91 - THE IMPORTANCE OF FUNCTIONAL TRAINING IN MOTOR DEVELOPMENT AND OVERWEIGHT AND OBESITY REDUCTION AMONG CHILDREN

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ABSTRACT

In light of the technological advance we have today, it is common to see people who do not practice any physical activities due to the practicalities that technology provides, reducing efforts that were once considered normal. Thus, habits performed by adults are passed on to children, causing them to also reduce the amount of movements performed, which are essential for motor development, leading to an increasing in overweight and obesity at this stage. In our research, we sought to show the importance of functional training in childhood and the acquisition of motor skills, besides helping reduce the rates of overweight and obesity among children. According to Dias (2011) and Monteiro & Evangelista (2012), functional training refers to a set of exercises performed with the objective of working the skills used by the practitioner in their daily life, using integrated movements and mobilization of more than one segment. At the same time, performed in different planes, involving different muscular actions. Understanding that motor development is the change in lifelong motor behavior and a process that begins with conception and ends with decease, the practice of functional training stimulates the development of motor skills and the variables of physical fitness can be worked out in a balanced way, improving posture, strengthening muscles, bones and tendons, increasing the range of motor skills due to the variation of stimuli. Finally, new research should be carried out to emphasize the importance that the practice of functional training can bring to children. Likewise, it is important to highlight that the practice of physical activities should be guided by properly trained professionals and appropriately followed exercises, which are necessary for the motor development of the children and inciting the practice of physical activity, increasing the chances of becoming more active adults.

Key words: Functional Training – Motor Development – Child.

INTRODUCTION

Due to the technological advancements that we currently have, it is common to see people who do not practice physical activities because of the practicalities that technology provides. Therefore, the way of living has changed, causing the population to move less, reducing efforts that were once considered normal.

According to Santos (2008), the lack of physical activity and other factors related to lifestyle are already responsible for more than 50% of the total risk of developing some type of chronic disease in developed, under development and undeveloped countries. According to the data presented, the practice of functional training by children can become an important ally in stimulating the execution of physical activities, reducing the risks of developing some disease in the future and increasing the chances of making them more active.

In addition, due to the commotion presented by the population, habits performed by adults are passed on to the children, making them also reduce the amount of movements performed, essential for the motor development of these individuals. Consequently, overweight and obesity have become a frequent item among children, increasing the risk of developing some chronic disease at an early age.

A survey conducted by the Brazilian Institute of Geography and Statistics (2011) in partnership with the Ministry of Health called the Family Budget Survey (POF 2008-2009), showed a large increase in the number of overweight and obese children in Brazil between 1989 and 2009. Within the same period, the number of overweight boys between 5 and 9 years old increased from 15% to 34.8% and the obese ones from 4.1% to 16.6%, representing more than 300% increase. Among girls in this age group, the percentage of overweight went from 8.6% to 32% and obesity from 1.8% to 11.8%.

These are alarming data and the Physical Education professional needs to be aware. In our research, we aimed to show the importance of functional training in childhood and motor skills acquisition, besides helping reduce the rates of overweight and obesity among children, raising bibliographical references about the subject and verifying the benefits this practice can bring.

FUNCTIONAL TRAINING

Currently, functional training has been widely used in the physical preparation of athletes and in the physical conditioning of the general population. Herewith, the practice of this training modality is also used with children, in order to develop and stimulate the motor skills that are necessary for the daily movements and during sports practice.

According to Monteiro & Evangelista (2010; 2012), functional training originated with Physiotherapy and Rehabilitation professionals, when they used the movements that patients performed at home or at work so that they could return to their functions more quickly after undergoing surgery. Based on the successes obtained with the rehabilitation of the movements, the practitioners working in the physical performance and the conditioning in general began to use this methodology, widely accepted among practitioners (MONTEIRO & EVANGELISTA, 2010; 2012).

Dias (2011), Monteiro & Evangelista (2012) affirm that functional training refers to a set of exercises performed with the objective of working the skills used by the practitioner in his daily life, these gestures being reproduced in the training sessions.

Clark (2001), quoted by Monteiro & Evangelista (2012), presents a concept of functional training that is widely accepted among Physical Education professionals and practitioners of today's sport:

Functional movements refer to integrated, multilinear movements involving reduction, stabilization, and strength construction. In other words, functional exercises refer to movements that mobilize more than one segment at the same time,

which can be performed in different stages and involving different muscular actions (CLARK, 2001 quoted by MONTEIRO & EVANGELISTA, 2012, p.16).

Considering the quotation above, it is noticed that during the practoce of movements in a training session two or more joints will be used, also known as multi-articular movements (FLECK & SIMÃO, 2008). Likewise, in the same session, the variation of the stages, axes and muscular actions (concentric, eccentric and isometric) are constantly altered in order to provide different stimuli to the practitioner.

One of the main objectives of functional training is not to work on a specific muscular group, but rather on movement patterns such as pushing, pulling, squatting, jumping, spinning in order to recruit the greatest number of motor units, providing adequate stimulus to the practitioner (FRANCISCO, VIEIRA & DOS SANTOS, 2012).

This way, physical fitness variables such as coordination, balance, speed, agility, power and flexibility are constantly used in the exercises, helping the individual's body composition (CAMPOS & CORAUCCI NETO, 2008).

Among the benefits that functional training can bring, Normman (2009) quoted by Molina, da Silva Junior & Manganotti (2010) reports that exercises can be performed by people of all ages, from teenagers to the elderly, assisting in posture and development of all physical abilities in a balanced way. Furthermore, the author comments that this type of training is indicated not only for those who desire aesthetic results, but also for those who seek to improve the physical and motor skills they use on a daily basis.

MOTOR DEVELOPMENT

According to Gallahue & Ozmun (2005, p. 3) motor development can be understood as the "continuous change in motor behavior throughout the life cycle, provided by the interaction between task needs, individual biology and environmental conditions". According to the authors, development is a process that begins with conception and ends only with death, being a continuous process and including all aspects of human behavior throughout life (GALLAHUE & OZMUN, 2005).

Motor development is strongly influenced by three main factors. The first factor concerns individuality, in which intrinsic, internal, biological, natural and hereditary elements need to be considered. Another factor, the task, the physical and mechanical factors of motion itself must be in sync with the type of individual to perform a movement. Finally, the environment is related to the extrinsic active factors and the motor experiences that have already been performed, added to the encouragement and motivation coming from outside (GALLAHUE & OZMUN, 2005).

It is important to understand that all these factors need to be interconnected so that motor development can be adequate, always respecting the individuality of the learner, taking into account that each individual has a time for acquisition and development of motor skills. Thus, taking advantage of the fact that the body during childhood is sensitive to the influence of environmental and behavioral factors, the monitoring and control of children's motor performance are essential to contribute to the promotion of physical activities in the present and for the whole life (GALLAHUE & OZMUN , 2005; GUEDES & GUEDES, 2006).

For professionals who work directly with children, it should become a habit to observe if the student has an adequate motor development, elaborating activities that are in accordance with their needs, helping in their development process, improving the performance of basic structures, making it possible that they express themselves, creating and experiencing different situations with themselves, other children and with the world around them (PEREIRA & RODRIGUES, 2010).

Thus, it is observed that functional training during childhood becomes extremely beneficial because of the diversity of movements and motor skills that they can experience in a session or class, providing a range of motor skills and increasing the energy expenditure of children.

According to Faingenbaum & Wescott (2001, p.6) "children should develop strong muscles, bones, tendons and ligaments, which allow them to perform physical activity successfully and safely, reducing the risk of injury". With the stimulus given in the early stages of life, it becomes much easier for children to become interested in performing physical activities as adults. Also, these stimuli can provide physiological changes that are able to contribute to the sporting performance of each student, provided they are correctly oriented (PÉREZ, 2006 quoted by MOLINA, DA SILVA JUNIOR & MANGANOTTI, 2010).

FINAL CONSIDERATIONS

Regarding everything we have presented, we consider that, regardless of whether the child has any difficulty both in physical and motor aspects or is reasonably developed in both factors, the practice of physical activities is essential not only in the earliest ages but throughout his or her life, always seeking the quality of their own health.

It is evident that the functional training can bring several benefits to the child, such as the improvement of the posture and development of the physical capacities in a balanced way, since the variation of realized movements and stimuli can bring motor experiences essential for the motor development.

Also, we observe that the practice of functional training by children stimulates the strengthening and development of muscles, bones, tendons and ligaments, preventing the occurrence of injuries and making them stronger and can be an adequate stimulus for the discovery of new athletes, besides providing a satisfactory energy expenditure to reduce the rates of overweight and obesity.

Finally, it is worth emphasizing that new research should be carried out with the intention of highlighting the importance that the practice of functional training can bring to children. Likewise, it is important to take into account that the practice of physical activities should be guided by properly trained professionals and appropriately followed exercises, which are necessary for the motor development of the children and encouragement to practice physical activity from an early age, increasing the chances of becoming active adults.

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ABSTRACT

In light of the technological advance we have today, it is common to see people who do not practice any physical activities due to the practicalities that technology provides, reducing efforts that were once considered normal. Thus, habits performed by adults are passed on to children, causing them to also reduce the amount of movements performed, which are essential for motor development, leading to an increasing in overweight and obesity at this stage. In our research, we sought to show the importance of functional training in childhood and the acquisition of motor skills, besides helping reduce the rates of overweight and obesity among children. According to Dias (2011) and Monteiro & Evangelista (2012), functional training refers to a set of exercises performed with the objective of working the skills used by the practitioner in their daily life, using integrated movements and mobilization of more than one segment. At the same time, performed in different planes, involving different muscular actions. Understanding that motor development is the change in lifelong motor behavior and a process that begins with conception and ends with decease, the practice of functional training stimulates the development of motor skills and the variables of physical fitness can be worked out in a balanced way, improving posture, strengthening muscles, bones and tendons, increasing the range of motor skills due to the variation of stimuli. Finally, new research should be carried out to emphasize the importance that the practice of functional training can bring to children. Likewise, it is important to highlight that the practice of physical activities should be guided by properly trained professionals and appropriately followed exercises, which are necessary for the motor development of the children and inciting the practice of physical activity, increasing the chances of becoming more active adults.

Key words: Functional Training – Motor Development – Child.

L'IMPORTANCE DE LA FORMATION FONCTIONNELLE DANS LE DÉVELOPPEMENT MOTEUR ET RÉDUCTION DE SURPOIDS ET OBESITE CHEZ LES ENFANTS

RÉSUMÉ

Avant les avancées technologiques dont nous disposons aujourd'hui, il est fréquent de voir des gens qui ne pratiquent pas d'activités physiques en raison des installations qui fournit la technologie, ce qui réduit les efforts qui ont été considérés comme normaux. Ainsi, les habitudes effectuées par les adultes sont passés à des enfants, causant que ceux-ci réduisent également la quantité de mouvements effectués, l'essentiel pour le développement moteur, conduisant à une augmentation du surpoids et de l'obésité ce stade. Grâce à notre recherche, nous montrons que l'importance de la formation fonctionnelle dans l'enfance et l'acquisition d'habiletés motrices, et aider à la réduction des taux de surpoids et d'obésité chez les enfants. Selon Dias (2011) et Monteiro & Evangelista (2012), la formation fonctionnelle se réfère à un ensemble d'exercices effectués afin de travailler les compétences utilisées par le praticien dans leur vie quotidienne, en utilisant des mouvements intégrés et la mobilisation de plus d'un segment en même temps, realisée en différents plans, impliquant différents actions musculaires. Comprendre que le développement du moteur est le changement de comportement du moteur tout au long de la vie et un processus qui commence dès la conception et se termine à la mort, la pratique de la formation fonctionnelle stimule le développement des habiletés motrices et les variables de conditionnement physique peut être travaillé si équilibrée, amélioration de la posture, renforcer les muscles, les os, les tendons et les ligaments, ce qui augmente la gamme des connaissance moteurs grâce à la variation de stimuli. Enfin, des recherches plus approfondies devraient être menées afin de souligner l'importance que la pratique de la formation fonctionnelle peut apporter aux enfants. De même, il est important de souligner que la pratique des activités physiques devrait être guidée par des professionnels dûment formés et des exercices surveillés de manière adéquate, qui sont nécessaires pour le développement moteur des enfants et l'incitation à l'activité physique, ce qui augmente les chances de faire plus d'adultes actifs.

Mots-clés: Formation Fonctionnelle – Développement Moteur – Enfant.

LA IMPORTANCIA DEL ENTRENAMIENTO FUNCIONAL EN EL DESARROLLO DEL MOTOR Y REDUCCIÓN DE SOBREPESO Y LA OBESIDAD INFANTIL

RESUMEN

Delante del avanzo tecnológico que hay actualmente, es algo común encontrar personas que no practican actividades físicas por cuenta de las facilidades que la tecnología proporciona, reduciendo los esfuerzos que antes eran considerados normales. Con eso, hábitos realizados por los adultos son trasladados a los niños, haciendo que estes también reduzcan la cantidad de movimientos realizados, esenciales para el desarrollo motor, llevando al aumento del sobrepeso y de la obesidad en esta fase. Con nuestra pesquisa, buscamos enseñar cual la importancia del entrenamiento funcional en la niñez y en la adquisición de habilidades motoras, además de auxiliar en la disminución de los índices de sobrepeso y obesidad entre los

niños. De acuerdo Dias (2011) y Monteiro & Evangelista (2012), el entrenamiento funcional es un conjunto de ejercicios realizados con el objetivo de trabajar habilidades utilizadas por el practicante en su cotidiano, utilizando movimientos integrados y movilización de más de un seguimiento a la vez, realizados en diferentes planes, envolviendo diferentes acciones musculares. Entendiendo que el desarrollo motor es la alteración del comportamiento motor a lo largo de la vida y un proceso que tiene inicio en la concepción y finaliza en la muerte, la práctica del entrenamiento funcional estimula el desenvolvimiento de habilidades motoras y las variables de la aptitud física pueden ser trabajadas de manera equilibrada, mejorando la postura, el fortalecimiento de los músculos, huesos, tendones y ligamientos, aumentando la gama de conocimientos motores debido a la variación de estímulos. En resumen, nuevas pesquisas deben ser realizadas con la intención de enfatizar la relevancia que la práctica del entrenamiento funcional puede traer para los niños. Además, es importante evidenciar que la práctica de actividades físicas debe ser orientadas por profesionales debidamente capacitados y los ejercicios adecuadamente acompañados, siendo los mismos necesarios para el desarrollo motor de los niños y incitación a la práctica de la actividad física, aumentando las posibilidades de tornarse adultos más activos.

Palabras clave: Entrenamiento Funcional – Desarrollo Motor – Niños.

A IMPORTÂNCIA DO TREINAMENTO FUNCIONAL NO DESENVOLVIMENTO MOTOR E REDUÇÃO DO SOBREPESO E OBESIDADE ENTRE AS CRIANÇAS

RESUMO

Diante do avanço tecnológico que temos atualmente, é comum vermos pessoas que não praticam atividades físicas por conta das facilidades que a tecnologia proporciona, reduzindo esforços que antes eram tidos como normais. Com isso, hábitos realizados pelos adultos são passados para as crianças, fazendo com que estas também reduzam a quantidade de movimentos realizados, essenciais para o desenvolvimento motor, levando ao aumento do sobrepeso e obesidade nesta fase. Com nossa pesquisa, buscamos mostrar qual a importância do treinamento funcional na infância e na aquisição de habilidades motoras, além de auxiliar na diminuição dos índices de sobrepeso e obesidade entre as crianças. De acordo com Dias (2011) e Monteiro & Evangelista (2012), o treinamento funcional diz respeito a um conjunto de exercícios realizados com o objetivo de trabalhar as habilidades utilizadas pelo praticante em seu cotidiano, utilizando movimentos integrados e mobilização de mais de um segmento ao mesmo tempo, realizados em diferentes planos, envolvendo diferentes ações musculares. Entendendo que o desenvolvimento motor é a alteração do comportamento motor ao longo da vida e um processo que se inicia na concepção e finaliza na morte, a prática do treinamento funcional estimula o desenvolvimento de habilidades motoras e as variáveis da aptidão física podem ser trabalhadas de maneira equilibrada, melhorando a postura, fortalecimento de músculos, ossos, tendões e ligamentos, aumentando a gama de conhecimentos motores devido à variação de estímulos. Por fim, novas pesquisas devem ser realizadas com o intuito de enfatizar a importância que a prática do treinamento funcional pode trazer para as crianças. Do mesmo modo, é importante evidenciar que a prática de atividades físicas deve ser orientada por profissionais devidamente capacitados e os exercícios adequadamente acompanhados, sendo estes necessários para o desenvolvimento motor das crianças e incitação à prática da atividade física, aumentando as chances de tornar adultos mais ativos.

Palavras chave: Treinamento Funcional – Desenvolvimento Motor – Criança.