A STUDY OF ACTIVENESS OF PRIMARY SCHOOL CHILDREN IN PHYSICAL ACTIVITY PROGRAMME DURING RECESS TIME

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ABSTRACT

A study was carried out in the primary sections of different schools in Distt. Palwal and Distt. Faridabad to observe and analyse the activeness of children in physical activity programme studying in Primary Wings during recess time. The study included the schools situated in cities, semi urban areas and rural areas. The children under study were among the age group of 5-12 years. The factors which influence the physical activity (PA) of the children at recess time were also studied. The study showed that the rural children were more robust and energetic in particular and the boys were more active than girls in General.

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INTRODUCTION

Physical activity is an integral component of a healthy lifestyle. Engaging in regular physical activity during childhood is hypothesized to reduce the health risks associated with inactivity and benefit health both during childhood and adulthood (Blair & Connelly, 1996; Kohl & Hobbs, 1998). A school based physical activity programme can be quite effective on physical and psychological health in young schoolchildren. It is well established that the participation in physical activities is of utmost importance for a sound mind and healthy body. In recent years considerable attention has focused on determining habitual physical activity levels in children (Sleap & Tolfrey, 2001). As per current physical activity guidelines and recommendations young people should participate in appropriate and enjoyable physical activity and of at least moderate intensity for one hour per day (Health Education Authority, 1998; WHO, 2006; National Heart Alliance, 2006). Children perform physical activity throughout the day in running, playing, crying, reading etc. Children's PA patterns consist of small duration activities of intense PA along with varying intervals of low and moderate intensity with rapid changes of tempo (Bailey et al., 1995). Several international studies carried out on children and adolescences have reported that most of the children are not able to reach the current guidelines, with boys more active than girls and decreasing PA with increase in age (Nic Giabhaínn et al., 2007; Riddoch et al., 2004; Woods et al., 2005; Murray and Millar, 2005). There is strong evidence of negative health implications accruing from physically inactive lifestyles in youth. Reversal of the increasing rate of obesity is a public health priority in Ireland (Department of Health, 2005). Regular PA during childhood is associated with improvements in physiological and psychological variables (Baranowski et al., 1992; National Heart Alliance, 2006).

Although the schools have long been recognised as key settings both to promote and to contribute to PA guidelines because children spend a large proportion of their time there and we all know that the health is a foundation for achieving educational aims and objectives and the capacity of each child to learn effectively is influenced significantly by the child's health status, still the prevalent practice is that the primary business of schools is in achieving educational outcomes. It is reported that the increase in physical inactivity over the past decades is one of the main causes of so many problems and the negligence on the part of the schools further aggravate the problems particularly in children leading to increasing prevalence of cardiovascular risk factors even independent of body weight (BMJ, 2010; Kipping et al., 2008; Ogden et al., 2006; Weiss et al.,

2004; Daniels et al., 2005).

BACKGROUND:

After going through a detail survey in different schools, it was found that the schools have different types of Physical activities for children and the pattern of these activities is different in different types of schools depending on the location of the school (Urban, semi-urban or rural). In some schools there are three breaks, in some two breaks and in some schools only one. Also, it was found that during the typical school day, children have three distinct opportunities in which they can be active: physical education lessons and the extracurricular classes, recess/break time, and outside of school (either before or after school). Of these three distinct opportunities, during break time and outside of school, the children are able to make choices about their participation in activities. But, it is very necessary to observe the activities of the children during this time. In most of the schools situated in urban areas, there are breaks of 15 minutes duration per day, a daily recreation period of 30 minutes and PA period of 30-45 minutes. The former is referred to as 'morning break/fruit break', the second as 'lunch break' and the latter as PA break.

PURPOSE:

Our goal was to study the activeness of Primary School Children in physical activity programme during recess time. We carried out this study at the level of the school primary classes, and the schools were randomly selected and study was carried out over a year. Also, various factors viz. environmental/locational factors, socio-economic conditions, policies and school practices that influence children's (aged 5-12 year) PA behaviour during break times were studied.

METHODOLOGY:

Design and study population

The study took place in two Districts Palwal and Faridabad in Haryana State of India comprising of two hundred schools situated in cities, semi urban areas and rural areas. The study period was of one year between April 2011 and March 2012. The schools under study were comparable as regards the physical activities and recreational facilities at schools. A questionnaire was prepared and the study sample consisted of 200 primary schools in Districts Palwal and Faridabad in Haryana State of India. During the study, there was frequent discussion with the school sports in-charges/physical education teachers/DPE's or a person who was familiar with the schools facilities, equipment, and policies around physical education and they filled the questionnaire and the school director had no role during the whole study period, and all parts of the intervention were done at the class level.

The questions in the questionnaire were prepared so as to carry out a thorough investigation of the

following domains:

- Whether the physical activity period is part of regular Time-Table
- No. of periods/breaks assigned to physical activity and the duration of this time
- Time span of the day at which physical activity occur
- Whether fruit break/lunch time is part of break time in which physical activity occurs
- Infrastructural facilities, locations and space for physical activities
- Supervision practices at break time
- Weather different seasons summer/rainy/winter have implications
- Play Policy
- Freedom to children and their activities at break time
- Physical education classes and the impact of these classes on break time physical activity

The questionnaire consisted of 42 questions and the efforts were made to collect unbiased feedback from the various stakeholders also.

FINDINGS AND DISCUSSION :

The response rate of the survey carried out in two hundred schools using frequencies, from the questionnaire survey findings has been discussed in Table 1. Some of the response filled questionnaires were received by post and some were filled by the respondent on the spot and handed over to the surveyer. The response sheets were thoroughly studied and matched with the facilities and practices prevalent in concerned schools as mentioned. The findings have been discussed in relation to practices that exist in schools, and practices that children are confronted with in the playground environment.

Response Rate :

The total response rate of the mixed-mode survey was 80.5% out of which 64.5% was usable (Table 1). It is difficult to comment on the 19.5% non-response cases. May be they were either "too busy or not willing to participate.

Table 1: Response rates to questionnaires used in survey

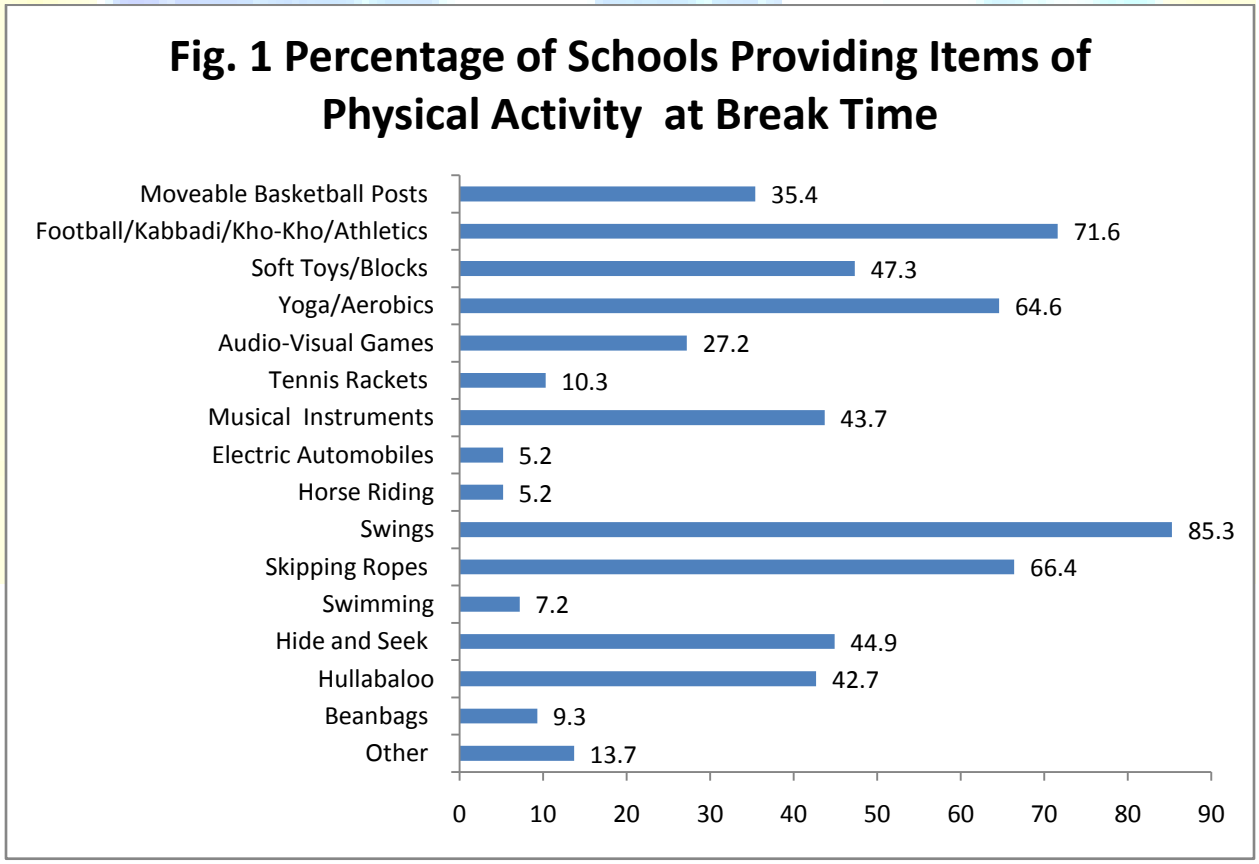
Responses (Postal Returns)	Responses (On the Spot)	Unusable Responses (Postal Returns)	Unusable Responses (On the Spot)	Mixed-Mode Usable Responses
n = 38	n = 123	n = 11	n = 21	n = 129
19%	61.5%	5.5%	10.5%	64.5%

Activity Breaks in schools in Distt. Palwal and Distt. Faridabad

The current study reveals that there are two break times in 83.7% of primary schools in the two

districts. The average duration of morning break/fruit break varies from 10-15 minutes and lunch break 25-35 minutes depending on the standard of the students. Nearly 75% of all respondent schools had eating time as part of break time. The 23.6% of schools that did not have eating time as part of lunch break resulted in 35 minutes of actual play time and therefore more time available for PA. In contrast, some schools observed in the current study, children had ten minutes to play at lunch break as a result of having eating time as part of lunch break. Very few schools were found to have three breaks out of which one was exclusively for PA.

The current study found that most of the schools provide equipment for PA if required during break times, although various practices existed. However the amount of equipment available to children to play with as well as the type of equipment is of importance, as too little equipment hinders PA and the equipment type may not encourage different levels of PA. In some schools the no. of equipments available was very less. On being asked and after making an in-depth study of the available data, supervision difficulties, organisational reasons and safety were the principal reasons outlined for equipment unavailability. Percentage of schools providing items of physical activity at break time is shown in fig. 1.



The various activities as reported by questionnaire respondents that children were involved in at break time are listed below:

- Most of the children in most of the schools play informally and chat
- Children organise themselves into group activities
- Children in higher classes help the younger children playground games like kho-kho, kabbadi, football, athletics etc. It was found more in rural schools.
- Children are allowed to run freely in the yard at break time
- Children sit, stand and walk at break time
- Children play computer games, attend music/dance section/play room etc

IMPLICATIONS:

From this study it reveals that

- Every school has a clear intention to promote certain practices at break time that influence children's physical activity levels
- It was found that the schools find it very hard to involve each and every student in PA due to various constraints, may be the space or strength. Ample opportunities in-fact exist for increasing the PA levels of a considerable percentage of children at break time
- Safety is an important barrier at break time to schools in PA promotion

STRENGTHS AND LIMITATIONS:

This study contributes a practical way of observing and analyzing the activeness of children in physical activity programme studying in Primary Wings during recess time and suggesting measures so as to how to successfully implement a physical activity programme in primary wings of schools to reduce the extensive pressure on the small children adversely affecting their health. The implementation of a multi-component physical activity curriculum including daily physical education based on a structured curriculum, short activity breaks, and physical activity homework, can play a significant role in improving the physical and psychological health in young schoolchildren. The favourable outcome of this study that the rural children are more robust and active in physical activity programme in school is even more encouraging considering the high participation rate and the use of precise methods. Importantly, the children and teachers enjoyed the intervention, which guaranteed compliance, and it was sufficiently intense, of adequate duration, and included expert physical education teachers.

The level of adherence to the intervention outside school (physical activity homework) was insufficient, which is a limitation of this study. Nevertheless, the qualitatively and quantitatively

improved physical education resulted in higher levels of total and moderate-vigorous physical activity in school as well as over the whole day, which was sufficient to improve the fitness. This emphasises the importance of an increase in the amount and quality of physical education and activity at school, as many children do not seem to be active in school educational programmes aiming at increasing physical activity outside school. Our estimate of the activeness and effectiveness of Primary School Children in physical activity programme during recess time is based on limited schools and students. This might have introduced some bias.

RECOMMENDATIONS :

- Schools should be encouraged to become supportive environments with a healthy public policy related to PA and play within the school.
- The break periods should be the part of the regular time table so as to have effective and smooth implementation of PA
- Parents and schools need to formalise acceptable risks that are involved in playing at school under caring supervision.
- It is essential to instill confidence to schools to implement simple practices i.e. provide copious and varied equipment at break time, develop systems to use playground markings, implement staggered breaks if restricted in space, or to develop practices to use green areas more often.
- Justification for having eating time included in curricular work as social personal and health education, music, reading or poetry needs to be researched further particularly in the light of whole school inspections.
- This practice would allow further opportunities for children to play and possibly be more physically active at break periods.
- The schools should have formal and written play policy

CONCLUSION :

A careful study and analysis of the data reveals that the children are naturally active. The boys are more active than girls and the children studying in rural schools are more robust and energetic. Keeping in view the present scenario and the stringent guidelines from the government and the policy makers, it is necessary to strike a balance between too rigid supervision and the promoting the feeling of independence in the children as they slowly and slowly become mature. It is very essential to promote Break time play with positive school PA promotional practices rather than curtailing children's active play.

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