

OCCUPATIONAL THERAPY IN PSYCHOMOTOR DEFICITS THROUGH THE MONTESSORI METHOD IN CHILDREN FROM 3 TO 5 YEARS OLD

Acceptance date: 14/10/2024

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Abstract: This article aims to show how occupational therapy and the Montessori method can be related and work together in the psychomotor deficit in order to analyze the importance of the implementation of these methods and therapies that help the proper motor development. Psychomotor skills are responsible for being able to perform actions that involve movement, through systems that develop throughout life and result in being able to execute in an easy and coordinated manner various tasks and / or activities of daily life. There are several factors that can cause a deficiency in psychomotor development, among them, when it is congenital or lack of early stimulation, when there is a deficit in psychomotor development requires the help of a multidisciplinary team and methods that teach and stimulate areas that are responsible for performing specific actions for each environment without complications, of which is the occupational therapy that is responsible for enabling people to perform activities of daily living, said in this way, occupational therapy activates the ability to perform day by day easy or complicated actions, making use of systems that work in a coordinated manner, on the other hand, the Montessori method is responsible for initiating an independence in the child, performing tasks that go according to their age, stimulating the areas that are necessary in terms of their level of development that it should have. These two teaching systems, when used simultaneously, can optimize psychomotor skills in children from 3 to 5 years old. Within this age range, infants are able to absorb, generate and memorize coordinated movements to promote their development in different environments.

Keywords: Psychomotor deficits, montessori method, neurodevelopment, psychomotor, occupational therapy.

INTRODUCTION

In the first years of life, begins the development of the various systems that make up the human body, including the motor system, which will mainly help us to perform skills that involve the use of various systems that work together for the functionality of the human body to perform activities that relate to different environments. This is known as neurodevelopment which is the acquisition of skills, commonly if there is not a good development at the beginning this will bring conditions such as psychomotor deficit which is understood as the lack of motor skills that make the execution of being able to perform activities both easy and complex, the lack of this makes children are not independent, therefore have difficulty performing activities and opt for disciplines that help to recover or learn to perform the skills that should be done in a correct motor development.

Among the various strategies to educate and teach children to perform activities of daily living is occupational therapy, this is specifically responsible for the execution of tasks that involve the independence of people effectively and accurately, as they are occupations that are carried out every day. In occupational therapy the objectives to be achieved are derived from various plans and individualized and personalized methods, among which is the Montessori method, this teaching model is characterized by helping children to perform activities within the same are adaptable to their age and are adjusted depending on what you want to achieve in a particular way in each; There are several areas that the method works to perform specific tasks that include fine and gross psychomotor skills, these activities are intended to ensure that the child achieves independence in various areas through various stimuli that will be generated in it, which is why this area is of utmost importance in early ages, to

achieve their needs in the environment and environment in which they are.

NEUROLOGICAL DEVELOPMENT IN CHILDREN

Neurodevelopment is a term often used, focusing mainly on the capacity in which skills and behaviors develop in the first years of life: "It is a process of change determined by biological and environmental aspects in constant interaction. It corresponds both to the maturation of nervous structures, as well as to the learning produced by the child discovering himself and his environment." (Olivia et al., 2020, p.12). Such development is always evolutionary and within it these areas are of utmost importance since they are the ones that are worked on together and in an organized manner.

Development begins once all these areas are stimulated, thanks to the neuronal plasticity that develops in the first years of childhood, which creates neuronal connections that help the brain to function correctly in order to perform tasks:

In the stage from 3 to 5 years of age is when at the psychomotor level there is an advance in the maturation of the muscular and nervous system and the bone structure of children, a stage in which the motor skills that the child is acquiring are of great importance (Imbernón et al., 2020, p.231).

This being said, the stimulation and maturation of the nervous system is generated through the different environments in which the child develops in his childhood and due to the environment in which he finds himself, he acquires different strategies and skills for his development.

Neuroplasticity will generate changes and adaptability in children, due to stimulations provided by their environment: "Neuroplasticity or brain plasticity is defined as the inherent biological capacity of the CNS to undergo structural and functional adaptive changes in response to environmental demands". (Förs-

ter & Lopez, 2022, p.340). Therefore, neuronal plasticity is responsible for encoding and carrying out the learning of new experiences within a developmental field of learning that is rooted or inhabited from the first years of life and throughout life, since neuroplasticity continues to be generated as the years go by.

PSYCHOMOTOR SKILLS

Psychomotor skills are understood as the set of systems that interact to be able to perform or execute activities that involve body movement and the skills that are generated to be able to do them: "Psychomotor skills, from their functionality, are developed at three levels: at the motor or body movement level, at the cognitive or mental level (attention, creativity, concentration, etc.) and at the social and affective level" (León et al., 2021, p.6). (León et al., 2021, p.6). In this way, psychomotor skills are understood as encompassing several systems that help to produce actions.

This is of utmost importance since children develop within diverse environments which provide them with lessons in different processes. "The foundations for personal, social and mental development are laid in Early Childhood Education, in addition to integrating the learning that is at the origin of the achievement of the competencies that are considered basic". (Imbernón et al., 2020, p.231). This is an important stage since within it the correct neurodevelopment will be achieved in basic learning, of all the areas that should be stimulated. Children begin their development experiencing processes, such as speech, cognition and motor area: "Psychomotor development in children from 3 to 5 years old is the basis of cognitive and personality development." (Imbernón et al., 2020, p.231). It is due to the environment in which the child will experience, learn and acquire new development and therefore a personality of its own. The skills he/she manages to learn and deve-

lop in the early stages of his/her life: “Psychomotor education is the basis for a harmonious physical and psychological development, therefore it should be implemented from early childhood education” (Imbernón et al., 2020, p.232). In psychoeducation, various teaching and learning plans are created for children so that they can develop skills that foster their independence.

Before carrying out or planning any development program it is important to know at what stage the child is and what deficiencies he/she has: “To achieve or facilitate an integral, global, harmonious development, it is necessary to know first the child’s level of development, the evolutionary moment and the stage in which he/she is” (Imbernón et al., 2020, p. 231). (Imbernón et al., 2020, p.231). It is important to know the stages of development since each person develops gradually and differently, acquiring skills earlier or later, once in the correct stage it will be much easier to make a more objective plan or program.

BODY MASTERY SKILL

It includes areas that involve proprioception: “This includes general coordination, balance, rhythm, and visual-motor coordination, and on the other hand, there is the static body domain” (León et al., 2021, p.8). (León et al., 2021, p.8). This is where what is commonly known as gross motor skills are developed, which is the ability to perform activities such as walking, running or jumping without complications.

LATERALIZATION ABILITY

We talk about the side of the body that is more easily controlled: “So we speak of laterality, when an individual dominates one side of his body better than the other”. (León et al., 2021, p.8). This is more used when writing, taking small objects that involve the use of only one hand to be able to use it with the same hand.

BALANCING ABILITY

In it is the set of systems that help to have the balance, among them the musculoskeletal system, which is the main in maintaining a posture, in addition to this there are types of balance and that according to the one that is performed is how the system will act: “There are two types of balance: “static”, occurs when the body retains a position without moving from the site; and “dynamic” balance, which expresses the ability that allows the control and maintenance of stability during the displacement of the body”. (Leon et al., 2021, p.9). Balance will then be the basis of what will allow us to be able to move or not from a given place.

REFLEXES ABILITY

It is used through internal impulses that are generated by external stimuli, through alerts that the body receives to act: “In psychomotor skills, we study the capacity of the human being to react or respond to an external stimulus” (León et al., 2021, p.9). (León et al., 2021, p.9). This will be generated to be able to activate structures that involve following orders, and thus be able to be alert about the stimuli generated in the environment.

It follows then that when we talk about psychomotor skills we are actually talking about several systems that work in a group and in a coordinated manner for the execution and performance of activities that involve skills. “When we talk about psychomotor skills we refer to the skills or abilities shown by the child when it comes to controlling his body movements when interacting with his environment. These movements can be of two types: gross and fine.” (León et al., 2021, p.9). This classification will give way to what is known as fine and gross motor skills that constitute a more detailed coordination on the execution of specific tasks.

MOTRICITY

Motor skills can be defined as that coordinated and complex action that works through several systems that perform movements, each of them working individually activating different muscle groups for each action, which is why it is divided into fine and gross motor skills.

According to (León et al.): “Gross motor skills refer to those coarse or imperfect movements that have to do with large muscle groups such as jumping, running, rolling, crawling, going up and down steps, etc. They constitute movements that are both easy to learn and execute.” (2021, p.7). These movements consist of a more precise and complex series of muscle activation that also encompasses the use of other specific areas that provide stability and balance when performing any action that involves the use of these larger movements.

Therefore, fine motor skills are the opposite of gross motor skills; they involve more detailed movements that work together to perform more concentrated actions, since they involve the use of the hands: “Fine motor skills, on the other hand, are associated with movements that are performed by smaller muscle groups and require coordination, for example, of the eye and the hand” (León et al., 2021, p.7). (Leon et al., 2021, p.7). These movements are executed for the use of tasks that involve holding objects of different sizes and performing actions with them, such as writing, taking books, taking utensils, among others, as well as other tasks that require more precision and concentration to perform them, such as buttoning, zipping, fastening a belt, tying shoelaces, etcetera.

OCCUPATIONAL PHYSICAL THERAPY

Occupational therapy is responsible for providing care to people through the therapeutic use of activities such as play, work and activities of daily living, avoiding dependency: “The main objective of Occupational Therapy is to enable people to participate in activities of daily living.” (Echenique, 2018, p.84). That is why occupational therapy is a discipline that helps to promote the independence of each person in terms of their occupation, whether it is children in play activities or adult people who execute other more complex and individualized activities according to their working life, encouraging their participation in the various environments in which each person develops individually.

MONTESSORI METHOD

The Montessori method is a pedagogical technique used for children to develop their skills in a way that creates independence at early ages: “It aims to release the potentialities of the child(ren) in a structured environment, thus forming autonomous, independent, orderly, empathetic, supportive, critical people with high self-esteem.” (Echenique, 2018, p.191). Each of these skills is used in an individualized manner, that is to say that each child, depending on the age range in which he/she is, will have a personal development; they develop in a progressive and precise manner, obtaining skills and abilities that help them to enhance their maturity growth in the various systems of which they are composed.

The various activities carried out in the Montessori method have a specific purpose that promotes the proper development of each child: “This method gives vital importance to the activity of the infant, the free work with appropriate teaching materials and the support of the adult as facilitator, who must create a learning environment according to

their pace and level of development” (Espinoza Freire, 2022, p.193). (Espinoza Freire, 2022, p.193). All the tasks that are executed, are carried out by an instructor who harmonizes and generates confidence in an environment that pleases children when they are asked to perform activities, which involve them the freedom to highlight their skills, but at the same time following a pattern of rules that involve good development in them, increasing their social participation.

CONCLUSION

The multidisciplinary system that is implemented is intended to use two techniques and/or methods that are used in two different disciplines, with the same objective of optimally stimulating areas that involve a good development in children in their initial stage.

Within the different activities that were carried out in both methods, there is a relationship in being able to perform fine and gross motor tasks, which make children increase their development through practical and sensory tasks designed specifically for the needs of each one; the infants improve their coordination, balance, muscular strength

and manual dexterity, in addition to the fact that the environment in which they worked promotes exploration and active learning, which improves their confidence and social participation, therefore, the results yielded data that are relevant, since both disciplines have the same purpose, the response was favorable in the objective of each one and the children were able to execute activities that are complicated for them and enhanced their psychomotor skills; Although it is of great importance that parents include activities at home, so that the development of each child is further optimized in different environments in which each child develops.

This article is directed to all professionals, physiotherapists, occupational therapists, pedagogues, psychologists, who are responsible for promoting development at early ages, because within the methods applied we increase the learning capabilities in each of the infants through exploration and experience that each child acquires in various environments; it is crucial to promote good techniques and implement methods that help the objective of each need, since, thus we help to make a difference in the lives of children and their families.

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