



Published in final edited form as:

*J Pediatr Psychol.* 2005 ; 30(3): 293–297. doi:10.1093/jpepsy/jsi039.

## Brief Report: A Qualitative Study of Gender Preferences and Motivational Factors for Physical Activity in Underserved Adolescents

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### Abstract

**Objective**—This study used focus groups to identify preferences for physical activity (PA) and motivational themes for increasing PA in underserved adolescents.

**Methods**—Fifty-one adolescents, on the free lunch program (25 males and 26 females; ages 10–13 years; 72% African-American, 19% white, and 9% other minorities) participated in focus groups (6–10 children per group; same gender). The data were transcribed and coded into themes. A content analysis was performed using QSR NVivo.

**Results**—Boys rated their favorite activities as playing basketball, football, soccer, and baseball. Girls rated their favorite activities as playing basketball, swimming, and roller-skating. For motivational themes, boys and girls most frequently stated that they would participate in PA if it was a fun, provided a health benefit, and if there were a variety of choices offered. Being involved with friends was also identified as important to both boys and girls.

**Conclusions**—The findings from this qualitative study suggest that including components of choice and a variety of physical activities may be important elements for intervention programs in underserved adolescents.

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The increasing prevalence of obesity in U.S. children and adolescents is a major health threat to our society, especially among minority and low-socioeconomic-status (SES) populations (U.S. Department of Health and Human Services, 2000). The percentage of children who are overweight more than doubled between the late 1970s and 2000, rising from 6.5 to 15.3% among children aged 6–11 and from 5.0 to 15.5% among adolescents aged 12–19 (Ogden, Flegal, Carroll, & Johnson, 2002). African-American youth have shown an even greater prevalence of obesity, with 27.5% of male and 26.6% of female adolescents being reported as overweight (Ogden et al., 2002). This increase in obesity rates has been associated with greater prevalence of health problems such as type 2 diabetes, high blood pressure, and high cholesterol in youth (Must & Strauss, 1999; Pinhas-Hamiel et al., 1996).

During adolescence, physical activity (PA) decreases, which may be a contributing factor to this alarming trend in childhood obesity rates. Studies indicate a 50% decline in PA for youth between the ages of 6 and 16 years (Pinhas-Hamiel et al., 1996), with underserved adolescents (minorities and low SES) being the least physically active (Taylor & Sallis, 1997). PA interventions in children and adolescents have resulted in only modest improvements in PA levels (Baranowski, Anderson, & Carmack, 1998). This study explored preferences and motivational factors for increasing PA in youth, which may have important public health implications for underserved adolescents who are at high risk of developing obesity.

Several theoretical models guided the development of focus-group questions for this study—Social Cognitive Theory (SCT) and Self-Determination Theory (SDT). SCT (Bandura, 1986) assumes that individual cognitive factors, environmental events, and behavior are interacting and reciprocal determinants. For example, self-efficacy (e.g., confidence in one's ability to be physically active) and social support (e.g., encouragement from family and friends) have been shown to be important determinants of PA in youth (Sallis & Owen, 1999; Trost et al., 1997). SDT (Ryan & Deci, 2000) proposes that behavior changes that are motivated by intrinsic factors, such as novel, enjoyable, self-driven, and satisfying experiences, will sustain behavior more so than those produced by extrinsic factors such as external reward or coercion. Previous research has documented the importance of choice and self-initiated behavior change in increasing intrinsic motivation for engaging in PA (Ferrer-Caja & Weiss, 2000; Goudas, Biddle, & Fox, 1994); however, few studies have explored motivational factors from a qualitative perspective among underserved adolescents. A recent report by Masse, Dassa, Gauvin, Giles-Corti, and Motl (2002) outlines the importance of using qualitative methods to better understand theoretical constructs that may mediate behavior change. Given the importance of understanding the reasons for the sharp decline in PA among underserved youth, coupled with the lack of quantitative measures assessing theoretical constructs, this study uses qualitative methods to expand on past work. Specifically, this study used focus groups to explore preferences and motivational themes for understanding better what factors might relate to increasing PA in underserved adolescents.

## Methods

### Participants

The study protocol was approved by the University of South Carolina Institutional Review Board. Student rosters were provided by two middle schools and the Recreation and Parks Department in a rural southeastern community. Underserved adolescents who were enrolled in the free or reduced-price lunch program at their school were randomly selected from enrollment rosters using a random number table to participate in the focus-group sessions. Participants at the Recreation and Parks Center provided self-report data indicating that they were on free or reduced-price lunch at their school. Fifty-one adolescents (25 males and 26 females) in the 6th and 7th grades participated in the focus groups (75% response rate). Most (72%) participants were African-American (19% white and 9% other minorities) and ranged in age from 10 to 13 years. Thirty-five percentage of the girls and boys came from homes with two parents living in the house-hold. Most participants' had mothers who had completed some college and/or high school. Equal numbers of male and female students from all three locations participated in the focus groups.

### Procedure

Six same-gender focus groups were conducted at the two local middle schools and at the Recreation and Parks Center. Using a standardized protocol that outlined the core questions and probes, trained moderators conducted the focus groups. The questions asked about the participants' preferences for PA as well as what factors would motivate them and their friends

to be more physically active. Participants were told that there were no right or wrong answers and to keep the information discussed confidential. Staff at each location assisted in separating friends into different focus groups at each site. Some students participated in other groups that focused on nutrition rather than PA. Before the start of each session, the moderator obtained informed consent from parents, informed assent from the adolescent participants, and assured the participants that their responses would be confidential.

### **Focus Group Analyses and Interpretation**

The focus group audiotapes were transcribed by an outside agency, and the transcripts were checked for accuracy against the original cassette recordings. Next, the research team developed a coding scheme to identify preferences for PA and motivational themes for increasing PA. Many decision rules were developed to facilitate consistency in coding the responses. The transcripts were coded by independent pairs of assistants. Assessment of interrater coding reliability revealed that the coding response for preferences of specific PAs was  $r = 0.82$  and for motivational themes was  $r = 0.74$ . Content analysis of the data was completed using QSR NVivo 2.0 (Miles & Huberman, 1994).

## **Results**

### **Physical Activity Preferences**

Thirteen PAs were identified. Most boys said that playing basketball, football, and soccer was their favorite PA. Baseball, gymnastics, and dance were each mentioned only once by boys. For girls, the majority said playing basketball, some said swimming, and a few said roller-skating were their favorite PAs. Girls also mentioned enjoying a wider variety of activities including cheer-leading, jogging, playing tennis and soccer, jump roping, and playing baseball, kickball, and football.

### **Motivational Themes for Physical Activity**

Eight motivational themes emerged across the six focus groups (Table I). These themes included being motivated to engage in PA because of having fun, health benefits, having choices, participating in sports, participating with friends, preventing boredom, participating in skill-based activities, and being outdoors. Both boys and girls frequently stated that they wanted to participate in PA “just to have fun” and that it was important for health reasons because “If you sit around doing nothing you'll get sick, get weak and catch a disease easier than if you are fit.” Examples of wanting choice including statements such as “I think that we would be best to pick what we do ... the teachers or principal probably wouldn't pick what we want to do ... we're kids, so we'd really know what we'd want to do.” Both boys and girls stated, “I like to do a lot of physical stuff with my friends because I hardly get to see them except at school.”

Boys also stated that they would be more physically active if it involved sports and if they could demonstrate their skills. For example, boys stated, “If the whole thing was sports, I would go” and “Oh, like if I practice a lot, I want to show it off.” Girls also stated that they wanted to have a variety of choices of PAs and that they wanted to engage in more PAs to prevent boredom. For example, girls stated that “they need more activities at school,” “It keeps you from doing the wrong things like doing drugs,” and “If you don't exercise you will get fat.”

### **Motivating Friends to be Physically Active**

Both boys and girls stated that they wanted to engage in PA with friends. Boys preferred being “action oriented” toward their approach by involving friends, trying an activity with them, and teaching them. Examples of involving friends included, “try to get them [friends] involved in

the activity with me” and “tell them the rules and how to play.” Girls wanted to talk about an activity, “verbally persuade” a friend, or give an incentive. Examples of persuading friends included “it will help you stay healthy” and “You could give them something ... like bet them.”

### Preferences for Mixed or Same-Gender Participation

Participants were also asked whether they would like to be involved in mixed or same-gender groups while engaging in PA programs. All of the girls enrolled in the focus group session stated that they would rather participate with the same gender, whereas all of the boys enrolled in the focus group session wanted to participate in mixed-gender groups. In general, girls thought that boys were more interested in performing and showing off. For example girls frequently stated, “Boys want to be ball hogs ...” and “Boys think they can do things better than girls.” In general, boys thought that girls were just as capable as boys at doing well in PAs. For example, boys frequently stated, “It could be boys and girls on teams ... some girls are strong” and “I think it should be good to do it with girls in the group because they know all the stuff.”

### Discussion

On the basis of the results of this study, both boys and girls preferred PAs such as structured team activities (e.g., playing basketball, football, and soccer), but girls were also interested in recreational activities (e.g., swimming, roller-skating, jogging, and jump roping). The key motivators for PA across both boys and girls included having fun, gaining health benefits, and having a choice of PAs available. Regarding motivational strategies, boys also wanted to do sports that involved participating in teams and that they were skilled in doing. Girls were also interested in having a variety of choices for PA, they wanted to prevent boredom, and they wanted to decrease the likelihood that they would engage in other unhealthy activities. Boys wanted to teach and engage friends in PA and include girls in PA. Girls wanted to persuade their friends to be physically active and only wanted to participate with other girls in PA.

The findings of this study are consistent with those of other qualitative studies by Taylor et al. (1999) that involved interviewing female minority adolescents living in the southwest United States. Taylor et al. (1999) reported that fun and physical appearance were two key PA motivators for minority girls. This study expands on past work by demonstrating that having fun, health benefits, and a choice of PAs were all major themes for both boys and girls. Little attention has been given to involving youth in developing program ideas and PA choices that may enhance more intrinsic motivation (Baranowski et al., 1998; Ferrer-Caja & Weiss, 2000; Goudas et al., 1994). Because adolescence is a time of increasing autonomy, providing choice and involvement in designing PA programs may be developmentally appropriate in that it acknowledges the need for independence and self-initiated behavior change. One strategy that may be particularly important is to engage adolescents in developing the PAs that are offered in intervention programs. However, further studies are needed to test the feasibility of involving adolescents in the decision-making process and in designing PA interventions. The preliminary findings from this study also suggest the need for further research to develop measures of motivation and enjoyment for PA in the context of intervention programs. Further research is also needed to understanding better how to translate motivational themes of choice, variety, and health benefits for PA into intervention strategies.

Boys in this study wanted to engage in activities they were good at (had confidence in doing or high self-efficacy toward) and both boys and girls wanted to engage in activities with friends (increasing social support), both findings consistent with SCT. Boys and girls wanted to be involved in team sports with peers and friends, whereas girls also wanted to be involved in more recreational sports with peers and friends. These findings are consistent with past research

that has shown self-efficacy and social support to be important correlates of PA (Sallis & Owen, 1999; Trost et al., 1997).

There are several limitations to this study. One limitation is that only six focus groups were conducted in a southeastern region of the United States. Although focus groups were conducted across three different settings and participants were randomly selected from rosters, the overall study sample size was quite small. Another limitation to this study is that adolescents were asked questions concerning their peers in a group setting, which may have reduced the validity of self-reports obtained during the focus groups. To minimize the social influence of peers, the researchers reassured the participants that their responses would be confidential and the school staff assisted in assuring that friends did not participate in focus groups together. Other limitations to qualitative studies that were overcome in this study include providing adequate training of the moderators, using health behavior theory to guide the questions and probes used, and using of a sound methodology for coding and interpreting the data into relevant themes.

In summary, this study provides important qualitative findings concerning preferences and motivational factors for PA in underserved adolescents. In general, both boys and girls thought that fun, health benefits, choice, having a variety of activities, and involving friends would be important factors in motivating them to be physically active. The findings from this qualitative study should be useful in guiding and designing PA interventions with underserved adolescents. Future research should examine whether involving adolescents directly into program development increases participation in PA programs. Some consideration should also be given to whether the types of activities should involve mixed-gender or same-gender groups.

## Acknowledgments

This project was funded by a Research and Productive Scholarship Grant to the first author from the University of South Carolina and by the Centers for Disease Control and Prevention cooperative agreement U48/CCU409664-06.

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**Table I**

Frequency Ratings of Motivation Themes for Physical Activity (PA) by Gender

Motivational Themes	Boys ( <i>n</i> = 25)	Girls ( <i>n</i> = 26)
Fun	19	15
Health benefits	16	9
Choice of activities	4	9
Sport-based PA	8	4
PA with friend	2	3
To prevent boredom	1	4
Skill-based PA	3	0
Outdoor PA	1	1