

## **Parent and Caregivers Perceptions and Attitudes towards Children's Physical Activity and Physical Education – Results of a NZ Primary Schools Physical Activity Project.**

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The role of parents as a positive influence on children's attitudes towards, and participation in, physical activity through their support, encouragement, provision of opportunities to participate and through parents' own involvement in physical activity is well documented.

A pilot physical activity project was trialled in 15 primary schools in Christchurch and Auckland, New Zealand, with the aim to increase the quality and quantity of children's physical activity and physical education. To achieve these objectives physical activity co-ordinators were assigned to four schools each and lead teachers were identified in each school to undergo a professional development programme to improve their capabilities to develop and implement a quality physical education programme. Part of the evaluation of this project was to investigate parents' perceptions and attitudes to their children's involvement in physical activity and physical education and the changes in these perceptions and attitudes as a result of this intervention.

A parent and caregivers questionnaire developed by the Australian Council for Health, Physical Education & Recreation was completed on two occasions, at the baseline (term 1, 2003) and post intervention phase (term 4, 2004) of the data collection process and completed by 336 parent/caregivers (73% return rate).

Baseline results indicated that parent's highly valued the place of physical activity in the school environment and the health benefits and social skills that physical activity provides. Respondents indicated that family, the school and enjoyment of the activity were key factors in continued participation in physical activity for children. Barriers to participation were family and work commitments and cost of activities.

Analysis of specific groups post intervention indicated an improvement in attitude towards physical education programmes and an increase in the influence of friends (low decile) and role of sports clubs (NZ European) in physical activity participation.

These changes post intervention in parents' perceptions may be reflective of the impact of the physical activity co-ordinators who endeavoured to improve school and community links and of the professional development for lead teachers.

### **INTRODUCTION**

Childhood is a critical time in the development of healthy lifestyle patterns and habits. However, the opportunity for children to participate in physical activity varies greatly and is influenced by a number of factors (Armstrong & Welsman, 1997). The role of parents as a significant influence on pre-adolescent children's participation in physical activity is well documented (Brustad, 1996; King, Tergerson & Wilson, 2008; Eriksson, Nordqvist & Rasmussen, 2008). This parental influence can occur through their support and encouragement, the provision of opportunities to participate, and through parents' own involvement in physical activity.

In New Zealand, the release of the Graham Report (2001) noted concerns about young peoples' physical activity levels and raised issues about the quality and access to physical education and physical recreation opportunities for young New Zealanders. As a consequence of these findings a pilot primary school physical activity project was initiated.

This pilot physical activity project was established by the Ministry of Education (MOE) and Sport and Recreation New Zealand (SPARC) and involved sixteen schools (one withdrew in the second year) in two regions (Christchurch and Auckland). The pilot

was trialled over a two year period with the aim to increase the quality and quantity of children's physical activity and physical education. To achieve these objectives, physical activity co-ordinators (PAC's) were each assigned four geographically-clustered schools. The role of the PAC was to increase the awareness of, and opportunities for, physical activity outside timetabled school time by working with the school, teachers, children and the community. The PAC's role was envisaged to be the liaison between these groups. Lead teachers were identified in each school to undergo a professional development programme to improve their capabilities to develop and implement a quality physical education programme.

The evaluation of this project also acknowledged the role that parents play in providing physical activity opportunities for children. Parent/caregivers perceptions and attitudes to their children's involvement in physical activity and physical education were investigated and the changes in these perceptions and attitudes as a result of this intervention were documented and are reported in this article.

## **METHOD**

### ***Participants and Setting***

A random sample of children and their parent/caregivers were selected from a cohort of sixteen schools selected by the Ministry of Education. Eight schools from both Christchurch and Auckland were selected and grouped into area clusters each containing four schools (Christchurch, Lincoln, North Harbour and South Auckland). Eight children were randomly selected from each of the identified school year level groups. That is, eight children each from Year 1, 3, 5 and 7 in each school. Informed consent was obtained from 457 children and their parent/caregivers to take part in the evaluation process. One school withdrew from the project at the beginning of the second year which decreased the sample size post-intervention. This project also gathered information from 36 lead teachers, 4 PAC's, 16 principals and Board of Trustee members (BOT) and 124 teachers.

### ***Research Methodology***

Key personnel in each of the pilot schools were interviewed throughout the duration of the pilot to identify key learning and success factors that would help inform any planned future rollout of the intervention. Observations of the lead teachers' physical education lessons and lunchtime physical activity were carried out. The participating children and their parent/caregivers were asked to complete questionnaires about physical activity. In addition children were also required to complete the following evaluation activities: a motor skill survey, heart rate monitoring and a structured interview. Teachers in all the pilot schools completed a survey about the teaching of physical education.

The parent/caregivers questionnaire was developed by the Australian Council for Health, Physical Education & Recreation (ACHPER) and examined parents/caregiver's attitudes towards, their pre-adolescent child's involvement in physical activity (Wright, Brown, Muir, Rossi & Zilm, 1999). The parent/caregivers' of consenting children were asked to complete the questionnaire on two occasions, once in the baseline phase (term 1, 2003) and again in the post intervention phase (term 4, 2004). The questionnaire was sent

home with the consented children for the parents to complete. In some situations where two or three children were from the same family only one questionnaire was completed at each phase.

### ***Analysis of Results***

The parent/caregivers' questionnaire were analysed using a repeated measures analysis with a mixed-modelling procedure (Proc Mixed) in the Statistical Analysis System (Version 8.2 SAS Institute, Cary NC). A one-way analysis of variance was used to determine whether there were significant differences between baseline and post-intervention in the various groups (parents' gender, school decile, ethnicity and school cluster). Data presented are raw frequencies (number of respondents) and percentages of respondents who answered the questions. For some questions respondents were asked to tick more than one response, therefore the percentage indicates the percentage of all parent/caregivers who responded with that particular choice. Any change in responses equal to or above 10% was classified as a substantial difference.

## **RESULTS**

Of the 457 consented children and parent/caregivers (baseline sample), 336 (305 post-intervention sample) parent/caregivers completed the questionnaire giving a 73% return rate. The predominant groups of caregivers completing the questionnaire were; female (267 base, 250 post) NZ European ethnic group (230 base, 224 post) and age group category 31- 40 years of age (164 base, 124 post) .

### ***Parent/caregivers attitudes and values***

The values parent/caregivers placed on their child's participation in physical activity included the fun and enjoyment their child experiences (93% base, 92 post), the health benefits (60% base, 62%, post) and the social skills they gained, such as co-operation (53% base, 50% post). Parent/caregivers reported a substantial increase post-intervention (33% base, 41% post) on the value they placed on their children making friends through their participation in physical activity. This increase is also reflected in low decile (30% base, 41% post), Maori (41% base, 58% post), Lincoln (36% base, 48% post) and Christchurch (29% base, 46% post) parent/caregiver responses.

### ***Influences***

The two most important influences in children's participation in physical activity reported by parent/caregivers were the school (82% base, 75% post) and family (81%, base, 73, post). While overall results showed no baseline to post-intervention change analysis of specific groups showed substantial changes. South Auckland (80% base, 64% post) and low decile (84% base, 55% post) parent/caregivers all showed a decrease in the school as an influence on their children's participation in physical activity. Maori parent/caregivers reported a decrease post-intervention on the influence of, and the encouragement from siblings (51% base, 39% post) as important influences in children's participation in physical activity.

The influence on friends on children's participation in physical activity was shown to be important for specific groups in particular Maori (35% base, 65% post) and

low decile (38% base, 50% post) parent/caregivers who reported a substantial increase post-intervention.

Maori parent/caregivers perceived having access to available facilities (41% base, 63% post) and their child 'being good at the activity' (46% base, 58% post) as more of an influence in getting involved in physical activity post intervention. This increased response to the access of facilities post-intervention is reflected by South Auckland (5% base, 16% post) parent/caregivers in the importance of swimming lessons and Lincoln (60% base, 72% post) and North Harbour (37% base, 45% post) and Christchurch (44% base, 51% post) parent/caregivers on the influence of sports clubs in their child's participation in physical activity.

### ***Barriers***

Parent/caregivers perceived that family (33% base, 35% post) and work (34% base, 35% post) commitments and the cost of the activities (32% base, 32% post) were key factors working against their child's participation in physical activity.

Cost was a major barrier for children's participation in physical activity and after the intervention this presented even higher concerns for low decile (33% base, 52% post), Maori (31% base, 43% post) and South Auckland (31%, 51%) parent/caregivers. Similarly, parent/caregivers from low decile families showed heightened concern post intervention over the availability of suitable transport (17% base, 30% post) for low decile families.

### ***School Physical Activity and Physical Education***

The majority of parent/caregivers perceived that their children participated in, and enjoyed physical education (88% base, 90% post) and sport (89% base, 90% post) at school. This positive attitude to school physical activity was perceived by the parents post-intervention to be due to the physical education programme (43% base, 51% post), the physical education teachers (41% baseline, 49% post-intervention) and policies (39% baseline, 45% post-intervention) in their children's school.

The increase in the enjoyment and attitudes towards school physical education programmes post-intervention was more pronounced in the South Auckland (41% base, 65% post) cluster and low decile (40% base, 61% post) parent caregivers. High decile (40% base, 50% post), NZ European (38% base, 51% post) and North Harbour (30% base, 48% post) cluster, reported that their child's attitude has been enhanced by the physical education teachers.

## **DISCUSSION**

Changes in parent/caregiver's perceptions of their children's attitudes and participation in physical activity and physical education, along with their own attitudes as a result of the project identify some of the success factors of this intervention.

Cost and access to physical activity opportunities outside the school environment have always been a concern and this still remains a major barrier for parent/caregivers in

low decile schools. As part of the project physical activity co-ordinators (PAC) had a role in trying to minimise these barriers towards physical activity participation. This role included working with the local community to open up access to facilities and resources and to create more opportunities for children to be active within the school environment, but outside timetabled curriculum time (e.g. lunchtime, morning interval), and after school. Introducing new physical activity opportunities to children may have increased parent/caregivers awareness (in low decile school areas at least) of the importance of cost and the problems of transport to and from such physical activities.

Maori and South Auckland parent/caregivers reported an increase in the availability of facilities for their children's participation in physical activity, including swimming. The PAC responsible for the South Auckland cluster accessed funding to re-open one school's swimming pool and the local council offered free access to local pools for those schools without a pool. Other strategies implemented by this PAC included applying for grants for playtime equipment and the setting up of systems for storage and distribution of equipment during lunchtime and other breaks. One such system was the introduction of a physical activity council (older children in the school) whose role was to take responsibility for distributing equipment and also to organising games and physical activities during the lunchtime. One of these activities was leading a 'Jump Jam Session in the hall during lunchtime. These activities undertaken during school time, but outside timetabled time, provided easy and available access to physical activities with no cost to parent/caregivers or transport concerns.

Parent/caregivers perceptions of the influence of sports clubs in encouraging children to be physically active increased substantially post-intervention. Such a positive change was probably due to the PACs' introducing regular newsletters that went home to all parents informing parents of community events, contacts, resources available as well as advice on how to increase their children's physical activity. An example of one of the initiatives communicated to the parents was the YMCA's Push Play initiative, which involved the children getting more active with their families outside the school environment.

There was a substantial increase reported by parent/caregivers (Maori and low decile) on the influence of friends and a decrease on the influence of siblings in their child's participation in physical activity. Children's initial involvement in physical activities has primarily been influenced by the physical activity interests of family (King et al, 2008). As a result of this intervention the making of friends and participating in physical activities with friends has increased and is seen as an important influence in children's enjoyment of and participation in physical activity. Possible reasons for the increase in the role of friends as part of the intervention could be the strategies implemented by the PAC's who have increased physical activity opportunities within the school during lunchtime and provided access to physical activity facilities in the community after school and in the weekend with very little or no cost thereby giving more opportunities to be active with friends. Previous research indicates friends play more of an influence in the participation of physical activity as children move through puberty into adolescence (King et al, 2008).

Low decile, Maori and South Auckland parent/caregivers reported an increase in their child's enjoyment of physical education as a result of the schools physical education pilot programme. While parents from high decile, NZ European and North Harbour groups perceived that their children's attitudes towards physical education have improved due to the schools' physical education teachers. This may be reflective of the impact of the professional development programme in improving the quality and quantity of the physical education programme. Results from the teacher survey indicated that there was an overall increase in the amount of timetabled time devoted to physical activity curriculum subjects post-intervention. Teachers also reported an increase in confidence and competence in teaching physical activity. Such perceived changes could be a result of physical education being delivered more often or longer with different approaches and movement contexts offered.

Changes in parent/caregivers perceptions and attitudes toward their child's participation in physical activity as a result of this intervention indicated two key success factors. The first is the role of the physical activity co-ordinator in providing physical activity opportunities outside timetabled school time and the second is the professional development programme provided for the lead teachers and teachers in the pilot schools which probably led to the increased quantity and quality of physical education programmes.

The two agencies (MOE & SPARC) responsible for this project have recognised these success factors and in the years subsequent to the completion of this pilot have provided opportunities for NZ primary schools to access physical education professional development and active school advisers (similar to the PAC) to support and enhance physical activity programmes in their schools.

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