ORIGINAL ARTICLE

Contributions of dance therapy to the emotional aspect of people with physical disabilities in a rehabilitation program

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ABSTRACT

Dance therapy stimulates the discovery of movements, the perception of emotions, and the recognition of opportunities that foster social inclusion. **Objective:** To analyze the contribution of dance therapy to the emotional aspect of patients in Rehabilitation, based on their self-perceptions. **Method:** The study included 23 patients in 4 groups, which lasted 4 months each. A questionnaire was applied at the beginning and at end of the program, and they were asked to draw themselves at those two moments. **Results:** 69.56% of the participants reported good self-esteem before, and 95.65% at the end. An improvement in sociability was perceived, as 69.56% considered themselves shy at the first moment, and 43.47% at the end. We observed greater creativity, 86.95% of the patients (65.21% earlier); and a reduced sense of sadness, just 4.43% (52.17% before). As for difficulties in communicating, there was also a significant reduction: 13.04% reported always having it originally, 4.34% after the program. The drawings in the 2nd assessment were more detailed, proportionate, and centered on the sheet of paper; we also perceived better body awareness, improved self-esteem and greater perception of personal characteristics. **Conclusion:** Dance therapy provided a significant change in the emotional aspect of the participants of this study, allowing improvement in their perception of possibilities for themselves, increased self-esteem, and greater socialization skills; this favored their contact with their own bodies, contributing to a new perception of themselves.

Keywords: Dance Therapy, Emotions, Disabled Persons, Rehabilitation

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INTRODUCTION

This study presents the experience of dance therapy groups at the Osasco unit of the *Associação de Assistência à Criança Deficiente* (AACD), with patients in rehabilitation during the year of 2012, in order to show the evolution of emotional aspects in these patients. The AACD is a rehabilitation center that cares for people of all ages with disabilities. The care is provided by different departments with an interdisciplinary focus.

Rehabilitation encompasses not only the physical, motor, and functional aspects, but also emotional, social, and professional questions-that is, the person as a whole, in his process of adaptation, discovering new possibilities and re-encountering the meaning of his own life. The patient in rehabilitation is stimulated in his autonomy and independence by an interdisciplinary team directed towards the development of the patient, which favors greater social inclusion.[1]

It is necessary that the person be considered in his complexity, as a whole, so that he can perceive himself as such, and can expand the understanding of himself, taking charge of his needs, his physical and emotional reality, and the reality of his feelings and potentials. During the rehabilitation therapies, we observed the process of preparing the patient, in relation to his limitations and possibilities. Fechio et al.[2] affirm that this process helps the individual to redefine the meaning of his existence and allows him to perceive possibilities, make choices, establish goals, and create his own future. It is with this view that the work with dance therapy has been proposed, as presented below.

Dance therapy, in this institution, is a therapy that supplements the rehabilitation program, and it is being developed in a partnership between the Psychology and Physiotherapy departments. The objective of this therapy is to stimulate the participant to perceive himself better, discovering movements as he increases contact with his body, in addition to favoring the perception of his emotions and the recognition of his possibilities beyond his limitations. According to Fux,[3] dance therapy seeks to integrate the individual through the creative movement that is limited, in order to generate confidence in that limited body and to rescue it through encouragement with words that become the body, helpful images, music, line, color, and form, and to encourage the patient to abandon the "I can't" attitude.

Because it is a physical process, dance therapy can be a vehicle to greater self-knowledge since, once the patient realizes what his own body is capable of doing, his notion of himself, of the possibilities of being, and of his personal abilities are also expanded.

Teixeira-Machado & DeSantana[4] showed that dance contributes to improving the neuromotor apparatus of people with physical disabilities, and in that way, positively influences the emotional aspects and the motivation to do an activity or participate in a rehabilitation program. Dance therapy thus adds to the work developed in the other therapies, seeking motor, emotional, and cognitive gains. In addition, because it is a group therapy, it also favors socialization and mutual learning.

Ferreira[5] observed that, when testing the possibilities of movements through dance, the person with disability can perceive himself in a new way and, from that, find new ways of acting and solving problems, redefining his disability.

OBJECTIVE

In this study, we sought to analyze the contribution of dance therapy to the emotional aspect of the patients involved, based on their own self-perceptions.

METHOD

The study was made with 23 patients of both genders, divided into four groups, in the year 2012. The activities, guided by therapists, were developed either individually, in pairs, or in groups.

Due to its therapeutic and self-knowledge focus, the activities did not have the objective of teaching dance styles to be reproduced or presented. It tried, however, to encourage creative movements, within the possibilities of each individual. The patient was stimulated to perceive his own breathing, heartbeat, pains, tightness, paralysis, and possible movements, always trying to interact with a song. The therapy also works with patience and respect for differences, since the activities are developed always respecting the personal difficulties and characteristics.

The groups were made up of patients with diagnoses such as brain stem injury, amputation, traumatic brain injury, and neuromuscular diseases from different clinics connected with the AACD. The minimum age to participate in the group was 17 years. The meetings were weekly, lasting 1 hour and 20 minutes, for four months, with up to 15 participants per group, under the coordination of a psychologist and a physiotherapist.

The material used was prepared by the therapists themselves. The analysis was made through a semi-structured interview and a drawing the patient made of his or her whole body. We chose to use a drawing because we understood that the individual could express the way in which he sees himself in a less objective form, non-verbal, but still representative.

The material was prepared to favor a self-evaluation by the patient, guided by the therapists, to allow the emergence of the perception they have of themselves in relation to emotional, cognitive, and physical aspects. The questionnaire also investigated musical preferences, previous contact with dance, and the personal understanding of what dance therapy would be. Below, we show a qualitative analysis of the results observed in the questionnaires, as well as of the drawings. For this article, we selected drawings from two subjects, one female and one male, after they signed the Free and Informed Consent form.

For the evaluation of the drawings, we used the analysis of the drawing of the person made in the H-T-P test as a reference.[6] This test, prepared in the light of Freudian theories, considers it possible to access the internal reality of the individual from the drawing, for it shows a way of projecting the individual's self-image. In the patients evaluated in the dance therapy group, we focused on the self-portrait analysis as a reference to the interpretation of the drawings' characteristics. We identified the emotional experiences of each patient expressed symbolically through their drawings.

RESULTS

We observed that 34.7% of the patients were in the age bracket above 51 years. Of all the participants, 73% presented traumatic brain injury (Table 1).

After the program, 78% of the patients continued dancing, as compared to 48% recorded before the dance therapy (Table 2). There were also fewer negative answers about "liking to dance".

We observed a significant change in the answers referring to the emotional aspect in general (Table 3), highlighting improvement in self-esteem (from 69.56% to 95.65%), in creativity (from 65.21% to 86.95%), and in less shyness (from 69.56% to 43.47%). As for the difficulty to communicate, the answer "always" was reduced from 13.04% to 4.34%, in contrast, initially 30.43% answered "sometimes", and after the therapy, 39.13%.

In Table 4, we also observe changes in the answers referring to all the feelings indicated. The index for "happy" increased from 47.82% to 73.91%, and there was reduction in all the remaining indices, especially in "sad", which went from 52.17% to 4.34%, and "worried", from 60.86% to 30.43%.

Table 1. Identification of the patients

Number of patients		23
Gender	Male	56.52%
	Female	43.47%
Age bracket	20-30 years	8.69%
	31-40 years	21.73%
	41-50 years	8.69%
	51-60 years	34.78%
	61-70 years	17.39%
	Above 70 years	8.69%
Diagnosis	Amputation	13.04%
	Traumatic brain injury	73.91%
	Brain stem injury	13.04%

Table 2. Relationship of the patients with dancing

	Before dance therapy	After dance therapy
Habit of dancing	Yes - 47.82%	Yes - 78.26%
	No - 47.82%	No - 17.39%
	Sometimes - 4.34%	Sometimes - 4.34%
Likes to dance	Yes - 86.95%	Yes - 95.65%
	No - 13.04%	No - 4.34%

Table 3. General emotional aspect

	Before dance therapy	After dance therapy
Self-esteem	Good - 69.56%	Good - 95.65%
	More or Less - 0%	More or Less - 4.34%
	Low - 30.43%	Low - 0%
Sociability	Shy - 69.56%	Shy - 43.47%
	Extrovert - 30.43%	Extrovert - 56.52%
Difficulty to Communicate	Never - 52.17%	Never - 52.17%
	Sometimes - 30.43%	Sometimes - 39.13%
	Almost always - 4.34%	Almost always - 4.34%
	Always - 13.04%	Always - 4.34%
Creativity	Yes - 65.21%	Yes - 86.95%
	No - 34.78%	No - 13.04%

Table 4. Feelings indicated

Feelings	Before dance therapy	After dance therapy
Sad	52.17%	4.34%
Happy	47.82%	73.91%
Emotional	52.17%	30.43%
Irritated	39.13%	21.73%
Impatient	39.13%	21.73%
Anxious	73.91%	56.52%
Worried	60.86%	30.43%

In relation to the understanding of the patients about dance therapy and their belief that it could contribute or that it had contributed to their treatment, the answers indicate greater understanding about the objective of the activity and its inclusion in their rehabilitation process. We highlight the following comments:

Patient A. (Right Transfemoral Amputation)

Before: Dance therapy is an exercise with music. It helps with everything. After: Dance therapy helps us to understand that we can do everything in accordance with our limitations.

Patient M. (Right Hemiplegia, after Ischemic Cerebrovascular Accident)

Before: I have no idea. After: A very good thing that moves the body a lot. It helps to forget the problems; you feel more confident.

Patient I. (Left Transtibial Amputation)

Before: It is a therapy in which we move. But I don't know how to stand up to dance. After: It is good for the memory, for the head. I thought I couldn't do it, but I did. I was able to sway with the crutch.

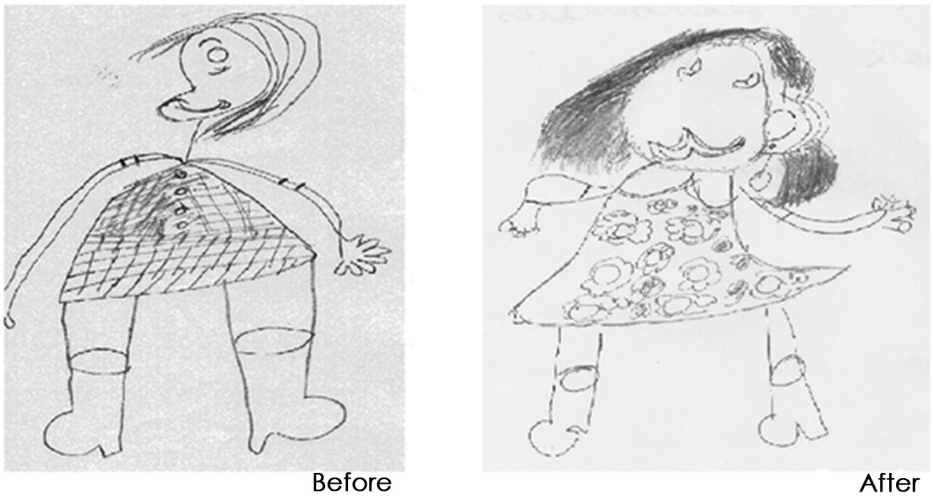
The contact with dancing rekindled their interest in the activity of dancing (Table 2), which, despite their initial interest, had never been pursued. Not having the habit of dancing may reflect the moment of greater physical limitation caused by the acquired disability, in addition to the emotional state portrayed in the first answers (Tables 3 and 4).

When comparing the answers to the questionnaires, we see a relationship between some items that will be clarified by the drawings selected for this work.

DISCUSSION

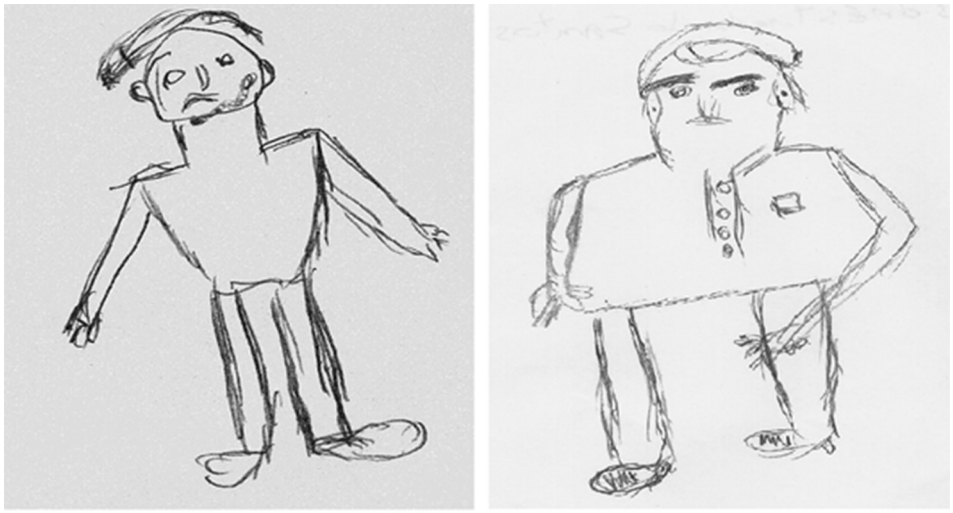
We observed significant changes in the availability of the patients to have contact with each other. When considering the items "difficulty to communicate" and "sociability", it is possible to confirm this, which relates to what was identified before by Teixeira-Machado & De Santana,[4] who affirm that dance therapy may favor the participation of people with physical limitations in sociocultural activities.

Benedetto et al.[7] state that acceptance of the physical loss is necessary so that the individual can relate with others and with himself



Gender: Female; Diagnosis: Left Hemiplegia, after Ischemic Stroke. **Before:** Framing: to the left of the sheet of paper, the hand did not fit completely; Head: in profile, parts omitted (nose, pupils, and ears) - may indicate less availability for contact. Dark circles around the eyes are marked, contrasting the image of tiredness with the smile shown by the mouth; Thin neck: fragility in the relation between head and trunk, connection between emotional and rational characteristics; Trunk: triangular, marked by crisscross pattern and buttons - possible withdrawal; Limbs: arms are thin, seem fragile, but are open, available, contrasting with thick legs apparently not too flexible. **After:** Framing: more centralized; Head: facing forward, pupils are drawn; hair has more volume and is held behind the ear, earrings (more feminine details); Neck: contact between the head and trunk is more direct, different from the previous apparent fragility; Trunk: flowers in the dress with a neckline - more contact with her femininity, in addition to improved self-esteem; Limbs: arms show more movement. Fingernails (omitted before).

Figure 1. Drawings selected, female



Gender: Male; Diagnostic: Left Hemiplegia, after a Frontal Brain Tumor. **Before:** Framing: occupies little space in the sheet of paper, located mostly on the upper left side - it may indicate withdrawal and some tendency to nostalgia; Face: expression of sadness (mouth) and omission of pupils - less contact with others; Trunk: triangular, with straight shoulders - rigidity; Limbs: arms are in different proportions, with the left arm bigger, which coincides with the hemiparetic side of the patient. **After:** Framing: occupies more space on the sheet of paper and is more centralized; Face: The eyes are more expressive; Limbs: arms with more harmonious proportion and traced with less pressure - body perception, increased confidence. Hands with details, fingers evident - more availability for contact; Clothes: with more details, showing masculinity, formality and a certain stateliness, which could be rescued aspects of the personality.

Figure 2. Drawings selected, male

in a more productive and authentic way, incorporating his limitations and developing strategies for greater autonomy. We observed this in the results shown, in the improvement indices for sociability, and in the increase of positive answers about having the habit of dancing.

Oliveira et al.[8] found significant results about working with the elderly, using the Senior Dance method, which presented improvements for depression and anxiety, less physical limitation to perform daily life activities, and reports of less fatigue and more energy. While comparing the results shown above, a similarity is noticeable where the patients report improvement in their self-esteem, and where there is a reduction in the percentage of those feeling sad and an increase of those who report feeling happy.

The self-esteem improvement shown in the answers to the questionnaire seem confirmed in the example of the two drawings, what was identified with the lines being firmer, the position of the drawings on the sheet of paper (both more centralized), and the greater number of details that appear in the second drawing. The change in their facial expressions is also noteworthy in both cases, with less traces suggesting sadness or tension. This aspect also confirms data referring to the most recent feelings after the dance therapy work.

We consider that the gains observed in the answers also reflect the work done in the other therapies, since dance therapy occurs during the time the patients are undergoing other therapies in the institution.

CONCLUSION

Dance therapy shows itself to be an important resource in the rehabilitation process, since it favors more contact of the patient with himself as a whole and, in this way, it affords not only physical, but emotional gains.

It helps the patient to have contact with his own body, so as to stimulate new experiences, influencing changes in the manner how the person feels and sees himself and the limitations stemming from his disability. Significant changes in the emotional aspect of the participants in this work was perceived, regarding more satisfaction with themselves, less frequent feelings of sadness, and more availability for interpersonal contact. Dance therapy proves to be a rich resource that contributes to the objectives of the other rehabilitation therapies, since it stimulates the perception of the possibilities of every person and the development of creative movements, collaborating with a less restricted vision of the person with disability, favoring the possibilities of social participation and the rescue of personal interests. For this reason, it adds to the objectives of increasing autonomy and social inclusion, as is the hope of all those therapists engaged in the process of patients rediscovering themselves.

The work of dance therapy is still little known in the field of rehabilitation and we found few studies reporting therapies that integrate the dance resource in the rehabilitation work. This work confirmed the relevance of continuing Dance Therapy as a rehabilitation therapy, and we hope it will encourage the production of new studies on this subject.

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