

# ANALYSIS OF THE EFFECTIVENESS OF PHYSICAL THERAPY THROUGH PSYCHOMOTRICITY IN INSTITUTIONALIZED ELDERLY

*Análise da efetividade da fisioterapia através da psicomotricidade em idosos institucionalizados*

*Análisis de la efectividad de la fisioterapia a través de la psicomotricidad en mayores institucionalizados*

Original Article

## ABSTRACT

**Objective:** To assess the elderly's perception of the effectiveness of physical therapy through psychomotor activities. **Methods:** This is a descriptive study, with a qualitative approach, performed with 19 elderly individuals, regardless of gender, who attended regular psychomotor activities at *Lar Torres de Melo*, a philanthropic institution in Fortaleza, CE, Brazil. Information was collected using a semi-structured interview in the period between February and May 2013. After transcription, reading and rereading of the interviews, the following thematic categories emerged: perceived benefits, feelings after the psychomotor activity, realizing the importance of physical therapy; and psychomotricity contribution to the emotional domain. **Results:** Through the elderly's speech, one can observe that the psychomotor activities provide an improvement in their quality of life, helping them to maintain their functional capabilities with autonomy and independence, creating the strength to confront their limitations and overcome them. There is an improvement in general well-being, support for the preservation of independent living, and reduction in the effects of certain disabilities. The elderly also realized the importance of physical therapy for their functional ability, and that psychomotricity contributes to their emotional life. **Conclusion:** The institutionalized elderly feel that psychomotricity contributes to their emotional well-being, and that the activities contribute to physical and mental performance, and thereby improve their autonomy and ability to cope with their limitations, providing a better quality of life.

**Descriptors:** Physiotherapy; Psychomotor Disorders; Elderly

## RESUMO

**Objetivo:** Analisar a percepção dos idosos a respeito da efetividade da fisioterapia através de atividades psicomotoras. **Métodos:** Tratou-se de um estudo de natureza descritiva, com abordagem qualitativa, realizado com 19 idosos, independentemente do sexo, que praticavam atividades psicomotoras regularmente no *Lar Torres de Melo*, uma instituição filantrópica localizada em Fortaleza-CE. As informações foram coletadas a partir de uma entrevista semiestruturada entre o período de fevereiro a maio de 2013. Após transcrição, leitura e releitura das entrevistas, emergiram as seguintes categorias temáticas: percepção dos benefícios; sensação percebida após as atividades psicomotoras; percebendo a importância da fisioterapia; e contribuição da psicomotricidade para o emocional. **Resultados:** Pode-se observar nas falas dos idosos que as atividades psicomotoras estabelecem uma melhora na sua qualidade de vida, ajudando-os a manter suas capacidades funcionais com autonomia e independência, criando forças para enfrentar suas limitações e superá-las. Há uma melhora do bem-estar geral, ajuda na preservação do viver independente e minimiza as consequências de certas incapacidades. Os idosos percebem também a importância da fisioterapia para sua capacidade funcional, e que a psicomotricidade contribui para o seu emocional. **Conclusão:** Os idosos institucionalizados sentem que a psicomotricidade contribui para o emocional deles e que as atividades auxiliam o desempenho físico e mental, melhorando a autonomia e capacidade de enfrentar suas limitações, proporcionando uma melhor condição de vida.

**Descritores:** Fisioterapia; Transtornos Psicomotores; Idoso.

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## RESUMEN

**Objetivo:** Analizar la percepción de los mayores respecto a la efectividad de la fisioterapia a través de actividades psicomotoras.

**Métodos:** Se trata de un estudio de naturaleza descriptiva de abordaje cualitativo realizado con 19 mayores, independiente del sexo y que practicaban actividades psicomotoras regulares en el Lar Torres de Melo, institución filantrópica de Fortaleza-CE. Las informaciones fueron recogidas a través de una entrevista semi-estructurada entre febrero y mayo de 2013. Después de la transcripción y varias lecturas de las entrevistas surgieron las siguientes categorías temáticas: la percepción de los beneficios; la sensación percibida después de las actividades psicomotoras; la importancia de la fisioterapia; y la contribución de la psicomotricidad en el emocional.

**Resultados:** Se observa en las hablas de los mayores que las actividades psicomotoras generan mejoría en su calidad de vida, contribuyendo para el mantenimiento de sus capacidades funcionales con autonomía e independencia creando fuerzas para afrontar sus limitaciones y superarlas. Hay una mejoría en el bienestar general, ayuda en la preservación del vivir independiente y minimiza las consecuencias de determinadas incapacidades. Los mayores también perciben la importancia de la fisioterapia en la capacidad funcional y que la psicomotricidad contribuye para su estado emocional.

**Conclusión:** Los mayores institucionalizados sienten que la psicomotricidad contribuye para su estado emocional y que las actividades ayudan en el desempeño físico y mental mejorando la autonomía y la capacidad de afrontar sus limitaciones promoviendo una mejor condición de vida.

**Descriptores:** Fisioterapia; Trastornos Psicomotores; Anciano.

## INTRODUCTION

Population aging, once considered a phenomenon, is now part of the reality of most societies. This is so true that by the year 2050 there will be an estimated two billion people aged 60 or more in the world, most living in developing countries<sup>(1)</sup>. In Brazil, it is estimated that there are currently about 23.5 million elderly people, more than double the number recorded in 1991, when this age group accounted for 10.7 million people<sup>(2)</sup>.

Although this fact is a difficult reality, it is clear that several institutions are increasingly investing in the prevention of hypokinetic diseases and the appreciation of citizens with more life experience<sup>(3)</sup>. In some situations, institutionalization becomes an alternative for the family or is a voluntary choice of the elderly<sup>(4,5)</sup>.

Prevention and promotion actions result from a variety of institutional, governmental and citizenship activities, processes and resources targeted to improve well-being and access to social goods and services, allowing the population to have a greater control over their health<sup>(6)</sup>.

The increase in the number of older people in recent decades has required an increased demand for health promotion programs for the elderly. Health promotion is a current theme that brings challenges to the expansion of practices aimed to highlight the socioeconomic and cultural components of health and the need for public policies and social participation for its achievement – and for an active aging. Psychomotricity plays an important role in promoting health in older people via different dimensions (preventive, educative and re-educative), providing psychosocial benefits and hence quality of life<sup>(7)</sup>.

It is known that the onset of aging-related changes follows a unique process in each individual, which evolves with advancing age. This fact leads us to rethink the effects of age on the function, among which are the following: decreased muscle strength, reflexes, flexibility, spontaneous gait speed, visual acuity and vestibular function<sup>(1)</sup>.

It has been found that there are changes in body image in 80% of the elderly, revealing the need for a body schema work in conjunction with physical therapy techniques to the overall training of these individuals. Physical therapy in psychomotricity can promote the recovery of individuals in this age group<sup>(8)</sup>.

Psychomotricity is a relatively new science aimed to increase the one's capacity of interacting with the environment through body activity and its symbolic expression. Considering the individual as a whole, psychomotricity becomes necessary for both the prevention and treatment of difficulties and the exploration of the active potential of each individual. In gerontopsychomotricity, professionals work with a real psychomotor re-education. It aims to rescue the individuals' expressiveness and ability to communicate with themselves, with objects, with others, and with the world<sup>(8)</sup>.

Psychomotricity with older people has as its main objective the maintenance of functional capabilities, improving and enhancing self-knowledge and the effectiveness of actions, especially the activities of daily living<sup>(9)</sup>. It requires the use of pedagogical and creative scientific methods to put older people's body in motion and their brain to work, and to fill their soul with joy through varied and diverse proposals. The proposals include relaxation, static and dynamic forms of balance, tone, coordination, attention, observation and memory, or even a simple proposal for reflection and meditation, given that the practice of psychomotor exercises is indicative of better quality of life<sup>(5,7)</sup>.

It should also include activities of body image reintegration, body symbolization, developmental sequence of visual motor skills (spatial and rhythmic), verbalization exploration and development of practical situations<sup>(8,9)</sup>.

Psychomotricity and personal training can satisfactorily meet the needs of the elderly<sup>(10)</sup>. Considering that the personal training process can maintain the functional capabilities with independence and autonomy, which are directly linked to quality of life, this practice puts the elderly in a position where they can build strength, confront their limitations and stimulate their self-esteem<sup>(7,11)</sup>.

Given this fact, the choice of this theme was due to the possibility of providing a better understanding of potential psychomotor alterations in the elderly, which are possibly associated with functional disabilities, directing health professionals to better care focused on their main needs.

In this context, the present study is considered relevant as it may contribute to the expansion of the theoretical and practical information on the effectiveness of physical therapy through psychomotricity in the elderly. Such a study will contribute to a more accurate and specific assessment, allowing a more effective therapeutic decision-making and enabling the development of more specific treatment protocols within the applied therapy, as well as the formulation of preventive strategies to improve functional capacity, providing the elderly with greater independence and consequently a better quality of life. The needs experienced by the authors of the present study – physical therapists – raised the interest in observing what these individuals had to report on the treatment.

From this perspective, physical therapy care becomes very important as we consider psychomotricity as a key tool for performing physical therapy in old age, being responsible for the promotion and prevention of the integral health of the elderly.

Thus, in an attempt to know the physiological and psycho-emotional components that compromise the quality of life of the institutionalized elderly, we decided to analyze the perception of the elderly about the effectiveness of physical therapy through psychomotor activities.

## METHODS

This was a quantitative descriptive study justified by the possibility to integrate meanings, motives and attitudes, providing a better view of the deep space of processes of the phenomena; therefore, the study cannot be quantitative<sup>(12)</sup>.

The study was conducted at *Lar Torres de Melo* (LTM), in Fortaleza. The purpose of the organization is to provide comprehensive care for needy elderly males and females considering the constitutional provisions and the Law 8752, from December 1993 – the Organic Law of Social Assistance (*Lei Orgânica de Assistência Social – LOAS*). The elderly residents of the LTM performed psychomotor

activities twice a week for 50 minutes. The group had 22 elderly participants.

Data were collected from February to May 2013. The study included elderly males and females who performed regular psychomotor activities in the institution; the study excluded the elderly who presented with altered mental status or altered speech that could derail the interview. Thus, 19 elderly individuals participated in the study, because three presented with altered speech.

Information was collected from a semi-structured interview. This type of interview allows respondents to talk about the subject in question without answers or conditions determined by the researcher<sup>(12)</sup>. The interview was composed of two parts: the first part aimed to identify study participants and contained the variables age and gender. The second part involved questions that sought to identify the perception of the elderly about the benefits of psychomotor activities, how they felt after psychomotor activities, how they perceived the importance of physical therapy, and the contribution of psychomotor activities to their emotional health.

Data underwent thematic analysis using the content of the interviews. We adopted this analysis<sup>(14)</sup> because it consists in discovering the units of meaning that make up a communication whose presence or frequency mean something to the targeted analytical objective. The units of meaning, in this case, went from the elected themes to the structuring of guiding questions, which were adapted according to the arguments contained in the responses of the elderly.

Three steps were taken: pre-analysis, which consists of fluctuating reading, when is possible to make formulations and reformulations of hypotheses and objectives; exploration of the material; and processing of the results<sup>(12)</sup>.

After transcribing, reading and re-reading the interviews, following thematic categories emerged: perception of the benefits of psychomotor activities, feelings after the psychomotor activities, realizing the importance of physical therapy, and contribution of psychomotor activities to patient's emotional state. The categories and the speech of the study participants obeyed the following selection criterion: the categories and speeches should have a relationship and express the opinion of the majority of research participants.

The study participants are identified by Arabic numerals – elder 1 to elder 19 – in order to guarantee their anonymity.

The study obeyed the ethical principles established by Resolution 466/12, which regulates research involving human beings<sup>(13)</sup>; it was submitted to and approved by the Research Ethics Committee of the University of Fortaleza – UNIFOR under Opinion No. 434 763.

## RESULTS AND DISCUSSION

In this section, we present the identification data of respondents and then the thematic categories that emerged from the study.

The sample consisted of 19 elderly individuals – 8 men and 11 women – aged between 60 and 87 years.

### Perception of the benefits of psychomotor activities

In this category, it is possible to observe, through the speeches of the elderly, that the psychomotor activities improve their quality of life, helping them to maintain their functional abilities with autonomy and independence, building strength to face their limitations and overcome them.

Aging is a continuous and inevitable process. Over the years, the individual suffers physiological, biological, psychological and social changes. Social work and the psychomotor work aim to delay or minimize these changes that generate dependency and limitations<sup>(9,14)</sup>.

Psychomotor activities have as their ultimate goal the maintenance of functional capabilities and the improvement and enhancement of self-knowledge and effectiveness of actions, particularly the activities of daily living<sup>(7)</sup>.

*It improves my body, my health, the nerves, the movements, and the legs get relaxed... (Elder 11)*

*It brings health to me, improves the movement of my legs while walking and all the movements of my body... (Elder 12)*

It is observed that the effects of psychomotor activities on the elderly occur in a general way. Scientific evidence of physical activity in the elderly can be summarized as follows: it improves overall well-being, helps preserve independent living, helps minimize the consequences of certain disabilities, and can help in the management of painful conditions<sup>(15,16)</sup>. Aging could be seen in a more optimistic way, not only as a period of decline, but a period of potential gains depending on the lifestyle adopted<sup>(7)</sup>, as seen in the following speeches of the elderly:

*I improve physically a lot... (Elder 9)*

*I think it is good for the body and nerves, they get stronger. [It is] good for the muscles... (Elder 1)*

*It is good because it stretches the muscles, strengthens the bones and improves the whole body... (Elder 3)*

It is notable that there is a decrease in the level of physical activity with aging, making the sedentary lifestyle/inactivity one morbidity and mortality risk factor in this

population. The lifestyle (sedentary) contributes a lot to this motor decline<sup>(7)</sup>.

Psychomotor work increases body perception and relaxes and stretches the muscles, promoting physical and motor development<sup>(17)</sup>. It is clear, therefore, an improvement in the autonomy of the elderly over their body and the space they live in, improving their quality of life. Results of a study showed that psychomotor activities improved the balance of elderly people<sup>(18)</sup>.

### Feelings after psychomotor activities

This category highlights the feelings of the elderly after psychomotor activities. Psychomotricity can facilitate the discovery, maintenance or rescue of simple pleasures that can bring an enriching and stimulating return to life<sup>(17)</sup>. Physical activity gives the elderly a sense of well-being, a way of experiencing the aging process, giving them the possibility to find other ways to do what they already know, to live this time full of life and action – not limitations and losses<sup>(7,17)</sup>.

Authors<sup>(9)</sup> also report that psychomotor exercises are necessary as a form of activity, as they can improve the functional capacity of older people and make them less physically dependent.

Psychomotricity for the elderly has as its main objective the maintenance of body awareness, functional capabilities, the improvement and enhancement of self-knowledge and effectiveness of actions, particularly the activities of daily living<sup>(19)</sup>, as it can be seen in the following lines:

*It improves the body, coordination, movements and muscles after activities... (Elder 8)*

*I feel good, I do not get tired and health gets better... (Elder 5)*

*I feel different, I get a lot better and the body gets relaxed... (Elder 7)*

As seen in the speeches, the body re-education is a key factor for the well-being of the elderly. It allows individuals to age with sufficiently strong joints, a well-balanced mind and an enhanced emotional state, so that the elderly can perform well when performing the exercises better and better<sup>(5)</sup>. Regular physical activity is seen as one of the most effective ways to promote quality of life in any population and can improve health and facilitate social contacts<sup>(7,20)</sup>.

*I feel thirsty, in the mood, and it improves the movements... (Elder 20)*

*I feel in the mood to walk and run... (Elder 10)*

There is a sense of well-being after the activities due to the release of endorphins during exercises, which

automatically makes the elderly feel more able to perform daily activities that they could not do before. It also improves the ability to get around more easily and the sense of being in the mood due to the release of specific hormones<sup>(21)</sup>.

### Realizing the importance of physical therapy

This category shows that physical therapy may be required at any stage of life; however, it has a greater importance to the elderly, not only as a form of treatment but also as a form of prevention, which helps improve quality of life. Aging brings physiological changes such as kidney failure, urinary problems, pathological alterations, and musculoskeletal and mental disorders such as some types of dementia. Therefore, physical therapy aims to promote independence for the individual to perform activities of daily living, such as climbing stairs, combing hair and eating alone<sup>(16,21)</sup>.

*I think it is very good, because I felt pain in my legs due to circulatory disorders and then, after I started physical therapy, my body, movements and health improved... (Elder 13)*

*It helps recovering and rehabilitating, but we have to make it worth and engage in the treatment... (Elder 4)*

*I think it is an extremely important health specialty, because it helps maintain vital functions... (Elder 15)*

The speeches of the respondents show that the health, movements and circulation improve with psychomotor activities, as these are designed to work the individuals taking into consideration all their life story that is portrayed in their body; it is the body in motion considered as a whole. It also works on the affection and disaffection of the body, develops the communicative aspect, making it possible to master it, save its energy and think about its gestures in order to improve its balance<sup>(16)</sup>.

*It is a good thing because it improves the body function and makes us exercise... (Elder 6)*

*It aims to improve blood circulation and give strength to walk and move the arms... (Elder 14)*

Physical therapy has the role of promoting attitudes and actions in a comprehensive manner, with excellent impacts on health status and quality of life. It is a holistic philosophy that aims to establish a balance between the body, the individual, the environment and culture<sup>(16,22)</sup>. In older people with postural and mobility problems, professionals should perform movements in a systematic way; However, they should include psychomotor behaviors that will succeed specific human movements so that they are carried out consciously, intentionally and sensitively<sup>(22)</sup>.

### Contribution of psychomotor activities to patient's emotional state

This category refers to the fact that some older people become dependent on their families or caregivers, creating a discomfort that can affect their emotional state. The human being is a complex of emotions and actions favored by body contact during psychomotor activities, which also favor the affective development among people, the physical contact, emotions, and actions. Psychomotricity is an educative, re-educative and therapeutic subject that aims to highlight the relationship between motor skills, mind and affection, facilitating a comprehensive approach<sup>(17)</sup>.

It is noteworthy that, from the psychomotor point of view, one should consider that the motor aspect of the movement does not faithfully translate the intentionality of human movement. As we know, all human activity is imbued with affection and grants practical sense to any motor accomplishment. In this sense, the aim of psychomotor work is to ensure the experience of the body in the integration of three important dimensions: a motor-instrumental, emotional-affective and praxis-cognitive<sup>(7)</sup>. One must take into consideration that the behaviors cultivated during the life course have a direct influence on the elderly individual's quality of life. Nevertheless, it can be said that the psychomotor activities improve the autonomy of human beings, regardless of age, resizing their corporeality<sup>(14, 23)</sup>.

*I believe my health tends to improve. I quit for a while because I had depression, then I started it again and I feel better. It is already a habit... (Elder 16)*

*Physical and mental performance is benefitted... (Elder 17)*

*It touches my body and soul, and it improves my movements... (Elder 2)*

*It means everything to us. When I go to the physical therapy sessions, I feel a lot different when I leave... (Elder 18)*

*I feel quite satisfied. It is something good to me, I feel easy, and before that I could not perform the exercises properly... (Elder 19)*

We can observe from the speech of the participants that psychomotor activities improve physical performance, health and movements, changing the emotional state, as it is associated with affectivity and personality, given that individuals use their body to demonstrate what they feel – that is why a person with motor problems begins to present expression problems. Thus, psychomotricity has gained a significant expression, as it translates into deep and original solidarity between thought and motor activity<sup>(17)</sup>.

## FINAL CONSIDERATIONS

In general, what can be seen in the speech of the elderly respondents is a positive response regarding the benefits of psychomotor activities in relation to the body, as there was a physical improvement as for the movements, their amplitudes, and health as a whole.

After psychomotor activities, it was observed that the physical activity performed provided most of the elderly with a sense of well-being and refreshment, in addition to improving muscle elasticity.

We observed that most of the elderly know the importance of physical therapy in their lives, realizing that it brings something good and improves their health.

It was noted that the institutionalized elderly feel that psychomotricity contributes to their emotional state and that the activities provide mental and physical performance, improving their autonomy and ability to face their limitations and contributing to a better life.

The reports show that older people have the perception of their condition as sick, knowing the importance of physical therapy to its functional condition and the benefits that psychomotor activities provide. The narrative allows professionals to get feedback, identifying the objectives and factors that may interfere with treatment.

Therefore, it is concluded that older people have realized the effectiveness of physical therapy through the psychomotor activities. The study is believed to be of great importance, contributing to the physical therapists working in this field, other healthcare professionals, the elderly, and the population as a whole.

As a limitation of the present research, we should highlight the small sample size. It is suggested that further research be done, intervening in aspects that have not been stimulated in order to observe the functional gain and increase the number of participants.

It should be noted also the importance of keeping the elderly active, improving their performance, their own image and self-esteem, contributing to an improvement in their quality of life.

It was observed, through this study, that the practice of psychomotor activities is indicative of a greater perception of quality of life. However, as educational programs and strategies to encourage the practice of psychomotor activities in this population are still little explored regarding health promotion, it is up to health professionals to engage effectively in projects that mobilize elders to become more active. In this sense, it is deemed necessary to expand and deepen the research involving the elderly, focusing on not only living longer but also living better.

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