01 - THE MOTOR DEVELOPMENT OF CHILDREN AGED 4 TO 6 IN THE CONTEXT OF "TIO CHICO" MILITARY BRIGADE SCHOOL FOR CHILDREN .

CLAUDIA CUGNASCA BOROWSKI HANSEN
Universidade Federal do Rio Grande do Sul (UFRGS) – Porto Alegre/RS – Brasil
ccugnasca@bol.com.br

1 INTRODUCTION

This article aims to investigate the motor development of early aged military brigade children (4 to 6 years old) , from a children school supported by the Military Brigade, in Porto Alegre, RS, as well as to investigate the school routine and environment.

According to Krebs, Copetti and Beltrame (1998), it is necessary to perceive the child as an interactive individual who, in spite of suffering the environment influences, is able to change them, thus considering the individualities of each one and the environment influences as fundamental tools for development, and not as obstacles. To the motor skills development, maturity is important, as well as the influences in the interactions between the individual and the different contexts in which the child is inserted. In this case, through the experiences offered to the children it may be understood how the modifying processes in motor skills happen, because they are for a lifetime.(Castro, 2008).

Human development starts at conception and lasts a lifetime. According to Monteiro (2006), the motor skills development is linked to several aspects, among them, the influence of biological and social components . Children and environment join physical and psychologically. Saccani et al.(2007), reports that the sequence of motor skills during the early childhood varies from child to child, and the motor skills development depends on several factors, like the dynamic interaction of task restrictions, environment and from the organism. (NEWELL, 1986).

The individual is influenced by the environment in which it lives, as well as influences the environment that it experiences, (KREBBS,1995) reports the Bronfenbrenner´s theory. It is important to perform the physical education (in nursery schools) in suitable environments, like a sport field, a grassland , a spacious place, allowing a better place for children to develop. The playground, as well as pedagogical toys and material related to physical education, contribute to the learning process concerning own movements, intellectual capacities , affection , cognition and motor skills (RICHTER, VAZ, 2010).

The context of school environment should have a dynamic in which educators and supervisors criate , stimulate complex and progressive activities to the developing children´s capacity, allowing them balance to introduce novelties. Interaction in school puts up with different interactions (BRONFENBRENNER, 1996; LORDELO, 2002), that can contribute to their development. A child is in permanent transformation, always looking for ways to play with enjoyment and to move through space.

2 METHODOLOGY

This research characterizes for being a descriptive comparative study and the sample is the non-provable kind. The school permitted to apply the test by signing an Institutional Allowing Term. After this, a Clarifying and Free Allowing Term was sent to the parents, to have them authorizing the child to take part of this research. Eventually, each child's oral authorization was taking under consideration.

Tewnty-eight children aged 4 to 6, being 17 female and 11 male, from a nursery school in the city of Porto Alegre, Rio Grande do Sul. It´s a school for Military Brigade´s children, with no monthly fees nor enrolments for these children.

To investigate these children´s motor skills development, the "Test for Broad Motor Skill Development" (TDMG-2) was applied. This test is validated in Brazil by Valentini and his collaborators (2008) The test evaluates twelve fundamental skills, being six moving skills (running, riding, jumping on one foot, strides, horizontal jumps and lateral race), and six manipulative skills (rebound, dribble, catch, kick, toss the ball over the shoulders and roll it underneath). A questionnaire was also applied to parents or responsible ones, adapted by Berleze (2002) from Neto and Serrano (1997). This questionnaire shows the aspects related to the child´s routine activities the family context. For example, the amount of hours and the frequency spent on different activities (ball games, playing time, listening to music, drawing , coloring) common in the domestic environment. In addition, the school context was also observed, writing down the children´s routine for approximately five days.

The data obtained were analyzed with the help of statistical data analysis, softwares SPSS (version 13.0 for Windows). To evaluate the difference between boys and girls, the One Way Anova test was used for the motor skills performance. The routine of infant activities was presented through descriptive statistics. The context will be evaluated descriptively from the daily activities at school observations.

3. RESULTS REPORT AND DISCUSSION

3.1 Motor Development

TABLE 1 - Boys and girls performance

SEX		MEAN	PERCENTUAL
Boys	Very poor	1	10,0
	Standard	6	60,0

	Above standard	1	10,0
	Superior	2	20,0
	Total	10	100,0
Girls	Poor	1	5,9
	Below standard	2	11,8
	Standard	9	52,9
	Above standard	4	23,5
	Superior	1	5,9
	Total	17	100,0

Most children are standard or superior to standard, differently from the results found in previous studies (BRAUNER, VALENTINI,2009; VALENTINI,2002; VALENTINI, 2002; BRAUNER, 2010; SPESSATO, 2009) . In Rio Grande do Sul samples, children have been demonstrating , in the average, considerable general setbacks (BRAUNER, VALENTINI,2009; VALENTINI, 2002; BRAUNER, 2009; SPESSATO,2009). In the present study, most children have had the expected performance according to age. The school environment is adequate for their development. Due to the fact that the school has a distinct plan for physical education, with activities planned for each age, the acquisition of new movement patterns make the children´s development easier, and would also improve the performance of the already existent skills (MAFORTE, 2007). In order to have an adequate development and a change in the motor skills behavior, a child needs to be challenged constantly, to have a changing environment and interaction freedom. Besides this, the activities ought to be creative, differentiate and not monotonous. In this case, it´s possible to realize that the school is a differential. Changes in the environment and the goal reached in a specific task are important for changes that happen in the individual organism (PELEGRINE, 2000; METAFORTE, 2007).

As the Early Age School in Porto Alegre, where this research was done, invests in physical education and psychomotor activities from the early age , which means 2 to 6 aged children, it is believed that this fact interferes from the cradle first movements stimulus to the ones performed by the children in kindergarden.

Concerning the comparison between boys and girls, the “Anova One Way” test was applied. No meaningful differences between boys and girls were found comparing the standard locomotion pattern $F(1,25) = 0,09$ $p = 0,75$, on the pattern score of the object control $F(1,25)= 0,61$ $p = 0.43$ and in the quotient $F(1,25) = 0,78$ $p = 0,38$ (for standards, ee table 2).

TABLE 2 – TDMG 2 Standard scores

Scores		**n**	**Mean**	**Desvio Padrão**
Standard locomotion	Boys	10	5,70	2,214
score	Girls	17	5,50	1,625
	Total	27	5,56	1,826
Standard score –	Boys	10	5.50	1,650
object control	Girls	17	4,94	1,853
	Total	27	5,15	1,769
Quotient	Boys	10	73,60	10,752
	Girls	17	70,35	8,208
	Total	27	71,56	9,167

Boys and girls have the same opportunities for different experiences concerning motor skills development. In this case, some physical education teachers try to promote the same development motor skill practice for boys and girls. (SPESSATO, 2009). In spite of this, there are the cultural generalizations, so called female or male activities, limiting the encouragement and challenge of boys and girls. However, , this can harm the learning process and the development of determined motor skills because of the lack of some stimuli or distinguished challenges. In short, the variety of activities promoted for boys and girls in this school, responsible for their behavior changes, is pointed out as very important.

3.2 Activities related to the family context and to the school context.

Twenty-five out of twenty-seven children handed in the questionnaire. Three of them study in the morning shift,

nineteen in the afternoon and three, the whole day. The most used means of transportation is motorized (n = 20), followed by bicycle or on foot (n = 5). It´s important to mention that fourteen children mentioned home and yard as the place where they play most time, while six play next to their homes. This shows the broad movement freedom in suitable conditions environment, making interaction, cultural manifestation, imagination and socialization possible. (ELALI, 2003) . A study (POLETTO, 2005) shows that home is a safe place to play, besides being the most valuable, owing to the fact that leisure activities and feelings happen there.

Concerning friends, 19 out of 25 children answered playing with friend from the neighborhood or school. Socializing with its pairs becomes important during development (age) in their life, whereas , the school context, as the family context, benefits these children´s socialization and integration (BEE, 2003; PAPALIA, OLDS, FELDMAN, 2009; SILVA, 2005). Mentioning Poletto (2005), playing is important and necessary for infants development, since this is a defined cultural activity. Among the home activities where the children take part, the most mentioned were: computer and electrical games, TV, videos, DVD, drawing, painting, listening to music, cars, ball, memory game, puzzles, dolls, bicycle, marbles, bottom game. Mondin (2005) in a study reveals that children have preferences in TV programs, like cartoons, soap-operas, wrestling as well as adult programs.

Mondin (2005) and Poletto (2005), also mention the importance of activities children and parents have together. These gathered activities allow moments of conversation, solidarity, responsibility and affection. In this case, children remain for a long time in the nursery school. In other studies (BRAUNER, 2010; BERLEZE and HAEFFNER, 2002) observe similar results for plays the child most participates daily, which are ball games, dancing, riding a bike, two to three times in a week.

Concerning the family participation in physical activity practice, mothers are more present, two to three times a week. Some parents mentioned jogging, soccer, bicycle, going to the gym and dancing. Castro and Valentini (2008) say that family is important for activities in family context because it brings positive results for boys and girls motor skills performance. Taking into consideration, the applied questionnaire about family context , it draws positive numbers, and therefore it can contribute for these children adequate development. The games vary a lot, and besides the most common ones, attention is called on the most popular ones (hopscotch, elastic, origamis) in addition to playing with mud, sand, little pans, jump on the bed, construction blocks, camping, tents, different from the usual ones, which, whatsoever, enables the imagination stimulus and the creativity of some plays already forgotten on everyday school life. (SILVA, 2005; FILHO, SILVA and FIGUEIREDO, 2006; FONSECA and MUNIZ, 2000). These family environment activities are stimuli able to increase or decline children´s development, depending on how these activities are going to be and the importance given to them (PAPALIA, OLDS and FELDMAN, 2009).

4 FINAL CONSIDERATIONS

In this study, it was reinforced that a suitable context allied to a qualified physical education, will possibly change the under standard results found in other studies, since the presence of a multidisciplinary team, special organization, curriculum, proper school context, broad spaces, fields, playgrounds, experiments, life experiences, different kinds of grounds, physical education and psychomotor skills realized by qualified professionals, constant challenges and trust, activities possible to be performed according to each age, movements directed and planned according to each age, seem to guarantee a good development. The parents´ role isn´t clear in this study, on the other hand, the family life, the opportunities made possible and the stimulated activities by parents can contribute to the child development. Yet , more research is necessary to answer this issue.

5 REFERENCES

BEE, Helen. A criança em desenvolvimento. 9ª Ed. Porto Alegre: Ed. Artmed, 2003.

BERLEZE, Adriana; HAEFFNER, L. Rotina de Atividades Infantis de Crianças Obesas no Contexto Familiar e Escolar. Revista Cinergis, Santa Cruz do Sul, v. 3, n. 2, p. 99-110, 2002.

BRAUNER, Luciana Martins; VALENTINI, Nadia Cristina. Análise do desempenho motor de crianças participantes de um programa de atividades físicas. Revista da Educação Física/UEM, Maringá, v. 20, n.02, p. 205-216, 2. Trimestre, 2009.

BRAUNER, Luciana Martins. Projeto Social Esportivo: impacto no desempenho motor, na percepção de competência e na rotina de atividades infantis dos participantes. Porto Alegre: UFRGS, 2009. Tese (Mestrado em Ciências do Movimento Humano), Escola Superior de Educação Física, Universidade Federal do Rio Grande do Sul, 2009.

BRONFENBRENNER, Urie. A Ecologia do Desenvolvimento Humano: Experimentos Naturais e Planejados. Porto Alegre: Ed. Artes Médicas, 1996.

ELALI, Gleice Azambuja. O ambiente da escola – o ambiente na escola: uma discussão sobre a relação escola – natureza em educação infantil. Estudos de Psicologia, Rio Grande do Norte, v. 8, n. 2, p. 309-319, 2003.

FONSECA, Ingrid Ferreira; MUNIZ, Neyse Luz. O brincar na educação física escolar: Em busca da valorização de diferentes perspectivas. Revista Brasileira de Ciências do Esporte, Campinas, v. 21, n. 2/3 p. 81-84, jan./maio, 2000.

GALLAHUE, David l.; OZMUN, John C. Compreendendo o Desenvolvimento motor: bebês, crianças, adolescentes e adultos. 3ª Ed. São Paulo: Ed. Phorte, 2005.

KREBS, Ruy J.; Desenvolvimento Humano: teorias e estudos. Santa Maria: Casa Editorial, 1995.

MAFORTE, João Paulo Gomes et al. Análise dos padrões fundamentais de movimento em escolares de sete a nove anos de idade. Revista Brasileira de Educação Física e Esporte, São Paulo, v. 21, n. 3, p. 195-204, jul./set.2007.

MONDIN, Elza Maria Canhetti. Interações afetivas na família e na pré-escola. Estudos de Psicologia, v. 10, n. 1, p. 131-138, 2005.

MONTEIRO, Margareth. Desenvolvimento motor em contexto: um desafio de pesquisa para profissionais de Educação Física. Revista Brasileira de Educação Física. Esporte, São Paulo, Suplemento 5, v.20, p. 121-23, set., 2006.

PAPALIA, Diane E.; OLDS, Sally Wendkos; FELDMAN, Ruth Duskin. Desenvolvimento Humano. São Paulo: McGraw, 2009.

POLETTO, Raquel Conte. A ludicidade da criança e sua relação com o contexto familiar. Psicologia em Estudo, Maringá, v. 10, n. 1, p. 67-75, jan./abr., 2005.

RAMEY, C.; RAMEY, S. Prevention of Intelectual Disabilities: Early Interventions to Improve Cognitive Development. Preventive Medicine, v, 27, p. 224-232, 1998.

RICHTER, Ana Cristina; VAZ, Alexandre Fernandez. Educação física, educação do corpo e pequena infância: interfaces e contradições na rotina de uma creche. Revista Movimento, Porto Alegre, v. 16, n. 01, p. 53-70, janeiro/março, 2010.

SACCANI, Raquel et al. Avaliação do desenvolvimento neuropsicomotor em crianças de um bairro da periferia de Porto Alegre. Revista Scientia Médica, Porto Alegre, v.17, n.3, p.130-137, jul./set., 2007

SILVA, Eduardo Jorge Souza da. A educação física como componente curricular na educação infantil: Elementos para proposta de ensino. Revista Brasileira de Ciências do Esporte, Campinas, v. 26, n. 3, p. 127-142, maio, 2005.

SPESSATO, Bárbara Coiro. Trajetórias de Desenvolvimento Motor de crianças e o Engajamento em uma Proposta Interventiva Inclusiva para Maestria. Porto Alegre: UFRGS, 2009. Dissertação (Mestrado em Ciências do Movimento Humano), Escola Superior de Educação Física, Universidade Federal do Rio Grande do Sul, 2009.

VALENTINI, Nadia Cristina et al. Teste de Desenvolvimento Motor Grosso: Validade e Consistência Interna para uma População Gaúcha. Revista Brasileira de Cineantropometria e Desempenho Humano. v. 10, n.4, p.399-404, 2008.

VALENTINI, Nadia Cristina. A influência de uma intervenção motora no desempenho motor e na percepção de competência de crianças com atrasos motores. Revista Paulista de Educação Física, São Paulo, v. 16, n. 1, p. 61-75, jan./jun., 2002.

VALENTINI, Nadia Cristina. Percepções de competência e desenvolvimento motor de meninos e meninas: um estudo transversal. Revista Movimento, Porto Alegre, v.8, n.2, p. 51-62, maio/agosto, 2002.

WASIK, B. H.; RAMEY, C. T.; BRYANT, D. M.; SPARLING, J. A Longitudinal Study of Two Early Interventions Strategies: Project CARE. Child Development, n. 61, p. 1682-16, 1990.

WILLRICH, Aline et al. Desenvolvimento motor na infância: influência dos fatores de risco e programas de intervenção. Revista de Neurociências, Porto Alegre, v.17, n. 1, p. 51-56, 2009.

Avenida Teresópolis, 3490/108 b
CEP: 90870-000
Porto Alegre-RS
E-mail: ccugnasca@bol.com.br

THE MOTOR DEVELOPMENT OF CHILDREN AGED 4 TO 6 IN THE CONTEXT OF "TIO CHICO" MILITARY BRIGADE SCHOOL FOR CHILDREN

ABSTRACT

The objective of this research was to investigate the motor development of children between 4 and 6 years old from an elementary school. The population is composed of 28 children between 4 and 6 years old, being 17 female e and 11 male. The sample is of type convenience, therefore, this is the number of children that the school has in this age group. The instruments used to collect data were the Test of Gross Motor Development, Valentini and colleagues (2008), validated in Brazil and a questionnaire Neto and Serrano (1997) adapted by Berleze (2002), in which assesses issues related to routine activities for children within the family applied in the same period of assessments motor, gross motor abilities (TGMD). The results indicate that children show performance for their age group of 10 boys, 6 are average, 1 above average, 2 in superior performance. Of 17 girls, 9 are average, 4 above average and 1 superior performance. Of 27 children, 25 delivered the questionnaires, it was noted that (n=12) of children have a daily time to play for more than four hours. The most cited was to play house and patio (n=14). Of the 25 children, 19 responded play with neighborhood friends and school. The more participatory activities of the home were: computer and electronic games, tv, dvd, paint, draw, listen to music, cars, ball, play, memory games, snap, dolls, bike, puzzle, bolita, game button and popular (hopscotch, elastic, origami). It was substantiated that the family and school context coupled with adequate physical education, multidisciplinary team, spatial organization, curriculum planning, open spaces, materials, experiences, psychomotor movements performed according to each age group ensured a proper motor development of these children.

KEYWORDS: Children. Early Childhood Education. School. Motor Development.

LE DÉVELOPPEMENT MOTEUR D'ENFANTS ÂGÉS DE 4 À 6 ANS, ET LE CONTEXTE D'UNE ÉCOLE D'ÉDUCATION ENFANTINE TIO CHICO DE LA BRIGADE MILITAIRE

RÉSUMÉ

Le but de cette recherche a été l'étude du développement moteur d'enfants âgés de 4 à 6 ans, leur routine, ainsi que le contexte d'une école d'éducation enfantine. La population est composée par 28 enfants entre 4 et 6 ans, étant 17 du sexe féminin et 11 du sexe masculin. L'échantillon est du type convenance, donc c'est celui-ci le nombre d'enfants que l'école possède concernant ce groupe d'âge. Les instruments utilisés pour la collecte de données ont été le Test de Développement Moteur Gros, Valentini et collaborateurs (2008), validé au Brésil et un questionnaire de Neto et Serrano (1997) adapté par Berleze (2002), où on évalue les questions qui se réfèrent à la routine d'activités enfantines dans le contexte familier, appliqué dans la même période des évaluations motrices, habiletés motrices fondamentales (TDMG 2). Les résultats indiquent que les enfants présentent une performance attendue dans ce groupe d'âge: parmi les 10 garçons, 6 sont dans la moyenne, 1 au-dessus de la moyenne, 2 ont un développement supérieur. Parmi les 17 filles, 9 se présentent dans la moyenne, 4 au-dessus de la moyenne et 1 a un développement supérieur. En considérant 27 enfants, dont 25 ont remis les questionnaires, on a observé que 3 enfants étudient dans la matinée, 19 dans l'après-midi et 3 en tour intégral. La majorité (n = 12) des enfants a un temps journalier pour jouer de plus de quatre heures. Le transport le plus utilisé est le transport motorisé (n = 20), en deuxième lieu, non motorisé (n = 5). L'endroit le plus cité pour jouer a été la maison et la cour (n = 14) et ils jouent dans la rue proche à leur domicile (n = 6). 19 enfants, entre les 25, ont répondu qu'ils jouent avec des amis du quartier et de l'école. Les activités les plus participatives du foyer ont été l'ordinateur et des jeux électroniques, télé, vidéo, DVD, peindre, dessiner, écouter de la musique, voitures miniatures, balle, jeu de mémoire, jeux de montage, poupées, poupons, bicyclette, puzzle, bille, jeu de boutons et populaires (marelle, élastique, origamis).

MOTS CLÉS: Crèche. Enfants. Développement moteur. Education Enfantine.

EL DESARROLLO MOTOR DE NIÑOS DE GRUPOS DE EDAD DE 4 A 6 AÑOS, Y EL CONTEXTO DE UNA ESCUELA DE EDUCACIÓN INFANTIL "TIO CHICO DE LA BRIGADA MILITAR"

RESUMEN

El objetivo de esta búsqueda fue investigar el desarrollo motor de niños de 4 a 6 años de edad, su rutina, así como el contexto de una escuela de educación infantil. La población es compuesta por 28 niños entre 4 y 6 años de edad, siendo 17 del sexo femenino y 11 del sexo masculino. La muestra es de tipo conveniencia, por lo tanto, es este el número de niños que la escuela tiene en este grupo de edad. Los instrumentos utilizados para la recopilación de datos fueron: La Prueba de Desarrollo Motor Grueso, Valentini y asociados (2008), validado en Brasil; y un cuestionario de Neto y Serrano (1997) adaptado por Berleze (2002), en el cual, evalúa las cuestiones relacionados a la rutina de actividades infantiles en el contexto familiar, aplicado en el mismo período de evaluaciones motoras, habilidades motoras fundamentales (TDMG 2). Los resultados señalan que los niños

presentan rendimiento esperado para su grupo de edad, de los 10 niños, 6 están en el promedio, 1 por encima del promedio, 2 con rendimiento superior. De 17 niñas, 9 están en el promedio, 4 por encima del promedio y 1 con rendimiento superior. De los 27 niños, 25 entregaron los cuestionarios, se constató que 3 niños estudian en el período de la mañana, 19 en el período de la tarde y 3 en el período integral. La mayoría (n = 12) de los niños tiene un tiempo diario para jugar por más de cuatro horas. El transporte más utilizado es el motorizado (n = 20), en segundo lugar, no motorizado (n = 5). El lugar más mencionado para jugar fue su casa y patio (n = 14) y juegan en la calle próxima a su casa (n = 6). 19 niños de los 25, contestaron jugar con amigos del barrio y de la escuela. Las actividades más participativas del hogar fueron: ordenador y juegos electrónicos, televisión, vídeo, DVD, pintar, dibujar, escuchar música, autitos, pelota, juego de memoria, juegos de encaje, muñecas, muñecos, bicicleta, rompecabezas, canicas, juego de botones y populares (rayuela, elástico, origamis).

PALABRAS - CLAVES: Guardería. Niños. Desarrollo motor. Educación Infantil.

O DESENVOLVIMENTO MOTOR DE CRIANÇAS NA FAIXA ETÁRIA DE 4 A 6 ANOS, E O CONTEXTO DE UMA ESCOLA DE EDUCAÇÃO INFANTIL TIO CHICO DA BRIGADA MILITAR

RESUMO

O objetivo desta pesquisa foi investigar o desenvolvimento motor de crianças de 4 e 6 anos de idade, sua rotina, bem como o contexto de uma escola de educação infantil. A população é composta por 28 crianças entre 4 e 6 anos de idades, sendo 17 do sexo feminino e 11 do sexo masculino. A amostra é do tipo conveniência, portanto, é este o número de crianças que a escola possui nesta faixa etária. Os instrumentos utilizados para a coleta de dados foram o Teste de Desenvolvimento Motor Grosso, Valentini e colaboradores (2008), validado no Brasil e um questionário de Neto e Serrano (1997) adaptado por Berleze (2002), no qual, avalia as questões referentes à rotina de atividades infantis no contexto familiar, aplicado no mesmo período das avaliações motoras, habilidades motoras fundamentais (TDMG 2). Os resultados indicam que as crianças apresentam desempenho esperado para a faixa etária, dos 10 meninos, 6 estão na média, 1 acima da média, 2 em desempenho superior. De 17 meninas, 9 estão na média, 4 acima da média e 1 em desempenho superior. Das 27 crianças, 25 entregaram os questionários, constatou-se que 3 crianças estudam no turno da manhã, 19 no turno da tarde e 3 em turno integral. A maioria (n = 12) das crianças têm um tempo diário para brincar por mais de quatro horas. O transporte mais utilizado é o motorizado (n = 20), em segundo lugar, não motorizado (n = 5). O local mais citado para brincar foi a casa e pátio (n = 14) e brincam na rua próxima à residência (n = 6). 19 crianças das 25, responderam brincar com amigos do bairro e da escola. As atividades mais participativas do lar foram: computador e jogos eletrônicos, TV, vídeo, DVD, pintar, desenhar, ouvir música, carrinhos, bola, jogo de memória, jogos de encaixe, bonecas, bonecos, bicicleta, quebra-cabeça, bolita, jogo de botão e populares (amarelinha, elástico, origamis).

PALAVRAS-CHAVE: Creche. Crianças. Desenvolvimento motor. Educação Infantil.