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MIDDLE SCHOOL INTRAMURALS

Importance of Bonding in Middle School Intramural Sports Participation: Psychosocial Outcomes Based on Gender and Grade-Level Differences

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Abstract

This study aimed to measure perceived psychosocial outcomes of middle school intramural participants in psychological development, social development, and school connectedness and to identify differences between gender and grade level. One hundred four middle school students were surveyed via a modified version of the Social Outcomes questionnaire. Data revealed that students perceived the highest degrees of outcomes in the areas of bonding with teammates, improving ability to work with a team, and increased feelings of belonging at school. ANOVAs and t tests showed whether there were significant differences between groups based on grade level. No differences were found based on gender. Results from this exploratory study support the importance of providing inclusive intramural programs for middle school students that enhance not only physical health, but also psychological and social health.

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Schools are considered one of the most critical organizations for providing youth with the opportunity for and education about the importance of physical activity (PA). The Centers for Disease Control and Prevention (CDC, 2014a) has reported that the obesity rate in children has more than doubled and adolescent rates have quadrupled over the past 30 years. Despite this alarming increase, the quantity and quality of class time in physical education has decreased due to budget cuts, time constraints, inappropriate class sizes, and physical education not being considered a priority (CDC, 2010, 2014b; Elder et al., 2007). Statistics show that in 2006 only 3.8% of elementary schools, 7.9% of middle schools, and 2.1% of high schools provided the recommended daily allotment of physical education for students (CDC, 2013). This has caused many governing agencies to advocate for Comprehensive School Physical Activity Programs (CSPAP) that offer physical activity opportunities before, during, and after school (CDC, 2013). Intramural sports have been identified as one inclusive component of CSPAPs for increasing PA levels (National Association for Sport and Physical Education [NASPE], 2008).

Intramural programs have declined in recent years (McEwin & Swaim, 2009), while more exclusive, interscholastic sports have risen in number and are heavily favored by middle schools (Elder et al., 2007; Mull, Bayless, & Jamieson, 2005), despite the programs' high financial costs and research indicating intramurals are more aligned with the philosophy and purposes of middle schools (NASPE, 2008). Even though many students desire to participate in interscholastic sports, they are often excluded because they lack the skill, eligibility, or resources required to participate. Students who are "unable to make an athletic team find themselves with few opportunities to participate in [organized] sport" (Mull et al., 2005, p. 20) in the community too, because of a lack of recreational programs for adolescents between the ages of 13 and 15. Furthermore, sixth grade students are often automatically excluded from interscholastic sports due to school policy (Kanters, Bocarro, Edwards, Casper, & Myron, 2013). However, providing PA opportunities for middle schoolers is crucial, as PA levels tend to drop around this time (Nader, Bradley, Houtus, McRitchie, & O'Brien, 2008).

Recent studies have shown well-documented physical benefits of middle school intramural participation, including increased PA

for students (Bocarro, Kanters, Edwards, Casper, & McKenzie, 2014; Kanters et al., 2013), increased participant rates (Edwards, Kanters, & Bocarro, 2014), increased energy expenditure (Edwards et al., 2014), and improved motor skills (NASPE, 2002). However, few studies have tried to determine whether middle school intramural participants experience psychological and social benefits, even though psychosocial needs of middle school students are unique and well documented (NASPE, 2008). Furthermore, studies focused on older students (Artinger et al., 2006; Sturts & Ross, 2013) have indicated that those in college benefit socially and personally from intramural participation. Sturts and Ross (2013) reported specific benefits of college intramural participation including development in areas of "social interaction, time management, ability to work within a team, overall happiness, sense of belonging, and feelings of self-worth" (p. 26), along with greater success and satisfaction with college.

Compared to students of other age groups, middle school students tend to demonstrate a greater attraction to their peers, a strong need to belong, and the need to feel connected to school (Caskey & Anfara, 2007; Day, Hamm, Lambert, & Farmer, 2014; NASPE, 2008). Participation in intramural sports programs can provide for some of these needs by offering students more opportunities to develop positive peer relationships, enhance self-esteem, create better relationships with teachers, and form a sense of belonging within their teams. In addition, participation in team sports can enhance self-concept, particularly in middle school girls (Ference & Muth, 2004). These factors can lead to more positive school experiences. The need for positive school experiences is great, considering nearly half of students are already disengaged from school by the time they start high school (Sulkowski, Demaray, & Lazarus, 2012). Though few studies have tried to determine how intramurals affect students' psychological and social development, studies (Bloomfield & Barber, 2010; Bowker, Gadbois, & Cornock, 2003; Eime, Young, Harvey, Charity, & Payne, 2013; Fredricks & Eccles, 2006; Kort-Butler, 2012; Kort-Butler & Hagewen, 2011; Taylor & Turek, 2010) have shown that extracurricular participation in sports and other activities can positively affect self-esteem, social interactions, and sense of school connectedness.

High self-esteem is a critical element for the overall health of middle school students and provides resiliency against stressful

situations and potential life problems such as depression, dissatisfaction, and other aggressive and self-harming behaviors (Kort-Butler & Hagewen, 2011). Involvement in structured, school-based extracurricular activities allows students a safe and supportive social environment in which to build skills, establish relationships, and explore and develop identity (Kort-Butler, 2012), which can help form the foundation for their self-esteem at this crucial developmental age. Kort-Butler and Hagewen (2011) found that students involved in extracurricular activities, including sports, had a higher level of self-esteem at the age of 14 than did those who did not participate.

Extracurricular activities also provide a safe social setting in which students can develop social skills and establish peer group identification. They provide frequent chances for students to interact informally with peers who have common interests (Daley & Leahy, 2003), which can lead to greater confidence in their ability to interact with peers and make new friends (Daley & Leahy, 2003; Eccles, Barber, Stone, & Hunt, 2003; Eime et al., 2013). Students form not only peer networks through extracurricular activities, but also positive relationships with pro-social adults who supervise activities, coach, and support the team (Eccles et al., 2003; Eime et al., 2013). This can lead to increased connectedness to school, gives students the opportunity to belong to a socially valued group, and helps them develop positive relationships with supportive and positive peers and adults (Kort-Butler, 2012). Kort-Butler (2012) concluded that such involvement gives students avenues to find meaningful ways to belong to and give back to their communities, which can lead to enhanced social functioning, academic achievement, and school connectedness in short- and long-term outcomes.

The growing interest in the importance of students feeling connected to and satisfied with their school experience is rooted in disturbing statistics presented by Klem and Connell (2004), who note that "by high school as many as 40–60% of students are chronically disengaged from school . . . not counting those who have already dropped out" (p. 262). Loukas, Ripperger-Suhler, and Horton (2009) further noted that school connectedness during middle school may more easily be undermined because of physical, mental, and social changes that students experience. Higher extracurricular activity participation rates were one of four school characteristics associated

with higher levels of school connectedness (Daly, Buchanan, Dasck, Eichen, & Lenhart, 2010; McNeely, Nonnemaker, & Blum 2002). Research has also shown that PA during and after school hours is correlated with satisfaction with school (Trudeau & Shephard, 2008). Despite the body of research that suggests that participation in extracurricular activities can lead to greater school connectedness in the short and long term, programs consistently get cut due to budgetary constraints and an overwhelming focus on academic core classes.

The integral role that extracurricular activity participation plays in psychological and social development is evident throughout research (Bloomfield & Barber, 2010; Eime et al., 2013; Fredricks & Eccles, 2006; Kort-Butler & Hagewen, 2011; Tracy & Erkut, 2002). Because these finding are generalized to extracurricular participation in a variety of activities (including clubs, sports, performing arts, etc.), more research needs to identify and describe the *specific* outcomes of intramural sports participation on the psychosocial development of middle school students. Though researchers have begun to investigate the benefits of intramural programs on middle school participants' PA levels (Bocarro et al., 2014; Edwards et al., 2014; Kanters et al., 2013), they need to explore how these programs may support students' psychosocial development and school connectedness.

Therefore, this study (1) measured the perception of psychosocial outcomes of middle school intramural participants in psychological, social, and school connectedness areas and (2) examined differences in psychosocial outcomes between genders and grade levels.

Method

Participants

The participants in this study (n = 104) were middle school students (Grades 6–8, ages 10–15 years) from three public middle schools in North Carolina. All three schools provided intramural sports programs. Students volunteered to participate in the after-school intramural sports programs. Research procedures were approved by the university institutional review board, the school district, and the schools' principals prior to the beginning of research. To participate, students were required to return parental consent forms and assent forms.

Instrumentation

The instrument used in this study was based on the social benefits questionnaire that Artinger et al. (2006) developed and implemented to measure the social benefits of intramural sports for college students. Participants' level of agreement with each social benefits statement was measured on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). For the purposes of this study, the social benefits questionnaire was modified and revised. The language of the questionnaire was adjusted to the level of middle school students' understanding and general vocabulary. Three of the five sections of the survey were used and renamed. The *school connectedness* section measured whether respondents perceived that participation improved their sense of belonging to and satisfaction with school. The *psychological benefits* measured development of self-esteem and happiness. The *social group bonding* section measured whether respondents perceived that intramural participation improved relationships and social interactions. The questionnaire after modifications included 15 questions measured by the same Likert scale that Artinger et al. (2006) used and included six demographic questions including the participants' gender and grade level.

Because of the modifications to the original instrument, a pilot study was conducted before the survey was administered, and this determined reliability and unclear wording of the survey questions. In previous studies, the internal consistency for the overall questionnaire was established as reliable with a Cronbach's alpha coefficient of 0.887 (Artinger et al., 2006; Sturts & Ross, 2013). Similar to results in previous studies, the results of the pilot study were analyzed, and the overall instrument was found to be reliable with a Cronbach's alpha value of 0.79, $p < .05$.

Procedures

On the last day of participation in intramural programs, students who returned consent and assent forms completed the modified social benefits questionnaire according to their experiences in the intramural program and psychosocial outcomes experienced. The test administrator explained the procedures for completing the survey and answered any questions that students had, to clarify points of confusion. Surveys took approximately 10 min to complete. Data

were tabulated and analyzed, and the psychosocial outcomes of participation in middle school intramural programs were determined.

Design and Analysis

The data from the modified social benefits questionnaire was tabulated separately in two sections: demographics and social outcomes. Frequency values were calculated for demographics, and mean, mode, and standard deviation were calculated for each psychosocial benefits statement and subscale. An independent-samples *t* test explored the differences between psychosocial outcomes in male and female students. A Pearson correlation determined whether there were significant relationships in outcomes among students of different grade levels. A one-way ANOVA determined whether there were differences between psychosocial outcomes and grade level.

Results

The first section of the survey consisted of demographic information. Mean, mode, standard deviation, and frequency values were calculated from the 104 usable surveys, which provided a better understanding of the gender, age, race/ethnicity, and grade level of the participants. Of the 104 respondents, 63 were male (61%) and 41 were female (39%). The sample was predominantly White/Caucasian (78%), with the next largest group being Black/African American (13%). The mean age of respondents was 12.20 years. The respondents' ages ranged from 10 to 15 with the majority of respondents ranging from ages 11 to 13 (92%). Respondents also reported their grade level. The greatest proportion of respondents were sixth grade students (42%), with participation decreasing as grade level increased. Table 1 summarizes gender and grade-level statistics.

Table 1
Descriptive Statistics of Respondents

Variable	Frequency	%
Gender		
Male	63	60.6
Female	41	39.4
Grade Level		
6th	44	42.7
7th	34	33.0
8th	25	24.3

The second section of the survey consisted of 15 Likert-type statements about perceived psychosocial benefits gained from intramural participation. The mean, standard deviation, and mode for responses to each statement and each subscale were calculated. Overall, participants' responses demonstrated the greatest benefits in the area of social benefits ($M = 4.24$, $SD = .635$) and similar results in psychological ($M = 3.95$, $SD = .577$) and school connectedness ($M = 3.95$, $SD = .728$) outcome subscales. Statements with the highest reported benefits were in the social outcomes category and included "allows me to bond with my teammates" ($M = 4.48$, $SD = .776$) and "improves my ability to work within a team" ($M = 4.37$, $SD = .904$) and in the school connectedness category for "improves my feeling of belonging at school" ($M = 4.28$, $SD = 1.028$). Table 2 presents the values of individual statements and subscales.

Table 2
Values of Mean, Mode, and Standard Deviation for Psychosocial Benefits

Psychosocial benefit	*M*	*SD*	Mode
Psychological Benefits			
1: Improves my leadership abilities	3.69	.893	4
4: Helps me to understand myself better[a]	4.05	1.046	5
7: Improves my overall happiness	4.00	.828	4
10: Improves my self-confidence[a]	4.21	.956	5
13: Increases my feeling of self-worth	3.83	.945	3
Psychological Subscale	3.95	.577	4.2
School Connectedness Benefits			
3: Improves my feeling of belonging at school[a]	4.28	1.028	5
6: Increases my satisfaction with my school experience[a]	3.91	1.189	5
9: Improves my sense of responsibility to my school	3.60	1.013	3
11: Increases involvement in school extracurricular activities	4.03	1.136	5
School Connectedness Subscale	3.95	.728	4

Table 2 (cont.)

Psychosocial benefit	*M*	*SD*	Mode
Social Group Bonding Benefits			
2: Helps me feel closer to adults and kids at school	4.17	.781	4
5: Improves my social relationships at school	4.13	.972	5
8: Improves my ability to work within a team[a]	4.37	.904	5
12: Increases social bonding and support from peers[a]	4.05	1.158	5
14: Improves my ability to interact socially[a]	4.26	1.009	5
15: Allows me to bond with my teammates	4.48	.776	5
Social Bonding Subscale	4.24	.635	4.5

[a]Statement with reverse coding.

An independent-samples *t* test determined whether there were significant differences in perceived psychosocial outcomes based on the group variable of gender. No significant differences were found between males and females in the three subscales or with any of the 15 individual statements.

Females reported higher degrees of psychosocial outcomes than males in all three subscales and reported higher degrees of psychosocial outcomes on 10 of 15 statements, including four of four school connectedness outcomes, four of six social bonding outcomes, and two of five psychological outcomes. Table 3 summarizes statement and subscale response calculations based on gender.

A one-way ANOVA examined whether there were significant differences between grade-level and psychosocial outcomes. The only significant difference was with Statement 14. Sixth graders reported experiencing a higher degree of improvement in their ability to interact socially than did eighth graders, $F(2) = 3.237$, $p < .05$. Table 4 provides significant difference results by grade level.

Table 3
Statement and Subscale Responses Based on Gender

Psychosocial benefit	Gender	*M*	*SD*
Psychological Benefits			
1: Improves my leadership abilities	Male	3.70	.909
	Female	3.68	.879
4: Helps me to understand myself better[a]	Male	3.94	1.091
	Female	4.22	.962
7: Improves my overall happiness	Male	4.06	.866
	Female	3.90	.768
10: Improves my self-confidence[a]	Male	4.26	.940
	Female	4.15	.989
13: Increases my feeling of self-worth	Male	3.81	1.022
	Female	3.88	.822
Psychological Subscale	Male	3.95	.633
	Female	3.96	.489
School Connectedness Benefits			
3: Improves my feeling of belonging at school[a]	Male	4.22	1.069
	Female	4.37	.968
6: Increases my satisfaction with my school experience[a]	Male	3.79	1.217
	Female	4.10	1.136
9: Improves my sense of responsibility to my school	Male	3.55	1.066
	Female	3.68	.934
11: Increases my involvement in school-based extracurricular activities	Male	4.02	1.100
	Female	4.05	1.203
School Connectedness Subscale	Male	3.89	.766
	Female	4.05	.661

Table 3 (cont.)

Psychosocial benefit	Gender	*M*	*SD*
Social Group Bonding Benefits			
2: Helps me feel closer to adults and kids at school	Male	4.06	.801
	Female	4.34	.728
5: Improves my social relationships at school	Male	4.08	.938
	Female	4.20	1.030
8: Improves my ability to work within a team[a]	Male	4.46	.820
	Female	4.22	1.013
12: Increases social bonding and support from peers[a]	Male	4.10	1.187
	Female	3.98	1.121
14: Improves my ability to interact socially[a]	Male	4.17	1.086
	Female	4.40	.871
15: Allows me to bond with my teammates	Male	4.41	.854
	Female	4.59	.631
Social Group Bonding Subscale	Male	4.21	.663
	Female	4.29	.593

[a]Statement with reverse coding.

Table 4

Differences in Psychosocial Outcomes and Grade Level

				M	
Psychosocial outcome	***df***	***F***	**Sig.**	**6th grade**	**8th grade**
14: Improved my ability to interact socially[a]	99	3.237**	.043	4.53	3.92

Note. A Pearson correlation was also performed to compare grade levels.

[a]Statement with reverse coding.

**$p < .05$.

A significant negative relationship was found between grade level and improving feeling of belonging at school ($r = -.209$, $p < .05$), grade level and improving self-confidence ($r = -.197$, $p < .05$), and grade level and improving ability to interact socially ($r = -.247$, $p < .05$). Table 5 shows the results of significant Pearson correlations.

Table 5

Significant Relationships in Psychosocial Outcomes and Grade Level

Variable	Significance	Grade level	Statement
Statement 3: Improves my feeling of belonging at school (reverse-coded statement)			
Grade level	Pearson Correlation	1	-.209*
	Sig. (2-tailed)		.034
Statement 3	Pearson Correlation	-.209*	1
	Sig. (2-tailed)	.034	
Statement 10: Improves my self-confidence (reverse-coded statement)			
Grade Level	Pearson Correlation	1	-.197*
	Sig. (2-tailed)		.047
Statement 10	Pearson Correlation	-.197*	1
	Sig. (2-tailed)	.047	
Statement 14: Improves my ability to interact socially			
Grade Level	Pearson Correlation	1	-.247*
	Sig. (2-tailed)		
Statement 14 Recode	Pearson Correlation	-.247*	1
	Sig. (2-tailed)	.012	

*Correlation is significant at the 0.05 level (2-tailed).

Social benefits decreased based on grade level for the survey subscales and nine of 15 benefits including four of six social benefits, three of four school connectedness benefits, and two of five psychological benefits. Sixth graders reported higher degrees of psychosocial benefits than seventh and eighth graders. Seventh graders reported higher benefits than eighth graders. Table 6 summarizes statement and subscale calculations based on grade level.

Table 6

Statement and Subscale Responses Based on Grade Level

Psychosocial benefit	Grade	*M*	*SD*
Psychological Benefits			
1: Improves my leadership abilities	6th	3.80	.795
	7th	3.44	.960
	8th	3.84	.943
4: Helps me to understand myself better[a]	6th	4.18	.971
	7th	4.00	1.073
	8th	3.88	1.166
7: Improves my overall happiness	6th	3.95	.950
	7th	4.03	.758
	8th	4.00	.707
10: Improves my self-confidence[a]	6th	4.40	.791
	7th	4.18	.999
	8th	3.92	1.115
13: Increases my feeling of self-worth	6th	3.88	.981
	7th	3.94	.919
	8th	3.54	.884
Psychological Subscale	6th	4.05	.489
	7th	3.92	.681
	8th	3.82	.544
School Connectedness Benefits			
3: Improves my feeling of belonging at school[a]	6th	4.50	.792
	7th	4.24	1.046
	8th	3.96	1.306
6: Increases my satisfaction with my school experience[a]	6th	3.88	1.276
	7th	4.00	1.155
	8th	3.96	.978
9: Improves my sense of responsibility to my school	6th	3.77	.937
	7th	3.42	1.146
	8th	3.48	.918
11: Increases my involvement in school-based extracurricular activities	6th	4.07	1.189
	7th	4.00	1.128
	8th	4.00	1.118
School Connectedness Subscale	6th	4.05	.687
	7th	3.91	.812
	8th	3.85	.692

Table 6 (cont.)

Psychosocial benefit	Grade	*M*	*SD*
Social Group Bonding Benefits			
2: Helps me feel closer to adults and kids at school	6th	4.23	.774
	7th	4.12	.880
	8th	4.16	.688
5: Improves my social relationships at school	6th	4.30	.904
	7th	4.00	1.073
	8th	4.00	.957
8: Improves my ability to work within a team[a]	6th	4.50	.731
	7th	4.38	.985
	8th	4.08	1.038
12: Increases social bonding and support from peers[a]	6th	4.00	1.201
	7th	4.21	1.149
	8th	3.88	1.116
14: Improves my ability to interact socially[a]	6th	4.53	.767
	7th	4.18	1.167
	8th	3.92	1.077
15: Allows me to bond with my teammates	6th	4.45	.697
	7th	4.47	.929
	8th	4.52	.714
Social Group Bonding Subscale	6th	4.33	.555
	7th	4.23	.742
	8th	4.10	.618

[a]Statement with reverse coding.

Discussion

Participants reported many psychosocial benefits of intramural participation, such as improvement in self-confidence, social interactions, and social bonding, that are consistent with research about the psychosocial benefits of participation in sport for young people (Eime et al., 2013; Kort-Butler, 2012). Degrees of outcomes reported showed that the sample perceived the most benefit in the area of social bonding outcomes. These results are consistent with middle school students' unique stage of social development. Social

relationships are a priority for students at this age, as they to seek to learn in active ways and interact with peers while doing so (Caskey & Anfara, 2007; NASPE, 2002). An emphasis on the social benefits for middle school students was confirmed with three of the four highest reported benefit statements belonging to the social bonding outcome subscale. This highlights the importance of understanding and promoting not only the physical benefits of intramural sports participation (Bocarro et al., 2014; Edwards et al., 2014; Kanters et al., 2013), but also the social benefits of participation (Bloomfield & Barber, 2010; Eime et al., 2013).

Perceived psychosocial outcomes varied among groups based on gender and grade level. Although no significant differences were found between genders, girls had higher means than boys in four of six social statements and four of four school connectedness statements. This is consistent with research that suggests that girls value the relational and connection benefits that come from sports participation (Bowker et al., 2003; Ference & Muth, 2004; Taylor & Turek, 2010). Boys had higher means than girls in three of four psychological outcome statements, noting gains in leadership, happiness, and self-confidence, consistent with research reporting positive associations between masculinity and athletic/physical competence and self-worth (Tracy & Erkut, 2002). This may indicate that boys tend to place more value on societal expectations of sport participation and rely on it for part of their identity (Tracy & Erkut, 2002).

Though female students reported higher gains from intramural participation in most areas, female participation rates are still much lower than male rates. This should motivate schools to design more intramural programs that attract female students. Bowker et al. (2003) emphasized the importance of providing opportunities that are more recreational and less competitive for individuals with a feminine gender role orientation. Bocarro et al. (2014) recommended gender-specific intramural programs that allow girls to participate in settings where boys are less likely to dominate.

Regarding grade level, sixth grade students reported higher degrees of social outcomes than seventh and eighth grade students in nine out of 15 psychosocial statements, especially in the area of social bonding and school connectedness. This may be because sixth grade students are not allowed to participate in interscholastic

school sports per state policy (Kanters et al., 2013) and are seeking ways to be more involved in meaningful ways at school. Kanters et al. (2013) noted the importance of providing opportunities for sixth grade students to participate in sports, as PA and participation levels on teams tend to decrease during the beginning of middle school (Nader et al., 2008). Furthermore, research shows a major transition that happens in the sixth grade and that may disrupt previous social connections for students (Day et al., 2014). Intramural participation may provide students with nonthreatening opportunities to establish strong relationships with prosocial adults and peers, increase social interactions outside of the classroom (Caskey & Anfara, 2007; NASPE, 2002), and fulfill their desire for belonging as they transition to middle school. This may explain the significant difference that was also found between sixth graders and eighth graders, with sixth graders reporting greater improvement in their ability to interact socially, and the negative correlation found between grade level and the statements of feeling of belonging at school, improvement in self-confidence, and improvement in ability to socially interact.

Implications for Practice

Few schools offer intramural programs and most only offer interscholastic sports, which are less inclusive. Students can experience not only physical benefits from intramural participation, but also, as the results from this study suggest, improvements in self-esteem, improvements in their ability to socially interact, and feelings of belonging at school. These factors can help make middle schoolers' experiences positive and can contribute to their overall development. Based on these findings, schools and school systems may begin to explore ways to actively increase the quantity and quality of intramural programs in middle schools.

The results of this study also suggest that these particular middle school girls perceived greater psychosocial benefits than boys in many areas surveyed. Despite the greater reported benefits, girls' participation rates in intramurals are traditionally much lower than boys'. This has the potential to motivate intramural directors to design programs that will increase female participation and to focus on retention of girls who are already participating. This may

encourage girls' overall development and general happiness at school. A focus on increasing the participation and retention of girls may also require exploring the possibility of separating some programs by gender, while continuing to include some co-ed programs as well, for intramural directors to determine influences on female participation rates and the degree of benefits gained.

Consistent with the findings of this study, intramural directors should also seek to continue to develop intramural programs (within these schools) that attract and target students from all grade levels. Findings showed that sixth graders participated more and reported higher benefits than seventh and eighth graders in most areas. Although this could partially be due to sixth graders ineligibility to participate on other sports teams during their first year of school, it may also be related to the tendency for youth to decrease participation in physical activities as their age increases. With this in mind, schools should continue to offer intramural programs to sixth graders while concurrently designing other programs that are more attractive to seventh and eighth graders. In so doing, they will help older students to maintain their activity levels and to reap psychosocial benefits. This may require intramural directors to poll students from each grade level to determine differences in the types of activities desired according to grade level. It would also be advisable for schools to experiment with restricting some activities to specific grade levels, to determine if participation or benefits increased when students participated strictly with peers from their grade level.

The findings from this study provide several implications for intramural directors, principals, and school policy makers regarding the role of intramural sports on the middle school level. Consistently high-perceived psychosocial outcomes by participants suggest that intramural participation may be positively affecting various psychological, social, and school connectedness factors including improving students' self-esteem, social interactions, and sense of belonging at school. The results of this study contribute to the body of knowledge about the benefits of intramural sports for middle school students and may influence the direction of future research, which could offer additional information about the value of intramural programs and how participation affects middle school students.

Limitations

The results of this study should not necessarily be applied to the entire population of middle school intramural participants. The respondents in the sample were predominantly White and male, and a larger portion were sixth graders. To increase the applicability of results, future research could survey a larger, more diverse sample.

Future Research

Researchers should continue to explore the psychosocial outcomes of middle school intramural participation by comparing intramural participant psychosocial outcomes to nonparticipant outcomes, examining whether the types (i.e., team sports vs. individual sports) and amounts of programs participated in significantly affect outcomes, determining benefits experienced based on ethnicity, and comparing benefits gained from intramural participation with interscholastic sports participation. These directions could provide more concrete knowledge about whether intramurals significantly affect students' psychosocial outcomes, and they may influence the creation of more intramural sports programs in middle schools and affect overall policy.

In conclusion, few studies have examined the perceived psychosocial outcomes of intramural participation for middle school students. Though physical outcomes of intramural participation for middle school students have been studied (Edwards et al., 2014; Kanters et al., 2013) and social outcomes for college students have been examined (Artinger et al., 2006; Sturts & Ross, 2013), research needs to determine whether intramural participation can benefit middle school students in the areas of self-esteem, social interactions, and school connectedness. Examining outcomes related to intramural participation and middle school students' psychosocial outcomes may be crucial for contributing to overall development of students and helping them feel more connected at school.

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