girls who have high felt pressure. Therefore, participating in sports is a potential mechanism for gaining sports self-efficacy and for boys to act gender typical. Same-sex sports stereotypes also influence sports self-efficacy in boys. Similarly, boys who think boys should be good at sports probably engage in sports activities more often and increased participation might lead to higher sports self-efficacy.

The relation between felt pressure and sports self-efficacy was not seen in girls. It might be that girls with high felt pressure for gender conformity are less likely to engage in sports because they do not see sports as gender-relevant. Therefore, they are less likely to participate and become self-efficacious in sports. However, girls with high same-sex sports stereotypes have higher sports self-efficacy, suggesting that girls who *do* think sports are an important gender-related domain of personality are more likely to gain self-efficacy from participating in sports.

Neither felt pressure nor same-sex sports stereotypes correlated with sports competence for either sex. This finding is not too surprising in that sports competence is a peer-rated variable while felt pressure and same-sex sports stereotypes are self-appraisals. But, it does support the notion that gender cognitions have more of an impact on self-appraisals than on peer-rated competence beliefs.

Do Sports Self-Efficacy and Sports Competence Relate to Children's Psychosocial Adjustment.

There are several interesting findings regarding my second question: does sports self-efficacy or sports competence relate to psychosocial adjustment? First, self-reported sports self-efficacy seems to influence children's adjustment more than that peer-reported sports competence. This suggests that cognitive self-appraisals, at least in the domain of sports, trump the effects of peer appraisals. Practical implications come to mind. Increasing one's sports self-efficacy could have as many or more benefits than simply training them to become better at sports. Next, sports self-efficacy predicted global self-worth in girls but not in boys. It might be that since girls, compared to boys, are not generally expected to be successful at sports, that when they are self-efficacious, they incorporate it into their identity more than boys. From this, they develop confidence and self-worth. On the other hand, boys are expected to be successful at sports, so when they become self-efficacious, they do not derive self-worth as much, simply because it is expected from them.

The major finding from this question is that sports self-efficacy showed only positive effects for girls, suggesting that increasing sports self-efficacy for girls could have major psychosocial benefits with little negative side effects. Girls with high sports-

self efficacy exhibited higher self-worth and body satisfaction while exhibiting lower depression and internalizing (e.g., anxiety). Boys with high sports-self efficacy, on the other hand, exhibit some negative effects such as increased narcissism and externalizing (e.g., aggression) as well as decreased prosocial behavior. It might be that the competitive nature in male-typical sports fosters these behaviors in boys, but it does not explain why these negative behaviors are not found in girls. Perhaps the culture of sports competition differs for boys and girls. Sports for many boys are seen as a forum to demonstrate dominance through aggression and narcissistic beliefs and might generalize to other domains (Gardner et al., 2009). If dominance is achieved, inflated feelings of narcissism might arise. On the other hand, sports for many girls are seen as an opportunity to foster cooperation and develop self-esteem, although future research is needed to substantiate this hypothesis.

Another possible explanation for the lack of negative psychosocial outcomes in girls comes from a possible gender difference in how boys and girls judge themselves and each other. It might be that boys judge themselves (and others) on sports ability while girls judge themselves (and others) on different behaviors (e.g., academic competency or cooperative tendencies). This would explain how a boy and a girl who both have high sports self-efficacy/sports competence would exhibit different effects. In fact, this study found that peer-rated sports competence does not predict any adjustment variables in girls, which lends support to the idea that peers do not rate girls adjustment in terms of their sports competence, but some other domain. Furthermore, peer-rated sports competence predicts narcissism, depression, internalizing, and prosocial behavior in

boys, which indicates that peers might judge boys' overall personality with great weight assigned to their sports ability.

A mediation analyses was used in an attempt to separate out the effects of self-reported sports self-efficacy and peer-reported sports competence. For boys, sports self-efficacy successfully mediated the relation between sports competence and body satisfaction. Sports self-efficacy and body satisfaction seem to go hand in hand. Boys who feel self-efficacious in sports are more likely to continue to participate in sports and increase their image on how they physically appear.

For boys, sports self-efficacy also mediated the relationship between sports competence and externalizing problems. This is an interesting find because externalizing and sports competence are both peer-rated variables while sports self-efficacy is a self-appraisal. However, externalizing is a potential tool to maintain the ego of the boy. Simply attaining sports self-efficacy might not be enough to reap the psychosocial effects; maintaining self-efficacy is important and aggression might be a useful tool.

Peer-rated sports competency also mediates a few associations in boys, including the relations between sports self-efficacy and both depression and internalizing. It might be possible that, since boys generally emphasize sports in their overall identity, peer rejection due to a lack of competence may outweigh one's self-appraisal and contribute to increased anxiety and depression.

Conclusion

There is considerable research devoted to explaining the causes and effects of sports participation for our nation's youth. However, the subject area is still developing, and much remains to be learned about the potential costs and benefits of children's

involvement in sports. This study added to the literature by incorporating gender cognitions and sports self-efficacy to the picture. This exploratory study aimed to delineate (1) how gender influences one's cognitive appraisals of sports ability and (2) how one's self-efficacy in sports influences his or her psychosocial adjustment. I found that felt pressure to act gender typical increases boys' sports-self efficacy and that same-sex sports-stereotypes increases both boys and girls sports self-efficacy. Furthermore, children with higher sports self-efficacy exhibit a myriad of different psychosocial outcomes, some bad but many beneficial. For instance, my results suggest that increasing girls' sports self-efficacy is exclusively beneficial for their mental health. It was associated with increased self-esteem, and body satisfaction as well as decreased depression and anxiety. Boys with higher sports self-efficacy, on the other hand, do exhibit some negative effects including increased narcissism and aggression and antisocial behavior.

There are several limitations to this study. First and foremost, causal conclusions cannot be made from the various associations depicted here. Although the concurrent-correlational format of this study is acceptable for exploratory analyses such as these, longitudinal research would be better to support or refute the putative causal connections. Second, the associations depicted in this study are from third to eighth grade students. It would be difficult to generalize these effects to adolescents or very young children as Nicholls (1978) and Eccles and Wigfield (1993) suggest that such traits like self-esteem show a decline as children age. Future research will determine if these relations are exhibited in young children, adolescents, and young adults.

REFERENCES

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.
- Barry, C. T., Frick, P. J., & Killian, A. L. (2003). The relation of narcissism and self-esteem to conduct problems in children: A preliminary investigation. *Journal of Clinical Child & Adolescent Psychology, 32*(1), 139-152.
- Bowker, A., Gadbois, S., & Cornock, B. (2003). Sports participation and self-esteem: Variations as a function of gender and gender role orientation. *Sex Roles, 49*(1), 47-58.
- Carver, P. R., Yunger, J. L., & Perry, D. G. (2003). Gender identity and adjustment in middle childhood. *Sex Roles, 49*(3), 95-109.
- Corby, B. C., Hodges, E. V. E., & Perry, D. G. (2007). Gender identity and adjustment in black, hispanic, and white preadolescents. *Developmental Psychology, 43*(1), 261-266.
- Eccles, J., & Wigfield, A. (1993). Age and gender differences in children's self- and task perceptions during elementary school. *Child Development, 64*(3), 830-847.

- Egan, S. K., & Perry, D. G. (2001). Gender identity: A multidimensional analysis with implications for psychosocial adjustment. *Developmental Psychology, 37*(4), 451-463.
- Feltz, D. L. (2007). Self-confidence and sports performance. (pp. 278) Human Kinetics Publishers.
- Fox, M. A., Connolly, B. A., & Snyder, T. D. (2005). ED485721 - Youth Indicators, 2005: Trends in the Well-Being of American Youth. NCES 2005-050
- Fredricks, J. A., & Eccles, J. S. (2002). Children's competence and value beliefs from childhood through adolescence: Growth trajectories in two male-sex-typed domains. *Developmental Psychology, 38*(4), 519-533.
- Gardner, M., Roth, J., & Brooks-Gunn, J. (2009). Sports participation and juvenile delinquency: The role of the peer context among adolescent boys and girls with varied histories of problem behavior. *Developmental Psychology, 45*(2), 341-353.
- Gaudreau, P., Amiot, C. E., & Vallerand, R. J. (2009). Trajectories of affective states in adolescent hockey players: Turning point and motivational antecedents. *Developmental Psychology, 45*(2), 307-319.
- Gentile, B., Grabe, S., Dolan-Pascoe, B., Twenge, J. M., Wells, B. E., & Maitino, A. (2009). Gender differences in domain-specific self-esteem: A meta-analysis. *Review of General Psychology, 13*(1), 34-45.

- Harter, S. (1981). A new self-report scale of intrinsic versus extrinsic orientation in the classroom: Motivational and informational components. *Developmental Psychology*, *17*(3), 300-312.
- Jacobs, J. E., Lanza, S., Osgood, D. W., Eccles, J. S., & Wigfield, A. (2002). Changes in children's self-competence and values: Gender and domain differences across grades one through twelve. *Child Development*, *73*(2), 509-527.
- Klomsten, A. T., Skaalvik, E. M., Espnes, G. A., & Klomsten, A. T. (2004). Physical self-concept and sports: Do gender differences still exist? *Sex Roles*, *50*(1) 119-127.
- Kovacs, M. (1981). Rating scales to assess depression in school-aged children. *Acta Paedopsychiatrica: International Journal of Child & Adolescent Psychiatry*, *46*(5-6), 305-315.
- Larson, R. W. (2000). Toward a psychology of positive youth development. *American Psychologist*, *55*(1), 170-183.
- Larson, R. W., Hansen, D. M., & Moneta, G. (2006). Differing profiles of developmental experiences across types of organized youth activities. *Developmental Psychology*, *42*(5), 849-862.
- Linver, M. R., Roth, J. L., & Brooks-Gunn, J. (2009). Patterns of adolescents' participation in organized activities: Are sports best when combined with other activities?. *Developmental Psychology*, *45*(2), 354-367.

- Nicholls, J. G. (1978). The development of the concepts of effort and ability, perception of academic attainment, and the understanding that difficult tasks require more ability. *Child Development*, *49*, 800-814.
- Pate, R. R., Trost, S. G., Levin, S., & Dowda, M. (2000). Sports participation and health-related behaviors among US youth. *Archives of Pediatrics and Adolescent Medicine*, *154*(9), 904.
- Slutzky, C. B., & Simpkins, S. D. (2009). The link between children's sport participation and self-esteem: Exploring the mediating role of sport self-concept. *Psychology of Sport and Exercise* *10*, 381-389.
- Stein, C., Fisher, L., Berkey, C., & Colditz, G. (2007). Adolescent physical activity and perceived competence: Does change in activity level impact self-perception? *Journal of Adolescent Health*, *40*(5), 462-462.
- Wiggins, J. S., & Winder, C. L. (1961). The peer nomination inventory: An empirically derived sociometric measure of adjustment in preadolescent boys. *Psychological Reports*, *9*(5), 643-677.

Table 1

Means and Standard Deviations of Measures by Child Sex

Measures	Boys (n = 107)		Girls (n = 129)		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Sports self-efficacy	3.19	.56	2.95	.57	10.54**
Sports competence	.60	.29	.43	.29	19.09**
Within-gender typicality	2.89	.62	2.79	.71	2.50
Gender contentedness	3.80	.33	3.71	.43	3.66
Felt pressure	2.75	.79	1.82	.61	102.41***
Same-sex sports stereotypes	2.56	1.08	1.91	1.00	20.84***
Other-sex sports stereotypes	1.60	.84	1.98	.98	10.78**
Work sexism	2.28	.73	1.58	.50	74.79***
Parenting sexism	2.15	.62	1.51	.44	83.36***
Dating sexism	2.27	.78	1.58	.49	66.77***
Global self-worth	3.38	.54	3.41	.61	.12
Body satisfaction	3.28	.43	3.14	.52	5.67*
Narcissism	.21	.14	.26	.18	5.62*
Depression	1.22	.19	1.30	.29	8.03**
Internalizing behavior	.21	.21	.20	.18	.15
Externalizing behavior	.22	.20	.24	.19	.36
Prosocial behavior	.45	.21	.47	.19	1.18

Note. *F*s indicate the significance of the sex difference (with age controlled).

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

Table 2

Intercorrelations of Measures by Sex

Measure	1	2	3	4	5	6	7	8	9	10
1. Sports self-efficacy	-	.52***	.13	-.02	.19*	.28**	.14	.18	.09	.07
2. Sports competence	.56***	-	.05	-.12	.04	.03	-.07	-.01	-.11	-.06
3. Within gender-typicality	-.05	-.04	-	.25**	.12	.05	.01	.11	.24*	.19
4. Gender contentedness	.03	.05	.36	-	.22*	.18	.10	.12	.14	.22*
5. Felt pressure	-.13	-.12	-.02	-.11	-	.33	.36	.23	.21	-
6. Same-sex sports stereotypes	.27**	.10	.12	.02	.09	-	.48***	.45***	.41***	.42***
7. Other-sex sports stereotypes	.21*	.02	.19	.01	.27**	.49***	-	.32**	.34***	.30***
8. Work sexism	.02	-.02	.03	-.05	.39***	.19*	.27**	-	.70***	.54***
9. Parenting sexism	-.04	-.17	.01	-.07	.29**	.21*	.22*	.44***	-	.67***
10. Dating sexism	-.16	-.06	-.11	-.14	.08	.13	.07	.25**	.62***	-

Table 2 (cont.)

Intercorrelations of Measures by Sex

Measure	11	12	13	14	15	16	17
1. Sports self-efficacy	.14	.28**	.20*	-.31**	-.41***	.32**	.24**
2. Sports competence	-.01	.17	.23*	-.41***	-.68***	.10	.29**
3. Within gender-typicality	.24*	.30**	.07	-.20	-.09	-.01	.08
4. Gender contentedness	.27	.05	-.09	.03	.05	.06	.02
5. Felt pressure	-.20	-.09	.28	-.06	-.04	-.02	.09
6. Same-sex sports stereotypes	-.21	.01	.23*	.02	-.09	.09	.29**
7. Other-sex sports stereotypes	-.16	-.16	.23*	.03	.03	.02	.08
8. Work sexism	-.14	-.04	.12	-.16	-.15	.08	.25**
9. Parenting sexism	-.18	.01	.10	-.13	-.07	.02	.25**
10. Dating sexism	-.12	.07	.14	-.10	-.05	-.03	.11

Table 2 (cont.)

Intercorrelations of Measures by Sex

Measure	1	2	3	4	5	6	7	8	9	10
11. Global self-worth	.24*	.08	.18*	.41***	-.35***	-.02	-.07	-.16	-.18*	.23*
12. Body satisfaction	.19*	.07	.27**	.34***	-.25**	-.02	.13	-.10	-.14	.22*
13. Narcissism	.02	-.06	.21*	.02	-.02	.37***	.42***	.25**	.13	.02
14. Depression	-.22*	-.17	-.20*	-.18*	.28**	.16	-.06	.15	.07	.14
15. Internalizing behaviors	-.44***	-.58***	-.15	-.10	.01	-.21*	-.20	-.09	.02	.01
16. Externalizing behaviors	.13	.09	.16	-.05	.12	-.03	.22*	.29**	.11	.01
17. Prosocial behaviors	.04	.33**	.09	.18*	-.29**	-.14	-.18*	-.20*	-.17	.07

Table 2 (cont.)

Intercorrelations of Measures by Sex

Measure	11	12	13	14	15	16	17
11. Global self-worth	-	.48***	-.16	-.29**	-.03	-.06	.13
12. Body satisfaction	.66***	-	.00	-.44***	-.15	-.02	.03
13. Narcissism	-.14	.01	-	-.14	-.18	.34***	.28***
14. Depression	-.61***	-.58***	.09	-	-.48***	-.06	.04
15. Internalizing behaviors	-.09	-.09	-.10	.27**	-	-.25**	.04
16. Externalizing behaviors	-.17	-.18*	.39***	.14	-.20*	-	.56***
17. Prosocial behaviors	.17	.22*	-.34***	-.20*	-.18*	-.49***	-

Note. Correlations for boys are above the diagonal; correlations for girls are below the diagonal. Entries are partial correlations with age controlled.

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