

141 - PROFILE MATURATIONAL STAGE THREE FUNDAMENTAL MOVEMENT PATTERNS OF CHILDREN BETWEEN 4 AND 6 YEARS PRACTITIONERS OF TAEKWONDO.

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INTRODUCTION

One of the human interaction with the environment you live in is through the movement, which highlights its importance. The ability to move is subject to numerous changes throughout life following the level of motor development (Mafort, XAVIER, NEVES, Cavalcante, ALBUQUERQUE, AND BENDA UGRINOWITSCH 2007, p.195).

Second, Ferreira, Carvalho, Cavalcante, Lage, Neves, Ugrinowitsch and Benda (2006) motor development is part of the overall development of the human being is defined as a sequential process and continuous. Through motor development is the link between cognitive, psychological and social, it is the movement that happens the expression and binding of other domains.

Researchers like Gallardo and Isayama (1998), Dantas, Oliveira and Santos (2004) and Ozmun and Gallahue (2005) admit that the most important phase of motor development occurs in childhood, and is called the phase of Fundamental Motor Skills. This phase begins around the second year of life up close to 6 or 7 years, divided into three stages: initial (2 years), elementary (3 to 4 years) and mature (5 to 7 years) and a step likely to change interfering with the individual's future. At this stage it acquires patterns of movement for stability, locomotion and manipulation, essential for a good motor development.

It is important to note that chronological age is not always obeyed this stage of motor development. Ozmun and Gallahue (2005) states that some children may be beyond the stage given his age and that many individuals, both adults and children do not go beyond the elementary stage in many movement patterns.

All motor development is related not only to biological maturation, but also to the experiences. The opportunity to experience motor quality is essential to the achievement of motor acts of daily life and possible actions sports complex. However it is apparent that many children are confined to entertain with television, video games, computers, many lack access to physical activities or engage in an activity-oriented, but do not achieve the benefits of practicing the physical fact that it is not transmitted in a qualified way, compromising the development of basic motor skills.

Taekwondo is a physical activity that can influence the motor development of children subjected to this practice. According to Barbosa (2006):

Taekwondo (also called *tae kwon do*) is a Korean martial art, which has achieved visibility in the national context as an Olympic sport. The term is loosely translated as "way of the feet and hands." The taekwondo training emphasizes agility, coordination, [...], the power in the application of strokes, especially the lower limbs, but also the hierarchy, respect, discipline, responsibility and physical and emotional health (emphasis added).

Scholars on the practice of taekwondo as Albuquerque and AKILIAN (2009), highlighting the need to conduct practical and pedagogical teacher taekwondo efficiently. These authors stress the need to seek the teacher not only teach the technical and tactical aspects of the art, but also to involve in its class methodologies will help in the physical, social and psychological students making this a practical way to develop global the individual.

Therefore, this study aims to describe the stages of basic motor skills of children between 4 and 6 years subject to the practice of physical activity / sport taekwondo pre-order to show the possibility that the opportunity to practice, when available qualified form is a great ally of motor development in children positive, which may perpetuate efficiently during the life of the individual.

MATERIALS AND METHODS

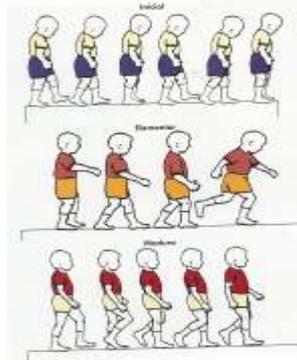
The research is descriptive in nature because it follows the characteristic to describe a phenomenon or situation in a study in a specific spatial and temporal context. It can be seen as main objective to describe the characteristics of a given population, or phenomenon, or the establishment of relations between variables and, in some cases the nature of these relationships (Duarte and Furtado, 2002).

Population and sample The population involved in the study consisted of children between 4 and 6 years for males and females of Belo Horizonte and Contagem - MG. As the sample has 100 children and 27 of 4 years, 41 5 and 32 6 years of male and female practitioners of physical activity / sport taekwondo pre-selected randomly stratified members of 12 elementary schools and 6 academies. Only children with a time of practice of taekwondo than 3 months and less than 12 months were part of the sample.

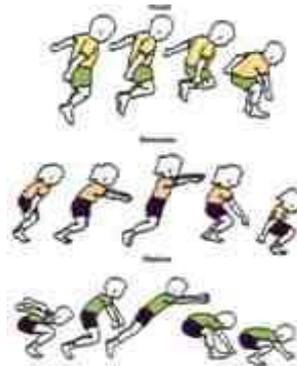
Ethical Care - Before beginning the research project of which was reviewed and approved by the Ethics Committee of the Pontifical Catholic University of Minas Gerais. All leaders of the study participants were aware of the purpose of the study and consented to hold it through the signatures of informed consent and explanation, as well as directors and / or heads of schools and academies signed a compromise allowing data collection in their institutions.

Procedures - All children included in the sample were subjected to tests evaluating motor qualitatively motor skills fundamental stabilization, transportation and handling. For this, we used the matrix motion analysis of the underlying patterns oriented walk, jump and horizontal act of receiving, where each child was classified as the maturity level of initial(1) elementary(2) or mature(3) according to the method of carrying out standards movements analyzed in this study, proposed by Gallahue and Ozmun (2005). All children had three runs of each pattern. The tests were performed at the place where each child practicing taekwondo (school and / or academia) in the time of your class.

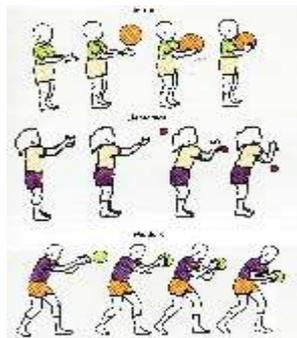
A - Stage Walk-oriented (ability to stabilize)



B - Stage horizontal jump (ability to walk).



C - Stage to receive (manipulative skills)



Statistical analysis - For data we used descriptive statistics as tools for applying the frequency analysis on the mean and standard deviation.

RESULTS AND DISCUSSION

Application of statistical analysis - to present the results of this research, – Tables 1, 2 and 3 show the relative frequency of the maturational stage - initial, elementary or mature children in each group according to age, 4, 5 and 6 years presented with regard to movement patterns of walking oriented (ability to stabilize), the horizontal jump (ability to walk) and receive (manipulative skills).

Table 1
RESULTS MATURATIONAL STAGES IN PATTERNS OF MOVEMENT ANALYZED CHILDREN 4 YEARS N = 27

PATTERNS OF MOVEMENT	WALKING	VERTICAL JUMP	RECEIVE
	%	%	%
Initial	0	11.11	11.11
Elementary	88.88	85.18	85.18
Maduro	11.11	3.71	3.71

Table 2
– RESULTS MATURATIONAL STAGES IN PATTERNS OF MOVEMENT ANALYZED CHILDREN 5 YEARS - N = 41

PATTERNS OF MOVEMENT	WALKING	VERTICAL JUMP	RECEIVE
	%	%	%
Initial	0	0	0
Elementary	14.64	36.59	53.65
Maduro	85.36	63.41	46.35

Table 3
RESULTS MATURATIONAL STAGES IN PATTERNS OF MOVEMENT ANALYZED CHILDREN 6 YEARS - N = 32

PATTERNS OF MOVEMENT	WALKING	VERTICAL JUMP	RECEIVE
	%	%	%
Initial	0	0	0
Elementary	6.25	6.25	31.70
Maduro	93.75	93.75	68.30

Table 4 shows the mean and standard deviation of children 4, 5 and 6 years on the maturational stage in which they are patterns of movements analyzed.

Table 4
RESULTS MATURATIONAL STAGES THROUGH THE MEAN AND STANDARD DEVIATION OF GROUPS OF 4.5 AND 6 YEARS.

	4 YEARS	5 YEARS	6 YEARS
	M - SD	M - SD	M - SD
Initial	2 to 1.73	0-0	0-0
Elementary	23.33 to 0.58	14.44 to 8.02	2.66 to 1.15
Maduro	1.66 to 1.15	26.66 to 8.02	29.33 to 1.15

DISCUSSION OF RESULTS

In this study, was detected through the processing of data that most children involved in the research is in the maturational stage of the movement patterns tested, compatible to their age or present themselves in a higher stage, according to the description of the phases and stage of motor development proposed by Gallahue and Ozmun (2005). Only 11.11% of children aged 4 years were not at the elementary stage, this stage supports this age group in the movement patterns of horizontal jump and take.

Among children 4 years most children already in the elementary stage of movement patterns evaluated, a result that is consistent with studies by Ferreira et al (2006) and the researchers who proposed the array of analysis used in this Research and Ozmun Gallahue (2005). However there is still children who underwent this study that the patterns of movement jump and get still in early stages, confirming the studies Krug (2002), advocating that the maturation and environment are factors that help in improving the fundamental patterns of movement, but are not always able to get all children reach their maturity stage on its idade. Para this researcher factors of education, encouragement and opportunity to practice also influence the development engine, which depends on good planning of the teacher entered the area of Physical Education.

Among the group of children 5 years performed at any stage maturation stage. In the study by Ferreira et al (2006) only in the pattern of movement to receive the results were equal to the present research in relation to the initial maturation stage. It is noticeable in this study that most children under 5 years old is in a higher maturity stage (mature stage) in the movement patterns of walking and jumping in what is expected at this age (elementary stage) as points and Gallahue Ozmun (2005). Abreu Moreira and Brant (2009) showed that children of five years practitioners of physical activity are already swimming in the mature stage of the movement pattern oriented walk.

In this research, the result can be allied to the motor experiences agree with the study of Sirqueira (2006 apud Mafort, Xavier, Snow, Cavalcante, Albuquerque, Ugrinowitsch and Benda 2007) indicating the highest levels of motor development in children who do other sports practices beyond conventional classes in physical education, which is the case with the group of children 5 years of research where all are practitioners of physical activity taekwondo.

Most of the group of children 6 years stood in the maturational stage appropriate to their age, the mature stage, confirming what has been proposed in the array of motion analysis of the underlying patterns oriented walk, jump horizontally to receive and act proposed by Ozmun and Gallahue (2005). But the results of this study is contrary to the findings of research Krug (2002), Ferreira et al (2006), Mafort et al (2007) where the majority of children of both 6 and 5 years reached only the elementary stage of maturity movement patterns the same as chosen in this research. The results presented in the research cited may be justified by what Mafort et al (2007) point out: "[...] the pace of development coupled with experience of the sample led to the emergence of the fundamental patterns of movement late [...].

Gallardo and Isayama (1998) affirmed the conclusion of a survey on Brazilian studies related to fundamental motor skills, the need to verify that the importance given to environment in the development of motor skills. This sample has the children involved in the environmental practice of physical taekwondo and this factor was probably a good thing for much of the sample is presented on the stage of mature movement patterns analyzed.

AKILIAN (2007) discussed the practice of taekwondo as a means of training social, psychological and motor development, thus contributing to a comprehensive education and that today there is a large opening of private schools to offer extra activities such as taekwondo curriculum, guided by the offering of such practices and the benefits that it can bring to their students.

It is important to understand how conclusions Gallardo and Isayama (1998) that motor development is the result of dynamic interaction between human beings and the environment. In addition, Krug (2002) points out that a good planning of the teacher inserted in any area of physical education, motor skills expert teaching is key to aid in improving the fundamental patterns of movement of the pupil.

Thus, if teachers of taekwondo, and all physical education professionals are knowledgeable about the importance of a quality motor intervention not only as part of a physical practice, but also seen as important in the development of activities of daily life their students, the skills acquired by children, can thereafter be more consistent.

CONCLUSION

Through this descriptive analysis, with the exception of only 11.11% of the children of 4 years in the movement

patterns of jumping and receive, all other children in this study are on the maturational stage of their age or are in a stage higher. The objective of this study was to describe the maturational stage of three basic patterns of movements of children that practice of physical activity / pre-sport taekwondo, where one possible explanation for the results is grounded in the influence of environmental experience and the type of task in the development of fundamental patterns of movement.

It is important to consider the array of analysis of the fundamental patterns of movement chosen is not a scientifically validated instrument, but built as a support tool for teachers who work with some kind of practical motor directed to children. This factor can be seen from positively when we look at this form of analysis as a means of evaluating accessible and close to the real potential problems that teachers will find physical activities in relation to the engine of his students, minimizing any possible gap between research and researchers in the field of development engine practical work of the professionals involved with physical education / motor of children in educational settings, formal or otherwise.

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PROFILE MATURATIONAL STAGE THREE FUNDAMENTAL MOVEMENT PATTERNS OF CHILDREN BETWEEN 4 AND 6 YEARS PRACTITIONERS OF TAEKWONDO.

ABSTRACT

Between 2 to 7 years can be observed in the motor development of children's acquisition of the fundamental patterns of movement, and for a good quality standards of the child must be as close as possible to mature stage. The objective of this research is to identify the maturational stage of the movement patterns of the guided walk, the horizontal jump and the act of getting children between 4 and 6 years of activity taekwondo practitioners. This is a descriptive research that has sampled 27 children of 4 years, 41 5 and 32 6 years practicing taekwondo members of 12 elementary schools and 6 colleges in the cities of Belo Horizonte and Contagem / MG. An evaluation of the maturational patterns of movement (walking, jumping and receive) in accordance with Gallahue and Ozum (2005). Data processing was done using descriptive statistics. Observed as a result, except for group of 4 year olds in the movement patterns of jumping and receivables presented in the initial stage, all other children in this study are in the maturity stage on the age or is in a upper stage.

KEY WORDS: fundamental patterns of movement, taekwondo.

PROFIL DE L'ÉTAPE DE MATURATION TROIS MODELES FONDAMENTAUX CIRCULATION DES ENFANTS ENTRE LES PRATICIENS DE 4 À 6 DU TAEKWONDO.

RÉSUMÉ

Entre 2 à 7 ans peuvent être observés dans le développement moteur des enfants, l'acquisition des habitudes fondamentales de circulation, et pour une bonne qualité des normes de l'enfant doit être aussi proche que possible de mûrir stade. L'objectif de cette recherche est d'identifier l'étape de maturation du mouvement modèles de la promenade guidée, le saut horizontal et l'acte d'enfants qui montent entre 4 et 6 ans de l'activité des praticiens de taekwondo. Il s'agit d'une recherche descriptive qui a échantillonné 27 enfants de 4 années, 41 5 et 32 6 années à pratiquer le taekwondo membres de 12 écoles primaires et 6 écoles dans les villes de Belo Horizonte et Contagem / MG. Une évaluation des modèles de maturation du mouvement (marcher, sauter et recevoir), conformément à Ozum et Gallahue (2005). Le traitement des données a été effectuée en utilisant les statistiques descriptives. Observée à la suite, sauf pour les groupes de 4 ans dans les modèles de mouvement de saut et créances présentées dans la phase initiale, tous les autres enfants dans cette étude sont au stade de la maturité de l'âge ou est dans un étage supérieur.

MOTS CLÉS: tendances fondamentales de circulation, le taekwondo.

ETAPA DE MADURACIÓN PERFIL TRES CONSIDERACIONES FUNDAMENTALES PATRONES DE MOVIMIENTO DE LOS NIÑOS ENTRE 4 A 6 AÑOS DE PROFESIONALES DE TAEKWONDO.**RESUMEN**

Entre el 2 y 7 años se puede observar en el desarrollo motor de los niños de la adquisición de los patrones fundamentales de circulación, y para un nivel de calidad superior del niño debe estar lo más cerca posible a la etapa madura. El objetivo de esta investigación es identificar la etapa de maduración de los patrones de movimiento de la caminata guiada, el salto horizontal y el acto de recibir los niños entre 4 y 6 años de actividad de los profesionales de taekwondo. Esta es una investigación descriptiva que ha tomado muestras de 27 niños de 4 años, 41 5 y 32 6 años practicando taekwondo de los miembros de 12 escuelas primarias y 6 escuelas en las ciudades de Belo Horizonte y en Contagem / MG. Una evaluación de los patrones de maduración del movimiento (caminar, saltar y recibir), de conformidad con Ozum y Gallahue (2005). Procesamiento de datos se realizó mediante la estadística descriptiva. Observado como resultado, a excepción del grupo de 4 años de edad en los patrones de movimiento de saltar y de los créditos presentados en la etapa inicial, todos los demás niños en este estudio están en la etapa de madurez de la edad o está en un la etapa superior.

PALABRAS CLAVE: patrones fundamentales de movimiento, de taekwondo.

PERFIL DO ESTÁGIO MATORACIONAL DE TRÊS PADRÕES FUNDAMENTAIS DE MOVIMENTO DE CRIANÇAS ENTRE 4 A 6 ANOS PRATICANTES DE TAEKWONDO.**RESUMO**

Entre os 2 aos 7 anos é possível observar no desenvolvimento motor infantil a aquisição dos padrões fundamentais de movimento, sendo que para uma boa qualidade destes padrões a criança precisa estar mais próxima possível do estágio maduro. O objetivo desta pesquisa é identificar o estagio maturacional dos padrões de movimento da caminhada orientada, do salto horizontal e do ato de receber de crianças entre 4 a 6 anos praticantes da atividade taekwondo. Trata-se de uma pesquisa descritiva que tem como amostra 27 crianças de 4anos, 41 de 5 anos e 32 de 6 anos praticantes de taekwondo integrantes de 12 escolas de educação infantil e 6 academias das cidades de Belo Horizonte e Contagem/MG. Foi realizada uma avaliação do nível maturacional dos padrões de movimento (caminhar, saltar e receber)de acordo com Gallahue e Ozum (2005). O tratamento de dados foi feito através da estatística descritiva. Observou-se como resultado, com exceção do grupo de crianças de 4 anos nos padrões de movimento de saltar e receber que se apresentaram no estágio inicial, todas as outras crianças deste estudo estão no estagio maturacional referente à sua idade ou encontra-se em um estágio superior.

PALAVRAS CHAVES: padrões fundamentais de movimento, taekwondo.

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