“Just Let Me Play!”—Understanding Constraints That Limit Adolescent Sport Participation

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Background: Organized sport is viewed as a viable medium for promoting more physical activity among youth. However, participation in youth sport declines significantly among both boys and girls during their middle school years. This study examined middle school students’ perceived constraints to sport participation.

Methods: Middle school students from 4 schools (6th–8th grade, N = 2465) completed a web based survey (97.3% response rate). Descriptive analysis, t tests, and ANOVA were used to assess extent of perceived constraints and differences among demographic and sport participation level subgroups. Results: The most salient constraint perceived by respondents was time, while knowledge was perceived as the lowest among the overall sample. Significant (P < .01) differences in perceived constraints were found among all comparisons groups. Girls, Latinos, lower SES students, and students who did not play sports reported more constraints than respective comparisons groups. Discussion: The sociodemographic characteristics of middle school students appear to be a significant factor in their perception of constraints to sport participation. Identifying constraints associated with sport participation can enable policy-makers and administrators to be more deliberate in channeling resources.

Keywords: barriers, youth, middle schools

Most children and adolescents do not get recommended levels of daily physical activity, particularly girls and members of ethnic populations. Adolescence marks a period of significant decline in physical activity. Similarly, participation in sport declines significantly among both boys and girls during their middle school years. Because physical inactivity is a risk factor for obesity and related chronic diseases in childhood and later life, considerable research attention now focuses on evidence-based strategies to create policies and environments that encourage activity.

Organized sport is viewed as a viable medium for promoting more physical activity among youth. Sport participation increases LTPA among children and adolescents. This includes populations at risk for lower levels of PA such as rural children and adolescent females. In addition, studies indicate that children involved in sport spend less time in sedentary behaviors like watching television and playing video games than nonparticipants. Youth sport participation may also yield long term benefits such as adult LTPA participation, lower adult BMI, and positive attitudes toward sport participation and fitness.

Given the immediate and long-term benefits of physical activity through youth sport, identifying constraints that limit participation is an important research need. Understanding these constraints could help explain the large decline in youth sport participation and overall LTPA among both boys and girls during middle school years. This study focused on perceived constraints to sport participation among middle school students. Constraints research is a subfield within leisure studies that investigates factors perceived by individuals that limit leisure preferences and/or inhibit participation. Insights from constraints research can inform practitioners and policy makers in their efforts to intervene against inactive leisure patterns and create environments supportive of active leisure patterns. Current theory posits that constraints operate hierarchically on 3 levels: intrapersonal, interpersonal, and structural. Intrapersonal constraints refer to psychological states and attributes such as perceived skill, abilities, and attitudes. Interpersonal constraints arise from interactions with peers, friends and family and potential coparticipants. Structural constraints are externally imposed barriers that intervene between preference and participation such as unavailability of resources required to participate (eg, money, time, problems with facilities, and social/geographical isolation). Current theory also holds that individuals can negotiate perceived constraints using various coping strategies and/or available resources.

One of the most comprehensive reviews of published studies on children’s physical activity showed that perceived barriers are the most consistent negative psychological correlate of physical activity among children.
Some of the primary barriers reported in the few studies examining middle school children’s PA youth include: lack of time, being too tired, being unmotivated, lack of facilities and equipment, and a perceived lack of skill or confidence. Furthermore, environmental barriers related to safety, proximity, cost, and facilities were more evident among middle school children living in low socioeconomic status (SES) areas. However, quantitative studies on barriers to PA among middle school students are lacking. In addition, the majority of studies examining physical activity barriers were focused on girls resulting in a lack of comparative analyses involving both boys and girls.

To date, little research has examined sport and physical activity participation among adolescents in middle school grades. This oversight is particularly troubling since sport drop out and increased levels of physical inactivity are prevalent among adolescents. Although studies of PA among children have examined barriers, we found no studies that focused on how perceived constraints differ across gender, grade level, ethnicity/race and SES among middle school aged students. Furthermore, given the potential of sport to positively impact children’s PA level, an examination of constraints to sport participation is warranted. The purpose of the current study was to examine the perceived constraints to sport participation among middle school students. The following research questions were addressed: (1) What are the most (and least) important reported constraints overall? (2) What is the relationship between perceived constraints and prior sport participation? (3) How do perceived constraints differ across sociodemographic groups (gender, grade, ethnicity, SES)?

### Methods

#### Participants

The data collection procedures were approved by the Institutional Review Board at the researchers’ university and the County school board’s Evaluation and Research Department. Data were obtained through an online survey administered at 4 public middle schools (grades 6–8) in a southeastern United States city. The survey was administered in early September about 2 weeks into the traditional school year. Each school provided a computer room where surveys were preloaded on computers. A total of 2465 (response rate = 97.3%) students completed the survey. The sample was 50% female, 33% 6th grade, 32% 7th grade, 35% 8th grade, 52% Caucasian, 36% African American, 11% Latino, and 32% received free or reduced-price lunch. Seven percent of the sample indicated they had never played sports, 10% played sport only in school, 15% participated in a combination of school and community sport, and the majority of the students (68%) played sport exclusively in the community. Sixty-eight percent of the respondents indicated that they would like to play sports more often. Sample sizes of the groups are reported in Table 2.

### Measures

Constraints to sport participation were assessed with 3 theoretical constraint categories derived from previous research. Specifically, our measure was constructed based on previous leisure research focused on recreational sport and wording was modified for youth sports to reflect sport participation rather than general leisure activities. The 25-item scale represented 7 constructs which are subsets of the 3 theoretical constraint dimensions: intrapersonal (interest, knowledge, and psychological), interpersonal (social support/partners), and structural constraints (accessibility, facility cleanliness, and cost). Past constraints research has found acceptable reliability and validity of the constructs relating to sport participation and in other leisure settings.

Demographic measures included age (years), gender, grade level, race, and self-reported free or reduced-price lunch (socioeconomic status (SES) indicator). Sport participation categories were created based on respondents’ responses to the following 3 past participation items: (1) if they played sport previously (“have you ever played sports before?”), (2) if they played school sponsored sport and what school sport programming was offered (varsity or intramural), and (3) if/where they played sport outside of school (we termed this community sport). Based on those responses, 6 participation categories were created: (1) nonsport, (2) intramural sports, (3) varsity sports, (4) intramural and community sport, (5) varsity and community sport, and (6) community sport.

### Results

Item wording, variable means, standard deviations, and internal reliabilities of the constraint constructs used are shown in Table 1. Individual items were averaged to create a construct total. Internal consistency of the constructs was within acceptable limits with alphas ranging from .69 to .78. Multivariate tests of means found that ratings of the constraints constructs were significantly different (Hotelling’s $T^2 = 891.57; F[6, 2540] = 148.31; P > F = 0.000$). Univariate tests of means found 15 of the 21 construct pairs to be significantly different ($P < .001$). Descriptive analysis of the construct means for the adolescent sample found that time constraints were rated highest while partners and facility issues were the next highest reported constraints. Accessibility was the fourth highest constraint followed by psychological constraints. Interest in sports and knowledge were the lowest constraint constructs across the entire sample.

Analysis of variance (ANOVA) and $t$ tests were used to examine sociodemographic group differences among each of the constructs that comprised the constraints measure. Tukey post hoc tests were used to determine...
which constraint constructs differed within individual
groups. A Bonferroni correction was applied to control
for groupwise error. Table 2 includes the mean scores and
significance testing results of the constraint constructs for
each of the comparison groups. There were significant
\( P < .01 \) differences between all sociodemographic groups.

**Gender**

Girls rated accessibility \( (t = 3.03, P = .002, \text{Cohen’s } d = .12) \), knowledge \( (t = 3.46, P = .001, \text{Cohen’s } d = .14) \),
partners \( (t = 3.53, P < .001, \text{Cohen’s } d = .14) \), and psychologi-
cal \( (t = 5.00, P < .001, \text{Cohen’s } d = .14) \) constraints
higher than boys. No differences were found for facilities, interest, and time constraints.

**Grade**

Only 1 difference was found in a grade-by-grade com-
parison of perceived constraints. Seventh grade students
reported significantly lower facility constraints than 6th
and 8th grade students \( (F = 4.95, P = .007, \text{Cohen’s } d = .20) \).

**Ethnicity**

Latinos generally had higher perceived constraints than
Caucasian or African American participants. Latinos
reported significantly higher accessibility \( (F = 20.12, P < .001, \text{Cohen’s } d = .54 \) Caucasian, .17 African Ameri-
can), knowledge \( (F = 13.11, P < .001, \text{Cohen’s } d = .58 \) for Caucasian, .32 African American), and partners
Table 2  Means, Standard Deviations, and Statistical Differences for Each Constraint Construct According to Socio-Demographic Constructs

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Accessibility</th>
<th>Facilities</th>
<th>Interest</th>
<th>Knowledge</th>
<th>Partners</th>
<th>Psychological</th>
<th>Time</th>
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<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
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<tr>
<td>Females</td>
<td>1163</td>
<td>1.67&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.78</td>
<td>1.67</td>
<td>0.71</td>
<td>1.63</td>
<td>0.93</td>
</tr>
<tr>
<td>Males</td>
<td>1169</td>
<td>1.56&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.84</td>
<td>1.64</td>
<td>0.69</td>
<td>1.54</td>
<td>0.89</td>
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<tr>
<td>Grade</td>
<td></td>
<td></td>
<td></td>
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<td>6th graders</td>
<td>776</td>
<td>1.64</td>
<td>0.83</td>
<td>1.67&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.70</td>
<td>1.59</td>
<td>0.9</td>
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<td>7th graders</td>
<td>749</td>
<td>1.59</td>
<td>0.82</td>
<td>1.59&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.67</td>
<td>1.59</td>
<td>0.93</td>
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<tr>
<td>8th graders</td>
<td>846</td>
<td>1.62</td>
<td>0.81</td>
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<td>0.71</td>
<td>1.57</td>
<td>0.88</td>
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<td>Caucasian</td>
<td>1103</td>
<td>1.45&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.69</td>
<td>1.57&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.65</td>
<td>1.54</td>
<td>0.85</td>
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<td>African American</td>
<td>747</td>
<td>1.74</td>
<td>0.91</td>
<td>1.68</td>
<td>0.75</td>
<td>1.57</td>
<td>0.96</td>
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<td>Latino</td>
<td>237</td>
<td>1.90&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.95</td>
<td>1.84&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.70</td>
<td>1.71</td>
<td>0.93</td>
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<td>Family SES</td>
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<tr>
<td>No free/reduced lunch</td>
<td>1591</td>
<td>1.50</td>
<td>0.76</td>
<td>1.61&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.68</td>
<td>1.57</td>
<td>0.9</td>
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<td>Free reduced lunch</td>
<td>739</td>
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<td>1.74&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.73</td>
<td>1.62</td>
<td>0.93</td>
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<td>Prior sport participation</td>
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<td></td>
<td></td>
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<tr>
<td>No sports</td>
<td>157</td>
<td>2.22&lt;sup&gt;c&lt;/sup&gt;</td>
<td>1.01</td>
<td>1.80&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.76</td>
<td>2.05&lt;sup&gt;c&lt;/sup&gt;</td>
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<tr>
<td>Intramural only</td>
<td>130</td>
<td>1.94&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.97</td>
<td>1.90&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.88</td>
<td>1.87&lt;sup&gt;c&lt;/sup&gt;</td>
<td>1.03</td>
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<tr>
<td>Varsity only</td>
<td>118</td>
<td>2.02&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.85</td>
<td>1.83&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.67</td>
<td>1.82&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.96</td>
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<tr>
<td>Intramural and community</td>
<td>188</td>
<td>1.52&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.81</td>
<td>1.65&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.71</td>
<td>1.52&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.87</td>
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<tr>
<td>Varsity and community</td>
<td>154</td>
<td>1.27&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.48</td>
<td>1.42&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.54</td>
<td>1.26&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Community only</td>
<td>1607</td>
<td>1.55</td>
<td>0.78</td>
<td>1.63&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.68</td>
<td>1.53&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.87</td>
</tr>
</tbody>
</table>

<sup>a, b, c</sup> Denote groups that were significantly different (<em>P</em> < .01) from each other.
perceptions of constraints across all constructs. Community sport appears to be a significant influence on school sport-only respondents. Therefore, participation in significant differences between nonsport respondents and and community sport reported significantly lower con-

In addition, respondents who participated in both varsity sport or a combination of community and school sport reported significantly lower constraints compared with nonsport, intramural-only, and varsity-only participants.

SES
Respondents from more affluent families (no free or reduced lunch) generally reported lower constraints than respondents from low-income households. Significant differences were found for accessibility ($t = 10.03, P < .001$, Cohen’s $d = .40$), facilities ($t = 4.12, P < .001$, Cohen’s $d = .16$), knowledge ($t = 7.89, P < .001$, Cohen’s $d = .31$), partners ($t = 3.51, P < .001$, Cohen’s $d = .14$) and psychological ($t = 3.84, P = .001$, Cohen’s $d = .15$) constructs. No differences were found for interest or time.

Sport Participation
A comparison between nonsport participants and those who previously participated in sport showed that nonsport participants reported significantly higher constraints ($P < .008$) for all constructs. Post hoc analysis of the 6 participation categories revealed several noteworthy trends. First, there was significant variation in the importance of constraints for each prior sport participation category ($F$ values ranging between 6.13–24.75; all $p$-values <.001, Cohen’s $d$ between .23–1.20). Second, in all cases, respondents who participated in either community sport or a combination of community and school sport reported significantly lower constraints compared with nonsport, intramural-only, and varsity-only participants. In addition, respondents who participated in both varsity and community sport reported significantly lower constraints than all other respondents for facilities, interest, and psychological constraints. Finally, there were no significant differences between nonsport respondents and school sport-only respondents. Therefore, participation in community sport appears to be a significant influence on perceptions of constraints across all constructs.

Discussion
Organized sport can facilitate physical activity among children and adolescents. Our findings indicate that there are significant differences in constraints to sport participation among subgroups of middle school students. Specifically, the sociodemographic characteristics of middle school students appear to be a significant factor in their perception of constraints to sport participation. These differences have implications for sport programming, policies related to youth sport and physical activity, and sport in the context of community.

Consistent with other constraint studies, time was viewed as the most salient barrier to sport participation. Time, as a constraint to participation, has multiple meanings, and varies across cultures and by individuals. While 2 individuals may have equal time commitments, one may view time constraints as more pressing than another. Previous research has found time to be an important constraint across age groups and activity types. A majority of respondents had previously played sports indicating that most students had at least partially negotiated time constraints. Furthermore, non-sport participants reported the highest time constraints suggesting that the decision to participate in sport may reflect an inability to negotiate time constraints.

The availability of partners was the second highest constraint. Sport is often a social experience involving coparticipants. Peer influence among adolescents is particularly important and can either hinder or promote participation in different leisure activities. The third highest constraint to sport participation was the quality or crowdedness of available facilities. Physical activity, especially for children and adolescents, has been positively associated with accessible and convenient facilities. Therefore, the accessibility, construction, and maintenance of facilities serve as important factors to reducing constraints. Knowledge was rated as the weakest constraint and may have been influenced by the nature of the community environment in which the participating schools are located. The community is predominantly urban and sport opportunities are widely promoted and available to middle school children (in school, after school, and within the community).

An unanticipated and potentially policy relevant finding from this study was that children who played a combination of school and community sport reported the lowest perceived constraints to participation in sport. While nonparticipants reported the highest constraints overall, significant differences were only found between those not playing sports or only school sport with those playing community sport or school and community sport at the same time. Having access to a combination of community-based sport (including places for informal sport participation) and school sport was also associated with higher levels of participation. This suggests that opportunities for community sport participation, whether through informal play or organized sport leagues may minimize barriers for adolescent sport participation. Community sport opportunities may also contribute to lower perceived constraints among adolescents. For example, unlike the traditional model of school sports, community based organized sports tend to offer a wider range of skill levels, more organized opportunities or places to play, and more opportunities for practice and skill development.

Our results also show that with the exception of interest and facility quality, girls rated constraints significantly higher than boys. The schools that participated in this study had equal participation in sports (equivalent percentages of male and female participants) and there were no major differences in the numbers of boys who played sport outside of school than girls. Therefore, while...
opportunities may be equal, the girls in this study viewed constraints as more of a limiting factor toward continued participation. This may be partially explained by the notion that girls are perceived to have more restrictions due to household tasks and family responsibility, lower confidence and self-esteem in physical activity/sport activities, and less social approval.

We also found that the lower SES group perceived higher constraints for all constructs except time and interest. Raymore, Godbey, and Crawford found that lower SES high school-aged adolescents experienced interpersonal constraints (partners) more than upper SES groups, but found no differences for intrapersonal or structural constraints. While there has been little research comparing SES and constraints, the results of this study suggest that structural constraints such as accessibility in the form of transportation support for either community or school based sports could have a significant impact on sport participation (ie, late buses, or coordinated car pooling). Furthermore, children from lower SES backgrounds are more likely to live in neighborhoods where there are either a lack of facilities or facilities that are of substandard quality. Higher intrapersonal constraints such as psychological barriers may be due to a lower self-competence resulting from less or poor coaching, poorer quality programming or fewer opportunities to be involved in programs that explore different sports or develop sport ability.

Similar to SES, race/ethnic comparisons resulted in differences for all constructs except interest and time. While there was little differentiation between Caucasian and African American respondents, Latino middle school students’ constraint perceptions were significantly higher. This could have important ramifications in view of their general health status. For example, Latino youth have the highest prevalence of overweight and Type 2 diabetes in the United States. Our findings show that Latino participation in both school and community sport may be limited by a combination of structural, interpersonal, and intrapersonal constraints. These findings suggest that it may be important for school and community sport organizations to target Latino groups to help reduce constraints to sport participation. While additional research is needed to specify the exact nature of the constraints perceived by Latino youth, general strategies might include providing transportation to facilities or locating sport facilities closer to their communities. Programs might focus more on communications tailored for the Latino culture and Spanish language to inform parents about sport opportunities and associated benefits. Lastly, programming could include encouraging friends to sign-up together and afford more social opportunities to lessen interpersonal constraints.

Finally, the fact that more than two-thirds of the students in this study wanted to play sport more often suggests that current barriers may be a major factor restricting initial and/or continued participation in sport. A possible explanation for this finding is that before 1980, the majority of youth sport programs were publicly-funded and neighborhood-based, enabling children to participate without extensive parental involvement or financial resources. However, as youth sport programs became increasingly entrepreneurial and privatized, social equity became less important in decisions about leisure resources and services. Thus, participation in youth sports has become increasingly dependent on school-based programs or limited to those with the ability to pay.

Three primary limitations should be acknowledged when interpreting the results. First, the constraints used in this study were not exhaustive, so additional constraints could be explored. Second, while we did ask about prior sport participation, including activities in and outside of school, we did not assess nonsport extracurricular activities (eg, clubs, drama, family obligations) which may relate to the constructs in this study, especially time constraints. Finally, with our sample consisting of students at middle schools in 1 county in a Southeastern state, the generalizability of our findings may be limited. Other researchers are encouraged to explore constraints beyond those suggested by Crawford and Jackson. Future studies should also consider the influence of nonsport leisure activities that compete for the attention of this age group. We also encourage other researchers to examine perceptions of constraints in other geographic regions.

However, through identifying specific constraints associated with sport participation this study may enable policy-makers and administrators to be more deliberate in channeling action and resources toward reducing constraints that limit youth sport participation. For example, developing and expanding partnerships and joint-use agreements could enhance access to more physical activity resources creating more opportunities for physical activity through sport and improving accessibility. In addition, more concerted and coordinated efforts to market, inform, and reach out to nonsport participants particularly groups at greater risk for inactivity and obesity (eg, Latinos) merit consideration.

Acknowledgments

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Notes

I. The response rate was calculated by the following formula: 
\[ \text{response rate} = \frac{\text{total school population} - \text{(absent students on day of survey + students who opted out)}}{\text{total school population}} \]

References


54. Scott D. Tic, toc, the game is locked and nobody else can play! *J Leis Res*. 2000;32(1):133–137.