

METHODOLOGY

Parents' and Children's Perceptions of the Keep It Moving! After-School Physical Activity Program

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Abstract

After-school PA programs have been used as an outlet to help children increase PA levels. To attract children and their parents, it is important to understand perceptions about programs. With child and parent input, researchers and practitioners will better be able to increase PA with activities the children enjoy and encourage increased PA. A cross-sectional design was used to survey children and parents involved in Keep It Moving! (KIM), an after-school PA program geared toward low SES families in Southern Colorado. Responses to the surveys were coded into categories and descriptive statistics were calculated. Most parents (91.1%) reported their children in KIM increased their PA levels. The majority of children (76.5%) preferred competitive activities, but simultaneously reported competitive activities as least favorite. Parents' and children's perceptions provide insight into enjoyment and necessary changes

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for this after-school program. Of most interest, practitioners must thoughtfully consider choice of activities for after-school programs. Although children in this evaluation preferred competitive activities, these activities must be tempered to ensure that time in PA is not compromised.

The U.S. Department of Health and Human Services (USDHHS, 2008) recommends that children participate in at least 60 min of moderate to vigorous physical activity (PA) daily. Children not meeting the PA recommendation are at a greater risk of developing obesity, heart disease, diabetes, and other chronic illnesses later in life (USDHHS, 2008). In *The Weight of the State: 2009 Report on Overweight and Obesity in Colorado*, only 55.7% of children met the recommended 7 or more hours of PA per week (Colorado Physical Activity and Nutrition Program [CPAN], 2009). Correspondingly, of children aged 6–11, 29.6% were considered overweight or obese in Colorado (CPAN, 2009). In addition to the generally high rate of childhood obesity, race and socioeconomic status (SES) may have a serious effect on children's level of PA and consequently their body mass index (BMI). Low SES and minority groups have a higher prevalence of obesity than their peers and are more prone to sedentary behavior (Brophy et al., 2009; Drenowatz et al., 2010; Wang & Zhang, 2006). In fact, Drenowatz et al. (2010) discovered that low SES children were accumulating roughly 1,500 fewer steps per day than higher SES children. This is an alarming difference that could lead to an increasingly sedentary lifestyle in adulthood. The current literature base provides an overwhelming case for low SES and minority groups in the aim to reduce childhood obesity (Brophy et al., 2009; Drenowatz et al., 2010; Li & Hooker, 2010; Wang & Zhang, 2006). Those in public health field need to make an effort to target these populations when developing opportunities for PA.

Many studies support the idea that an after-school PA program can effectively improve children's BMI, body fat percentage, and other aspects of health (Colchico, Zybert, & Basch, 2000; Fernandes & Sturm, 2011; Matvienko & Ahrabi-Fard, 2010; Yin et al., 2005). Matvienko and Ahrabi-Fard (2010) found a 4-week intervention with kindergarteners and first graders to be significantly associated with increases in children's motor skills and fitness levels. The intervention consisted of a daily morning walk, and the after-school

lesson was focused on PA and nutrition and nonstructured active play. Fernandes and Sturm (2011) found that meeting PA recommendations was generally effective at maintaining children's BMI. Furthermore, Colchico et al. (2000) found that a 12-week after-school PA program geared toward low-income African American and Hispanic girls was effective at decreasing BMI and body fat percentage as well as increasing positive self-perception. These programs, among others, demonstrate that providing after-school opportunities for PA can greatly improve children's health.

Given that after-school PA programs have the potential to positively affect childhood obesity in low SES and minority groups, these programs are needed. However, involving the target population is a vital step in making these programs effective; thus, it is important to look into the perceptions of those affected by the program. Parents' perceptions about after-school programs are important considering children are unable to make their own decisions about participation. Children may express interest, but ultimately the parent has the final say in enrollment. Understanding how to attract parents is a key strategy in involving children. Similarly, children's perceptions can provide insight to which aspects of the program are keeping them interested in being active. Understanding this point of view could help refine after-school PA programs and greatly improve their quality and participation rates. Thus, the purpose of this study was to gain insight about parents' and children's thoughts and decisions related to an after-school PA program.

Method

Overview of the Keep It Moving (KIM) Program

Keep It Moving (KIM) is an after-school PA program developed in 2008 as a collaborative effort among various partners in Colorado Springs, Colorado, including a low SES school district and a local nonprofit organization with a focus on healthy eating and active living. Third, fourth, and fifth graders at three elementary schools were involved in the KIM program during the 2009–2010 school year. The majority of students at the schools were on a free and reduced-price lunch program, ranging from 87% to 93% per school.

KIM was run twice a week at each school for 1 hr after the completion of the school day, which included 45 min of PA and 15 min

of snack time. The activity sessions were run by physical education teachers employed by the schools in which the KIM session took place and volunteer assistants, most of whom were associated with the school in which they volunteered. Lead facilitators (e.g., physical education teachers) were made aware of the KIM opportunity through the school district officials and were compensated with a small stipend for their participation. The predominant goal of KIM was to increase opportunities for PA by offering an additional 90 min of activity per week. There was no set curriculum, and the students were offered structured and/or unstructured play determined by each facilitator. Schuna, Lauersdorf, Behrens, Liguori, and Liebert (2013) analyzed the results of the KIM after-school program. They found participants acquired more than 20 min of moderate to vigorous PA during KIM. Most of KIM time was spent standing or walking. These findings are in accordance with similar research.

Participants

As previously mentioned, KIM families were from a low SES area of Colorado Springs, Colorado, and 19% were mono-lingual Spanish-speaking families. In 2009–2010, the three schools that participated in the KIM program and KIM survey consisted of (School 1, 67%; School 2, 67%; School 3, 74%) Hispanic, African American, or two or more races, respectively. Approximately 40 students participated in the KIM program at each school ($N \sim 120$). After the completion of the KIM program in 2010, 116 participants (approximately 96.7% response rate) and their parents ($n = 112$) were surveyed to obtain perceptions, preferences, and benefits of the KIM program.

Measures

Using examples from other validated preference questionnaires in closely related fields (Bacardi-Gascon, Reveles-Rojas, Woodward-Lopez, Crawford, & Jimenez-Cruz, 2012; Sekine et al., 2002), the organization coordinating KIM developed two surveys: one for the parents and one for the children. These brief surveys (six questions for the child survey, nine questions for the parent survey) were a mixture of multiple-choice and open-ended questions. The survey questions were designed to assess the perceptions of children in the KIM program and the perceptions of their parents regarding the program. Specifically, inquiries on the child survey (offered only in

English) were about which school they attended, their favorite and least favorite KIM activities, what other activities the student would like to see in KIM, and what the child would be doing if not in KIM. The parent survey was offered in English and Spanish and included questions exploring why parents enrolled their child in KIM, who in their family has increased PA because of KIM, and specific feedback about the program. Specifically, queries in the parent survey were about the school attended, age and gender of the child, reason for enrolling in KIM, if anyone in the family has become more active because of KIM, the most valuable part of the program, and recommendations on making the program better.

Method

At the end of the school year (late April and early May 2010), the parent surveys were sent home with children along with permission slips for an end-of-the-year recognition event for KIM participants. Parents completed the survey and returned it with their child's permission slip.

The child surveys were distributed during the end-of-the-year recognition event (May 2010). During this event, children were recognized for participation and attendance, and prizes were awarded for high attendance. The event consisted of the awards ceremony, a PA segment, and a snack segment. After the activity and before the snack, the children completed the survey. Staff from the KIM schools helped to distribute and collect the survey.

Analysis

Descriptive statistics (i.e., frequencies) were calculated for applicable variables (e.g., school attended, grade in school, gender). Qualitative responses from the open-ended questions were separated into question category by survey types (i.e., parent or child survey). Following this step, common themes were identified for each qualitative question in each of the two surveys. Themes were then merged into coded categories, presented as the response headings for Table 1 for the parent survey and Table 2 for the child survey. Children's responses regarding favorite and least favorite activities were coded into competitive or noncompetitive as well as type of activity (e.g., team sports, free play, structured exercise). Activities reported for the question asking what the child would be doing if he

or she was not in KIM were classified as either active (e.g., riding a bike, playing outside) or nonactive (e.g., watching TV, playing video games). Descriptive statistics for variables of interest were calculated using IBM SPSS 19.

Results

Parent Survey

When asked the main reason for enrolling their child in KIM, 87.5% of the parents responded with physical activity and 17.9% responded with a safe place to play. The majority (91.1%) reported their child in KIM had an increased PA level because of the program. Seventeen percent of parents admitted they had increased their own PA because of KIM, 12% said it positively affected their other children, and 5.4% agreed their spouse had increased PA because of KIM. Many parents (52.7%) said the most valuable part of KIM was the opportunity for PA, and 22.3% said the best way to improve the program would be to offer it more days, more times, and/or to more children. More than two thirds of parents with eligible children (68.8%) agreed they would enroll their child in the KIM program the following year, and of those who would not, three said they were switching schools. See Table 1 for detailed information on the parent survey.

Table 1
Parent Survey Results

Survey question	<i>n</i>	%
What is the main reason for enrolling your child in the KIM program?		
Physical Activity	98	87.5
Safe Place to Play	20	17.9
Healthy Snack	6	5.4
Fun	5	4.5
Interaction With Other Kids	1	0.9
No Answer	2	1.8

Table 1 (cont.)

Survey question	<i>n</i>	%
Who in your family has become more physically active because of this program?		
Child in KIM	102	91.1
Me	19	17.0
Other Child	14	12.5
Spouse	6	5.4
Everyone	3	2.7
No One	1	0.9
Friends	1	0.9
Grandparents	1	0.9
What do you feel is the most valuable part of the KIM program?		
Physical Activity	59	52.7
Fun	11	9.8
Interaction With Other Kids	10	8.9
Teaches Kids How to Be Healthy	10	8.9
Safe Place to Play	7	6.3
Keeps Them Away From TV	3	2.7
Feel Better/Better Attitude	3	2.7
No Answer	29	25.9
How can we make this program better?		
More Times/Days/Grades/Kids/Etc.	25	22.3
Include Parents	3	2.7
Discipline/Control Bullies/Respect	3	2.7
Offer Sports/School to School Challenges	2	1.8
No Answer	79	70.5
Are you planning to enroll your child in KIM next year? (3rd and 4th grade students only)		
Yes	77	68.8
No	6	5.4
Maybe	3	2.7
No Answer	26	23.2
If no, please explain why not.		
Changing Schools	3	75
Leaving Available Grade	1	25

Note. Some questions allowed for multiple answers and totals will not equal 100%.

Child Survey

The majority (76.5%) of children preferred competitive over noncompetitive activities. Many (59.1%) favored team sports, followed by 15.7% with games/structured play, and 9.6% with free play. Seemingly incongruent with their favorite activities, when asked about least favorite activities, 54.8% reported competitive over noncompetitive, with 40.9% saying team sports, followed by 23.5% with structured exercise, and 15.7% with games/structured play. Children were also asked to report what they would be doing if not in KIM, and 40.9% reported sedentary activities. Table 2 contains detailed information on the Child Survey.

Table 2
Child Survey Results

Survey question	<i>n</i>	%
What is your most favorite KIM activity at your school?		
Team Sports	68	59.1
Games/Structured Play	18	15.7
Free Play	11	9.6
Structured Exercise	10	8.7
Individual Sports	5	4.3
No Answer	3	2.6
Competitive	88	76.5
Noncompetitive	24	20.9
No Answer	3	2.6
What is your least favorite KIM activity at your school?		
Team Sports	47	40.9
Structured Exercise	27	23.5
Games/Structured Play	18	15.7
Individual Sports	4	3.5
Free Play	1	0.9
No Answer	18	15.7
Competitive	63	54.8
Noncompetitive	34	29.6
No Answer	18	15.7

Table 2 (cont.)

Survey question	<i>n</i>	%
If you weren't at KIM, what would you be doing at home after school?		
Active	52	45.2
Nonactive	47	40.9
Both	13	13.0
No Answer	1	0.9

Note. Some questions allowed for multiple answers and totals will not equal 100%.

Discussion

The purpose of this study was to use parents' and children's perceptions of the KIM program to gain insight about parental decisions and children's activity preferences. Our findings indicate that child PA was a priority for parents as they were seeking an after-school program for their children with a focus on PA, but parents also valued their child's interaction with other children and providing them with a safe place to play. The results also indicate a controversy in children's activity preferences in regard to competitive versus noncompetitive, but also show that a large proportion of children would have been sedentary if not for KIM. Based on these findings, practitioners should promote the most valued aspects of an after-school program to the parents to encourage child enrollment. Practitioners should consider the activities that children enjoy; however, they need to pay attention to how much activity the children will accumulate during the chosen activities. The responses from the KIM surveys raise important questions to consider when planning or implementing after-school PA programs for children, and understanding these perceptions will help more children become involved and make programs more effective.

Considering such a large percentage of parents enrolled their child in KIM for the purpose of PA, it is obvious this is a priority for families. Many after-school programs are available to children that parents may use for socialization purposes or for day care. But nearly 88% of parents enrolled their child in KIM to expose the child to PA. This suggests that parents are seeking available outlets for their child's PA, and therefore, as a community, we should be doing more to provide PA opportunities.

Approximately 53% of parents felt the most valuable aspect of KIM was PA. This may seem like an obvious answer, but KIM also provides a safe place for kids to play after school, a free healthy snack, socialization for children, and free supervision during the after-school hours when many parents are still at work. Parents realized the effect of offering PA during those hours, and that provides a significant insight into promoting after-school PA programs.

The majority of parents (91.1%) felt their child had an increased PA level because of the KIM program. Furthermore, 17% of parents admitted they had increased their own PA because of KIM, 12% said it positively affected their other children, and 5.4% agreed their spouse had increased PA because of KIM. Thus, there seems to be a ripple effect concerning the entire family of a KIM child. This result indicates that an after-school PA program not only has the potential to positively affect the child directly involved, but also may improve the lifestyles of the child's friends and family. Beyond the benefits of increasing PA, 22.3% of parents thought the program should be offered more days and times and to more grades to allow more kids to join. This meant parents liked the program and wanted it to be more accessible to their families. Also, nearly 70% of parents with an eligible child planned on enrolling their child in KIM the following year, with 75% of those who answered no reasoning their child was switching schools and therefore unable to attend, and this is possibly the most telling result. For someone to simply admit liking or disliking a program is valuable information, but when the person agrees to continue participating, it becomes obvious the program is meaningful. These results indicate that parents view the KIM program as beneficial.

Perhaps the most interesting result from the child survey stems from similarities between favorite and least favorite activities. Competitive activities and team sports won out for favorites, but they also held the majority of responses for least favorite. This could be a result of gender differences; unfortunately, the KIM surveys did not account for gender, and this limitation prevents determining a relationship there. Grossbard, Smith, Smoll, and Cumming (2009) performed a study on anxiety in competitive sports and found girls experienced significantly higher amounts of anxiety related to performance in competitive sports than boys. This anxiety could have

an effect on their activity preferences as well as their activity levels during sports. Dwyer et al. (2006) set out to determine barriers to PA in adolescent females, and one of their findings was females tended to see the competition of sports as a barrier. Females saw the competition as stressful because they felt pressure to perform well. Some talked about the possibility of not trying out for a sport because they were afraid they would not make the team, or if they did try out and did not make the team, they were discouraged to continue playing that sport. This finding is an imperative consideration when determining activities to include in a PA program. It is important to identify which activities children are enjoying as well as which activities encourage more activity.

Another hypothesis to the phenomenon of competitive activities and team sports being the favorite and least favorite is children's perceived ability in a sport tends to determine their enjoyment and/or participation level (Boyd & Yin, 1996; Scanlan & Lewthwaite, 1986). In a study to determine predictors of youth sport enjoyment, Scanlan and Lewthwaite (1986) found a correlation between perceived ability and sport enjoyment in young male wrestlers, indicating whether children and adolescents like sports is affected by how skilled they consider themselves. Similarly, Boyd and Yin (1996) found a correlation between perceived competence and sport enjoyment in adolescents as well as between years of participation and enjoyment. In today's culture, it seems children are expected to have started training in their sport at a young age. Then they are required to be put on the spot and try out for a sports team at school. If they do not have the skills or have not been playing since they were a toddler, they will likely not make the team and end up discouraged. This consequence could spawn negative feelings toward competitive sports and could explain the high result for least favorite activity in KIM, but many children who are skilled at sports chose it as a favorite activity. This notion is important to consider for after-school PA programs.

It is possible more children would like team sports if the sports were not presented in a competitive manner. If PA programs were focused on inclusive participation and did not include the hierarchy of starters versus bench players, it could be a more positive experience. The National Alliance for Youth Sport (2008) developed universal standards for implementing youth sport programs. The

organization encourages focus on skill development, participation, and fairness and de-emphasizes competition and encourages incorporating a no-cut policy for children. These standards emphasize the importance of getting children to enjoy sports so they will be more likely to participate.

In regard to competitive activities, team sports are not the only culprit. Recreational games or other fun activities may also have an aspect of competition. In comparing elimination games and non-elimination games, Foster, Behrens, Jager, and Dzewaltowski (2010) found that although children may prefer elimination games, they accumulated less PA than during nonelimination games. Not all competitive activities are elimination based, but those that are may be affecting the amount of PA children accrue.

In this study, an astonishing 40.9% of children stated they would not be active during the same after-school time slot if not for the KIM program. Typical inactive options included watching TV, playing video games, and reading. This represents a large proportion of children that KIM has succeeded at engaging in PA. In analyzing the activity levels in KIM, Schuna et al. (2013) found that during KIM sessions, children were accumulating approximately 20 min of moderate to vigorous PA, in addition to other daily activity. This additional PA may represent a vital addition to their lifestyle that approximately 41% of those children would not have received otherwise.

Considering the positive effect after-school PA programs can have on low-income children, it is imperative to consider these perceptions to involve children in PA. Colchico et al. (2000) demonstrated that an after-school PA program geared toward low-income African American and Hispanic girls was effective at decreasing BMI and body fat percentage as well as increasing positive self-perception. Because programs like these have the potential to be effective, the goal needs to be focused on enhancing participation levels and what it takes to interest children and their parents.

Limitations

The parent and child surveys provide valuable insight to after-school PA programs, but they are not without limitations. The survey tools did not have a section for demographic information, which limited the ability to examine for differences such as in race and

gender. Also, children may have misunderstood the survey, which may have resulted in similar unusual responses. The cross-sectional design did not allow analyses between control and experimental groups, and the convenience sample limits generalizability of the findings. Still, these findings are unique in that this report is one of few in which the rationale and perceptions of engaging in after-school PA programs are examined and thus adds to the empirical literature base.

Conclusion

The KIM survey provides perceptions of parents and children that have not been previously explored. The results raise interesting considerations for researchers and practitioners attempting to develop effective PA programs for children. The most important consideration for practitioners lies in choosing activities. The implications of competition in youth PA need to be considered when deciding on curriculum. Some children may enjoy competition, but it tends to generate stress and fear and thus results in fewer children willing to participate (Dwyer et al., 2006; Foster et al., 2010; Grossbard et al., 2009; National Alliance for Youth Sport, 2008). Team sports are enjoyable for some children, but are normally delivered in a competitive manner, discouraging a large proportion of the other children. If practitioners want to incorporate team sports into their curriculum, they need to de-emphasize the competitive aspect by decreasing the focus on winning and rather pay attention to individual skill or technique accomplishments (National Alliance for Youth Sport, 2008). Including multiple activities during the after-school PA program may increase the probability of participation in activity. The ultimate goal should be to explore the activity preferences of the children involved and keep competition to a minimum.

Parents' perceptions are equally important as they ultimately decide whether to enroll their child. Putting an emphasis on opportunities for PA, providing a safe place to play, and fostering positive peer interaction have been identified as the key themes to promote to low income and low SES parents to encourage their children's participation. Considering these decisions when developing a youth after-school program will ensure that children are continuing to participate and developing long-term, enjoyable, healthy habits.

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