

Movement skills and physical activity in children report examples

[Family](#), [Children](#)



The main aim of this study was to check whether there was any significance relationship between movement skills and Physical Activity and how basic motor skills that may differ in children due to types and frequency of physical activities.

Methodology and Procedure used.

This study was targeted to Australian Children who were samples from Middle Eastern background. For purposes of accurate analysis purposes children had to be apparently

Healthy and having no chronic disease relating to energy expenditure or physical activity.

-A sample of four children (two boys and two girls) aged 8, 10, 12 and 13 was taken from two different cultural backgrounds and used as the experimental units. After sampling, the following protocol was followed:

-The parent or guardian of the child was contacted prior to commencement of the study in order to seek their consent by filling the consent form and to have a brief interaction with the parent and the child.

-The parent/ guardian and the child were asked about the frequency and type of physical activities the child engages in the course of a week.

-The four children were observed for roughly 15-20 minutes while engaging in physical activities at home and in school. Behaviors that were keenly followed included running, jumping, walking, skipping and catching.

-A gross of five motor behaviors was documented as the child was performing them.

Each of the five behaviors was observed for each child as they performed

and the different in each was noted and recorded in a data sheet.

Habitual physical activity measurements were done using accelerometers that were fitted in the right hip. They were fitted before commencement of the excise and removed after the exercise. The output data on the accelerometer was recorded. Accurate fundamental movement skills were measured using Movement Assessment Battery . According to Croce et al it was the most efficient way to measure movement like jumping , catching a ball among others.

Statistical analysis.

I first tested for associations between fundamental movement skills score and various

Indices of habitual physical activity using correlations and I also tested for differences in these indices of habitual physical activity by quartiles of movement skills score using Kruskal-Wallis tests and Mann-Whitney tests to assess the significance of differences in physical activity between the upper and lower quartiles for movement skills score. Statistical significance was set at $P < 0.05$.

Results.

Total physical activity ($r = 0.10$, $P = 0.05$) and percent time spent in moderate to vigorous physical activity (MVPA) ($r = 0.18$, $P = 0.001$) were significantly correlated with total movement skills score. Time spent in light-intensity physical activity was not significantly correlated with motor skills score ($r = 0.02$, $P = 0.05$).

Below is a representation of the exercises that were studied and the mean product oriented scores.

Discussion.

The present day study suggests there are crucial but weak cross-sectional relationships between fundamental movement skills and habitual physical activity. Children who spent lots of time in MVPA had a higher fundamental movement skill scores, this reflected to a very insignificant percentage compared to the present study. According to Pate (), fundamental movement skills and habitual physical activity need not to be necessarily linked together especially in the childhood days and hence his finding tends to back the results obtained. The marked differences between the motor skills and the time spent on MVPA most likely suggests the extremes of distribution which also reflect how important this associations can be. The children with the least engagement in MVPA had the poorest performance in the motor skill assessment, therefore it can be deduced that that the limited engagement hinder motor skills development or restriction in MVPA participations also caused by limited motor development. Our findings are also similar to those of Okely who found a weak but statistically significant relationship between time spent in organized physical activity and fundamental movement skills in Australian adolescents.

Below is a graphical representation of mean percentage score time and MVPA.

The amount of variance in time spending organized physical activity explained by fundamental movement skills in the Australian study was small (3%).

In a general view of the situation as it is, in present day, engagement in sedentary behavior is relatively higher as compared to the rate of engagement in MVPA. Although, gender differences might be a factor in the relationship between development of motor skills and physical activities, in this study no difference was detected in the analysis carried out however, it can still be detected if we were using the categories of movement skills score for locomotive and manipulate categories.

Limitations of the Study.

Despite being one of the very incisive studies on the relationship between movement skills and physical activity in children in present day the study was faced by allot of drawbacks as follows. The low levels of time spend in MVPA and low levels of habitual physical activity greatly distracted my ability to detect the relationship with the score for movement skills.

During the study a uniaxial accelerometer was used . this gadget provides very low accurate measurements for the rates of physical movement, they still have a problem to record accurately vigorous - intensity activities by the children.

Another very critical problem faced during the study was that the gender differences really affected the rate of performance of the study exercises. Generally boys are more active than girls are however, girls perform better in balancing tasks as opposed to boys while boys performed better in running jumping and other more strenuous exercises. It could have been more accurate if these subcategories were considered rather than reducing the scope of data to a single global score; however, this problem was partly

fixed by using three components of the final movement skills score separately. Generally, it can be said that this drawbacks in some extent affected the general outcome on the study of the relationship between movement skills and physical activity.

Questions.

Some of the behaviors that were taken to consideration during the study were, running, jumping, walking, skipping and catching.

Running:

Running is defined as a means of terrestrial locomotion that aids an organism to move rapidly from one area to another on foot. As observed in the study, running is a form an exercise that entails the use of muscles that in a way steers normal growth rates and advanced state of skeletal and sexual maturation especially in males.

Jumping:

Jumping is the ultimate push of one's body off the surface by use of muscles, the ultimate use of muscles requires a lot of energy, this energy results from burning of excess fats in the body, which leaves the child healthier.

According to Hung (2012), children who participate in this kinds of physical exercises tends to grow taller and matures earlier than normal.

Walking:

Walking can be defined as a slow pace movement. Walking and especially brisk walking engages many organs in the body that are very essential in the general development of the Childs motor skills and also the overall Childs

health, for examples it enables the child to exercise his heart and the lungs together with the leg muscles. all these coordinations sharpen the motor skills of a child

Skipping.

Skipping is a movement that involves stepping lightly from one foot to the other. According to Richards (2012), skipping is one of the vigorous exercises that sharpen both the gross and fine motor skills of a child since it involves the vigorous use of both the smaller and the larger muscle groups in the child. Much of these developments occur in childhood however the performance level gross of motor skills remains unaltered even after periods of non use.

Catching:

Catching is defined as the ability to take hold grasp something that is being given to someone. It is a less vigorous activity that was performed well by girls . These are discrete tasks that sharpen more on fine motor skills rather than gross motor skills.

Among the similarities observed behaviors for each child, in connection to gross motor activities with reference to gender, age and cultural background were; among the children, both genders performed well in the activities involving motor skills development. All the children showed a positive response towards gross motor activities since all the activities were universal and did not favor any party. However, boys performed more better in the vigorous exercises that essential engages use of the larger subsets of muscle these activities included running and catching. This two Activities

were also performed exemplarily well by the older children simply because of the energy factor and their advanced intellectual skills as opposed to the younger kids. Children obtained from the urban setup were more active than the children from the rural setup were. This was also backed by Fisher et. al. (2005).

In most cases, the growth of motor skills rises directly proportionally to the increasing age. Majorly growth of motor skills involves the intellectual and ultimate control of muscle sets. Many factors contribute to the capability of a child to develop motor skills. According to a health journal in the USA, some of the factors include inherited or genetic traits or even children with learning disorders. These factors are said to be uncontrollable and therefore the child or the parent has no power over them Joel (2005). Controllable factors include the environment and culture where the child is born, for example according to a health leaving magazine, a child born in town has less exposure to activities like hiking and camping than a child born in rural areas. According to Richard (2012), for a child to develop motor skills, he/she must be exposed to many opportunities to explore physically the surrounding. Some of the influences to development include stress, fatigue and vigilance.

Reflective questions.

What was the Aim of the study: The main aim of the study was, to check whether there was any significance relationship between movement skills and Physical Activity and how basic motor skills that may differ in children due to types and frequency of physical activities.

Was it Successful? The study was a great success despite the few challenges due to the cooperation of the parties involved.

The strongest aspect of this work is that it proves beyond any reasonable doubt the relationship between movement skills and physical activity in children, giving relevant statistics and back up data on this aspect.

What mostly needs to be worked on is that in future, studies should also try to test relationships in other settings to try and obtain diverse data sets. Also alternative design models should also be considered like intervention studies that can provide great ability to detect the associations between the variables

Conclusion.

According to this study and the results presented it is quite evident that the measurements of movement skills and habitual physical activity. However, this association was proven beyond reasonable doubt to be weak. The present study queries whether the assumed association between motor skills and habitual physical activity actually manifest in young children.

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