

129 - PSYCHOMOTOR ASSESSMENT IN CHILDREN FROM 3 TO 5 YEARS OF METHOD OF KARATE KODOMO

JOSÉ FABIANO DE ANDRADE SILVA¹
FRANCISCO TRINDADE SILVA²

¹Faculdade Estácio/FIC de Fortaleza – Fortaleza – Ceará – Brasil.

²Faculdade Estácio/FIC de Fortaleza, ASKACE-Escola de Karate-Do Shotokan – Fortaleza – Ceará – Brasil.
ikotrindade@origoemforma.com.br

INTRODUCTION

The term psychomotor emerged in 1920 through neuropediatrician Ernest Dupré, meaning a relationship between movement and thought (OLIVEIRA, 1997).

According to De Meur and Staes (1984), there has been an evolution over time in the knowledge psychomotricity. Initially, we studied motor development, then the relationship between motor development and delays in the child's learning and subsequently the craftsmanship and skills as a function of chronological age. Understanding the psychomotor development of the child, reflecting the development of this as a profound knowledge and awareness of your body, since the child lives their experiences and organizes your personality through the body (Ajuriaguerra, 1980). Fonseca (1995) proposes evaluating psychomotor through Psychomotor Battery (BPM) consists of a sequence of tests to assess the level of psychomotor development of the child in relation to their chronological age.

The psychomotor profile is important to set guidelines for intervention targeted the population in question, whether for prevention or rehabilitation, at school or therapy, because based on the psychomotor profile may be developed education programs or psychomotor reeducation, ie through conducting recreational activities thus providing the conditions and incentives necessary for psychomotor development thereof.

Thus this study was intended to assess psychomotor performance of children 3-5 years of age who practice the method kodomo (Japanese, meaning child) in ASKACE - School of Shotokan Karate-do through the application of a Adapted Psychomotor Battery (BPM) Fonseca (1995), comparing the chronological age with psychomotor profiles found, detecting delays, adequacy or psychomotor progress in relation to chronological age in the sample.

Kodomo: a method in Karate

The karate, martial art originated, styles before secretly practiced on the island of Okinawa (southwestern Japan) by ordinary people who were forbidden to bear arms, and so defended themselves with empty hands, had the creator of the style Shotokan master Ginchin Funakoshi, considered the father of modern karate, which gave spiritual direction and philosophy of life to karate.

It is increasingly common dojos in the presence of children of different ages. However like any other sport, the most common is this practice start up after 5 years, getting out proposal for a rise in demand now. The kodomo enters the motor aspects, affective and cognitive, and practice some basic movements of karate are inserted in the development of motor skills, strengthening the body schema, the static and dynamic balance, coordination and overall fine, laterality, perception postural tone, rhythm in affective relationship, this, happening between colleagues, sensei student, parent student, nannies students on the cognitive aspects of perception levels are the name of blows, numbers, reading of nature when in contact with various types of soil, wind, sun, and also follows a traditional philosophy of karate, socializing and cultural aspects are highlighted.

According to Silva (2011), the method Kodomo multiple stimuli are produced, changing environments, command auditory, visual commands, in order to develop the basic skills of movement in infancy. Such as: balance on one foot, walking, running, throwing, receiving, picking and others.

The psychomotor development of children 3-5 years old

Many authors in the areas of neurology, psychology and education have strongly reinforced the importance of the relationship between psychomotor development and learning. Hallow and Brommer, 1942, apud Fonseca (1995), demonstrated that the motor cortex plays a crucial role in learning. Psychomotor development is regarded as a sequential, continuous and related to chronological age, by which humans acquire an enormous amount of motor skills, which evolve from simple movements and disorganized to perform complex motor skills and organized. It was believed that the changes in motor behavior influenced the maturational changes in the central nervous system. Currently, it is known that the development process occurs dynamically and is able to be molded from numerous external stimuli. The interaction between the individual aspects, such as its physical and structural, with the environment in which it is inserted and the task to be learned are crucial in the acquisition and refinement of different motor skills. (UMPHRED, 2007). You can not conceive the study of psychomotor unconnected to plan intelligence, affectivity and the environment.

Evaluation psychomotor

For Fernandes Filho, (2003) assessment is a feature that applies to the assessed and the process can be quantitative or qualitative indicator, which employs elements in a way objective or subjective criteria for comparison. [...] In reveals change an evolution more or less, in a timeline. According to Fonseca, (1995) the quality of psychomotor profile of the child, because it reflects the degree of neurological organization of three main units, according to Luria, is undoubtedly linked to their learning potential, both in terms of integrity, both fundamentally in terms of difficulty .

The BPM was constructed based on this fundamental idea, because its essential purpose is to detect, identify children with learning difficulties. According to Fonseca (1995), early recognition of a learning disability is, however, a fundamental goal of every educator, so BPM is merely an instrument psychology [...].

The tasks that make up the BPM give sufficient opportunity to assess the degree of maturity of the child and psychomotor signs deviant. One can observe the muscle tone, posture relative to gravity, the domain of static and dynamic balance, the handedness, dissociation, planning and sequence of movements, hold. Alongside gives opportunity to observe the lack of attention, concentration, emotional behavior.

Each task is applied scored from one to four points, and each point classifies the child's performance. Dividing the total value obtained for each factor by the number of tasks of this factor, we obtain a value between one and four, which indicates the child's performance in that factor.

Table 1 below details each of the tests, and shows indications as to the achievements of the tasks imposed, imperfect, incomplete and uncoordinated (weak), difficulty with control (satisfactory), proper and controlled (good) and perfect and

controlled (excellent).

TABLE 1: Classification of Psychomotor Profiles

SCALE OF POINTS OF PROFILES PSYCHOMOTOR		
1	Output imperfect, incomplete and uncoordinated (weak)	Profile Apraxic
2	Realization difficulty with control (satisfactory)	Profile Dyspraxic
3	Conducting proper and controlled (good)	Profile Euprático
4	Realization perfect and controlled (excellent)	Profile Hiperprático

Source: FONSECA, Manual Observation Psychomotor, p. 105

Adding up the scores of the seven factors, one obtains a second score that classifies the child as the general psychomotor profile. In conducting the assessment the first step of the psychomotor examination is the application of that history is a history of child from pregnancy until today in order to ensure the evaluator to support a child's knowledge evaluated concerning personal data, personal history, gestation, birth, food, sleep, hearing, language, motor skills, social behavior and the overall health, and then applies the BPM tasks.

METHODOLOGY

Instruments and research procedures

This study is quantitative in nature and is characterized as descriptive. The population of the 60 students Kodomo method and the sample was composed of fourteen (14) students belonging to middle and upper middle classes in the city of Fortaleza, Ceará, Brazil. We used a directed interview the parents and / or guardians of children. Had to be careful to request permission and was observed to Resolution 196/96. In the study, was used as a research tool one Psychomotor Battery Adaptation (BPA) from the Psychomotor Battery (BPM) developed by Fonseca in 1995. with the application of the following subfactors: extensibility (tone), dynamic balance and static balance (equilibrium), laterality (eye and foot), kinesthetic sense and imitation of gestures (notion of the body), organization (structuring space-time), coordination oculomaneal, oculopedal coordination and dissociation (overall coordination), manual dynamic coordination (fine motor skills). The same conditions and presents opportunities for studying the psychomotor, thus serving as a tool to be used in defining the best work to be applied to the stimulation of a consistent psychomotor development. Were removed from the original test battery tests, passivity, paratonia, diadococinesias, synkinesis (tone); immobility (balance); recognition right-left, self-image, body design (concept of the body), structural dynamics, topographic representation, rhythmic structure (space-time structure) and drumming, speed accuracy (praxis fine).

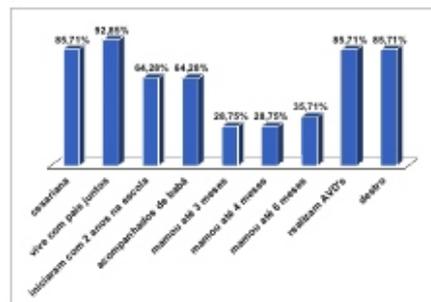
Analysis and interpretation of data

We performed statistical analysis of data in order to assess the evolution psychomotor retardation show, adequacy or psychomotor progress in relation to chronological age in the sample.

RESULTS

History history of the analyzed sample

Were performed research history in fourteen male children, including two 3-year-old, two 4-year-old and ten with 5 years of age, and is shown in Graph 1 below.

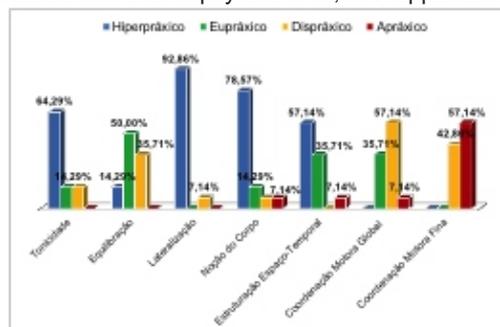


Graph 1: Distribution of Sample by Anamnesis (Source: Field Research)

It was observed as the sample highlights the cesarean birth in 85.71%, live with their parents together 92.85%, 85.71% perform the ADLs and lateral dominance type destro to 85.71%.

Psychomotor test results

Chart 2 below shows the results for each factor psychomotor, after application of the test sample.



Graph 2: Distribution of Sample by Psychomotor Performance Factor (Source: Field Research)

After application of the tests it was found predominantly in psychomotor profile Hiperpráxico Lateralization factors (92.86%), tonicity (64.29%).

Analysis of psychomotor profile

The percentage analysis of psychomotor profile of the sample is shown in Chart 3 below.

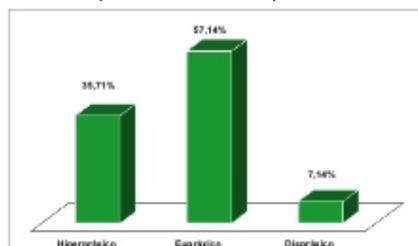


Chart 3: Distribution of Sample by Psychomotor Profile (Source: Field Research)

Realizing the quotation of points obtained by the sample which was applied to BPM, it was found that 57.14% had psychomotor profile Eupráxico demonstrating control and performing an appropriate completion and testing and 35.71% had psychomotor profile Hiperpráxico, as a child performs accurately, perfect, economical and control facilities and 7.14% dyspraxia revealed that occurs when the tasks that make up the tests give so imperfect, incomplete, inadequate and uncoordinated.

DISCUSSION

It was found that 64.29% of the sample studied showed psychomotor performance Hiperpráxico factor in tone. Corroborating this result Fonseca (1995) states that "the tone reflects the first degree of neurological maturity of the human being, supporting standards antigravíticos and preparing the orderly sequence of development of postural acquisitions and development of motor skills, following the law cerebrospinal-flow and near-distal. The tone is set from birth to 12 months of age." Given the above are understandable values obtained as a result, in view of the age of the sample.

The Equilibration is responsible for postural control and spatial and body movements according to Fonseca (1995) develops 12 months to two years old. In this study 50% of the analyzed sample outperformed Eupráxico. Corroborating the results of this study Luria (1981) states that "the balance is seen as a basic condition of the psychomotor organization, responsible for postural adjustments antigravíticos, giving support and motor responses to postural control and establishing self-control in static postures and development of locomotion.

Segundo Oliveira (2000), lateralization is likely that the human being has to use, preferably one side of the body more than the other, dividing into hand, foot, eye and hearing. In this study it was found that 92.86% of the children had definite handedness with clear predominance of dextralidade. Confirming the results, according to Fonseca (1995), lateralization manual comes at the end of the first year, but only settles at about four or five years. Our study showed that 85.71% of the sample of children assessed is handed second result of the interview. Corroborating this result Papalia and Olds (2000), argue that each of ten children, nine are right-handed.

It was identified that the body schema (the notion of the body) of the children had been organized. Remember that the child perceives his body through all the senses, particularly through the sense of touch, sight and the kinesthetic sense. Through analysis of the results shows that 78.57% of the sample evaluated a performance Hiperpráxico so the population studied presents a good psychomotor development of this factor. Corroborating the results on this human faculty, Costallat (1985) states that the body and its capabilities are built organically before birth, but there is no notion of its existence. His discovery and awareness are a further evolution process, which is intertwined with the development and integrates vital in the body schema. According to Fonseca (1995) the notion of the body or the body schema is responsible for awareness and body awareness and recognition of the self, growing from three to four years old.

It was observed that 57.14% of the sample studied showed psychomotor performance Hiperpráxico factor in structuring space-time, confirming that says Fonseca (1995), which is between four and five years as the child begins the development of selective attention, the information processing, coordination of space-time and the improvement of language.

It was found in this study that 57.14% of the sample studied showed psychomotor performance Dyspraxic. The age range of the analyzed sample is 3 to 5 years of age and according to Fonseca (1995) praxis global (overall coordination) is improved from five to six years of age, when the child starts the coordination and oculomanual oculopedal well as the integration of rhythmic movements, thus justifying the results obtained.

In fine motor coordination (fine praxis) observed that 57.14% of the sample studied showed Apraxic psychomotor performance. This result justifies the claim Fonseca (1995), that "praxis fine for being thorough and demanding skill and concentration, begins to be improved from six to seven years old.

CONCLUSION

It was concluded that the factors, Toning, Balancing, Lateralization, Concept of Body and Space-Time Structuring the population has a good psychomotor development, thus revealing an advance in relation to chronological age. Motor Coordination In Global (global praxis) concluded that the test results are justified in view of the chronological age of the sample and what is recommended in the literature concerning. In Fine Motor Coordination (praxis thin) sample obtained apraxic performance leading up to the conclusion that there was no psychomotor development of this factor which is justified considering the age of the sample.

REFERENCES

- AJURIAGUERRA, J. Manual de Psiquiatria Infantil. São Paulo: Masson. 1980.
 COSTALLAT D. M. Psicomotricidade: a coordenação viso-motora e dinâmica manual da criança infradotada, método de avaliação e exercitação gradual básica. Rio de Janeiro: Globo; 1985.
 DE MEUR, A. e STAES, L. Psicomotricidade: educação e reeducação. Rio de Janeiro: Manole, 1984.
 FERNADES FILHO, José. A prática da avaliação física: testes, medidas e avaliação física em escolares, atletas e academias de ginástica. 2 ed. Rio de Janeiro: Shape, 2003.
 FONSECA, Vitor da. Manual de Observação psicomotora: Significação psiconeurológica dos fatores psicomotores.

Porto Alegre: Artes Médicas. 1995.

LURIA, A. R. Fundamentos de Neuropsicologia. Trad. Juarez Aranha Ricardo. São Paulo: Universidade de São Paulo, 1981.

OLIVEIRA, Gislene de Campos. Psicomotricidade: Educação e reeducação num enfoque psicopedagógico. 3. ed. Petrópolis: Vozes, 1997.

_____. Psicomotricidade: Educação e reeducação num enfoque psicopedagógico. 4. ed. Petrópolis: Vozes, 2000.

PAPALIA, D. E.; OLDS, S. W. Desenvolvimento humano. Trad. Bueno, D. 7 ed. Porto Alegre: Artmed. 684 p. 2000.

SILVA, Francisco Trindade. FIEP – Kodomo: um método no karate de 3 a 5 anos. Disponível em: <<http://www.fiepbulletin.net>>. Acesso em: 22 de março de 2012.

UMPHRED D.A. Reabilitação Neurológica Prática. Editora Koogan. 2007.

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Contact: Francisco Trindade Silva, Rua República do Líbano, 650 – Meireles (85) 30

PSYCHOMOTOR EVALUATION IN CHILDREN FROM 3 TO 5 YEARS OF METHOD OF KARATE KODOMO

ABSTRACT

This research aimed to evaluate, through psychomotor test, the psychomotor profile of children aged 3 to 5 years old who attend classes in ASKACE Kodomo - School of Shotokan Karate-do. a descriptive quantitative approach carried out with 14 children from the middle and upper middle classes in the city of Fortaleza, Brazil. In the study, was used as a research tool one Psychomotor Battery Adaptation (BPA) from the Psychomotor Battery (BPM) developed by Fonseca in 1995. 57% of the evaluated psychomotor profile presented Euprático, 36% showed a profile Hiperprático psychomotor, and 7% showed Dyspraxia. From the analysis of data on psychomotor tests, it was concluded that this population has a good psychomotor development.

KEYWORDS: Psychomotor Test; Method Kodomo; Children.

ÉVALUATION PSYCHOMOTEUR DES LES ENFANTS DE 3 À 5 ANS DE MÉTHODE DE KARATE KODOMO

RÉSUMÉ

Cette recherche visait à évaluer, grâce à des tests psychomoteurs, le profil psychomoteur des enfants âgés de 3 à 5 ans qui fréquentent les classes de ASKACE Kodomo - École de Shotokan Karate-do. une approche descriptive quantitative réalisée avec 14 enfants issus des classes moyennes et la haute bourgeoisie de la ville de Fortaleza, au Brésil. Dans l'étude, a été utilisé comme un outil de recherche d'une adaptation psychomotrice batterie (BPA) à partir de la batterie psychomoteur (BPM) développé par Fonseca en 1995. 57% du profil psycho-évalué présenté Euprático, 36% ont montré un profil psychomoteur Hiperprático, et 7% ont dyspraxie. De l'analyse des données sur les tests psychomoteurs, il a été conclu que cette population a un bon développement psychomoteur.

MOTS-CLÉS: Test Psychomoteur; Methode Kodomo; Enfants

EVALUACIÓN DE PSICOMOTRICIDAD EN NIÑOS DE 3 A 5 AÑOS DE MÉTODO DE KARATE KODOMO

RESUMEN

Esta investigación tuvo como objetivo evaluar, a través de pruebas psicomotrices, el perfil psicomotor de los niños de 3 a 5 años de edad que asisten a clases en ASKACE Kodomo - Escuela de Shotokan Karate-do. un enfoque cuantitativo descriptivo, realizado con 14 niños de las clases media y media alta en la ciudad de Fortaleza, Brasil. En el estudio, se utilizó como una herramienta de investigación una adaptación Psicomotor batería (BPA) de la batería psicomotora (BPM) desarrollado por Fonseca en 1995. 57% del perfil psicomotor evaluada presentó Euprático, 36% mostró un perfil psicomotor Hiperprático, y 7% mostró dispraxia. A partir del análisis de los datos sobre pruebas psicomotrices, se concluyó que esta población tiene un buen desarrollo psicomotor.

PALABRAS CLAVE: Pruebas Psicomotoras; Método Kodomo; Niños

AVALIAÇÃO PSICOMOTORA EM CRIANÇAS DE 3 A 5 ANOS DO MÉTODO KODOMO DE KARATE

RESUMO

Esta pesquisa teve como objetivo avaliar, através de testes psicomotores, o perfil psicomotor de crianças de 3 a 5 anos de idade que participam de aulas de kôdomô na ASKACE – Escola de karate-do Shotokan. uma pesquisa descritiva com abordagem quantitativa realizada com 14 crianças pertencentes as classes média e média alta na cidade de Fortaleza, CE. No estudo, foi utilizado como instrumento de pesquisa uma Bateria Psicomotora Adaptação (BPA) a partir da Bateria Psicomotora (BPM) elaborada por Fonseca em 1995. 57% dos avaliados apresentou perfil psicomotor Euprático, 36% revelaram um perfil psicomotor Hiperprático, e 7%, revelaram Dispraxia. A partir da análise dos dados relativos aos testes psicomotores, concluiu-se que a população estudada apresentou um bom desenvolvimento psicomotor.

PALAVRAS-CHAVES: Teste Psicomotor; Método kodomo; Crianças