Engaging Children Through Sport: Examining the Disconnect Between Program Vision and Implementation

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Background: The purpose of this study was to provide recommendations to an organization trying to effectively implement nontraditional sport programming to reach a broader range of children and engage them in physical activity. Methods: This consultation-based qualitative study used data collected from 7 after-school sport program sites. Data were collected through participant observation and semistructured interviews with program instructors. The data were analyzed in 2 steps. First, descriptive coding was used to group observations and responses from each question, then pattern coding was used to find emerging themes. Researchers then compared both within and across program sites. Results: Researchers found that enjoyment, ability, and language influenced interactions; age-appropriateness, engagement, and curriculum design impacted curriculum; and instructor roles and ongoing mentoring impacted effectiveness of training/support. A fundamental disconnect was evident between the program vision and the instructors’ interpretation (and therefore, implementation) of the vision. Conclusions: Recommendations offered for practice include continued focus on curriculum design that can engage children at each level of development (grades K–5) and increased training and field support for instructors to ensure intended implementation of the programming.

Keywords: physical activity, health interventions, school-based programs

As obesity and inactivity rates continue to increase in the United States, nearly tripling over the past 30 years, a myriad of intervention strategies have been implemented to promote healthy eating and increased physical activity.1 Since childhood is a time of exploration and many of our perceptions and opinions are formed during these years,2–4 school-aged children have been the focus of many intervention programs including in-school nutrition and healthy living initiatives,5 and after-school health and physical activity programs.6–8 Human behavior change is complex8,9 as are the relationships between program providers, children, schools, and parents.10 Although a number of studies have uncovered factors related to program success, it is important to continue to evaluate the implementation of school-based health and physical activity programs to identify elements that might hinder intended delivery, and consequently program outcomes.7,8,11,12

The purpose of this consultation-based study was to provide recommendations to an organization trying to effectively implement nontraditional sport programming to reach a broad segment of youth and engage them in physical activity. This type of study has value because it highlights the importance of continued discussions between practitioners and researchers to define problems, find solutions, and impact change in the world of sport and physical activity, particularly for youth.5,6,10 We first present an overview of the issues facing the organization when our consultation began. Next, we review the program implementation and provide recommendations for improvement.

There are difficulties in defining and developing intervention programs,12–15 especially when these programs are subject to outside influences that can impact the intended outcomes of the program.16 Health intervention programs demonstrate this challenge as a number of outside influences (eg, school programs, peers, family, physical education, etc.) have been shown to affect the health behaviors of a child.16 Because these external forces can pose a challenge to program effectiveness, the organization wanted to ensure proper design of the program to provide the best opportunity to influence children’s behaviors. Therefore, the consultation team evaluated the program design before any measurement of program outcomes was considered.

Organization Background

The organization studied was a new company attempting to reach youth through nontraditional, modified sport and physical activity programming. In the second year of the organization’s existence, the Executive Director approached our research team with a pilot program designed to engage young people in sport and physical activity, particularly young people not well-served by
existing programs. The program’s primary objective was to develop innovative programming to engage children such that they would enjoy participating and would develop an interest in (and ultimately adopt) an active, healthy lifestyle. The organization had 5 corollary objectives: 1) to increase the number of children actively engaged in the after school program, 2) to promote and build a foundation for lifetime physical activity, 3) to increase children’s knowledge and sense of importance of health and physical activity, 4) to encourage positive attitudes toward health and physical activity, and 5) to have fun.

The organization delivered the program primarily in after-school settings. The sessions were conducted by paid, trained instructors. The instructors were all undergraduate college students enrolled as kinesiology or education majors. Instructors were hired from these specific majors to ensure knowledge of health and/or sport as well as a desire to work with children. In addition, instructors were trained by the organization before working with children. Training consisted of a 4-hour orientation to the program curriculum, a review of physical activity games, and discipline management. An onsite supervisor was present at each school where the program was implemented. This supervisor was an employee of the school, not the organization. The supervisor was not trained by the organization nor did he or she oversee program implementation. The role of the supervisor was to ensure child safety and coordinate space at the school.

Although the program was offered in some suburban areas, the majority of schools in the current study were in urban, low-income areas. In most settings, the school systems purchased the program from the organization and provided it to the children at no cost. Thus, the organization attempted to reach a specific target market with little access to traditional youth sport programs—low income, minority youth.

The organization was well intentioned, but faced 2 related problems: 1) a lack of empirical evidence of which program elements would engage youth, and 2) a sense of disconnect between the physical activity and learning elements of the program. Unlike most traditional physical activity or sport programs, the organization in this study wanted to include a learning component, whereby children would engage in physical activities while also learning about healthy behaviors. However, there was concern that lengthy learning segments might sacrifice the fun and flow of sport and play. This is a common problem for programs that attempt to combine sport or physical activity with other development components. Therefore, this consultation had the potential to help an organization with good ideas develop into one that consistently aligned its program goals with its “on-the-ground” implementation.

**After-School Sport Program Design**

In addition to its own organizational goals, it was apparent that this after-school program would provide an ideal setting to understand the issues inherent in reaching school-aged children with health and physical activity messages. The organization developed their program content and delivery style to enable youth to enjoy physical activity participation and to encourage them to take responsibility for an active lifestyle. The organization created new games or chose familiar sports, such as soccer and basketball, and turned them into fun games that included a variety of activities for all talent and experience levels. Activities were designed to move quickly, avoid long lines, and incorporate health or nutrition lessons. Lessons included short (less than 5 minutes during water breaks) discussions of key concepts that were later incorporated into the games to reinforce learning.

Like many children’s developmental programs, the organization in this study had a vision for program design and content, yet the vision was implemented from the top-down. Little was known about whether the vision was actually being implemented according to the design or whether it was enjoyable and engaging to the children themselves. Optimally, program design should be fueled by the desire for the organization to listen to what children want in an activity program such that they will be interested and engaged and continue involvement in the program. Instructors were ideally placed to provide information about both of these concerns. The instructors were the intermediaries. They were the ones tasked with putting the program vision into practice. Through their observations and interactions with the children, they had first-hand knowledge of the children’s interest and engagement in program activities. To this end, it was important to gather feedback from the instructors, who were “in the field” regarding the existing pilot program and their perceptions of the implementation of current program activities. From the instructor feedback, the research team could make recommendations to better align the intended goals of the program with actual implementation.

**Methods**

Before data collection, Institutional Review Board (IRB) approval was obtained and informed consent was attained from instructors. There were 2 main data collection steps. First, data were collected from semistructured interviews with the instructors. Second, data were collected via participant observation. A member of the research team served as an active participant observer within the organization for 1 year and actively engaged with the instructors in the main office and onsite where the programs were implemented. Fieldwork included program evaluation of the sessions, instructor evaluations, and attendance at program design meetings and board meetings. This position as observer allowed the investigator to work as an insider with the organization, developing a close working relationship with organization members and instructors.

**Participants**

To elicit feedback about current programming, in-person and online interviews were conducted with
current instructors from 7 schools participating in the program. The combination of techniques was used to increase access to the instructors. Instructors interviewed online (n = 3) were contacted via e-mail and responded to the same questions as those interviewed in-person. When additional information was required, a follow up e-mail was sent that asked the instructor to expand on the specific topic(s) in question. In-person interviews (n = 4) were conducted at a neutral location and lasted approximately 1 hour each. Responses in-person and online were not substantially different in either length or content.

The 7 instructors were chosen based on employment length, knowledge of the curriculum, and experience delivering the program. The instructors were all college students enrolled as kinesiology or education majors, hired to ensure knowledge of health and/or sport as well as a desire to work with children. Instructors had worked for the organization 1 or 2 semesters, with children ranging from kindergarten to 5th grade (typically ages 5–11). Their experience of the program was directly attributable to their daily interactions with the children and none had been involved in the program’s design. As a result, they were most knowledgeable about implementation of the curriculum, but had no particular stake in the success or failure of any particular program element.

Procedure
The interviews followed a semistructured interview guide (see Appendix). The interviews focused on the instructor’s daily interactions with the children and children’s responses to the programming (eg, interest in the games, level of participation, etc.), the instructor’s perceptions of the effectiveness of the current program design and curriculum (including congruence between stated program goals and actual implementation), and the effectiveness of the training and support received from the organization’s central management to implement the programming.6,11,21

Analysis
The schools where the programs were implemented did not permit recording of interviews, therefore, the researchers took meticulous notes during each interview. All identifying information was removed from the notes and instructors’ names were replaced with identification numbers. The data were hand-coded and analyzed in 2 steps. First, the written interview notes were coded to group all the responses to each interview question together (descriptive coding), field notes were added and then data were coded for themes and patterns (pattern coding).22 Comparisons were made both within and across program sites. Consequently, responses to each question may appear across multiple elements. This broad method of coding allowed for examination of trends in the data as a whole to elicit a general understanding of the program’s current reach and effectiveness.

Data Quality
To ensure the quality of the data collected, 4 procedures were used: search for purposive sampling, alternative explanations, investigator triangulation, and member checking. Investigator triangulation was used to cross-check the information and conclusions by facilitating comparison of data provided by individuals among 3 separate investigators.24 The interviewers then conducted an audit of the preliminary analysis of themes, based on the raw data. During the coding, investigators independently searched for alternative explanations in the findings. Comparisons were then made among the 3 investigators’ conclusions. Finally, member checking occurred when investigators contacted instructors to audit the analysis to verify that the themes reflected their perceptions and comments. To ensure the objectivity of the participant observer and improve the accuracy of the observations, peer debriefing was used.25 The authors realize that there are limitations to relying strictly on instructor feedback about the program. However, the organization felt that the instructors would be able to provide better feedback about design and implementation of the program than would the children themselves. Instructors were able to adequately articulate the nature of the program and portray a picture of the current environment such that appropriate programming recommendations could be made. Unlike the children in the program, instructors were fully aware of the intentions of the program and could offer a unique perspective on the realities of implementing the intended curriculum.

Results
Eight themes emerged representing the 3 overarching elements: 1) daily interactions with children (3 themes), 2) effectiveness and implementation of the current design (3 themes), and 3) effectiveness of training/support (2 themes; see Table 1). In addition, 1 core theme was found to underlie all other themes—the disconnect between program vision and implementation.

Daily Interactions With Children
The instructors reported that, in general, children appeared to enjoy the program. In fact, many of the children indicated to the instructors that it was their favorite after-school activity choice. Instructors also reported that children showed high levels of physical engagement by actively participating in and showing great enthusiasm toward many of the games and sports, especially those that incorporated familiar terms or characters from the media (eg, Shrek tag, Incredibles races). One of the instructors was concerned that there was a large range in physical ability due to age-related developmental differences. This range hindered engagement of some children in some physical activities. There were also language barriers (English vs. Spanish speaking) to delivering the health-related lessons. Finally, the instructors felt that
<table>
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<th>Element</th>
<th>Theme</th>
<th>Example</th>
<th>Recommendation</th>
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<tr>
<td>Interaction with children</td>
<td>Enjoyment</td>
<td><em>The kids really seemed to like the program because the games were different. They could make them their own and that was fun. The only thing that slowed us down was stopping for instruction. That really stopped the flow of the games and the kids complained.</em></td>
<td>Find ways to improve the delivery of instruction through the games, placing less emphasis on lecture time. Not only would this enhance enjoyment, but also keep the children physically active for more time during the program.</td>
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<td>Ability</td>
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<td><em>What’s nice about the games is that you don’t have to have any sport experience. They’re just wacky and fun. The kids love it. Even the kids that aren’t into sports seem to have fun.</em> (field notes)</td>
<td>Continue to develop nontraditional games and/or modify traditional activities. Place emphasis on the unconventional delivery so all children feel comfortable, even if they are not athletic.</td>
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<td>Language</td>
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<td><em>It seems as though the Spanish-speaking kids struggle with some of the material. I know some of the material we send home never gets to the parent because they can’t read it. In some cases, the kids have to read it [the material] to them.</em></td>
<td>Hire a bilingual central management member to translate all materials into Spanish. Develop materials that are sensitive to the needs of the Hispanic community served by the program. Consider hiring bilingual instructors.</td>
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<td>Effectiveness &amp; implementation of program design</td>
<td>Age-appropriateness</td>
<td><em>The curriculum was great for the older kids [grades 3–5], but the little ones [K-2], man, I couldn’t get them to do anything right! I think it’s [the activities] a little over their heads.</em> (field notes)</td>
<td>Provide written curriculum modifications to instructors that teach the children in grades K-2. Ensure games/activities are appropriate for the level of development. Allow instructor feedback in the development of modified curriculum for younger children based on experience.</td>
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<td>Engagement</td>
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<td><em>The kids had fun learning about the information when it was tied into a game, like with the food pyramid relays. They didn’t pay attention when I talked about the food pyramid during our water break. I felt like I had to yell at them to get their attention.</em></td>
<td>To enhance enjoyment and engagement, incorporate the learning components into the games and shorten the water break ‘lessons.’</td>
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<tr>
<td>Program design</td>
<td></td>
<td><em>Ugh, the lesson plans were SO long. I liked the information, it had everything I needed, but the binder was a pain to carry around and sometimes I felt overwhelmed by all the stuff I had to do for the lesson.</em> (field notes)</td>
<td>Modify lesson plans to provide the information necessary to teach the class, but not overburden the instructor.</td>
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<td>Effectiveness of training/support</td>
<td>Instructor roles</td>
<td><em>I wasn’t sure how I should discipline and when. I was supposed to facilitate the class and not act like a ‘teacher,’ but I didn’t know how to do that without the class becoming chaotic. No one really told me how that was supposed to happen.</em></td>
<td>Lengthen instructor training to include tactics to manage class disturbances without hindering the flow and intended delivery of the program.</td>
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<td>On-going mentoring</td>
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<td><em>A member of the main office would come evaluate us and tell us what we were doing wrong, but they never really offered any suggestions to get better. In addition, we don’t have any support in the field. So, you just have to hope you’re doing what they want you to do.</em></td>
<td>Develop a mentoring system that allows for assessment of proper program implementation, but also provides support and guidance to the instructor.</td>
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they needed a better system of behavior management that would avoid interruption of play.

Initially it would appear that implementation was consistent with program vision. Children were engaged and having fun, however this vision of fun and engagement was limited. Instructors were faced with a wide-range of ability levels, language barriers, and behavior problems. This combination of factors forced them to modify activities in ways that deviated from central managements’ intentions.

**Effectiveness and Implementation of the Current Design**

The instructors reported that the current design seemed to be directed at the 3rd- to 5th-graders, as those children seemed to have the best grasp of the health-related concepts and were most active in the sports and games. Instructors reported that the lesson plans provided to them were invaluable; they were useful, detailed, easy to understand, and included resources (including handouts) to give to the children. The games and sports were the most used component of the curriculum, and instructors observed that children were excited to play new types of games and modified sports offered by the organization. Instructors reported that the activities kept the majority of the children active and involved for most of the time and did not involve drill-oriented activities—these were all in alignment with program design visions.

Conversely, the instructors identified several concerns with the current implementation. First, they did not feel that the program was a good fit for the younger children. They felt frustrated by their constant need to modify the program for the kindergarten to 2nd-graders to help younger children understand the concepts. Second, instructors did not feel that the children enjoyed the health and nutrition components, especially having sit-down (nonactive) time in the middle of the games and sports. Children of all ages easily lost attention and were not interested in this component. Finally, while the lesson plans were an invaluable guide for the instructors, they were also quite lengthy and cumbersome. Instructors ultimately felt hindered by the lesson plans rather than supported, which negatively influenced their ability to effectively deliver the program as it was intended.

Interestingly, in this case the program components themselves caused the disconnect. Classroom-like mini-lectures contradicted the fun and engagement, which were central to the program’s mission. The complexity of the lesson plans interfered with instructors’ ability to create excitement and enjoyment through the activities. Lastly, the lessons were not well designed to enhance the experience for the youngest children. In short, these elements actually decreased enjoyment.

**Effectiveness of Training and Support**

Instructor training and support helps ensure consistency of program delivery and maintains the intentionality of the programming. To this end, instructors were provided a half-day training session before beginning the program, as well as ongoing central management supervision at their work-site to help support their efforts to deliver the curriculum. Instructors reported that the half-day training was useful in understanding the values of the organization, the intent of the program, implementation of several lesson plans, and a few behavior control strategies. They felt that the initial training was most helpful in setting a vision for the program and prepared them for the first few weeks of the program. Onsite supervision by central management was reportedly more helpful for handling implementation issues such as behavior problems, the broad range of abilities, and general morale.

The instructors’ biggest concerns with the training session were that it did not address the specific role of instructor as leader within this setting (ie, how the leadership role is unique to this organization and different from “in-school programs”). They felt that to maintain the activity and lesson elements of this particular program, they needed to engage the children in a slightly different manner than would a classroom teacher. Yet instructors had no idea how to do this, nor did they feel that the central management was able to help them to overcome this challenge. This was 1 of 3 concerns they had with the ongoing supervisory support. The second concern was that on-site supervision from central management was felt to be inconsistent. The third was that central management seemed to maintain an evaluative demeanor rather than a supportive one, which discouraged the instructors’ efforts and distracted children from the programming.

Once again, there was a disconnect between the delivery of the program and its vision. The role of the “instructor” was confusing. These instructors had been trained in teacher education programs to take charge and direct the “class,” yet the program vision called for them to facilitate a fun, active experience. While the instructors were aware of the vision and felt that it was communicated in the early training session, they felt inadequately prepared to fulfill their role in this way. To add to their frustration, central management were not able to provide them with examples of facilitating versus directing. In fact, the instructors felt evaluated rather than supported by central management.

**Recommendations and Organizational Reactions**

In light of the feedback provided by the instructors, we made several recommendations to the organization. First, we suggested offering the health instruction elements in both English and Spanish, particularly any material sent home with the children. This would address language challenges by providing opportunities for interaction and participation for children that spoke little or no English. This recommendation was well received. The organization hired a bilingual central management member to help with this need. This person also served as a facilitator to
help instructors who faced language barriers to engaging children and their families. This helped instructors to deliver the program vision more equitably.

We also recommended changes to the program design for the younger children. It was obvious that the instructors needed help modifying games and sports for children in kindergarten to 2nd grade, and that these modifications should be standardized throughout the program to ensure consistency of delivery. One of the modifications adopted was to increase activity time and decrease “listening” time. For example, in the 3rd- to 5th-grade groups, the children might have a 5-minute “lesson” on a nutrition concept, whereas the K to 2nd-grade group would have a 3-minute lesson. Or, in the older 3rd- to 5th-grade group children might play a soccer game that was 6 vs. 6, whereas the younger K to 2nd-grade group would play 3 vs. 3.

Further, we recommended inclusion of more games and activities that incorporated nutrition concepts into the game itself, rather than via a separate lesson format. For example, rather than a long lesson on food groups, children would be briefly introduced to the food groups in the food pyramid. They would then form a track team and run ‘food group’ relays. At the end of a 10- to 20-yard distance, there would be a pile of food cards. The team would send 1 relay member to collect the food card, and pass the food card “baton” to the next member. The team that correctly collected a food item from all 5-food group “batons” in the fastest time would win the track relay. The instructor could then ask some follow-up questions about the food groups. This game allowed the instructor to teach children about the food groups, without interrupting the flow of the physical activity component. Thus, in an ideal sense, the children would be both physically and mentally engaged in the activity, and maintain fidelity to the program vision.

A fourth recommendation was to provide instructors and children a more supportive atmosphere. This suggestion was aimed at managing behavioral challenges while attempting to keep a fun, relaxed atmosphere with the children. A goal of the central management was to impart health lessons without invoking a classroom atmosphere. A consequent concern of instructors was how to allow children freedom to enjoy the games and activities without losing control of the class. While fun was stressed as important, it did not occur without some discipline and control. The objective then was to empower children to take on leadership responsibilities by running activities and/or lessons, but not at the expense of the children’s safety or learning ability. For example, the instructor might choose a child that executed the activity well to demonstrate and teach the activity to those that might be struggling. This would empower children to help one another and keep them fully engaged in program activities. Instructors were then able to facilitate since the children were leading the activities. In this way, instructors were able to avoid the classroom teacher role.

Based on our recommendations, training was increased to 2 full days where instructors were taught ways to manage behavior problems while keeping disruptions to the remainder of the class to a minimum. Instructors were also trained to deliver the entire program in a fun, engaging manner consistent with the organization’s credo (physical activity should be fun!) so that the children would associate fun with physical activity and health. The instructor training reinforced the notion that one objective of the program was to provide a fun atmosphere where children could enjoy engaging in physical activity. Instructors were trained to facilitate the class, while allowing children to lead the games and take ownership of the activities. Most importantly, the instructors were urged to have fun themselves; the more they enjoyed the class, the more the children would enjoy it. The recommendation to incorporate the children in leading the activities seemed to be the best received and the recommendation instructors were most anxious to implement.

In addition to more initial training, central management began to provide more regular on-site feedback to instructors. This included nonthreatening site visits, in which central management would observe and offer the instructor feedback for improving program delivery. Rather than evaluate the instructors during the on-site visit, central management participated in the class as a “helper” instructor, making observations, role modeling, and providing support when necessary. Once the class ended, the central management member provided constructive feedback to the instructor in the absence of the children. While central management members reported that on-site training placed a large burden on them initially, they were willing to invest in such efforts to increase the effectiveness and fidelity of the program.

Discussion

The results demonstrate that the organization made efforts to implement a program that incorporated a non-traditional or modified approach to reaching children. Although this was based on 1 program, lessons learned from this study could impact health promotions practice more broadly, particularly in low-income settings or ones where children have less interest or access to traditional sport programs.

First, the results suggest that there was a pervasive disconnect between the design of the program and the implementation of the program, which likely is a common problem across public health programs regardless of their setting or intended goals. This finding points to the need for not only appropriate design, but also correct implementation and ongoing monitoring especially when one is concerned with the ways that implementation can affect intended behavioral outcomes. One would expect that changes to the program’s design to further enhance active engagement, and more time spent in the program would result in positive attitudes toward health and physical activity and perhaps changes in behaviors as well. Across settings, public
health practitioners must ensure that their programs are monitored appropriately such that the designed program is properly implemented.

In this case, there were many factors that seemed to hinder the implementation of the program. Probably most salient were issues related to the fact that the program was delivered after-school. Instructors noted that children were not only tired from a long day of school, but were also tired of the learning environment. Instructors expressed difficulty in delivering the lecture portion of the curriculum, which was similar to a classroom setting in that children had to sit and listen to a mini-lecture. According to instructors, the children just wanted to play the game, not learn new skills or concepts. Since the children responded well to the knowledge-based physical activity sport games, it was recommended that any curriculum-type concepts be taught through the interactive games rather than through lecture. As many public health programs are delivered in such a format (i.e., after-school programs), this finding may point to the need for “active” delivery of instructional messages to enhance engagement and the learning process.

Finally, the delivery of the program presents 2 problems. First, the instructors were usually college students (typically education majors) who received little compensation or direction in implementing the program. Although they seemed highly committed, particularly to their positions, they had little impetus to internalize the values of the organization and ensure that content was delivered specifically according to its mission. Second, because they received little on-going training or mentoring, when class management or behavioral problems surfaced, the instructors relied on their classroom-based training from their formal education, which conflicted with the child-centered objectives of the program. Thus, it seems the instructors did not necessarily implement the program strictly according to its design and vision, thus limiting its effectiveness.

Like this program, many after-school programs in public schools rely on part-time or contingent workers for program delivery. Public health practitioners need to continue to find ways to help part-time employees embrace the vision of the program and translate that vision through detailed implementation of the activity program, particularly when compensation and other external motivators are not overly salient.

Implications

The findings clearly point to a need for more researcher-practitioner interaction within the implementation of sport programs, particularly those with a public health focus. Reactions to the recommendations were positive; however ongoing, theory-based research is necessary to ensure that modifications are successful and effective. Recommendations alone are not adequate; practitioners noted that continued support in implementing the recommendations would be beneficial.

References


Appendix

Semi-Structured Interview Questions

- How did children respond to the games/sports and the sport and nutrition concepts (prompted for liked, didn’t like, participated, understood, did not understand)?
- How engaged are the children in the games and lesson components?
- What challenges have you faced in increasing engagement with the activities?