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Effectiveness of Nutrition and Play Activities in Enhancing Basic Motor Skills of Urban Children Over a 16-Week Period

Heru Andika[1], Willadi Rasyid[2], Gusril[3], Syahrial Bakhtiar[4], Anton Komaini[5]

[1,2,3,4,5] Universitas Negeri Padang, Jl. Prof. Dr. Hamka, Padang City, 25171, Indonesia

Corresponding Author: Anton Komaini

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ABSTRACT

This research was carried out on the basis of the low basic motor competence of urban children. It is estimated that there are many influencing factors including play activity methods and nutritional status. This study aims to determine the effect of play activity methods on nutritional status in urban children. This type of research is a quasi-experimental with a total sample of 40 people based on certain considerations. Basic movement skills are obtained by the TGMD-2 test which consists of object control and locomotor, then nutritional status data is obtained by measuring body mass index. Data were analyzed using a quantitative t test technique that describes comparative data. The results of the research and data analysis show that: 1) There are differences in the basic movement skills of students who have high and low nutritional status 2) There is an interaction between learning approaches and nutritional status. 3) There are differences in the basic movement skills of students who are given a playing approach that has a high nutritional status. 4) There are differences in the basic movement skills of students who are given a playing approach that has low nutritional status. The findings in this study show that children who have high nutrition enjoy playing activities more and are more physically active compared to children who have low nutrition in play activities. and play activity is an intermediary to see the movement skills of children

Keywords: approach to play, nutritional status, basic movements of children, TGMD-2.

INTRODUCTION

Healthy growth and development [1], is influenced by good nutritional status, and is supported by socioeconomic status [2], the better their economic situation, the healthier their nutrition. Malnutrition is malnutrition [3], at an early age resulting in stunted growth and development of children, children's nutritional development is supported by a good and balanced status [4], [5]. Basic movement skills must be owned by children from an early age [6], it is important for children to master basic movements is the aspiration of children's physical competence and lifestyle [7], [8], basic movement skills are needed in sports, games, physical activities, competence basic motion recovery (a) locomotor (run, hop, slide, gallop, leap, jump), (b) object control (strike, dribble, catch, kick, throw, roll [9]-[13], several factors becomes the influence of basic movement skills, such as providing stimulus, location, economy, learning styles and limitations of parents giving space for children to explore the abilities they have [8], [14].

Many views say school-age children are naturally healthy, but the mortality rate for children aged 5-14 years ranges from 300,000 to 1 million, or the equivalent of 55% of child deaths [15], 45% of child deaths with malnutrition [16], Malnourishment in childhood can damage the future resulting in adulthood having a negative impact on the child's physique

[16]. which makes the level of poor children's basic movement mastery only 34% close to skill mastery [15].

For the development of physical and psychological well-being and avoiding non-communicable diseases such as obesity, childhood is an important time to adopt an active lifestyle [17]-[19]. by implementing 60 minutes per day or the equivalent of 12,000 steps in one day [19]-[21]. Creativity must be owned by the teacher for solving problems faced [22], such as providing play activities that increase involvement, strengthen motivation and help develop children's childhood in interacting with others [23], [24]. Physical education teachers are powerful change agents creating opportunities for the development of children's skills [25], [26].

The purpose of this study was to look at the basic movement skills of children who have high nutritional status and low nutrition in the provision of play activities for 16 weeks, and to analyze whether there is an effect of providing play activities and children's basic movement skills.

MATERIALS & METHODS

This research method uses quasi-experiments at the age of 9-10 years in urban children. Using the TGMD-2 pre-test, application of process-oriented TGMD-2 play activities and post-tests emphasizing movement quality TGMD-2, used to assess proficiency in six locomotor skills (run, hop, slide, gallop, leap, jump) and six object control skills (punching, dribbling, catching, kicking, throwing, rolling) [8], nutritional measurements were carried out by body mass index (BMI) calculating body weight (kg)/height2(m2).

STATISTICAL ANALYSIS

Data analysis used test t quantitative which describes the comparison of significant data of the group studied [19]. and a norm reference score method adapted from TGMD-2 were employed in this study's data analysis

RESULT

Table 1. Pre-test and post-test data on basic motor competence

No	Interval Class	Pre-test		Post-test		Information
		Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency	
1	< 46.43	3	8%	0	0%	Very less
2	46.44 - 51.48	9	23%	0	0%	Not enough
3	51.49 - 56.52	17	43%	6	15%	Currently
4	56.52 - 61.57	9	23%	16	40%	Good
5	> 61.58	2	5%	18	45%	Very good
Sum		40	100%	40	100%	

The results of basic movement research at the age of 9-10 years in urban children participating for locomotor movements, objects in the control of basic movement skills. There is a significant difference between children with high nutrition and low nutrition, children with high nutrition have better basic movements than children with low nutrition 0.004 <0.05.

The high nutrition group showed a significant increase compared to the low nutrition group who used play activities on basic movement skills Significant (0.001<0.05).

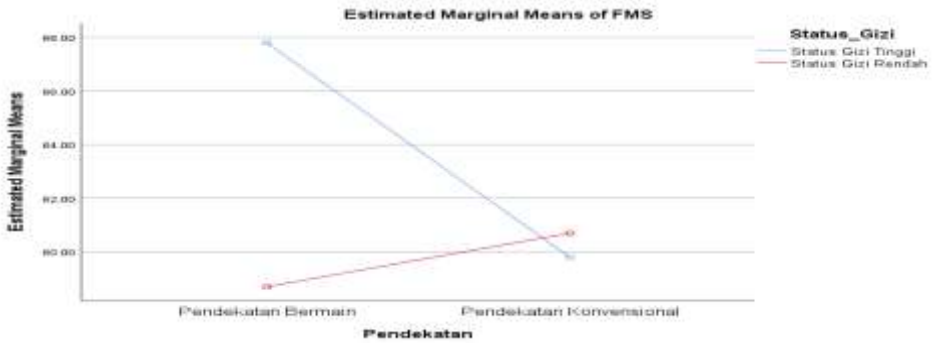

Figure 1. Play Approach and Nutritional Status

DISCUSSION

Elementary school children are a period of rapid growth and development so that children are very active in carrying out activities, active children need adequate nutrition so that what occurs in the body functions normally [28]. Children with high or low nutritional status have an influence on basic movement skills in playing activities [29], it can be seen that high nutritional children are more active in playing activities compared to children who have low nutrition [26]. Because adequate nutritional intake supports the growth and development of children, nutrition must indeed be considered for healthy skills and basic movement skills [30], as well as play activities providing a variety of movement experiences to improve basic movement skills.

Every area of child development has the potential to improve a child's education, social life, and general welfare [30], basically children's basic movement patterns can develop naturally, and a higher level of child proficiency is achieved with proper practice, encouragement, and instruction, children who cannot receive instructions properly will show delays in the development of motor competence [8] which have an impact on emotional and social functioning [31]. Playing can develop movement skills, social, thinking and behavior as well as the emotional and physical development of children [32], [33], playing is a material that develops and is rich in space for exploration [23]. Which makes fun, new knowledge, and changes in children's progress [23], thus play activities and physical activity become very important for children's basic movements [34], [35].

A number of studies have investigated the relationship between cognitive, psychological, cultural, or physical environmental factors and FMS in children, and social and economic status [8], noting that physical activity and play activity participate in the development and improvement of long-term motor skills [36]. Children who are actively playing show an increase in social maturity and basic motor skills [37]. With the help of play-based learning, children can experience tremendous improvements in their physical, mental and social abilities [38]

The findings in this study show that children who have high nutrition enjoy playing activities more and are more physically active compared to children who have low nutrition in play activities, this can be seen in the provision of play activities given for 16 weeks. Nutritional status and play activities are things that help overcome children's basic movements.

CONCLUSION

From the results of this study, we convey that play activities are one way to train children's movement skills. Besides that, the nutritional status must also be considered for the continuity of the child's movement. It is clear that teachers are the only agents responsible for promoting learning, and as such, they must actively support their own professional development and the adoption of new methods for delivering teaching.

Declaration by Authors

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